Full wwPDB X-ray Structure Validation Report (i)

Nov 16, 2026 – 04:55 pm GMT

PDB ID	:	9R7D / pdb_00009r7d
Title	:	Leishmania major ISP2 in complex with bovine trypsin
Authors	:	Freitag-Pohl, S.; Pohl, E.
Deposited on	:	2025-05-14
Resolution	:	3.50 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 (i) 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 (1)) were used in the production of this report:

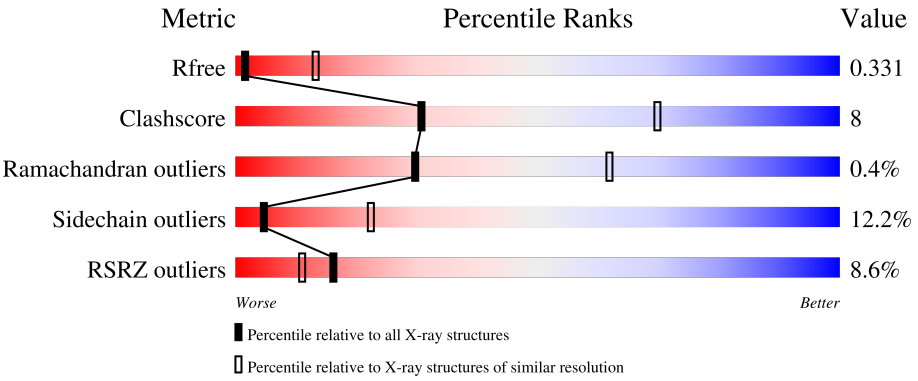
MolProbity	:	4-5-2 with Phenix2.2
Xtriage (Phenix)	:	2.2
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.51

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 3.50 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1085 (3.54-3.46)
Clashscore	190562	1140 (3.54-3.46)
Ramachandran outliers	187476	1113 (3.54-3.46)
Sidechain outliers	187428	1114 (3.54-3.46)
RSRZ outliers	180081	1084 (3.54-3.46)

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	158	3% 62% 15% • 20%
1	C	158	4% 61% 14% • • 20%
2	B	246	11% 72% 17% • 9%
2	D	246	9% 77% 13% 9%

2 Entry composition (i)

There are 4 unique types of molecules in this entry. The entry contains 8251 atoms, of which 3764 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 Ecotin-like protein 2.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	C	126	Total	C	H	N	O	S	105	0	0
			1646	552	773	156	161	4			
1	A	126	Total	C	H	N	O	S	109	0	0
			1598	545	738	150	159	6			

- Molecule 2 is a protein called Cationic Trypsin.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
2	B	223	Total	C	H	N	O	S	198	0	0
			2456	823	1093	251	275	14			
2	D	223	Total	C	H	N	O	S	192	0	0
			2542	845	1160	257	266	14			

- Molecule 3 is CHLORIDE ION (CCD ID: CL) (formula: Cl).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	C	2	Total	Cl	0	0
			2	2		
3	D	1	Total	Cl	0	0
			1	1		

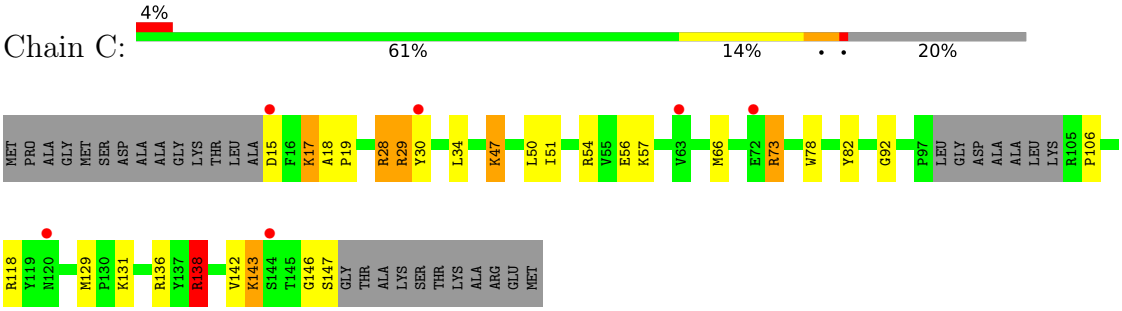
- Molecule 4 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	C	2	Total	O	0	0
			2	2		
4	B	1	Total	O	0	0
			1	1		
4	D	3	Total	O	0	0
			3	3		

