Full wwPDB X-ray Structure Validation Report ⓘ

May 25, 2020 – 08:30 pm BST

PDB ID	:	2YIJ
Title	:	Crystal Structure of phospholipase A1
Authors	:	Lee, I.
Deposited on	:	2011-05-13
Resolution	:	2.00 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 following versions of software and data (see references ⓘ) were used in the production of this report:

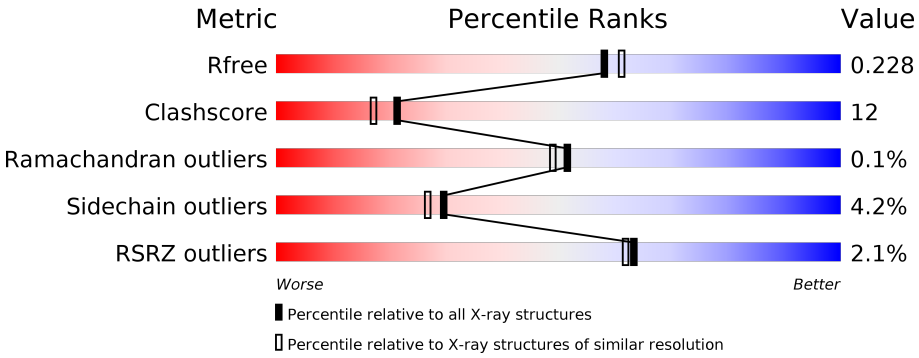
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.11
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.11

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 2.00 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	8085 (2.00-2.00)
Clashscore	141614	9178 (2.00-2.00)
Ramachandran outliers	138981	9054 (2.00-2.00)
Sidechain outliers	138945	9053 (2.00-2.00)
RSRZ outliers	127900	7900 (2.00-2.00)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on 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	419	3% 75% 17% • 7%
1	B	419	% 73% 17% • 8%

2 Entry composition (i)

There are 2 unique types of molecules in this entry. The entry contains 6596 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 PHOSPHOLIPASE A1-IIGAMMA.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	390	Total	C	N	O	S	Se	0	0	0
			3115	1979	538	587	4	7			
1	B	386	Total	C	N	O	S	Se	0	0	0
			3075	1945	535	584	4	7			

- Molecule 2 is water.

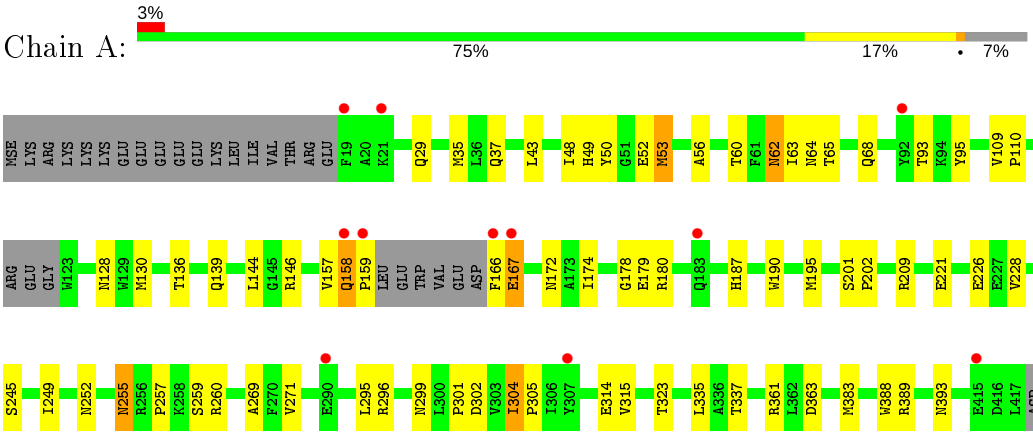
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	198	Total	O	0	0
			198	198		
2	B	208	Total	O	0	0
			208	208		

3 Residue-property plots (i)

These plots are drawn for all protein, RNA and DNA 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.

