



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 6, 2026 – 04:24 PM UTC

PDB ID : 7FOK / pdb_00007fok
Title : PanDDA analysis group deposition – Aar2/RNaseH in complex with fragment P08B09 from the F2X-Universal Library
Authors : Barthel, T.; Wollenhaupt, J.; Lima, G.M.A.; Wahl, M.C.; Weiss, M.S.
Deposited on : 2022-08-26
Resolution : 1.72 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 : 4-5-2 with Phenix2.0
Mogul : 2022.3.0, CSD as543be (2022)
Xtriage (Phenix) : 2.0
EDS : 3.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4 : 9.0.010 (Gargrove)
Density-Fitness : 1.0.12
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

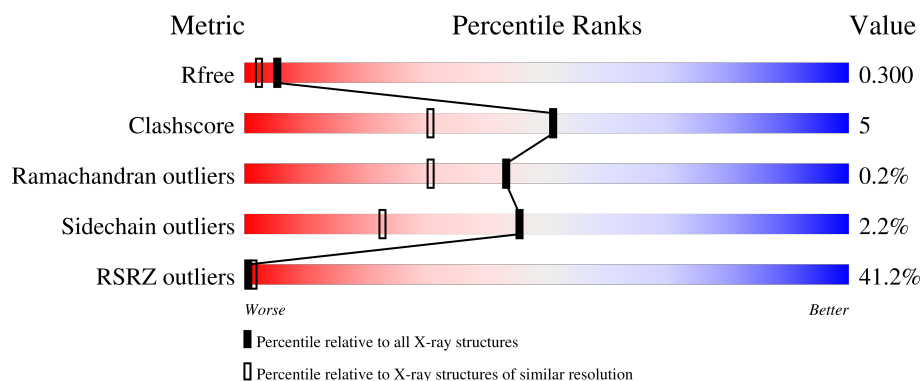
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 1.72 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	1039 (1.72-1.72)
Clashscore	190562	1049 (1.72-1.72)
Ramachandran outliers	187476	1041 (1.72-1.72)
Sidechain outliers	187428	1041 (1.72-1.72)
RSRZ outliers	180081	1039 (1.72-1.72)

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 $\leq 5\%$. 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	258	37% 82% 9% 8%
2	B	308	41% 81% 15% ..

2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 9244 atoms, of which 4524 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 Pre-mRNA-splicing factor 8.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
			Total	C	H	N	O	S			
1	A	237	4068	1287	2060	336	373	12	0	21	0

There are 3 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	1833	GLY	-	expression tag	UNP P33334
A	1834	ALA	-	expression tag	UNP P33334
A	1835	MET	-	expression tag	UNP P33334

- Molecule 2 is a protein called A1 cistron-splicing factor AAR2.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
			Total	C	H	N	O	S			
2	B	300	5044	1654	2464	421	485	20	0	17	0

There are 20 discrepancies between the modelled and reference sequences:

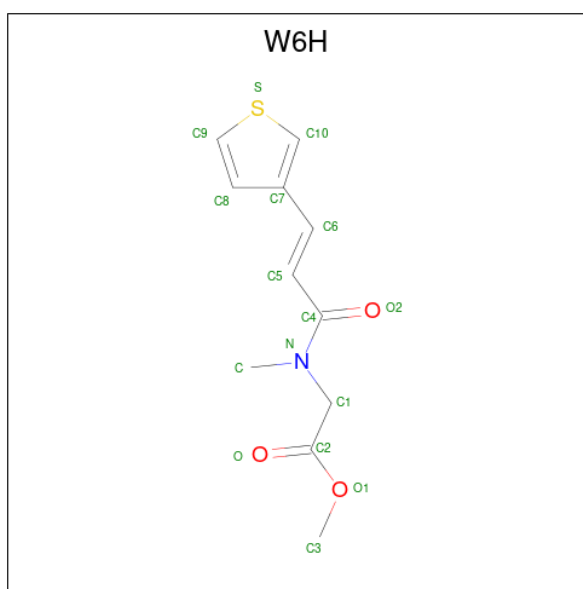
Chain	Residue	Modelled	Actual	Comment	Reference
B	-3	GLY	-	expression tag	UNP P32357
B	-2	ALA	-	expression tag	UNP P32357
B	-1	MET	-	expression tag	UNP P32357
B	0	ALA	-	expression tag	UNP P32357
B	166	SER	LEU	conflict	UNP P32357
B	167	SER	LYS	conflict	UNP P32357
B	?	-	LEU	deletion	UNP P32357
B	?	-	GLN	deletion	UNP P32357
B	?	-	LYS	deletion	UNP P32357
B	?	-	ALA	deletion	UNP P32357
B	?	-	GLY	deletion	UNP P32357
B	?	-	SER	deletion	UNP P32357
B	?	-	LYS	deletion	UNP P32357

