Full wwPDB X-ray Structure Validation Report ⓘ

Oct 22, 2023 – 12:45 PM EDT

PDB ID	:	2ZC7
Title	:	Crystal Structure of Class C beta-Lactamase ACT-1
Authors	:	Shimizu-Ibuka, A.; Sakai, H.; Galleni, M.
Deposited on	:	2007-11-02
Resolution	:	2.40 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:

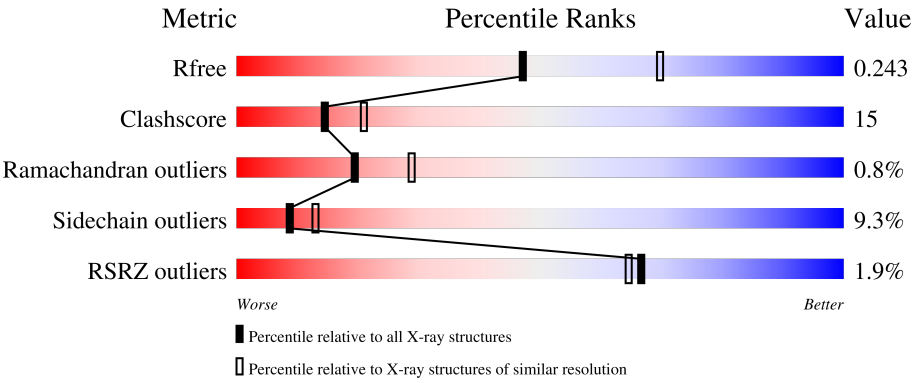
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	2.36
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

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 2.40 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	3907 (2.40-2.40)
Clashscore	141614	4398 (2.40-2.40)
Ramachandran outliers	138981	4318 (2.40-2.40)
Sidechain outliers	138945	4319 (2.40-2.40)
RSRZ outliers	127900	3811 (2.40-2.40)

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	359	68% 26% 5%
1	B	359	3% 71% 24%
1	C	359	2% 73% 21% 6%
1	D	359	68% 27%

2 Entry composition (i)

There are 2 unique types of molecules in this entry. The entry contains 11444 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 Beta-lactamase ACT-1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	359	Total	C	N	O	S	8	0	0
			2772	1782	471	507	12			
1	B	359	Total	C	N	O	S	14	0	0
			2772	1782	471	507	12			
1	C	359	Total	C	N	O	S	19	0	0
			2772	1782	471	507	12			
1	D	359	Total	C	N	O	S	25	0	0
			2772	1782	471	507	12			

- Molecule 2 is water.

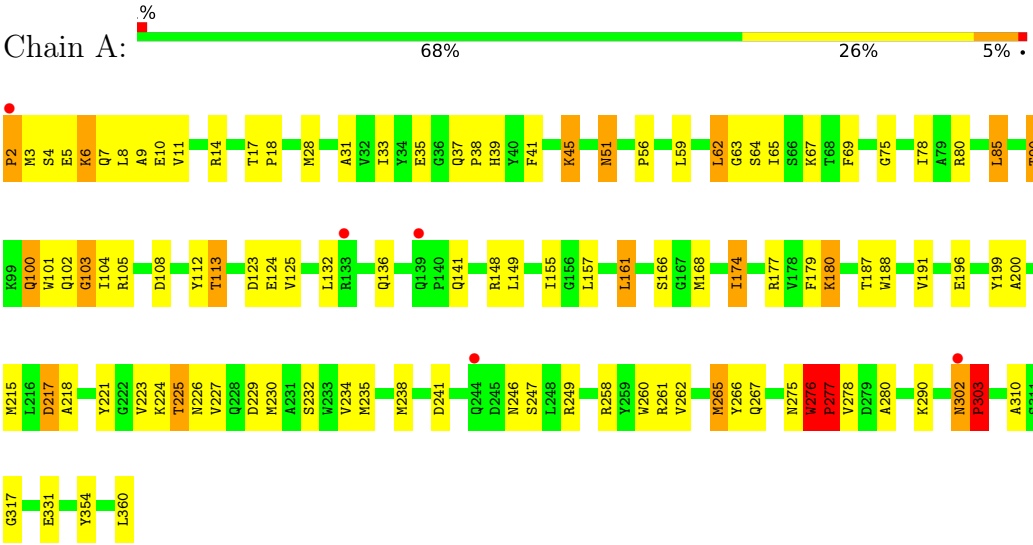
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	105	Total	O	0	0
			105	105		
2	B	97	Total	O	0	0
			97	97		
2	C	83	Total	O	0	0
			83	83		
2	D	71	Total	O	0	0
			71	71		

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.

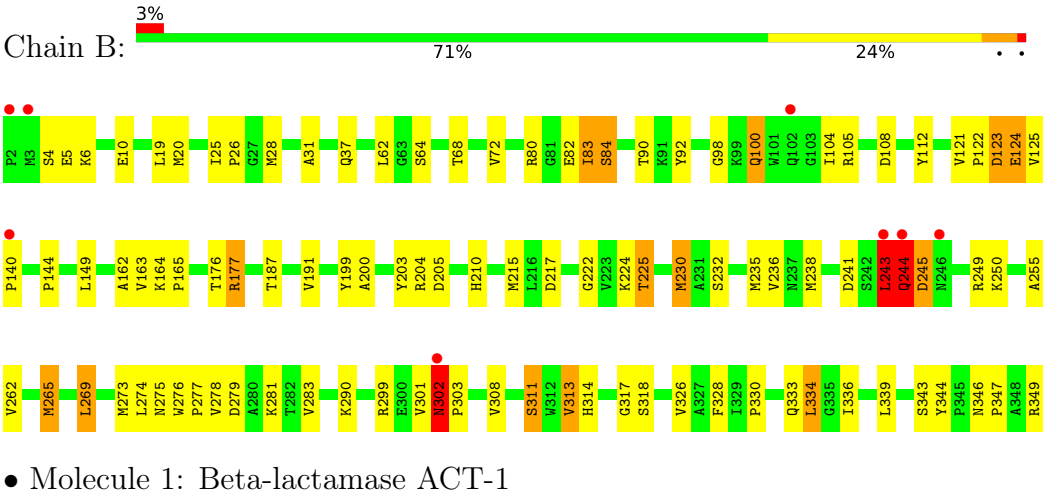
• Molecule 1: Beta-lactamase ACT-1

Chain A:



