Full wwPDB X-ray Structure Validation Report (i)

Mar 5, 2025 – 02:26 PM JST

PDB ID	:	6KN0
Title	:	caspase-1 P20/P10 C285A in complex with human GSDMD-C domain
Authors	:	Ding, J.; Sun, Q.
Deposited on	:	2019-08-02
Resolution	:	2.79 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 (i)) were used in the production of this report:

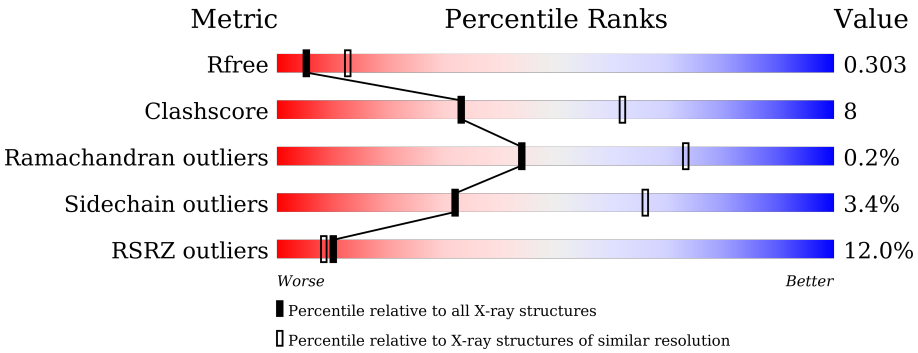
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.21
EDS	:	3.0
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.004 (Gargrove)
Density-Fitness	:	1.0.11
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.41.2

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 2.79 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}	164625	3657 (2.80-2.80)
Clashscore	180529	4123 (2.80-2.80)
Ramachandran outliers	177936	4071 (2.80-2.80)
Sidechain outliers	177891	4073 (2.80-2.80)
RSRZ outliers	164620	3659 (2.80-2.80)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=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	167	8% 84% 15%
1	C	167	10% 81% 19%
2	B	88	13% 81% 18%
2	D	88	16% 68% 32%
3	E	198	15% 84% 14%
3	F	198	11% 79% 17%

2 Entry composition

There are 3 unique types of molecules in this entry. The entry contains 6974 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 Caspase-1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	167	Total	C	N	O	S	0	0	0
			1312	824	229	249	10			
1	C	167	Total	C	N	O	S	0	0	0
			1312	824	229	249	10			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	285	ALA	CYS	engineered mutation	UNP P29466
C	285	ALA	CYS	engineered mutation	UNP P29466

- Molecule 2 is a protein called Caspase-1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	88	Total	C	N	O	S	0	0	0
			716	456	126	127	7			
2	D	88	Total	C	N	O	S	0	0	0
			719	457	126	129	7			

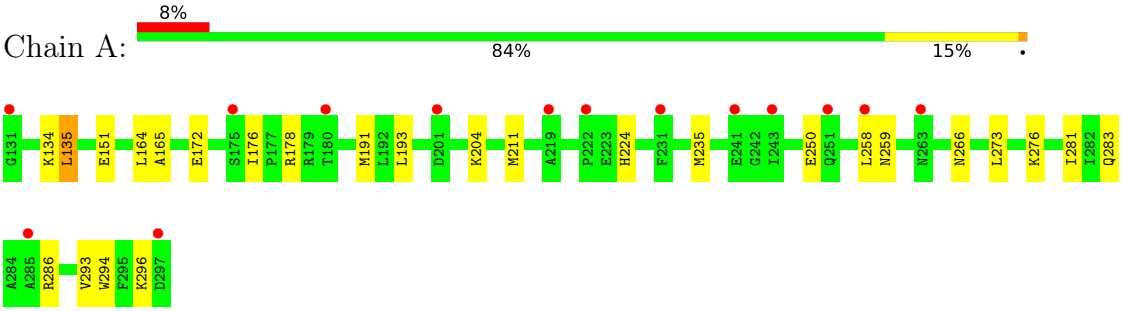
- Molecule 3 is a protein called Gasdermin-D.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	E	195	Total	C	N	O	S	0	0	0
			1468	935	234	290	9			
3	F	192	Total	C	N	O	S	0	0	0
			1447	922	230	286	9			