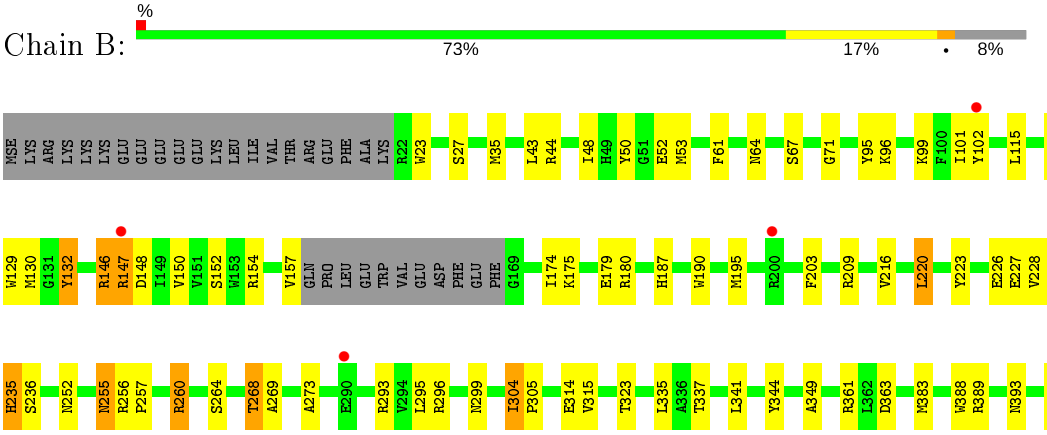
- Molecule 1: PHOSPHOLIPASE A1-IIGAMMA

Chain A:



- Molecule 1: PHOSPHOLIPASE A1-IIGAMMA

Chain B:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	73.22Å 95.85Å 78.89Å 90.00° 105.31° 90.00°	Depositor
Resolution (Å)	19.92 – 2.00 19.92 – 2.00	Depositor EDS
% Data completeness (in resolution range)	100.0 (19.92-2.00) 96.8 (19.92-2.00)	Depositor EDS
R_{merge}	0.11	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	7.37 (at 2.01Å)	Xtriage
Refinement program	REFMAC 5.5.0109	Depositor
R, R_{free}	0.231 , 0.264 0.259 , 0.228	Depositor DCC
R_{free} test set	1264 reflections (1.84%)	wwPDB-VP
Wilson B-factor (Å^2)	18.8	Xtriage
Anisotropy	0.235	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.35 , 28.0	EDS
L-test for twinning[2]	$< \|L\| > = 0.48$, $< L^2 > = 0.31$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.89	EDS
Total number of atoms	6596	wwPDB-VP
Average B, all atoms (Å^2)	21.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 8.10% 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	0.56	0/3183	0.61	0/4296
1	B	0.51	0/3140	0.54	0/4239
All	All	0.54	0/6323	0.58	0/8535

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3115	0	3028	70	0
1	B	3075	0	2989	85	0
2	A	198	0	0	2	0
2	B	208	0	0	3	0
All	All	6596	0	6017	147	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 12.