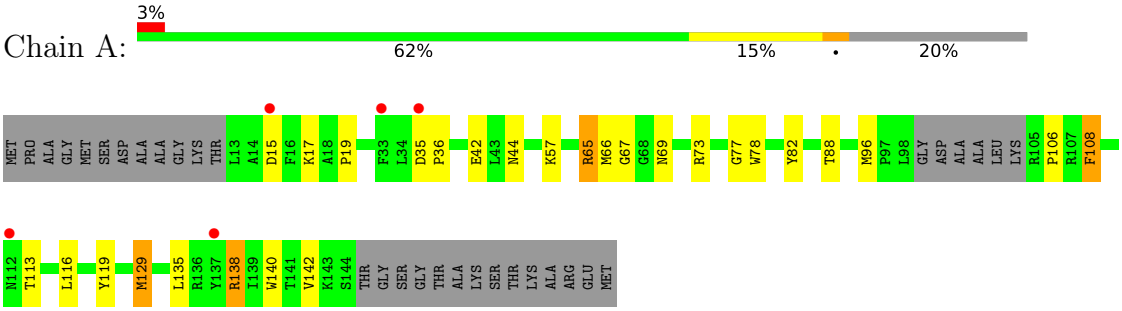
3 Residue-property plots (i)

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.

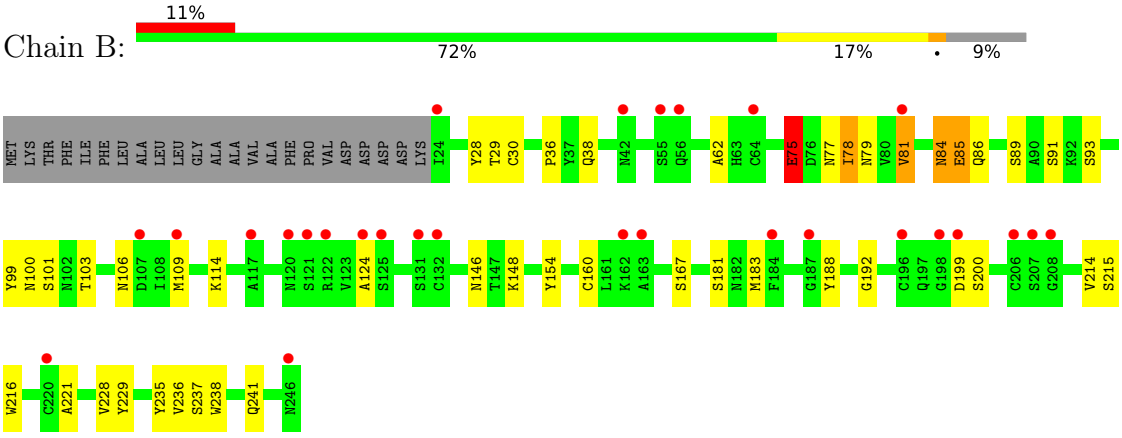
• Molecule 1: Ecotin-like protein 2



• Molecule 1: Ecotin-like protein 2

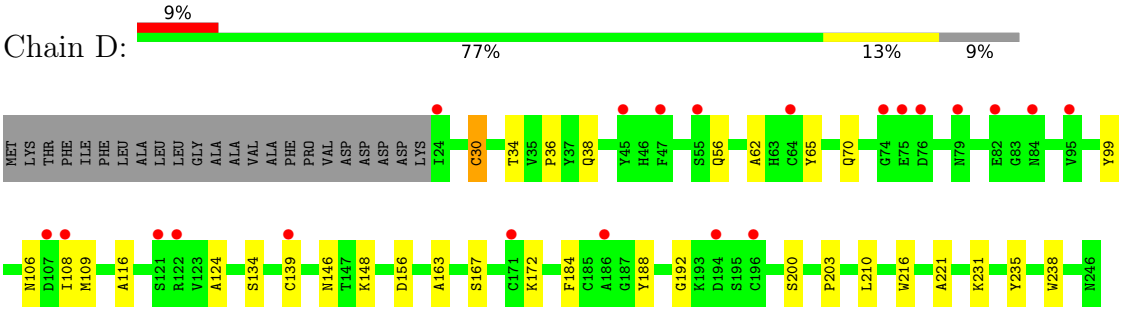


• Molecule 2: Cationic Trypsin



• Molecule 2: Cationic Trypsin

Chain D:


9%
77%
13%
9%
MET LYS THR PHE ILE PHE LEU ALA LEU LEU GLY ALA ALA VAL ALA PHE PRO VAL ASP ASP ASP LYS I24 C30 T34 V35 P36 Y37 Q38 Y45 H46 F47 S55 Q56 A62 H63 C64 Y65 Q70 G74 E75 D76 N79 E82 G83 N84 V95 Y99
N106 D107 I108 M109 A116 S121 R122 V123 A124 S134 C139 N146 T147 K148 D156 A163 S167 C171 K172 F184 C185 A186 G187 Y188 G192 K193 D194 S195 C196 S200 P203 L210 W216 A221 K231 Y235 W238 N246

4 Data and refinement statistics (i)

Property	Value	Source
Space group	I 4 2 2	Depositor
Cell constants a, b, c, α, β, γ	246.74Å 246.74Å 100.14Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	174.47 – 3.50 174.47 – 3.50	Depositor EDS
% Data completeness (in resolution range)	84.5 (174.47-3.50) 84.5 (174.47-3.50)	Depositor EDS
R_{merge}	0.18	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.94 (at 3.49Å)	Xtriage
Refinement program	REFMAC 5.8.0430 (refmacat 0.4.82)	Depositor
R, R_{free}	0.263 , 0.331 0.263 , 0.331	Depositor DCC
R_{free} test set	838 reflections (4.23%)	wwPDB-VP
Wilson B-factor (Å^2)	124.5	Xtriage
Anisotropy	0.048	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.40 , 251.0	EDS