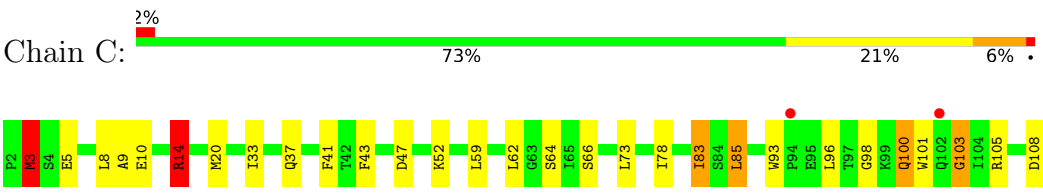
• Molecule 1: Beta-lactamase ACT-1

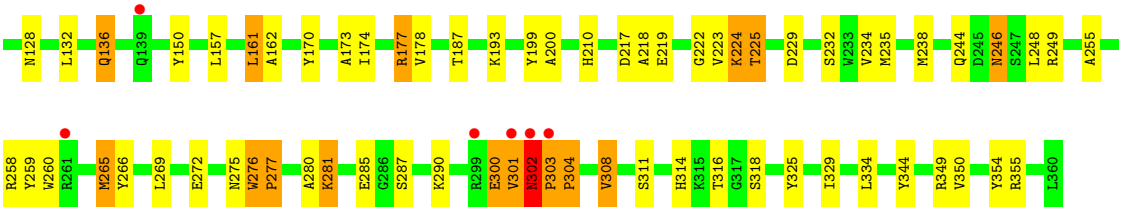
Chain B:



• Molecule 1: Beta-lactamase ACT-1

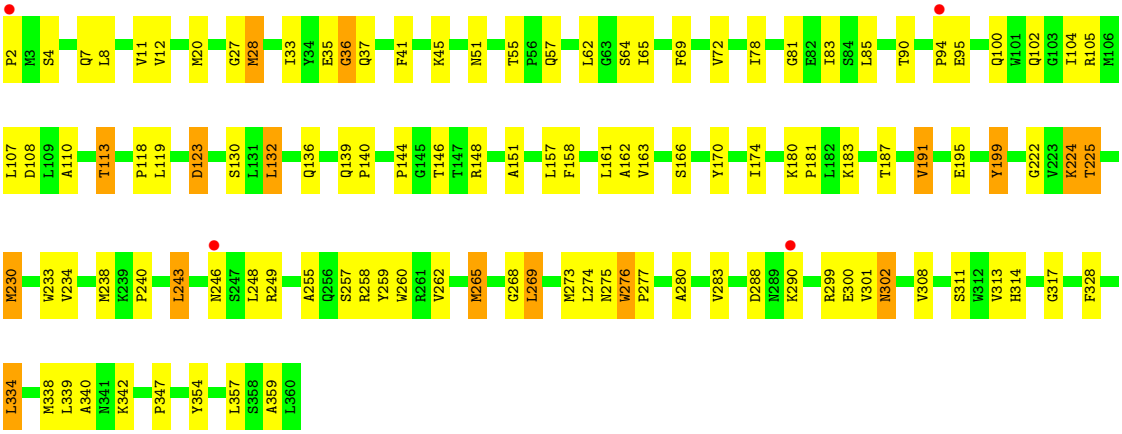
Chain C:





• Molecule 1: Beta-lactamase ACT-1

Chain D:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, α, β, γ	77.05Å 80.52Å 86.88Å 76.23° 68.88° 63.46°	Depositor
Resolution (Å)	20.00 – 2.40 45.01 – 2.20	Depositor EDS
% Data completeness (in resolution range)	98.5 (20.00-2.40) 98.2 (45.01-2.20)	Depositor EDS
R_{merge}	0.05	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.68 (at 2.20Å)	Xtriage
Refinement program	CNS 1.0	Depositor
R, R_{free}	0.240 , 0.247 0.236 , 0.243	Depositor DCC
R_{free} test set	8681 reflections (10.04%)	wwPDB-VP
Wilson B-factor (Å^2)	25.9	Xtriage
Anisotropy	0.307	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.37 , 42.8	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.91	EDS
Total number of atoms	11444	wwPDB-VP
Average B, all atoms (Å^2)	28.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.29% 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

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	0.86	2/2849 (0.1%)	1.08	7/3883 (0.2%)
1	B	0.79	0/2849	1.06	9/3883 (0.2%)
1	C	0.85	5/2849 (0.2%)	1.04	11/3883 (0.3%)
1	D	0.80	1/2849 (0.0%)	1.00	3/3883 (0.1%)
All	All	0.83	8/11396 (0.1%)	1.05	30/15532 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	2
1	B	0	1
1	C	0	2
All	All	0	5

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	276	TRP	C-N	7.19	1.48	1.34
1	A	302	ASN	N-CA	7.10	1.60	1.46
1	C	277	PRO	CA-CB	6.91	1.67	1.53
1	C	277	PRO	N-CD	-6.75	1.38	1.47
1	C	276	TRP	C-N	6.37	1.46	1.34
1	C	5	GLU	CB-CG	5.06	1.61	1.52
1	A	277	PRO	C-O	-5.02	1.13	1.23
1	C	302	ASN	N-CA	-5.01	1.36	1.46