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Chain	Residue	Modelled	Actual	Comment	Reference
B	?	-	MET	deletion	UNP P32357
B	?	-	GLU	deletion	UNP P32357
B	?	-	ALA	deletion	UNP P32357
B	?	-	LYS	deletion	UNP P32357
B	?	-	ASN	deletion	UNP P32357
B	?	-	GLU	deletion	UNP P32357
B	170	SER	ASP	conflict	UNP P32357

- Molecule 3 is methyl N-methyl-N-[(2E)-3-(thiophen-3-yl)prop-2-enoyl]glycinate (CCD ID: W6H) (formula: C₁₁H₁₃NO₃S).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	A	1	Total	C	N	O	S	0	0
			16	11	1	3	1		
3	B	1	Total	C	N	O	S	0	0
			16	11	1	3	1		

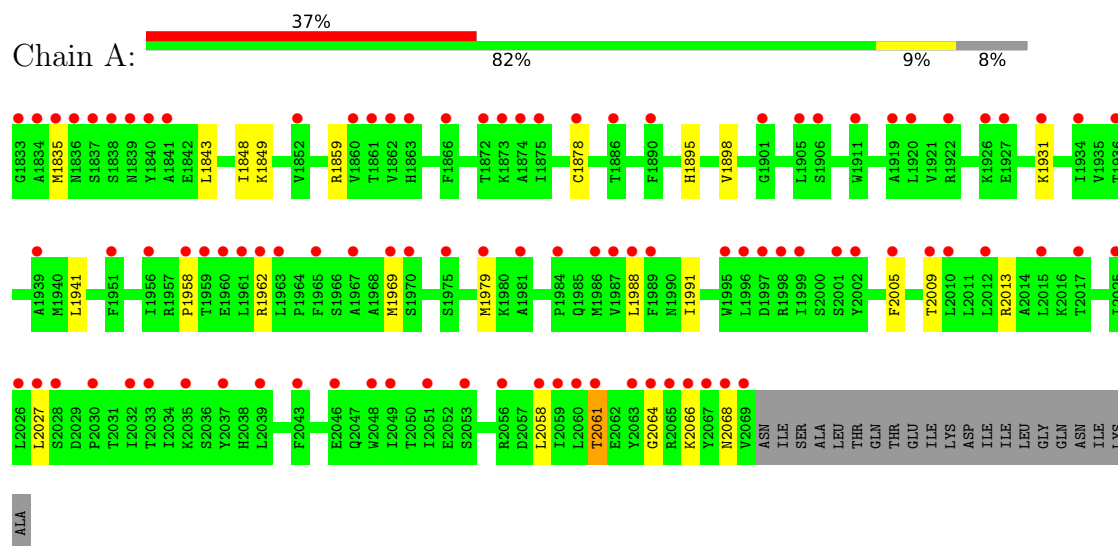
- Molecule 4 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	45	Total	O	0	0
			45	45		
4	B	55	Total	O	0	0
			55	55		