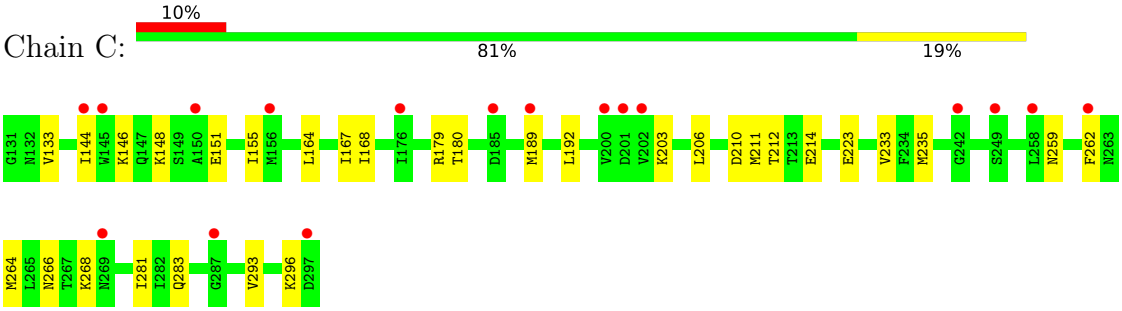
3 Residue-property plots (i)

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.

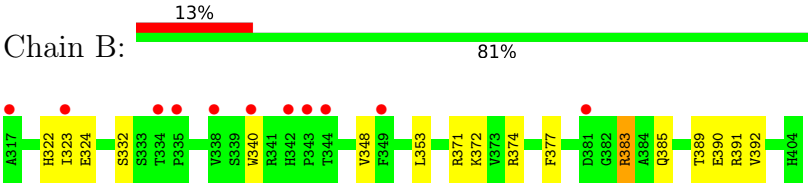
• Molecule 1: Caspase-1



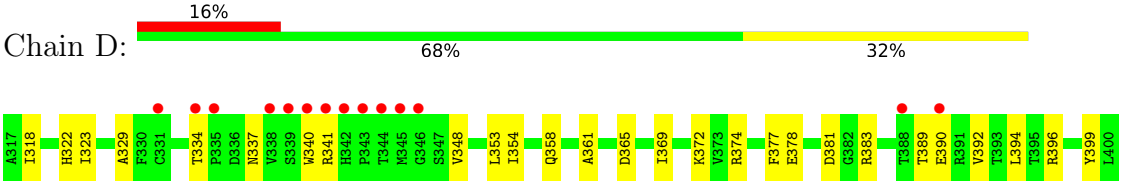
• Molecule 1: Caspase-1



• Molecule 2: Caspase-1

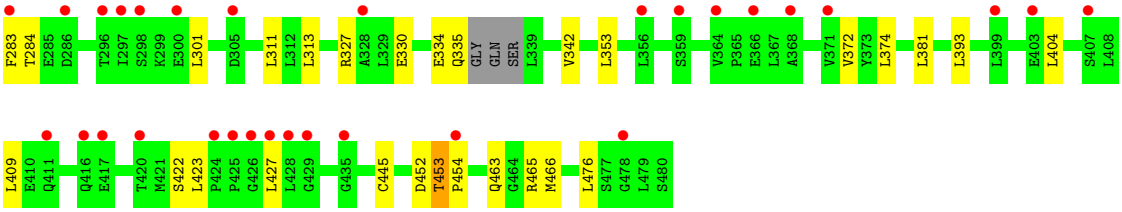


• Molecule 2: Caspase-1



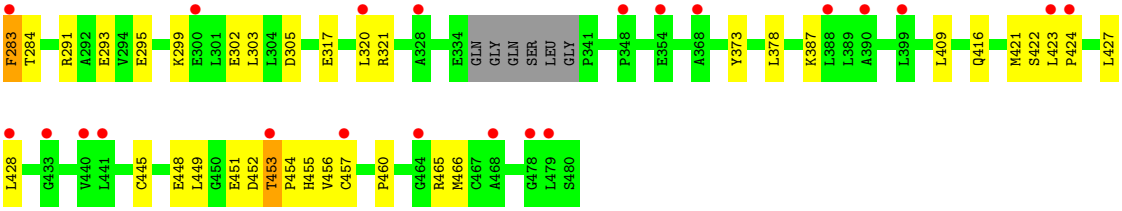
• Molecule 3: Gasdermin-D

Chain E:



• Molecule 3: Gasdermin-D

Chain F:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	141.04Å 94.89Å 76.08Å 90.00° 116.43° 90.00°	Depositor
Resolution (Å)	47.45 – 2.79 47.45 – 2.79	Depositor EDS
% Data completeness (in resolution range)	97.3 (47.45-2.79) 97.3 (47.45-2.79)	Depositor EDS
R_{merge}	0.09	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.12 (at 2.81Å)	Xtriage
Refinement program	PHENIX (1.13_2998: ???)	Depositor
R, R_{free}	0.240 , 0.300 0.242 , 0.303	Depositor DCC
R_{free} test set	20413 reflections (9.16%)	wwPDB-VP
Wilson B-factor (Å^2)	67.3	Xtriage
Anisotropy	0.574	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.32 , 42.0	EDS
L-test for twinning[2]	$< \|L\| > = 0.50$, $< L^2 > = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	6974	wwPDB-VP
Average B, all atoms (Å^2)	74.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.09% 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	0.23	0/1334	0.42	0/1796
1	C	0.23	0/1334	0.41	0/1796
2	B	0.26	0/736	0.44	0/991
2	D	0.24	0/739	0.40	0/995
3	E	0.26	0/1492	0.44	0/2032
3	F	0.26	0/1471	0.44	0/2003
All	All	0.25	0/7106	0.43	0/9613

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	1312	0	1331	21	0
1	C	1312	0	1331	22	0
2	B	716	0	691	27	0
2	D	719	0	693	24	0
3	E	1468	0	1477	17	0
3	F	1447	0	1456	26	0
All	All	6974	0	6979	107	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 8.