L-test for twinning[2]	$< \|L\| > = 0.45$, $< L^2 > = 0.28$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.88	EDS
Total number of atoms	8251	wwPDB-VP
Average B, all atoms (Å^2)	107.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.74% 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

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

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	0.64	0/885	1.22	2/1218 (0.2%)
1	C	0.63	0/897	1.32	3/1228 (0.2%)
2	B	0.66	0/1392	1.18	7/1913 (0.4%)
2	D	0.64	0/1411	1.14	6/1937 (0.3%)
All	All	0.65	0/4585	1.21	18/6296 (0.3%)

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	C	0	6
All	All	0	8

There are no bond length outliers.

All (18) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	38	GLN	N-CA-CB	7.04	120.45	109.69
2	D	172	LYS	CB-CA-C	6.46	121.50	110.79
2	B	75	GLU	CB-CG-CD	5.93	122.68	112.60
1	C	17	LYS	CB-CA-C	5.73	120.50	111.39
1	C	30	TYR	CB-CA-C	5.62	120.78	109.38
1	A	135	LEU	N-CA-CB	5.60	119.56	110.43
2	D	30	CYS	CB-CA-C	-5.56	102.12	110.90
2	B	236	VAL	N-CA-CB	5.42	116.53	110.62
2	D	38	GLN	N-CA-CB	5.40	117.96	109.69
2	D	34	THR	CA-CB-OG1	-5.28	101.68	109.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	D	156	ASP	CB-CA-C	5.19	119.67	110.85
2	B	199	ASP	CA-CB-CG	5.16	117.76	112.60
2	B	188	TYR	N-CA-CB	-5.11	102.09	110.42
1	C	50	LEU	CB-CA-C	5.08	117.82	109.90
2	D	188	TYR	CB-CA-C	5.08	118.52	110.19
2	B	188	TYR	CB-CA-C	5.06	118.39	110.19
2	B	29	THR	CA-CB-OG1	-5.03	102.06	109.60
1	A	108	PHE	N-CA-CB	-5.01	101.38	109.60

There are no chirality outliers.