All (30) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	303	PRO	CA-N-CD	-18.64	85.41	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	277	PRO	CA-C-N	-8.87	97.69	117.20
1	B	245	ASP	N-CA-C	-8.02	89.36	111.00
1	A	101	TRP	C-N-CA	-7.93	101.87	121.70
1	B	244	GLN	C-N-CA	7.33	140.02	121.70
1	B	303	PRO	N-CA-C	-7.05	93.77	112.10
1	A	276	TRP	C-N-CD	-6.91	105.40	120.60
1	B	302	ASN	C-N-CA	-6.80	93.42	122.00
1	C	276	TRP	C-N-CD	-6.69	105.88	120.60
1	C	14	ARG	CG-CD-NE	6.68	125.84	111.80
1	A	217	ASP	CB-CG-OD1	6.44	124.09	118.30
1	D	132	LEU	CA-CB-CG	6.42	130.06	115.30
1	B	243	LEU	CA-CB-CG	6.33	129.87	115.30
1	B	303	PRO	CA-N-CD	-6.26	102.73	111.50
1	B	334	LEU	CA-CB-CG	6.11	129.35	115.30
1	C	103	GLY	N-CA-C	-6.08	97.89	113.10
1	C	277	PRO	N-CA-CB	-6.05	95.94	102.60
1	D	276	TRP	CB-CA-C	-6.03	98.34	110.40
1	C	277	PRO	CA-N-CD	5.92	119.99	111.70
1	B	245	ASP	N-CA-CB	5.84	121.11	110.60
1	C	3	MET	N-CA-C	5.83	126.75	111.00
1	D	243	LEU	CB-CG-CD1	-5.74	101.24	111.00
1	A	303	PRO	N-CA-CB	5.72	110.17	103.30
1	C	301	VAL	C-N-CA	-5.59	107.73	121.70
1	A	312	TRP	N-CA-C	-5.31	96.67	111.00
1	B	244	GLN	CA-C-N	-5.26	105.63	117.20
1	C	277	PRO	O-C-N	5.23	131.07	122.70
1	A	103	GLY	N-CA-C	-5.20	100.11	113.10
1	C	277	PRO	N-CA-C	-5.20	98.59	112.10
1	C	128	ASN	CB-CA-C	5.06	120.52	110.40

There are no chirality outliers.

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	276	TRP	Mainchain
1	A	277	PRO	Mainchain
1	B	302	ASN	Mainchain
1	C	276	TRP	Mainchain
1	C	277	PRO	Mainchain

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	2772	0	2765	81	2
1	B	2772	0	2765	79	1
1	C	2772	0	2765	88	1
1	D	2772	0	2765	93	0
2	A	105	0	0	0	0
2	B	97	0	0	1	0
2	C	83	0	0	1	0
2	D	71	0	0	0	0
All	All	11444	0	11060	339	2

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 15.