All (147) 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:A:158:GLN:HB3	1:A:159:PRO:CD	1.36	1.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:132:TYR:CE1	1:B:152:SER:HB3	1.69	1.27
1:A:158:GLN:HB3	1:A:159:PRO:HD3	1.25	1.17
1:A:158:GLN:CB	1:A:159:PRO:CD	2.24	1.14
1:A:158:GLN:CB	1:A:159:PRO:HD2	1.79	1.11
1:A:157:VAL:HG12	1:A:158:GLN:N	1.55	1.10
1:B:132:TYR:HE1	1:B:152:SER:CB	1.67	1.07
1:A:158:GLN:HB3	1:A:159:PRO:HD2	1.19	1.07
1:B:132:TYR:HE1	1:B:152:SER:HB3	0.94	1.07
1:A:157:VAL:CG1	1:A:158:GLN:H	1.66	1.04
1:A:157:VAL:HG12	1:A:158:GLN:H	0.86	1.00
1:A:195:MSE:HE1	2:A:2094:HOH:O	1.61	0.99
1:A:115:LEU:HD23	1:A:116:PHE:N	1.82	0.94
1:B:235:HIS:CD2	1:B:341:LEU:HB2	2.10	0.87
1:A:115:LEU:H	1:A:128:ASN:HD21	1.24	0.85
1:B:255:ASN:H	1:B:255:ASN:HD22	1.30	0.80
1:A:65:THR:HG22	1:A:115:LEU:HD21	1.61	0.80
1:B:115:LEU:H	1:B:128:ASN:HD21	1.28	0.80
1:B:147:ARG:HD3	1:B:223:TYR:CD1	2.18	0.79
1:B:260:ARG:HH11	1:B:260:ARG:HG2	1.48	0.78
1:B:147:ARG:HH11	1:B:147:ARG:HB2	1.50	0.77
1:A:195:MSE:SE	1:A:209:ARG:HD2	2.33	0.77
1:A:255:ASN:H	1:A:255:ASN:HD22	1.32	0.75
1:B:299:ASN:HD21	1:B:323:THR:H	1.37	0.71
1:B:147:ARG:NE	1:B:226:GLU:OE1	2.24	0.70
1:A:299:ASN:HD21	1:A:323:THR:H	1.41	0.68
1:B:187:HIS:HB3	1:B:190:TRP:CD1	2.30	0.66
1:B:257:PRO:HG2	1:B:260:ARG:HB2	1.77	0.66
1:B:146:ARG:NH1	1:B:148:ASP:HB2	2.10	0.66
1:B:256:ARG:CZ	1:B:264:SER:HB3	2.25	0.66
1:A:68:GLN:OE1	1:B:383:MSE:HE2	1.93	0.66
1:A:158:GLN:HB2	1:A:159:PRO:HD2	1.72	0.66
1:B:132:TYR:CD1	1:B:152:SER:HB3	2.28	0.65
1:A:158:GLN:OE1	1:A:159:PRO:HD3	1.97	0.64
1:B:102:TYR:HE1	1:B:129:TRP:CD1	2.15	0.64
1:B:102:TYR:CE2	1:B:203:PHE:CD1	2.86	0.64
1:A:187:HIS:HB3	1:A:190:TRP:CD1	2.33	0.63
1:B:102:TYR:HE1	1:B:129:TRP:HD1	1.47	0.63
1:B:96:LYS:HE3	2:B:2044:HOH:O	1.98	0.63
1:B:53:MSE:HE1	1:B:95:TYR:CE1	2.34	0.62
1:A:180:ARG:HH22	1:A:252:ASN:ND2	1.99	0.60
1:B:147:ARG:CZ	1:B:226:GLU:HB3	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:221:GLU:OE1	1:A:259:SER:HB2	2.02	0.59
1:B:146:ARG:HD2	1:B:229:SER:CB	2.33	0.59
1:A:63:ILE:CG2	1:A:157:VAL:HG11	2.33	0.58
1:B:146:ARG:HD2	1:B:229:SER:OG	2.02	0.58
1:B:235:HIS:ND1	1:B:236:SER:HB2	2.18	0.58
1:A:50:TYR:HA	1:A:53:MSE:HG3	1.85	0.57
1:A:93:THR:O	1:A:93:THR:HG22	2.03	0.57
1:A:115:LEU:HD23	1:A:115:LEU:C	2.25	0.56
1:A:166:PHE:O	1:A:167:GLU:C	2.43	0.56
1:B:268:THR:HB	1:B:293:ARG:HB2	1.87	0.56
1:A:174:ILE:CD1	1:A:179:GLU:HA	2.35	0.56
1:B:174:ILE:HD12	1:B:175:LYS:N	2.21	0.55
1:B:102:TYR:CD1	1:B:129:TRP:HA	2.42	0.55
1:A:63:ILE:HG22	1:A:157:VAL:HG11	1.88	0.55
1:B:23:TRP:CH2	1:B:146:ARG:HD3	2.41	0.55
1:A:180:ARG:HH22	1:A:252:ASN:HD22	1.53	0.54
1:A:226:GLU:O	1:A:228:VAL:HG23	2.07	0.54
1:B:235:HIS:CE1	1:B:236:SER:HB2	2.42	0.54
1:B:27:SER:O	1:B:268:THR:HG21	2.08	0.54
1:B:255:ASN:N	1:B:255:ASN:HD22	2.00	0.54
1:A:393:ASN:HD22	1:B:389:ARG:HA	1.72	0.53
1:A:393:ASN:HA	1:B:388:TRP:O	2.09	0.53
1:B:146:ARG:HD2	1:B:229:SER:HB3	1.88	0.53
1:B:232:ILE:O	1:B:269:ALA:HA	2.09	0.53
1:B:260:ARG:NH1	1:B:260:ARG:HG2	2.21	0.52
1:A:115:LEU:H	1:A:128:ASN:ND2	2.01	0.52
1:A:232:ILE:O	1:A:269:ALA:HA	2.09	0.52
1:A:48:ILE:O	1:A:52:GLU:HG3	2.10	0.52
1:B:67:SER:HB2	1:B:406:LEU:HD21	1.92	0.51
1:A:172:ASN:HD22	1:A:174:ILE:HG22	1.74	0.51
1:A:388:TRP:O	1:B:393:ASN:HA	2.11	0.51
1:A:245:SER:O	1:A:249:ILE:HG13	2.10	0.51
1:B:115:LEU:H	1:B:128:ASN:ND2	2.04	0.51