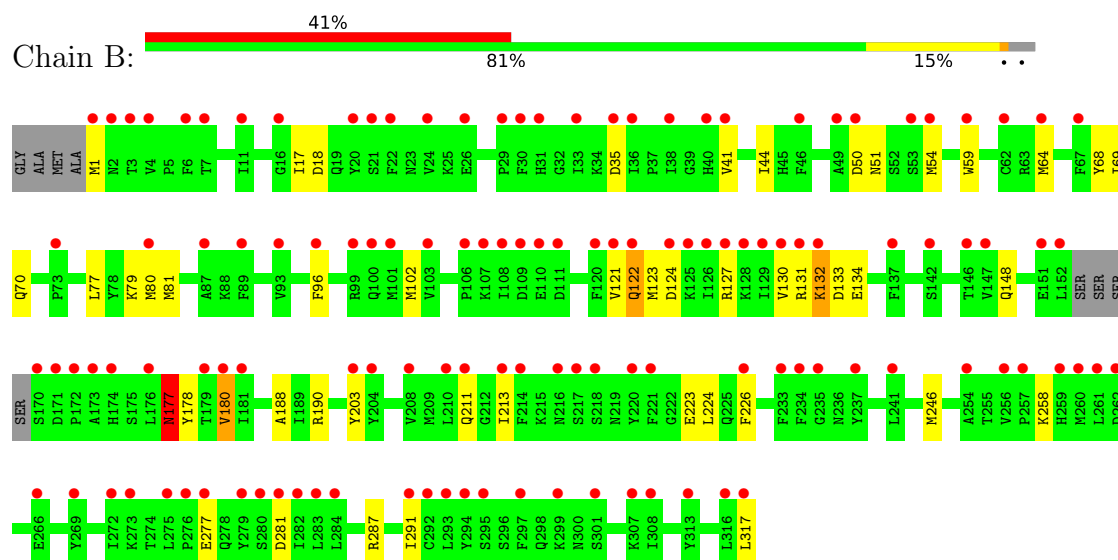
3 Residue-property plots

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: Pre-mRNA-splicing factor 8



• Molecule 2: A1 cistron-splicing factor AAR2



4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	88.94Å 82.01Å 93.40Å 90.00° 108.21° 90.00°	Depositor
Resolution (Å)	44.36 – 1.72 44.36 – 1.72	Depositor EDS
% Data completeness (in resolution range)	99.7 (44.36-1.72) 99.8 (44.36-1.72)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.97 (at 1.72Å)	Xtriage
Refinement program	PHENIX 1.17.1_3660	Depositor
R, R_{free}	0.249 , 0.297 0.264 , 0.300	Depositor DCC
R_{free} test set	2098 reflections (3.10%)	wwPDB-VP
Wilson B-factor (Å ²)	41.7	Xtriage
Anisotropy	0.285	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.40 , 48.4	EDS
L-test for twinning ²	$\langle L \rangle = 0.50$, $\langle L^2 \rangle = 0.34$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.95	EDS
Total number of atoms	9244	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 5.98% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ 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: W6H

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	0.65	0/2149	0.77	0/2911
2	B	0.79	8/2739 (0.3%)	0.96	12/3699 (0.3%)
All	All	0.73	8/4888 (0.2%)	0.88	12/6610 (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
2	B	0	6

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	123[A]	MET	N-CA	7.65	1.55	1.46
2	B	123[B]	MET	N-CA	7.65	1.55	1.46
2	B	177[A]	ASN	C-N	6.71	1.42	1.33
2	B	177[B]	ASN	C-N	6.71	1.42	1.33
2	B	122[A]	GLN	C-N	6.18	1.42	1.33
2	B	122[B]	GLN	C-N	6.18	1.42	1.33
2	B	178[A]	TYR	N-CA	6.14	1.53	1.45
2	B	178[B]	TYR	N-CA	6.14	1.53	1.45

All (12) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	122[A]	GLN	CA-C-N	-8.12	106.70	120.58
2	B	122[A]	GLN	C-N-CA	-8.12	106.70	120.58
2	B	122[B]	GLN	CA-C-N	-8.12	106.70	120.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	122[B]	GLN	C-N-CA	-8.12	106.70	120.58
2	B	177[A]	ASN	CA-C-N	-6.72	107.21	121.32
2	B	177[A]	ASN	C-N-CA	-6.72	107.21	121.32
2	B	177[B]	ASN	CA-C-N	-6.72	107.21	121.32
2	B	177[B]	ASN	C-N-CA	-6.72	107.21	121.32
2	B	122[A]	GLN	CA-C-O	-5.74	114.66	121.66
2	B	122[B]	GLN	CA-C-O	-5.74	114.66	121.66
2	B	132	LYS	CA-C-N	5.40	129.24	120.60
2	B	132	LYS	C-N-CA	5.40	129.24	120.60

There are no chirality outliers.