All (339) 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:D:273:MET:HG3	1:D:313:VAL:HG22	1.26	1.15
1:C:302:ASN:HB3	1:C:303:PRO:HD2	1.25	1.13
1:B:138:TRP:CD2	1:B:140:PRO:HD3	1.92	1.04
1:C:108:ASP:HA	1:C:113:THR:HG22	1.42	1.01
1:A:108:ASP:HA	1:A:113:THR:HG22	1.45	0.98
1:B:138:TRP:CE2	1:B:140:PRO:HD3	1.97	0.98
1:D:28:MET:HA	1:D:339:LEU:O	1.63	0.98
1:C:302:ASN:HB3	1:C:303:PRO:CD	2.01	0.90
1:D:108:ASP:HA	1:D:113:THR:HG22	1.52	0.90
1:B:258:ARG:HH12	1:B:275:ASN:HD21	1.16	0.89
1:D:55:THR:HG22	1:D:57:GLN:H	1.37	0.89
1:C:301:VAL:O	1:C:302:ASN:O	1.91	0.88
1:D:273:MET:CG	1:D:313:VAL:HG22	2.04	0.87
1:D:258:ARG:HH12	1:D:275:ASN:HD21	1.20	0.87
1:C:302:ASN:O	1:C:304:PRO:N	2.07	0.86
1:D:28:MET:CA	1:D:339:LEU:O	2.25	0.84
1:B:98:GLY:HA3	1:B:100:GLN:HE22	1.43	0.84
1:C:232:SER:HA	1:C:235:MET:HE3	1.63	0.81
1:D:45:LYS:HE2	1:D:51:ASN:ND2	1.95	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:10:GLU:O	1:C:14:ARG:HG3	1.83	0.80
1:A:258:ARG:HH12	1:A:275:ASN:HD21	1.27	0.79
1:A:124:GLU:N	1:A:124:GLU:OE1	2.15	0.78
1:A:102:GLN:HG2	1:A:103:GLY:H	1.50	0.77
1:D:118:PRO:O	1:D:151:ALA:HB1	1.85	0.75
1:D:113:THR:HG21	1:D:260:TRP:CZ2	2.21	0.75
1:A:4:SER:HB3	1:A:7:GLN:HG3	1.69	0.75
1:A:276:TRP:CE3	1:A:278:VAL:HG12	2.22	0.75
1:C:280:ALA:HB2	1:C:354:TYR:CE2	2.20	0.75
1:C:281:LYS:O	1:C:285:GLU:HG3	1.88	0.74
1:D:28:MET:CE	1:D:338:MET:HB3	2.16	0.74
1:D:222:GLY:O	1:D:224:LYS:HE3	1.88	0.74
1:B:187:THR:OG1	1:B:225:THR:CG2	2.36	0.73
1:C:302:ASN:CB	1:C:303:PRO:HD2	2.12	0.73
1:A:187:THR:OG1	1:A:225:THR:HG23	1.88	0.73
1:B:122:PRO:C	1:B:124:GLU:H	1.92	0.73
1:A:4:SER:H	1:A:7:GLN:HE21	1.36	0.73
1:B:125:VAL:HG12	1:B:215:MET:HG3	1.69	0.73
1:A:191:VAL:HG11	1:A:199:TYR:CD2	2.23	0.73
1:A:113:THR:HG21	1:A:260:TRP:CZ2	2.23	0.72
1:C:255:ALA:HA	1:C:269:LEU:HB2	1.69	0.72
1:A:276:TRP:CZ3	1:A:278:VAL:HG12	2.26	0.71
1:B:262:VAL:HB	1:B:265:MET:CE	2.20	0.71
1:D:276:TRP:CD2	1:D:277:PRO:HA	2.26	0.70
1:B:230:MET:HE3	1:B:326:VAL:HG11	1.72	0.70
1:B:274:LEU:HD22	1:B:283:VAL:HG12	1.72	0.70
1:A:276:TRP:CD2	1:A:277:PRO:HA	2.27	0.69
1:B:230:MET:CE	1:B:326:VAL:HG11	2.22	0.69
1:D:35:GLU:O	1:D:37:GLN:N	2.25	0.69
1:C:258:ARG:HH12	1:C:275:ASN:HD21	1.41	0.69
1:A:69:PHE:HB3	1:A:174:ILE:HD11	1.73	0.68
1:B:105:ARG:HD3	1:B:108:ASP:OD2	1.92	0.68
1:C:246:ASN:HD22	1:C:246:ASN:C	1.97	0.68
1:B:98:GLY:HA3	1:B:100:GLN:NE2	2.07	0.68
1:B:187:THR:OG1	1:B:225:THR:HG22	1.93	0.67
1:B:100:GLN:H	1:B:100:GLN:HE21	1.41	0.67
1:C:265:MET:HE1	1:C:272:GLU:HG2	1.75	0.67
1:A:105:ARG:HD3	1:A:108:ASP:OD2	1.94	0.67
1:C:10:GLU:O	1:C:14:ARG:CG	2.42	0.67
1:B:163:VAL:HG12	1:B:163:VAL:O	1.92	0.67
1:C:234:VAL:HG12	1:C:238:MET:CE	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2:PRO:HB3	1:D:7:GLN:HB3	1.77	0.66
1:B:138:TRP:CD1	1:B:139:GLN:N	2.62	0.66
1:D:28:MET:CB	1:D:339:LEU:O	2.44	0.65
1:A:45:LYS:HE2	1:A:51:ASN:HD21	1.62	0.65
1:C:344:TYR:CZ	1:C:349:ARG:HG2	2.32	0.64
1:D:28:MET:HE2	1:D:338:MET:HB3	1.78	0.64
1:C:47:ASP:OD2	1:C:52:LYS:HE3	1.97	0.64
1:D:123:ASP:OD1	1:D:123:ASP:N	2.24	0.63
1:D:301:VAL:O	1:D:302:ASN:O	2.16	0.63
1:C:259:TYR:CE1	1:C:269:LEU:HD13	2.32	0.63
1:C:285:GLU:OE1	1:D:299:ARG:HD3	1.99	0.63
1:C:187:THR:OG1	1:C:225:THR:HG23	1.98	0.62
1:C:316:THR:HG22	1:C:325:TYR:CD1	2.33	0.62
1:B:138:TRP:CG	1:B:139:GLN:N	2.68	0.62
1:A:157:LEU:HG	1:A:161:LEU:HD22	1.80	0.62
1:D:258:ARG:HH12	1:D:275:ASN:ND2	1.95	0.62
1:D:240:PRO:O	1:D:249:ARG:HG3	2.01	0.61
1:B:262:VAL:HB	1:B:265:MET:HE2	1.82	0.60
1:B:238:MET:HG2	1:B:333:GLN:NE2	2.17	0.60
1:C:93:TRP:CZ2	1:C:132:LEU:HD13	2.35	0.60
1:D:55:THR:HG21	1:D:57:GLN:NE2	2.17	0.60
1:D:95:GLU:OE1	1:D:95:GLU:N	2.29	0.60
1:D:274:LEU:HD22	1:D:283:VAL:HG12	1.83	0.60