1:B:361:ARG:NE	2:B:2170:HOH:O	2.45	0.50
1:A:389:ARG:HA	1:B:393:ASN:HD22	1.76	0.50
1:A:255:ASN:HD22	1:A:255:ASN:N	2.02	0.50
1:B:180:ARG:HH22	1:B:252:ASN:ND2	2.09	0.50
1:B:102:TYR:CD2	1:B:203:PHE:CD1	2.99	0.50
1:A:95:TYR:CE2	1:A:136:THR:HG23	2.47	0.50
1:B:296:ARG:HD3	1:B:315:VAL:O	2.12	0.49
1:A:95:TYR:CE2	1:A:136:THR:CG2	2.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:130:MSE:HG3	1:A:130:MSE:O	2.13	0.49
1:A:62:ASN:ND2	1:A:64:ASN:H	2.10	0.49
1:B:102:TYR:CE2	1:B:203:PHE:HD1	2.28	0.49
1:A:35:MSE:HE2	1:A:43:LEU:HD22	1.95	0.48
1:B:130:MSE:HG3	1:B:130:MSE:O	2.12	0.48
1:B:102:TYR:HE2	1:B:203:PHE:CD1	2.29	0.48
1:B:157:VAL:HG12	1:B:157:VAL:O	2.14	0.48
1:B:180:ARG:HH22	1:B:252:ASN:HD22	1.62	0.48
1:B:99:LYS:NZ	2:B:2064:HOH:O	2.30	0.48
1:B:50:TYR:HA	1:B:53:MSE:HG2	1.95	0.48
1:A:172:ASN:HD21	1:A:174:ILE:HB	1.79	0.48
1:B:132:TYR:CE1	1:B:152:SER:CB	2.56	0.47
1:A:136:THR:HG21	1:A:144:LEU:HD12	1.96	0.47
1:A:201:SER:HA	1:A:202:PRO:HD3	1.81	0.47
1:B:130:MSE:CE	1:B:154:ARG:NH2	2.78	0.47
1:B:50:TYR:HA	1:B:53:MSE:CG	2.44	0.47
1:A:361:ARG:NH1	1:A:363:ASP:OD1	2.48	0.47
1:B:195:MSE:SE	1:B:209:ARG:HD2	2.65	0.47
1:B:48:ILE:O	1:B:52:GLU:HG3	2.15	0.46
1:B:102:TYR:HD2	1:B:203:PHE:HB3	1.81	0.46
1:B:23:TRP:CZ2	1:B:146:ARG:HD3	2.50	0.46
1:A:174:ILE:HD13	1:A:179:GLU:HA	1.97	0.46
1:B:235:HIS:CD2	1:B:341:LEU:CB	2.90	0.46
1:A:296:ARG:HD3	1:A:315:VAL:O	2.15	0.46
1:A:383:MSE:HE2	1:B:119:SER:HB2	1.98	0.45
1:B:361:ARG:NH1	1:B:363:ASP:OD1	2.48	0.45
1:B:157:VAL:O	1:B:157:VAL:CG1	2.65	0.45
1:B:130:MSE:HE1	1:B:154:ARG:NH2	2.32	0.45
1:B:235:HIS:HD2	1:B:341:LEU:HB2	1.76	0.45
1:A:174:ILE:HD12	1:A:178:GLY:C	2.38	0.45
1:A:389:ARG:HA	1:B:393:ASN:ND2	2.32	0.45
1:B:235:HIS:ND1	1:B:235:HIS:C	2.70	0.44
1:A:393:ASN:ND2	1:B:389:ARG:HA	2.32	0.44
1:A:62:ASN:HD22	1:A:64:ASN:H	1.65	0.44
1:B:101:ILE:O	1:B:102:TYR:HD1	2.01	0.44
1:B:35:MSE:HE2	1:B:43:LEU:HD22	1.99	0.44
1:A:50:TYR:HA	1:A:53:MSE:CG	2.48	0.43
1:B:147:ARG:HH11	1:B:147:ARG:CB	2.24	0.43
1:B:273:ALA:HB2	1:B:344:TYR:CZ	2.52	0.43
1:A:139:GLN:NE2	2:A:2064:HOH:O	2.47	0.43
1:A:299:ASN:ND2	1:A:301:PRO:HD2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:226:GLU:O	1:B:228:VAL:HG23	2.18	0.43
1:B:260:ARG:CG	1:B:260:ARG:HH11	2.25	0.43
1:B:44:ARG:NH1	1:B:349:ALA:O	2.51	0.43
1:B:174:ILE:HD12	1:B:175:LYS:HG3	2.00	0.42
1:B:61:PHE:CZ	1:B:71:GLY:HA2	2.54	0.42
1:B:44:ARG:HH11	1:B:349:ALA:C	2.23	0.42
1:A:56:ALA:O	1:A:60:THR:HG22	2.20	0.42
1:B:102:TYR:CD2	1:B:203:PHE:HD1	2.37	0.42
1:A:109:VAL:HB	1:A:110:PRO:HD2	2.01	0.42
1:A:257:PRO:HG2	1:A:260:ARG:HB2	2.03	0.41
1:A:49:HIS:O	1:A:53:MSE:HG2	2.21	0.41
1:B:53:MSE:HE3	1:B:150:VAL:HG21	2.03	0.41
1:A:130:MSE:CG	1:A:130:MSE:O	2.68	0.41
1:A:239:ALA:HB1	1:A:271:VAL:HB	2.02	0.41
1:B:260:ARG:CG	1:B:260:ARG:NH1	2.84	0.41
1:B:304:ILE:N	1:B:305:PRO:CD	2.84	0.41
1:A:304:ILE:N	1:A:305:PRO:CD	2.84	0.40
1:B:216:VAL:HG12	1:B:220:LEU:HD22	2.03	0.40
1:A:63:ILE:HG21	1:A:157:VAL:HG11	2.02	0.40
1:A:65:THR:HG22	1:A:115:LEU:CD2	2.43	0.40
1:A:302:ASP:O	1:A:305:PRO:HD2	2.22	0.40
1:A:115:LEU:CD2	1:A:115:LEU:C	2.89	0.40
1:B:268:THR:HA	1:B:293:ARG:O	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	384/419 (92%)	374 (97%)	9 (2%)	1 (0%)	41 37
1	B	382/419 (91%)	374 (98%)	8 (2%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
All	All	766/838 (91%)	748 (98%)	17 (2%)	1 (0%)	51 49