All (6) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	B	122[A]	GLN	Mainchain
2	B	122[B]	GLN	Mainchain
2	B	177[A]	ASN	Mainchain
2	B	177[B]	ASN	Mainchain
2	B	211[A]	GLN	Mainchain
2	B	211[B]	GLN	Mainchain

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	2008	2060	1974	14	0
2	B	2580	2464	2398	32	0
3	A	16	0	0	0	0
3	B	16	0	0	0	0
4	A	45	0	0	0	0
4	B	55	0	0	3	0
All	All	4720	4524	4372	46	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 5.

All (46) 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)
2:B:70:GLN:HB3	2:B:81:MET:HE2	1.66	0.77
2:B:223:GLU:HG2	2:B:246:MET:SD	2.32	0.69
2:B:96:PHE:HB2	2:B:102:MET:HE3	1.77	0.66
1:A:1962:ARG:O	1:A:2013:ARG:NH1	2.30	0.65
2:B:148:GLN:HB2	2:B:180:VAL:HG22	1.80	0.63
1:A:2064:GLY:O	1:A:2068:ASN:N	2.33	0.60
2:B:96:PHE:CB	2:B:102:MET:HE3	2.31	0.60
2:B:258:LYS:HD2	2:B:258:LYS:H	1.68	0.59
1:A:1962:ARG:HD3	1:A:1962:ARG:H	1.68	0.58
2:B:68:TYR:CE2	2:B:81:MET:HE3	2.40	0.57
1:A:1878:CYS:SG	1:A:1969:MET:HE3	2.45	0.56
2:B:287:ARG:O	2:B:291:ILE:HD13	2.07	0.55
2:B:1:MET:HE3	2:B:35:ASP:O	2.06	0.55
2:B:50:ASP:OD1	2:B:51:ASN:N	2.39	0.55
2:B:224:LEU:C	2:B:224:LEU:HD23	2.32	0.54
2:B:17:ILE:HD13	2:B:44[B]:ILE:HG13	1.89	0.53
1:A:2061:THR:O	1:A:2064:GLY:N	2.40	0.53
2:B:17:ILE:HD13	2:B:44[B]:ILE:CG1	2.39	0.53
2:B:132:LYS:HG2	2:B:134:GLU:OE2	2.09	0.52
2:B:70:GLN:HB3	2:B:81:MET:CE	2.39	0.51
2:B:127:ARG:NH1	2:B:133:ASP:HA	2.27	0.50
2:B:54[A]:MET:HE1	4:B:553:HOH:O	2.11	0.50
1:A:1848:ILE:H	1:A:1931[A]:LYS:HZ2	1.60	0.49
2:B:190:ARG:HG3	2:B:203[B]:TYR:CE2	2.48	0.49
2:B:77:LEU:HD21	2:B:79:LYS:HE3	1.93	0.49
1:A:2005:PHE:O	1:A:2009:THR:HG23	2.14	0.48
2:B:124:ASP:OD1	2:B:124:ASP:N	2.48	0.47
2:B:277:GLU:CD	2:B:277:GLU:H	2.23	0.47
1:A:1843:LEU:HA	1:A:1849:LYS:HD2	1.97	0.47
2:B:54[A]:MET:HE2	4:B:550:HOH:O	2.15	0.47
2:B:1:MET:HB3	2:B:35:ASP:HA	1.96	0.46
2:B:77:LEU:N	2:B:77:LEU:HD23	2.31	0.45
1:A:1895:HIS:O	1:A:1898[A]:VAL:HG22	2.18	0.44
2:B:77:LEU:HD23	2:B:77:LEU:H	1.83	0.42
2:B:69:ILE:HD13	2:B:80:MET:HA	2.02	0.42
2:B:17:ILE:O	2:B:18:ASP:C	2.62	0.42
2:B:1:MET:N	4:B:503:HOH:O	2.52	0.42
2:B:59:TRP:CE2	2:B:226:PHE:HE1	2.37	0.42
1:A:1859:ARG:HH12	1:A:1979[A]:MET:CE	2.33	0.41
2:B:41[A]:VAL:HG11	2:B:121:VAL:HG12	2.03	0.41
1:A:1941:LEU:HD11	1:A:1958:PRO:HB3	2.02	0.40
1:A:1835:MET:HE3	1:A:1835:MET:HB3	1.98	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2058:LEU:C	1:A:2058:LEU:HD23	2.47	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	258/258 (100%)	249 (96%)	8 (3%)	1 (0%)	30	16
2	B	315/308 (102%)	306 (97%)	9 (3%)	0	100	100
All	All	573/566 (101%)	555 (97%)	17 (3%)	1 (0%)	43	31