1:C:246:ASN:ND2	1:C:249:ARG:H	1.99	0.60
1:B:255:ALA:HA	1:B:269:LEU:HB2	1.84	0.59
1:C:98:GLY:HA3	1:C:100:GLN:HE22	1.67	0.59
1:C:105:ARG:HD3	1:C:108:ASP:OD2	2.02	0.59
1:B:262:VAL:HB	1:B:265:MET:HE3	1.83	0.59
1:C:265:MET:HE3	1:C:272:GLU:HB3	1.84	0.59
1:A:225:THR:HG22	1:A:229:ASP:HB2	1.83	0.59
1:B:258:ARG:HH12	1:B:275:ASN:ND2	1.94	0.59
1:D:105:ARG:NH2	1:D:300:GLU:OE2	2.35	0.58
1:C:265:MET:CE	1:C:272:GLU:HG2	2.33	0.58
1:D:55:THR:CG2	1:D:57:GLN:HE21	2.16	0.58
1:A:191:VAL:HG11	1:A:199:TYR:CE2	2.39	0.58
1:C:78:ILE:HD11	1:C:85:LEU:HD13	1.85	0.58
1:C:47:ASP:HB3	1:C:52:LYS:HB2	1.85	0.58
1:C:259:TYR:O	1:C:301:VAL:N	2.30	0.57
1:B:238:MET:HG2	1:B:333:GLN:HE22	1.69	0.57
1:D:45:LYS:HE2	1:D:51:ASN:HD21	1.66	0.57
1:A:97:THR:H	1:A:136:GLN:HE22	1.51	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:225:THR:CG2	1:A:229:ASP:HB2	2.35	0.56
1:D:187:THR:OG1	1:D:225:THR:CG2	2.53	0.56
1:C:302:ASN:O	1:C:303:PRO:C	2.44	0.56
1:D:255:ALA:HA	1:D:269:LEU:HB2	1.88	0.56
1:D:2:PRO:HB3	1:D:7:GLN:CB	2.36	0.56
1:D:55:THR:CG2	1:D:57:GLN:NE2	2.69	0.56
1:A:4:SER:HB3	1:A:7:GLN:HE21	1.71	0.55
1:C:93:TRP:CZ2	1:C:132:LEU:CD1	2.89	0.55
1:B:112:TYR:HB3	1:B:149:LEU:O	2.07	0.55
1:C:290:LYS:HB3	1:D:146:THR:HG22	1.87	0.55
1:B:200:ALA:O	1:B:210:HIS:HE1	1.89	0.55
1:C:108:ASP:CA	1:C:113:THR:HG22	2.25	0.55
1:C:37:GLN:HA	1:C:37:GLN:OE1	2.07	0.55
1:C:93:TRP:CE2	1:C:132:LEU:HD13	2.41	0.55
1:D:94:PRO:HG2	1:D:95:GLU:OE1	2.07	0.55
1:D:243:LEU:HD11	1:D:248:LEU:HD12	1.88	0.55
1:C:265:MET:HG3	1:C:266:TYR:N	2.22	0.55
1:D:20:MET:CE	1:D:27:GLY:HA2	2.37	0.55
1:D:187:THR:OG1	1:D:225:THR:HG23	2.07	0.55
1:A:187:THR:OG1	1:A:225:THR:CG2	2.53	0.55
1:B:259:TYR:CE1	1:B:269:LEU:HD13	2.41	0.55
1:B:274:LEU:HD22	1:B:283:VAL:CG1	2.36	0.54
1:B:313:VAL:CG1	1:B:328:PHE:CE1	2.90	0.54
1:D:2:PRO:HG2	1:D:11:VAL:HG21	1.88	0.54
1:A:112:TYR:HB3	1:A:149:LEU:O	2.07	0.54
1:C:234:VAL:HG12	1:C:238:MET:HE2	1.89	0.54
1:B:28:MET:HA	1:B:339:LEU:O	2.08	0.54
1:B:122:PRO:C	1:B:124:GLU:N	2.61	0.54
1:C:3:MET:HE2	1:C:8:LEU:HD13	1.90	0.54
1:A:302:ASN:O	1:A:303:PRO:O	2.25	0.54
1:B:138:TRP:CE3	1:B:140:PRO:HD3	2.41	0.54
1:B:163:VAL:O	1:B:163:VAL:CG1	2.55	0.54
1:D:20:MET:HE1	1:D:27:GLY:HA2	1.90	0.54
1:D:27:GLY:O	1:D:340:ALA:HA	2.08	0.54
1:A:261:ARG:HD2	1:A:266:TYR:CE1	2.42	0.54
1:B:244:GLN:HA	1:B:244:GLN:NE2	2.18	0.53
1:B:344:TYR:CZ	1:B:349:ARG:HG2	2.43	0.53
1:C:20:MET:HE1	1:C:43:PHE:HB3	1.90	0.53
1:B:122:PRO:O	1:B:124:GLU:N	2.39	0.53
1:A:200:ALA:O	1:A:210:HIS:HE1	1.90	0.53
1:D:108:ASP:OD1	1:D:113:THR:HG23	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:265:MET:CE	1:C:272:GLU:CG	2.87	0.53
1:D:69:PHE:HB3	1:D:174:ILE:HD11	1.91	0.53
1:D:191:VAL:HG11	1:D:199:TYR:CD2	2.43	0.53
1:A:2:PRO:HD2	1:A:360:LEU:HD23	1.91	0.53
1:C:98:GLY:HA3	1:C:100:GLN:NE2	2.24	0.52
1:C:260:TRP:CZ3	1:C:300:GLU:HB2	2.43	0.52
1:B:313:VAL:HG13	1:B:328:PHE:CE1	2.45	0.52
1:C:258:ARG:CZ	1:C:308:VAL:HG13	2.40	0.52
1:D:64:SER:HB2	1:D:317:GLY:HA2	1.92	0.52
1:A:310:ALA:HB2	1:A:331:GLU:OE1	2.10	0.52
1:C:83:ILE:HD11	1:C:162:ALA:O	2.11	0.51
1:A:108:ASP:CA	1:A:113:THR:HG22	2.31	0.51
1:A:302:ASN:O	1:A:303:PRO:HB2	2.10	0.51
1:C:265:MET:CE	1:C:272:GLU:HB3	2.41	0.51
1:B:104:ILE:HG12	1:B:144:PRO:HB3	1.93	0.51
1:C:83:ILE:CD1	1:C:162:ALA:O	2.58	0.51
1:B:232:SER:HA	1:B:235:MET:HE3	1.91	0.51
1:D:180:LYS:HB2	1:D:181:PRO:HD3	1.92	0.51
1:D:2:PRO:HD2	1:D:359:ALA:O	2.10	0.51
1:A:56:PRO:HA	1:A:227:VAL:HG12	1.94	0.50
1:B:344:TYR:CE2	1:B:349:ARG:HG2	2.46	0.50
1:C:108:ASP:OD1	1:C:113:THR:HG23	2.12	0.50
1:B:276:TRP:CD2	1:B:277:PRO:HA	2.47	0.50
1:C:33:ILE:HD12	1:C:33:ILE:N	2.26	0.50
1:C:187:THR:OG1	1:C:225:THR:CG2	2.60	0.50
1:D:110:ALA:HB2	1:D:158:PHE:CD1	2.46	0.50