All (8) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	138	ARG	Sidechain
1	A	65	ARG	Sidechain
1	C	136	ARG	Sidechain
1	C	138	ARG	Sidechain
1	C	28	ARG	Sidechain
1	C	29	ARG	Sidechain
1	C	54	ARG	Sidechain
1	C	73	ARG	Sidechain

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	860	738	645	15	1
1	C	873	773	686	18	0
2	B	1363	1093	922	28	0
2	D	1382	1160	993	15	0
3	C	2	0	0	0	0
3	D	1	0	0	0	0
4	B	1	0	0	1	0
4	C	2	0	0	0	0
4	D	3	0	0	0	0
All	All	4487	3764	3246	64	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 8.

All (64) 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:C:18:ALA:HB1	1:C:19:PRO:CD	2.10	0.82
2:B:28:TYR:CE1	2:B:160:CYS:HB2	2.26	0.69
1:C:18:ALA:HB1	1:C:19:PRO:HD2	1.78	0.64
2:B:192:GLY:H	2:B:221:ALA:HB1	1.62	0.64
1:A:57:LYS:HA	1:A:106:PRO:HA	1.83	0.61
1:C:138:ARG:NH1	1:A:44:ASN:O	2.32	0.59
2:B:106:ASN:ND2	2:B:235:TYR:OH	2.36	0.59
2:B:84:ASN:N	4:B:301:HOH:O	2.10	0.58
1:C:118:ARG:NH2	2:B:99:TYR:O	2.37	0.57
1:C:78:TRP:NE1	2:B:237:SER:HB3	2.19	0.57
2:B:91:SER:HB3	2:B:114:LYS:HA	1.87	0.57
1:C:18:ALA:HB1	1:C:19:PRO:HD3	1.88	0.56
2:D:192:GLY:H	2:D:221:ALA:HB1	1.71	0.56
1:A:96:MET:SD	2:B:154:TYR:CE1	3.00	0.55
2:B:99:TYR:HA	2:B:106:ASN:HB2	1.90	0.53
2:B:62:ALA:HA	2:B:109:MET:HB3	1.91	0.52
1:A:73:ARG:HB3	1:A:82:TYR:CZ	2.44	0.52
1:C:73:ARG:HB3	1:C:82:TYR:CZ	2.45	0.51
2:D:62:ALA:HA	2:D:109:MET:HB3	1.93	0.50
1:C:47:LYS:HD2	1:A:140:TRP:CH2	2.46	0.50
2:D:184:PHE:HD1	2:D:231:LYS:HG2	1.77	0.49
1:C:92:GLY:O	2:D:216:TRP:HB2	2.12	0.49
2:D:146:ASN:ND2	2:D:148:LYS:O	2.45	0.49
2:D:36:PRO:HB2	2:D:124:ALA:N	2.27	0.48
2:B:36:PRO:HB2	2:B:124:ALA:N	2.28	0.48
1:C:15:ASP:C	1:C:17:LYS:H	2.21	0.48