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	2061	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	237/233 (102%)	233 (98%)	4 (2%)	53	31
2	B	294/284 (104%)	286 (97%)	8 (3%)	39	17
All	All	531/517 (103%)	519 (98%)	12 (2%)	45	21

All (12) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	1988	LEU
1	A	1991	ILE
1	A	2027	LEU
1	A	2066	LYS
2	B	130	VAL
2	B	131	ARG
2	B	177[A]	ASN
2	B	177[B]	ASN
2	B	180	VAL
2	B	213	ILE
2	B	281	ASP
2	B	317	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (5) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	1863	HIS
1	A	1888	HIS
1	A	1947	HIS
2	B	135	ASN
2	B	259	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 [i](#)

2 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
3	W6H	B	401	-	16,16,16	0.29	0	18,20,20	0.56	0
3	W6H	A	2101	-	16,16,16	1.69	2 (12%)	18,20,20	1.85	4 (22%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	W6H	B	401	-	-	6/15/15/15	0/1/1/1
3	W6H	A	2101	-	-	10/15/15/15	0/1/1/1

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	2101	W6H	C4-N	4.98	1.42	1.35
3	A	2101	W6H	O1-C3	-2.17	1.40	1.45

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	2101	W6H	O1-C2-C1	4.99	120.00	110.30
3	A	2101	W6H	O1-C2-O	-3.30	113.34	123.20
3	A	2101	W6H	C-N-C1	-2.92	112.58	116.89
3	A	2101	W6H	C5-C4-N	2.80	119.79	117.91

There are no chirality outliers.

All (16) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	2101	W6H	C1-C2-O1-C3
3	A	2101	W6H	C2-C1-N-C4
3	A	2101	W6H	C2-C1-N-C

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Mol	Chain	Res	Type	Atoms
3	A	2101	W6H	O2-C4-C5-C6
3	A	2101	W6H	N-C4-C5-C6
3	A	2101	W6H	O2-C4-N-C
3	B	401	W6H	C5-C6-C7-C8
3	B	401	W6H	C5-C6-C7-C10
3	A	2101	W6H	O-C2-O1-C3
3	B	401	W6H	N-C1-C2-O
3	B	401	W6H	N-C1-C2-O1
3	A	2101	W6H	C5-C4-N-C
3	B	401	W6H	O2-C4-C5-C6
3	B	401	W6H	N-C4-C5-C6
3	A	2101	W6H	N-C1-C2-O1
3	A	2101	W6H	N-C1-C2-O

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data [i](#)

6.1 Protein, DNA and RNA chains [i](#)

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	237/258 (91%)	1.98	96 (40%) 0 1	23, 67, 118, 180	12 (5%)
2	B	300/308 (97%)	1.90	125 (41%) 0 1	25, 67, 124, 190	9 (3%)
All	All	537/566 (94%)	1.93	221 (41%) 0 1	23, 67, 123, 190	21 (3%)

All (221) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	1979[A]	MET	8.3
2	B	203[A]	TYR	7.4
1	A	2069	VAL	6.8
1	A	1989	PHE	6.6
2	B	152	LEU	6.5
2	B	214	PHE	6.5
2	B	282	ILE	6.0
2	B	316	LEU	5.6
2	B	220	TYR	5.5
1	A	2060	LEU	5.4
1	A	1862	VAL	5.3
1	A	1988	LEU	5.0
1	A	1996	LEU	5.0
1	A	2037	TYR	4.8
1	A	1860	VAL	4.8
2	B	130	VAL	4.8
2	B	101	MET	4.7
1	A	1833	GLY	4.7
2	B	276	PRO	4.7
2	B	170	SER	4.6
1	A	2064	GLY	4.6
1	A	1840	TYR	4.5
2	B	106	PRO	4.5
2	B	176	LEU	4.5