1:D:246:ASN:OD1	1:D:246:ASN:C	2.50	0.50
1:A:4:SER:HB3	1:A:7:GLN:CG	2.38	0.50
1:A:37:GLN:HG3	1:A:39:HIS:CE1	2.47	0.50
1:A:174:ILE:HG12	1:A:179:PHE:CZ	2.47	0.50
1:A:204:ARG:HG3	1:A:204:ARG:HH11	1.77	0.50
1:B:19:LEU:HD11	1:B:344:TYR:CE2	2.47	0.50
1:D:248:LEU:HD13	1:D:248:LEU:O	2.12	0.50
1:A:258:ARG:HH22	1:A:275:ASN:HD22	1.60	0.49
1:B:278:VAL:HG22	1:B:279:ASP:N	2.27	0.49
1:D:28:MET:HE1	1:D:338:MET:HB3	1.94	0.49
1:A:4:SER:HB3	1:A:7:GLN:NE2	2.28	0.49
1:C:113:THR:HG21	1:C:260:TRP:CZ2	2.48	0.49
1:D:90:THR:HG22	1:D:90:THR:O	2.13	0.49
1:C:302:ASN:CB	1:C:303:PRO:CD	2.75	0.49
1:A:4:SER:H	1:A:7:GLN:NE2	2.08	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:136:GLN:HA	1:D:136:GLN:OE1	2.13	0.49
1:D:276:TRP:CE3	1:D:277:PRO:HA	2.47	0.49
1:A:2:PRO:HG2	1:A:11:VAL:HG21	1.94	0.48
1:A:64:SER:HB2	1:A:317:GLY:HA2	1.94	0.48
1:A:302:ASN:O	1:A:303:PRO:CB	2.60	0.48
1:C:258:ARG:HG2	1:C:266:TYR:HB3	1.95	0.48
1:D:45:LYS:HE2	1:D:51:ASN:HD22	1.75	0.48
1:D:33:ILE:HG22	1:D:36:GLY:HA2	1.96	0.48
1:B:176:THR:HG22	1:B:177:ARG:HG2	1.95	0.48
1:B:273:MET:HG3	1:B:313:VAL:HB	1.94	0.48
1:C:136:GLN:OE1	1:C:136:GLN:HA	2.13	0.48
1:A:9:ALA:HA	1:A:41:PHE:CE1	2.49	0.48
1:C:108:ASP:HA	1:C:113:THR:CG2	2.30	0.48
1:D:262:VAL:HB	1:D:265:MET:CE	2.44	0.48
1:A:80:ARG:HG3	1:A:247:SER:OG	2.14	0.48
1:B:64:SER:HB2	1:B:317:GLY:HA2	1.96	0.48
1:A:102:GLN:HG2	1:A:103:GLY:N	2.24	0.48
1:A:280:ALA:HB2	1:A:354:TYR:CE1	2.48	0.48
1:C:258:ARG:HG2	1:C:266:TYR:CB	2.44	0.48
1:A:258:ARG:HH22	1:A:275:ASN:ND2	2.12	0.47
1:A:265:MET:HE3	1:A:267:GLN:N	2.29	0.47
1:B:138:TRP:CD2	1:B:140:PRO:CD	2.83	0.47
1:D:238:MET:HG3	1:D:328:PHE:CD2	2.49	0.47
1:A:67:LYS:HE3	1:A:155:ILE:CG2	2.45	0.47
1:C:93:TRP:CE2	1:C:132:LEU:CD1	2.98	0.47
1:D:65:ILE:HG21	1:D:230:MET:HE1	1.97	0.47
1:B:62:LEU:HD13	1:B:225:THR:OG1	2.15	0.47
1:D:105:ARG:NH2	1:D:107:LEU:HD23	2.30	0.47
1:A:141:GLN:OE1	1:A:141:GLN:HA	2.15	0.47
1:B:26:PRO:HG2	1:B:203:TYR:CD2	2.50	0.47
1:C:173:ALA:O	1:C:177:ARG:CG	2.62	0.47
1:B:80:ARG:NH2	1:B:177:ARG:HD2	2.29	0.46
1:B:232:SER:O	1:B:236:VAL:HG23	2.15	0.46
1:B:19:LEU:HD13	1:B:25:ILE:HD12	1.97	0.46
1:B:313:VAL:HG11	1:B:328:PHE:CE1	2.50	0.46
1:C:200:ALA:O	1:C:210:HIS:HE1	1.97	0.46
1:A:302:ASN:C	1:A:303:PRO:O	2.53	0.46
1:C:173:ALA:O	1:C:177:ARG:HG3	2.15	0.46
1:C:260:TRP:CE3	1:C:300:GLU:HA	2.50	0.46
1:C:96:LEU:HD11	1:C:101:TRP:NE1	2.31	0.46
1:C:217:ASP:OD1	1:C:218:ALA:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:280:ALA:HB2	1:C:354:TYR:CZ	2.50	0.46
1:C:287:SER:CB	1:C:350:VAL:HG21	2.45	0.46
1:D:65:ILE:HG21	1:D:230:MET:CE	2.46	0.46
1:A:98:GLY:HA3	1:A:100:GLN:NE2	2.30	0.46
1:C:258:ARG:CZ	1:C:308:VAL:CG1	2.93	0.46
1:B:204:ARG:HG3	1:B:204:ARG:HH11	1.81	0.46
1:C:174:ILE:HD12	1:C:178:VAL:CG2	2.46	0.45
1:B:238:MET:HG3	1:B:330:PRO:HA	1.98	0.45
1:C:73:LEU:HB2	1:C:174:ILE:HD13	1.97	0.45
1:A:67:LYS:HE3	1:A:155:ILE:HG21	1.98	0.45
1:B:68:THR:O	1:B:72:VAL:HG23	2.16	0.45
1:A:5:GLU:OE1	1:A:6:LYS:HD3	2.17	0.45
1:A:276:TRP:CE2	1:A:277:PRO:HA	2.52	0.45
1:D:148:ARG:HD2	1:D:262:VAL:HG21	1.98	0.45
1:C:108:ASP:OD1	1:C:113:THR:CG2	2.65	0.45
1:B:4:SER:C	1:B:6:LYS:H	2.20	0.45
1:D:301:VAL:O	1:D:302:ASN:C	2.55	0.45
1:A:33:ILE:HG12	1:A:235:MET:HG3	1.99	0.45
1:B:83:ILE:HG13	1:B:92:TYR:CE1	2.52	0.45
1:C:246:ASN:C	1:C:246:ASN:ND2	2.69	0.45
1:D:78:ILE:O	1:D:81:GLY:N	2.47	0.45
1:D:85:LEU:HB3	1:D:107:LEU:HB2	1.99	0.45
1:D:139:GLN:HA	1:D:140:PRO:HD2	1.80	0.45
1:D:28:MET:HB3	1:D:339:LEU:O	2.15	0.44
1:D:191:VAL:HG23	1:D:195:GLU:HB2	1.99	0.44
1:D:334:LEU:HD22	1:D:357:LEU:HD22	1.99	0.44
1:A:166:SER:HB2	1:A:168:MET:HE3	2.00	0.44
1:B:19:LEU:HD13	1:B:25:ILE:CD1	2.47	0.44
1:A:75:GLY:HA2	1:A:78:ILE:HD12	1.99	0.44