All (107) 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)
3:E:453:THR:HB	3:E:454:PRO:CD	1.71	1.19
3:F:453:THR:HG22	3:F:454:PRO:HD3	1.19	1.15
3:E:453:THR:HB	3:E:454:PRO:HD3	1.30	1.13
3:E:452:ASP:O	3:E:453:THR:OG1	1.69	1.07
2:B:340:TRP:CE2	2:B:383:ARG:HB3	1.91	1.05
2:B:383:ARG:H	2:B:383:ARG:HD2	1.26	1.00
2:B:340:TRP:CD2	2:B:383:ARG:HB3	2.00	0.96
3:E:453:THR:CB	3:E:454:PRO:CD	2.44	0.95
3:E:452:ASP:C	3:E:453:THR:HG1	1.72	0.92
3:F:453:THR:HG22	3:F:454:PRO:CD	1.98	0.92
3:F:422:SER:OG	3:F:454:PRO:HA	1.69	0.91
2:B:340:TRP:CD2	2:B:383:ARG:CB	2.59	0.84
2:B:340:TRP:CG	2:B:383:ARG:HB2	2.13	0.83
2:B:340:TRP:CD1	2:B:383:ARG:HB2	2.15	0.82
3:F:422:SER:OG	3:F:455:HIS:N	2.19	0.76
3:E:453:THR:HB	3:E:454:PRO:HD2	1.66	0.73
2:B:340:TRP:CG	2:B:383:ARG:CB	2.71	0.73
3:F:422:SER:OG	3:F:454:PRO:CA	2.38	0.72
2:B:340:TRP:CE2	2:B:383:ARG:CB	2.72	0.70
1:A:273:LEU:HA	1:A:276:LYS:HD2	1.78	0.65
1:C:212:THR:HG23	1:C:264:MET:HE1	1.77	0.65
1:C:148:LYS:HB3	1:C:151:GLU:HB2	1.80	0.63
3:E:335:GLN:HA	3:E:372:VAL:HG21	1.81	0.62
3:F:423:LEU:HB2	3:F:424:PRO:HD2	1.82	0.62
2:D:374:ARG:NH1	2:D:389:THR:OG1	2.32	0.61
2:B:383:ARG:H	2:B:383:ARG:CD	1.94	0.61
1:A:235:MET:HG2	1:A:283:GLN:HB3	1.82	0.59
1:A:172:GLU:HB3	1:A:178:ARG:HD3	1.84	0.59
3:F:299:LYS:HD2	3:F:302:GLU:HG3	1.85	0.58
2:B:374:ARG:NH2	2:D:394:LEU:O	2.37	0.57
2:B:391:ARG:H	2:D:390:GLU:HG2	1.70	0.57
3:F:422:SER:OG	3:F:454:PRO:C	2.43	0.57
3:E:327:ARG:NH1	3:E:330:GLU:OE1	2.38	0.56
1:A:286:ARG:NH2	2:B:390:GLU:OE2	2.28	0.56
2:D:334:THR:OG1	2:D:337:ASN:OD1	2.24	0.55
2:B:340:TRP:CD1	2:B:383:ARG:CB	2.89	0.55
3:E:404:LEU:HA	3:E:427:LEU:HD13	1.89	0.54
1:A:294:TRP:HD1	3:F:303:LEU:HB3	1.71	0.54
1:C:180:THR:O	2:D:341:ARG:NH2	2.41	0.54
3:F:320:LEU:HD21	3:F:378:LEU:HD13	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:133:VAL:HG13	2:D:358:GLN:HA	1.90	0.53
3:F:291:ARG:NH2	3:F:295:GLU:OE2	2.41	0.53
1:A:294:TRP:HE1	3:F:303:LEU:HD23	1.73	0.53
2:D:361:ALA:HA	2:D:369:ILE:HD11	1.91	0.53
3:F:453:THR:CG2	3:F:454:PRO:HD3	2.13	0.53
2:B:371:ARG:NH2	1:C:151:GLU:OE1	2.42	0.53
2:D:340:TRP:CG	2:D:383:ARG:HB3	2.44	0.52
2:B:372:LYS:NZ	1:C:151:GLU:OE2	2.41	0.52
3:F:409:LEU:HD21	3:F:466:MET:HB3	1.91	0.52
3:E:393:LEU:HD21	3:E:476:LEU:HD13	1.92	0.51
3:E:453:THR:CB	3:E:454:PRO:HD2	2.33	0.51
1:C:268:LYS:HG3	3:F:305:ASP:HA	1.93	0.51
3:F:453:THR:CG2	3:F:454:PRO:CD	2.83	0.51
3:E:422:SER:HB3	3:E:454:PRO:HA	1.93	0.51
1:C:281:ILE:HD13	2:D:353:LEU:HD21	1.93	0.50
2:B:377:PHE:O	2:D:322:HIS:NE2	2.43	0.49
1:C:179:ARG:HH21	2:D:341:ARG:HD3	1.78	0.49
3:E:409:LEU:HD21	3:E:466:MET:HB3	1.95	0.48
1:C:164:LEU:HD11	1:C:223:GLU:HB2	1.94	0.48
1:C:168:ILE:HG21	1:C:211:MET:HG2	1.96	0.48
3:E:445:CYS:HA	3:E:465:ARG:HD2	1.96	0.47
1:C:235:MET:HG2	1:C:283:GLN:HB3	1.96	0.47
1:A:293:VAL:HG21	1:C:268:LYS:HB2	1.97	0.47
1:A:165:ALA:HB1	1:A:193:LEU:HD13	1.96	0.47
1:C:192:LEU:HD22	2:D:354:ILE:HG12	1.97	0.47
1:A:250:GLU:OE1	1:A:250:GLU:N	2.41	0.46
1:A:151:GLU:OE2	2:D:372:LYS:NZ	2.48	0.46
1:A:281:ILE:HD13	2:B:353:LEU:HD21	1.97	0.46
1:A:266:ASN:HB2	2:B:323:ILE:O	2.16	0.46
1:A:283:GLN:HA	2:B:332:SER:HB3	1.98	0.46
3:F:283:PHE:HB3	3:F:284:THR:H	1.53	0.46
3:F:449:LEU:HD22	3:F:456:VAL:HG22	1.96	0.46
1:C:266:ASN:HB2	2:D:323:ILE:O	2.15	0.46
2:B:371:ARG:HE	2:D:396:ARG:HA	1.79	0.46
2:D:348:VAL:HG21	2:D:383:ARG:HH22	1.80	0.46
1:C:144:ILE:HG12	2:D:399:TYR:CZ	2.51	0.45
1:A:259:ASN:HB3	2:B:391:ARG:HH22	1.81	0.45
2:B:322:HIS:NE2	2:D:377:PHE:O	2.49	0.45
1:C:262:PHE:HZ	2:D:329:ALA:HB2	1.80	0.45
3:E:381:LEU:HD23	3:E:465:ARG:HG3	1.99	0.45
3:F:445:CYS:HA	3:F:465:ARG:HG2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:371:ARG:HH11	2:B:371:ARG:HB3	1.83	0.44
1:C:203:LYS:NZ	1:C:214:GLU:OE1	2.33	0.44
1:A:164:LEU:HD23	1:A:164:LEU:HA	1.87	0.44
2:B:392:VAL:HB	2:D:389:THR:HB	2.00	0.44
1:C:206:LEU:HB3	1:C:210:ASP:HB2	2.01	0.43
3:F:416:GLN:HA	3:F:460:PRO:HB3	1.99	0.43
2:D:340:TRP:CD1	2:D:383:ARG:HB3	2.53	0.43
1:A:135:LEU:HD23	1:A:135:LEU:H	1.84	0.43
2:B:323:ILE:HG23	2:B:324:GLU:HG2	2.00	0.42
1:C:296:LYS:HE2	3:E:311:LEU:HD11	2.01	0.42
2:B:348:VAL:HB	2:B:385:GLN:NE2	2.35	0.42
3:E:342:VAL:HG11	3:E:353:LEU:HD11	2.00	0.42
3:F:387:LYS:HE3	3:F:387:LYS:HB2	1.89	0.42
1:A:164:LEU:HD12	1:A:224:HIS:CE1	2.55	0.42
1:C:155:ILE:HG13	2:D:401:PHE:HD2	1.85	0.42
1:A:204:LYS:HE2	1:A:204:LYS:HB3	1.92	0.42
1:A:211:MET:HB2	1:A:211:MET:HE3	1.96	0.42
3:F:293:GLU:OE2	3:F:373:TYR:OH	2.33	0.41
1:A:134:LYS:HD2	1:A:134:LYS:HA	1.91	0.41
1:C:167:ILE:HG12	1:C:233:VAL:HB	2.01	0.41
3:F:448:GLU:HB2	3:F:457:CYS:SG	2.61	0.41
2:B:389:THR:HB	2:D:392:VAL:HB	2.03	0.41
2:D:365:ASP:HB3	2:D:399:TYR:CE1	2.56	0.41
1:A:294:TRP:NE1	3:F:303:LEU:HD23	2.35	0.41
3:F:427:LEU:HD23	3:F:427:LEU:HA	1.94	0.40
3:F:317:GLU:O	3:F:321:ARG:HG3	2.21	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	165/167 (99%)	152 (92%)	13 (8%)	0	100	100
1	C	165/167 (99%)	156 (94%)	9 (6%)	0	100	100
2	B	86/88 (98%)	83 (96%)	3 (4%)	0	100	100
2	D	86/88 (98%)	84 (98%)	2 (2%)	0	100	100
3	E	191/198 (96%)	187 (98%)	3 (2%)	1 (0%)	25	56
3	F	188/198 (95%)	182 (97%)	5 (3%)	1 (0%)	25	56
All	All	881/906 (97%)	844 (96%)	35 (4%)	2 (0%)	44	73