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	158	GLN

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	335/355 (94%)	323 (96%)	12 (4%)	35 34
1	B	331/355 (93%)	315 (95%)	16 (5%)	25 22
All	All	666/710 (94%)	638 (96%)	28 (4%)	30 27

All (28) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	29	GLN
1	A	37	GLN
1	A	53	MSE
1	A	62	ASN
1	A	146	ARG
1	A	167	GLU
1	A	255	ASN
1	A	295	LEU
1	A	304	ILE
1	A	314	GLU
1	A	335	LEU
1	A	337	THR
1	B	64	ASN
1	B	132	TYR
1	B	146	ARG
1	B	147	ARG
1	B	179	GLU

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Mol	Chain	Res	Type
1	B	220	LEU
1	B	227	GLU
1	B	235	HIS
1	B	255	ASN
1	B	260	ARG
1	B	268	THR
1	B	295	LEU
1	B	304	ILE
1	B	314	GLU
1	B	335	LEU
1	B	337	THR

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (17) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	37	GLN
1	A	62	ASN
1	A	128	ASN
1	A	139	GLN
1	A	172	ASN
1	A	252	ASN
1	A	255	ASN
1	A	299	ASN
1	A	352	GLN
1	A	393	ASN
1	B	64	ASN
1	B	128	ASN
1	B	252	ASN
1	B	255	ASN
1	B	299	ASN
1	B	352	GLN
1	B	393	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

There are no carbohydrates 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	383/419 (91%)	0.05	11 (2%) 51 50	12, 20, 32, 42	0
1	B	379/419 (90%)	0.03	5 (1%) 77 76	12, 20, 33, 47	0
All	All	762/838 (90%)	0.04	16 (2%) 63 62	12, 20, 32, 47	0

All (16) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	166	PHE	6.5
1	A	167	GLU	4.9
1	A	159	PRO	3.9
1	B	102	TYR	3.5
1	A	307	TYR	3.3
1	A	158	GLN	3.2
1	B	120	ARG	3.1
1	A	92	TYR	3.0
1	A	290	GLU	3.0
1	B	200	ARG	2.9
1	B	290	GLU	2.5
1	A	21	LYS	2.4
1	B	147	ARG	2.4
1	A	183	GLN	2.2
1	A	19	PHE	2.1
1	A	415	GLU	2.1

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

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

6.3 Carbohydrates

There are no carbohydrates in this entry.

6.4 Ligands

There are no ligands in this entry.

6.5 Other polymers

There are no such residues in this entry.