1:A:125:VAL:HG12	1:A:215:MET:HG3	2.00	0.44
1:A:62:LEU:HD22	1:A:223:VAL:HG12	1.98	0.44
1:D:280:ALA:HB2	1:D:354:TYR:CE1	2.52	0.44
1:C:311:SER:O	1:C:329:ILE:HA	2.18	0.44
1:A:234:VAL:HG12	1:A:238:MET:HE2	1.99	0.44
1:D:243:LEU:CD1	1:D:248:LEU:HD12	2.47	0.44
1:C:222:GLY:O	1:C:224:LYS:HE3	2.17	0.44
1:C:66:SER:HB3	1:C:223:VAL:HG23	2.00	0.43
1:C:316:THR:HG22	1:C:325:TYR:HD1	1.82	0.43
1:D:8:LEU:O	1:D:12:VAL:HG23	2.18	0.43
1:A:59:LEU:HA	1:A:225:THR:O	2.17	0.43
1:B:82:GLU:OE1	1:B:177:ARG:NH2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:37:GLN:OE1	1:B:37:GLN:HA	2.18	0.43
1:C:265:MET:HE3	1:C:272:GLU:OE1	2.19	0.43
1:D:37:GLN:OE1	1:D:37:GLN:HA	2.19	0.43
1:C:170:TYR:CD1	1:C:219:GLU:HG3	2.54	0.43
1:C:225:THR:HG22	1:C:229:ASP:HB2	2.00	0.43
1:D:257:SER:O	1:D:268:GLY:HA2	2.19	0.43
1:B:302:ASN:HD22	1:B:302:ASN:HA	1.62	0.43
1:D:104:ILE:HD13	1:D:144:PRO:HG3	1.99	0.43
1:D:108:ASP:HA	1:D:113:THR:CG2	2.37	0.43
1:D:108:ASP:OD1	1:D:113:THR:CG2	2.65	0.43
1:A:2:PRO:O	1:A:3:MET:C	2.56	0.43
1:B:217:ASP:O	1:B:222:GLY:N	2.52	0.43
1:B:258:ARG:NH2	1:B:311:SER:OG	2.51	0.43
1:B:313:VAL:HG13	1:B:328:PHE:CD1	2.54	0.43
1:C:59:LEU:HA	1:C:225:THR:O	2.18	0.43
1:B:83:ILE:CG2	1:B:84:SER:N	2.80	0.43
1:C:157:LEU:HG	1:C:161:LEU:HD22	1.99	0.43
1:D:288:ASP:OD1	1:D:290:LYS:HB2	2.19	0.43
1:A:31:ALA:HB2	1:A:227:VAL:HG22	2.01	0.43
1:A:63:GLY:O	1:A:221:TYR:HA	2.19	0.43
1:D:72:VAL:HG21	1:D:233:TRP:CH2	2.54	0.43
1:D:170:TYR:O	1:D:174:ILE:HG22	2.19	0.42
1:A:102:GLN:C	1:A:104:ILE:H	2.22	0.42
1:B:121:VAL:O	1:B:122:PRO:C	2.57	0.42
1:C:100:GLN:H	1:C:100:GLN:HE21	1.66	0.42
1:A:148:ARG:HD2	1:A:262:VAL:HG21	2.00	0.42
1:A:180:LYS:HA	1:A:180:LYS:HD2	1.79	0.42
1:B:83:ILE:CD1	1:B:162:ALA:O	2.68	0.42
1:B:138:TRP:CZ2	1:B:140:PRO:HD3	2.52	0.42
1:D:259:TYR:CE1	1:D:269:LEU:HD13	2.54	0.42
1:C:258:ARG:HH12	1:C:275:ASN:ND2	2.14	0.42
1:B:28:MET:HG3	1:B:339:LEU:O	2.20	0.42
1:C:64:SER:HB3	1:C:150:TYR:HH	1.85	0.42
1:D:28:MET:HB3	1:D:340:ALA:HB2	2.02	0.42
1:A:225:THR:HG22	1:A:226:ASN:H	1.85	0.42
1:B:31:ALA:O	1:B:336:ILE:HA	2.18	0.42
1:B:164:LYS:N	1:B:165:PRO:CD	2.82	0.42
1:D:258:ARG:NH2	1:D:311:SER:OG	2.53	0.42
1:B:122:PRO:CB	1:B:124:GLU:HG3	2.49	0.42
1:D:78:ILE:HG13	1:D:83:ILE:HD11	2.02	0.42
1:D:104:ILE:HD13	1:D:144:PRO:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2:PRO:HD2	1:A:360:LEU:HA	2.01	0.41
1:A:65:ILE:HG13	1:A:317:GLY:HA3	2.02	0.41
1:B:243:LEU:HB3	1:B:244:GLN:H	1.66	0.41
1:D:83:ILE:HG21	1:D:162:ALA:HA	2.02	0.41
1:D:157:LEU:O	1:D:161:LEU:HG	2.20	0.41
1:A:4:SER:CB	1:A:7:GLN:HE21	2.33	0.41
1:B:28:MET:HE2	1:B:28:MET:HB2	1.82	0.41
1:A:96:LEU:HD12	1:A:96:LEU:HA	1.95	0.41
1:A:38:PRO:HD3	1:A:235:MET:SD	2.61	0.41
1:D:12:VAL:HG21	1:D:41:PHE:CE1	2.55	0.41
1:C:105:ARG:NH1	1:C:108:ASP:OD1	2.54	0.41
1:A:78:ILE:HD13	1:A:85:LEU:HD22	2.01	0.41
1:B:90:THR:HG23	2:B:406:HOH:O	2.20	0.41
1:B:278:VAL:CG2	1:B:279:ASP:N	2.84	0.41
1:B:346:ASN:N	1:B:347:PRO:CD	2.83	0.41
1:C:9:ALA:HA	1:C:41:PHE:CE2	2.55	0.41
1:C:244:GLN:O	1:C:249:ARG:HD3	2.20	0.41
1:D:234:VAL:HG12	1:D:238:MET:HE2	2.02	0.41
1:A:2:PRO:HB3	1:A:7:GLN:HB3	2.02	0.41
1:A:10:GLU:O	1:A:14:ARG:HG2	2.21	0.41
1:A:217:ASP:OD1	1:A:218:ALA:N	2.54	0.41
1:B:20:MET:HG2	1:B:28:MET:HE3	2.02	0.41
1:C:244:GLN:HG2	2:C:441:HOH:O	2.20	0.41
1:D:187:THR:CB	1:D:225:THR:HG23	2.51	0.41
1:D:119:LEU:HA	1:D:151:ALA:HA	2.03	0.40
1:C:105:ARG:NH2	1:C:300:GLU:OE1	2.46	0.40
1:A:8:LEU:HD12	1:A:8:LEU:HA	1.88	0.40
1:A:265:MET:HE3	1:A:266:TYR:C	2.42	0.40
1:D:187:THR:HA	1:D:225:THR:HG23	2.04	0.40
1:D:55:THR:HG22	1:D:57:GLN:N	2.18	0.40
1:D:262:VAL:HB	1:D:265:MET:HE2	2.04	0.40
1:A:17:THR:HB	1:A:18:PRO:HD3	2.03	0.40
1:A:204:ARG:HG3	1:A:204:ARG:NH1	2.36	0.40