All (2) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	E	453	THR
3	F	453	THR

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	148/148 (100%)	143 (97%)	5 (3%)	32	66
1	C	148/148 (100%)	144 (97%)	4 (3%)	40	74
2	B	78/79 (99%)	77 (99%)	1 (1%)	65	88
2	D	79/79 (100%)	76 (96%)	3 (4%)	28	62
3	E	160/162 (99%)	152 (95%)	8 (5%)	20	51
3	F	158/162 (98%)	153 (97%)	5 (3%)	34	68
All	All	771/778 (99%)	745 (97%)	26 (3%)	32	66

All (26) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	135	LEU
1	A	176	ILE
1	A	191	MET

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Mol	Chain	Res	Type
1	A	258	LEU
1	A	296	LYS
2	B	383	ARG
1	C	146	LYS
1	C	189	MET
1	C	259	ASN
1	C	293	VAL
2	D	318	ILE
2	D	378	GLU
2	D	381	ASP
3	E	283	PHE
3	E	284	THR
3	E	301	LEU
3	E	313	LEU
3	E	334	GLU
3	E	374	LEU
3	E	423	LEU
3	E	463	GLN
3	F	283	PHE
3	F	421	MET
3	F	428	LEU
3	F	451	GLU
3	F	452	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (1) such sidechains are listed below:

Mol	Chain	Res	Type
3	F	455	HIS

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 oligosaccharides 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	167/167 (100%)	0.98	14 (8%) 18 14	43, 72, 98, 115	0
1	C	167/167 (100%)	0.97	17 (10%) 13 10	41, 72, 105, 119	0
2	B	88/88 (100%)	0.95	11 (12%) 9 8	42, 61, 106, 131	0
2	D	88/88 (100%)	1.08	14 (15%) 6 5	42, 63, 118, 128	0
3	E	195/198 (98%)	1.07	30 (15%) 6 5	51, 74, 111, 134	0
3	F	192/198 (96%)	1.06	22 (11%) 11 9	50, 74, 116, 137	0
All	All	897/906 (99%)	1.02	108 (12%) 10 8	41, 71, 109, 137	0

All (108) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
3	F	423	LEU	5.7
2	B	317	ALA	4.6
3	E	356	LEU	4.2
3	F	390	ALA	3.8
1	C	150	ALA	3.7
3	F	428	LEU	3.6
3	F	328	ALA	3.4
3	E	428	LEU	3.4
3	E	403	GLU	3.3
3	E	429	GLY	3.3
3	F	283	PHE	3.3
3	E	416	GLN	3.2
1	C	144	ILE	3.2
3	F	424	PRO	3.1
2	B	334	THR	3.1
3	E	417	GLU	3.1
1	C	201	ASP	3.1
3	F	441	LEU	3.0
3	F	478	GLY	3.0

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Mol	Chain	Res	Type	RSRZ
3	F	399	LEU	3.0
3	E	366	GLU	3.0
3	E	305	ASP	2.9
3	E	427	LEU	2.9
2	D	331	CYS	2.9
2	D	340	TRP	2.9
2	B	338	VAL	2.8
2	D	338	VAL	2.8
2	B	343	PRO	2.8
1	C	145	TRP	2.7
2	B	344	THR	2.7
2	B	335	PRO	2.7
3	E	298	SER	2.7
3	E	426	GLY	2.7
3	E	283	PHE	2.7
1	A	241	GLU	2.7
1	C	258	LEU	2.6
2	D	339	SER	2.6
1	A	219	ALA	2.6
1	C	262	PHE	2.6
3	E	296	THR	2.6
1	A	131	GLY	2.6
2	D	346	GLY	2.5
3	F	300	GLU	2.5
3	F	453	THR	2.5
3	F	464	GLY	2.5
3	F	479	LEU	2.5
2	D	343	PRO	2.5
1	A	201	ASP	2.5
1	A	180	THR	2.5
3	E	411	GLN	2.5
3	E	454	PRO	2.4
1	A	263	ASN	2.4
2	B	323	ILE	2.4
3	F	348	PRO	2.4
1	A	175	SER	2.4
2	D	341	ARG	2.4
1	A	251	GLN	2.4
3	F	440	VAL	2.4
3	E	328	ALA	2.4
3	E	478	GLY	2.4
2	B	340	TRP	2.4

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Mol	Chain	Res	Type	RSRZ
1	C	185	ASP	2.4
3	E	399	LEU	2.3
3	E	368	ALA	2.3
3	F	433	GLY	2.3
1	C	189	MET	2.3
1	A	297	ASP	2.3
2	D	342	HIS	2.3
3	E	407	SER	2.3
3	F	320	LEU	2.3
2	D	334	THR	2.3
3	E	424	PRO	2.3
1	C	287	GLY	2.3
2	D	335	PRO	2.2
1	C	200	VAL	2.2
1	A	285	ALA	2.2
3	F	368	ALA	2.2
2	B	349	PHE	2.2
2	B	342	HIS	2.2
3	E	286	ASP	2.2
1	C	249	SER	2.2
3	E	425	PRO	2.2
2	B	381	ASP	2.2
1	A	243	ILE	2.2
2	D	345	MET	2.2
3	E	300	GLU	2.1
1	C	176	ILE	2.1
3	E	435	GLY	2.1
2	D	390	GLU	2.1
2	D	388	THR	2.1
1	C	156	MET	2.1
2	D	344	THR	2.1
3	E	359	SER	2.1
1	C	297	ASP	2.1
1	C	242	GLY	2.1
3	E	420	THR	2.1
1	A	231	PHE	2.1
3	E	364	VAL	2.1
1	C	269	ASN	2.1
3	F	468	ALA	2.1
1	A	222	PRO	2.0
3	F	354	GLU	2.0
1	C	202	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
3	F	388	LEU	2.0
3	F	457	CYS	2.0
3	E	297	ILE	2.0
1	A	258	LEU	2.0
3	E	371	VAL	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.