2:B:216:TRP:CZ2	2:B:228:VAL:HG21	2.49	0.48
2:B:77:ASN:O	2:B:79:ASN:N	2.47	0.47
1:C:57:LYS:HA	1:C:106:PRO:HA	1.96	0.47
1:A:42:GLU:HG2	1:A:119:TYR:CD1	2.50	0.47
2:B:146:ASN:ND2	2:B:148:LYS:O	2.48	0.47
1:A:67:GLY:O	1:A:88:THR:N	2.45	0.47
2:D:99:TYR:HA	2:D:106:ASN:HB2	1.96	0.47
1:A:78:TRP:HA	2:D:238:TRP:HB2	1.97	0.47
1:C:18:ALA:CB	1:C:19:PRO:CD	2.84	0.46
1:A:78:TRP:CZ3	2:D:238:TRP:HD1	2.33	0.46
2:B:100:ASN:HB3	2:B:103:THR:OG1	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:66:MET:HE3	1:A:66:MET:HB3	1.86	0.46
2:D:56:GLN:HG3	2:D:116:ALA:HA	1.97	0.45
2:B:36:PRO:HB2	2:B:124:ALA:H	1.81	0.45
1:A:96:MET:HE1	2:B:154:TYR:CD1	2.51	0.45
1:C:28:ARG:HB2	1:C:131:LYS:HA	1.99	0.45
2:B:146:ASN:HB2	2:B:154:TYR:CE1	2.51	0.45
1:A:77:GLY:O	2:D:235:TYR:HA	2.16	0.44
2:B:192:GLY:N	2:B:221:ALA:HB1	2.31	0.44
2:B:109:MET:HE3	2:B:109:MET:HB2	1.76	0.44
2:D:106:ASN:HA	2:D:235:TYR:OH	2.18	0.44
1:A:129:MET:HE2	1:A:129:MET:HB3	1.80	0.43
1:C:15:ASP:O	1:C:17:LYS:HG3	2.19	0.43
2:B:75:GLU:HG2	2:B:85:GLU:HB3	2.00	0.43
2:D:203:PRO:HB2	2:D:210:LEU:HD13	2.01	0.43
2:B:106:ASN:HA	2:B:235:TYR:OH	2.18	0.42
2:B:214:VAL:HA	2:B:229:TYR:HD1	1.84	0.42
2:B:81:VAL:HG23	2:B:85:GLU:HG3	2.01	0.42
1:C:146:GLY:O	1:C:147:SER:C	2.62	0.42
1:A:35:ASP:HA	1:A:36:PRO:HD3	1.92	0.42
1:C:78:TRP:CH2	2:B:241:GLN:HB3	2.54	0.41
1:C:78:TRP:CZ3	2:B:238:TRP:HA	2.56	0.41
1:C:66:MET:HE3	1:C:66:MET:HB3	1.87	0.41
2:B:183:MET:HB3	2:B:228:VAL:CG1	2.51	0.41
2:D:65:TYR:HD1	2:D:109:MET:HE1	1.85	0.41
2:B:75:GLU:OE2	2:B:78:ILE:N	2.54	0.40
1:A:42:GLU:HG2	1:A:119:TYR:HD1	1.86	0.40
2:D:139:CYS:N	2:D:163:ALA:O	2.48	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:A:15:ASP:O	1:A:17:LYS:H[5_556]	1.47	0.13