All (2) 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:A:290:LYS:O	1:B:299:ARG:NH2[1_544]	2.10	0.10
1:A:196:GLU:OE2	1:C:355:ARG:NH2[1_455]	2.15	0.05

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	357/359 (99%)	344 (96%)	11 (3%)	2 (1%)	25	36
1	B	357/359 (99%)	337 (94%)	17 (5%)	3 (1%)	19	29
1	C	357/359 (99%)	337 (94%)	15 (4%)	5 (1%)	11	15
1	D	357/359 (99%)	341 (96%)	14 (4%)	2 (1%)	25	36
All	All	1428/1436 (99%)	1359 (95%)	57 (4%)	12 (1%)	19	29

All (12) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	303	PRO
1	B	123	ASP
1	B	245	ASP
1	C	3	MET
1	C	302	ASN
1	D	36	GLY
1	D	302	ASN
1	A	90	THR
1	C	303	PRO
1	B	290	LYS
1	C	304	PRO
1	C	103	GLY

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	289/289 (100%)	261 (90%)	28 (10%)	8 12
1	B	289/289 (100%)	258 (89%)	31 (11%)	6 9
1	C	289/289 (100%)	265 (92%)	24 (8%)	11 17
1	D	289/289 (100%)	265 (92%)	24 (8%)	11 17
All	All	1156/1156 (100%)	1049 (91%)	107 (9%)	9 13

All (107) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	2	PRO
1	A	6	LYS
1	A	28	MET
1	A	35	GLU
1	A	45	LYS
1	A	51	ASN
1	A	62	LEU
1	A	85	LEU
1	A	90	THR
1	A	100	GLN
1	A	113	THR
1	A	123	ASP
1	A	132	LEU
1	A	161	LEU
1	A	174	ILE
1	A	177	ARG
1	A	180	LYS
1	A	188	TRP
1	A	224	LYS
1	A	225	THR
1	A	230	MET
1	A	232	SER
1	A	241	ASP
1	A	246	ASN
1	A	249	ARG
1	A	265	MET
1	A	303	PRO
1	A	314	HIS
1	B	5	GLU
1	B	10	GLU
1	B	83	ILE
1	B	84	SER
1	B	100	GLN

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Mol	Chain	Res	Type
1	B	123	ASP
1	B	124	GLU
1	B	139	GLN
1	B	177	ARG
1	B	191	VAL
1	B	199	TYR
1	B	205	ASP
1	B	224	LYS
1	B	225	THR
1	B	230	MET
1	B	241	ASP
1	B	243	LEU
1	B	244	GLN
1	B	249	ARG
1	B	250	LYS
1	B	265	MET
1	B	269	LEU
1	B	281	LYS
1	B	301	VAL
1	B	308	VAL
1	B	311	SER
1	B	313	VAL
1	B	314	HIS
1	B	318	SER
1	B	334	LEU
1	B	343	SER
1	C	3	MET
1	C	14	ARG
1	C	62	LEU
1	C	83	ILE
1	C	85	LEU
1	C	100	GLN
1	C	113	THR
1	C	118	PRO
1	C	136	GLN
1	C	161	LEU
1	C	177	ARG
1	C	193	LYS
1	C	199	TYR
1	C	224	LYS
1	C	225	THR
1	C	246	ASN

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Mol	Chain	Res	Type
1	C	248	LEU
1	C	265	MET
1	C	281	LYS
1	C	300	GLU
1	C	308	VAL
1	C	314	HIS
1	C	318	SER
1	C	334	LEU
1	D	4	SER
1	D	28	MET
1	D	62	LEU
1	D	100	GLN
1	D	102	GLN
1	D	113	THR
1	D	123	ASP
1	D	130	SER
1	D	132	LEU
1	D	163	VAL
1	D	166	SER
1	D	183	LYS
1	D	191	VAL
1	D	199	TYR
1	D	224	LYS
1	D	225	THR
1	D	230	MET
1	D	265	MET
1	D	269	LEU
1	D	308	VAL
1	D	314	HIS
1	D	334	LEU
1	D	342	LYS
1	D	347	PRO

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (31) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	7	GLN
1	A	23	GLN
1	A	39	HIS
1	A	51	ASN
1	A	100	GLN
1	A	186	HIS

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Mol	Chain	Res	Type
1	A	210	HIS
1	A	246	ASN
1	A	275	ASN
1	B	7	GLN
1	B	23	GLN
1	B	51	ASN
1	B	100	GLN
1	B	186	HIS
1	B	210	HIS
1	B	275	ASN
1	B	302	ASN
1	B	333	GLN
1	C	23	GLN
1	C	51	ASN
1	C	100	GLN
1	C	210	HIS
1	C	246	ASN
1	C	275	ASN
1	D	23	GLN
1	D	51	ASN
1	D	57	GLN
1	D	100	GLN
1	D	186	HIS
1	D	210	HIS
1	D	275	ASN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

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	359/359 (100%)	-0.10	5 (1%)	75	73	13, 22, 39, 51	2 (0%)
1	B	359/359 (100%)	0.00	10 (2%)	53	51	16, 24, 42, 66	4 (1%)
1	C	359/359 (100%)	-0.23	8 (2%)	62	60	15, 26, 46, 57	5 (1%)
1	D	359/359 (100%)	-0.06	4 (1%)	80	79	18, 31, 48, 58	6 (1%)
All	All	1436/1436 (100%)	-0.10	27 (1%)	66	64	13, 25, 45, 66	17 (1%)

All (27) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	2	PRO	6.3
1	C	302	ASN	5.6
1	C	102	GLN	4.4
1	B	302	ASN	4.2
1	A	2	PRO	3.6
1	C	299	ARG	3.6
1	D	2	PRO	3.6
1	D	94	PRO	3.2
1	B	137	ASN	3.2
1	B	139	GLN	3.1
1	A	244	GLN	2.9
1	B	243	LEU	2.9
1	C	261	ARG	2.9
1	B	102	GLN	2.8
1	B	3	MET	2.6
1	B	244	GLN	2.5
1	A	133	ARG	2.5
1	C	303	PRO	2.4
1	D	290	LYS	2.4
1	D	246	ASN	2.2
1	B	246	ASN	2.2

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Mol	Chain	Res	Type	RSRZ
1	C	94	PRO	2.2
1	A	139	GLN	2.2
1	C	301	VAL	2.1
1	A	302	ASN	2.1
1	C	139	GLN	2.0
1	B	140	PRO	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)

There are no ligands in this entry.

6.5 Other polymers (i)

There are no such residues in this entry.