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	122/158 (77%)	115 (94%)	6 (5%)	1 (1%)	16 49
1	C	122/158 (77%)	111 (91%)	10 (8%)	1 (1%)	16 49
2	B	221/246 (90%)	209 (95%)	11 (5%)	1 (0%)	24 57
2	D	221/246 (90%)	210 (95%)	11 (5%)	0	100 100
All	All	686/808 (85%)	645 (94%)	38 (6%)	3 (0%)	30 62

All (3) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	B	78	ILE
1	C	143	LYS
1	A	19	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	60/134 (45%)	52 (87%)	8 (13%)	4 20
1	C	63/134 (47%)	54 (86%)	9 (14%)	3 18
2	B	84/202 (42%)	71 (84%)	13 (16%)	2 15
2	D	87/202 (43%)	81 (93%)	6 (7%)	14 39
All	All	294/672 (44%)	258 (88%)	36 (12%)	5 22

All (36) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	C	29	ARG
1	C	34	LEU
1	C	47	LYS

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Mol	Chain	Res	Type
1	C	51	ILE
1	C	56	GLU
1	C	129	MET
1	C	138	ARG
1	C	142	VAL
1	C	143	LYS
1	A	65	ARG
1	A	69	ASN
1	A	108	PHE
1	A	113	THR
1	A	116	LEU
1	A	129	MET
1	A	138	ARG
1	A	142	VAL
2	B	30	CYS
2	B	75	GLU
2	B	81	VAL
2	B	84	ASN
2	B	85	GLU
2	B	86	GLN
2	B	89	SER
2	B	93	SER
2	B	101	SER
2	B	167	SER
2	B	181	SER
2	B	200	SER
2	B	215	SER
2	D	30	CYS
2	D	70	GLN
2	D	108	ILE
2	D	134	SER
2	D	167	SER
2	D	200	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (7) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	44	ASN
2	B	105	ASN
2	B	106	ASN
2	B	182	ASN
2	B	234	ASN

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Mol	Chain	Res	Type
2	B	241	GLN
2	D	234	ASN

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 oligosaccharides in this entry.

5.6 Ligand geometry

Of 3 ligands modelled in this entry, 3 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, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	A	126/158 (79%)	0.48	5 (3%) 42 23	52, 98, 146, 173	0
1	C	126/158 (79%)	0.37	6 (4%) 35 19	47, 88, 133, 162	0
2	B	223/246 (90%)	0.71	28 (12%) 8 6	43, 99, 151, 181	0
2	D	223/246 (90%)	0.56	21 (9%) 14 9	50, 100, 148, 190	0
All	All	698/808 (86%)	0.56	60 (8%) 16 11	43, 98, 148, 190	0

All (60) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	B	122	ARG	6.4
2	B	121	SER	5.6
2	D	76	ASP	4.7
2	B	132	CYS	4.4
2	D	122	ARG	4.3
2	D	186	ALA	4.1
1	A	112	ASN	4.1
2	B	56	GLN	3.8
2	D	74	GLY	3.7
1	C	15	ASP	3.5
1	A	35	ASP	3.4
2	D	171	CYS	3.4
1	C	63	VAL	3.3
2	D	75	GLU	3.2
2	B	208	GLY	3.2
2	B	199	ASP	3.2
1	A	15	ASP	3.0
2	D	107	ASP	3.0
2	D	121	SER	3.0
2	D	82	GLU	2.9
2	B	196	CYS	2.9

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Mol	Chain	Res	Type	RSRZ
2	B	81	VAL	2.8
2	B	42	ASN	2.7
2	B	198	GLY	2.7
2	D	108	ILE	2.7
2	B	162	LYS	2.6
2	D	84	ASN	2.6
2	D	24	ILE	2.6
2	D	45	TYR	2.5
2	B	109	MET	2.5
2	B	163	ALA	2.5
2	B	55	SER	2.5
2	B	220	CYS	2.4
2	B	246	ASN	2.4
2	B	207	SER	2.4
2	B	24	ILE	2.4
2	B	184	PHE	2.3
2	D	79	ASN	2.3
2	D	139	CYS	2.3
1	C	72	GLU	2.3
2	D	64	CYS	2.3
1	C	30	TYR	2.3
1	A	33	PHE	2.3
2	B	64	CYS	2.3
2	B	125	SER	2.2
1	C	120	ASN	2.2
2	B	131	SER	2.2
2	B	117	ALA	2.1
2	B	124	ALA	2.1
1	A	137	TYR	2.1
2	D	47	PHE	2.1
2	B	120	ASN	2.1
2	D	95	VAL	2.1
2	B	107	ASP	2.1
2	B	187	GLY	2.1
2	D	194	ASP	2.0
2	B	206	CYS	2.0
2	D	196	CYS	2.0
1	C	144	SER	2.0
2	D	55	SER	2.0

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

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

6.3 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

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, 95th 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.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
3	CL	C	202	1/1	0.85	0.13	101,101,101,101	0
3	CL	C	201	1/1	0.98	0.20	67,67,67,67	0
3	CL	D	301	1/1	0.99	0.08	58,58,58,58	0

6.5 Other polymers (i)

There are no such residues in this entry.