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Mol	Chain	Res	Type	RSRZ
2	B	129	ILE	4.5
1	A	1890	PHE	4.4
2	B	121	VAL	4.4
1	A	2039	LEU	4.4
1	A	2051	ILE	4.3
2	B	217	SER	4.2
1	A	1866	PHE	4.2
2	B	103	VAL	4.0
1	A	1878	CYS	4.0
1	A	2059	ILE	4.0
1	A	1963	LEU	4.0
2	B	216	ASN	4.0
1	A	2065	ARG	4.0
1	A	2063	TYR	3.9
2	B	173	ALA	3.9
1	A	2048	TRP	3.9
2	B	54[A]	MET	3.8
2	B	172	PRO	3.8
2	B	1	MET	3.8
1	A	2068	ASN	3.8
1	A	1969	MET	3.7
2	B	280	SER	3.7
2	B	284	LEU	3.6
1	A	2067	TYR	3.6
1	A	2032	ILE	3.6
1	A	2027	LEU	3.5
2	B	124	ASP	3.5
1	A	1834	ALA	3.5
2	B	174	HIS	3.5
2	B	111	ASP	3.5
2	B	256	VAL	3.5
2	B	308	ILE	3.4
2	B	132	LYS	3.4
1	A	2028	SER	3.4
1	A	2017[A]	THR	3.4
2	B	3	THR	3.3
2	B	279	TYR	3.3
2	B	11	ILE	3.3
2	B	210	LEU	3.3
1	A	1984	PRO	3.3
2	B	125	LYS	3.3
2	B	87	ALA	3.3

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Mol	Chain	Res	Type	RSRZ
2	B	235	GLY	3.3
2	B	317	LEU	3.3
2	B	226	PHE	3.3
2	B	281	ASP	3.3
2	B	89	PHE	3.2
1	A	2010	LEU	3.2
2	B	147	VAL	3.2
1	A	2061	THR	3.2
2	B	122[A]	GLN	3.1
1	A	2012	LEU	3.1
2	B	275	LEU	3.1
2	B	22	PHE	3.1
1	A	1987	VAL	3.1
2	B	20	TYR	3.1
1	A	1901	GLY	3.1
1	A	1936	THR	3.1
1	A	2030	PRO	3.0
1	A	1920	LEU	3.0
2	B	38	ILE	3.0
2	B	208	VAL	3.0
2	B	294	TYR	3.0
1	A	1838	SER	3.0
2	B	31	HIS	3.0
2	B	213	ILE	3.0
2	B	254	ALA	2.9
1	A	1958	PRO	2.9
1	A	1886	THR	2.9
2	B	218	SER	2.9
1	A	1841	ALA	2.8
2	B	64[A]	MET	2.8
1	A	2058	LEU	2.8
2	B	146	THR	2.8
2	B	171	ASP	2.8
1	A	1998	ARG	2.8
2	B	7	THR	2.8
1	A	1967	ALA	2.8
2	B	137	PHE	2.8
1	A	1873	LYS	2.8
2	B	259	HIS	2.8
2	B	53	SER	2.8
1	A	1839	ASN	2.7
1	A	1995	TRP	2.7

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Mol	Chain	Res	Type	RSRZ
2	B	128	LYS	2.7
2	B	241	LEU	2.7
2	B	40	HIS	2.7
1	A	1951	PHE	2.7
2	B	180	VAL	2.7
1	A	2015	LEU	2.7
2	B	131	ARG	2.7
2	B	233	PHE	2.7
2	B	93	VAL	2.7
2	B	291	ILE	2.7
1	A	1863	HIS	2.6
2	B	179	THR	2.6
1	A	2026	LEU	2.6
2	B	127	ARG	2.6
1	A	1874	ALA	2.6
2	B	49	ALA	2.6
1	A	1975	SER	2.6
1	A	2001[A]	SER	2.6
2	B	2	ASN	2.6
2	B	269	TYR	2.6
1	A	1939	ALA	2.6
1	A	2035	LYS	2.6
1	A	1960[A]	GLU	2.6
2	B	67	PHE	2.6
1	A	1956	ILE	2.6
1	A	2025	ILE	2.6
2	B	33	ILE	2.6
1	A	1927	GLU	2.6
1	A	2049	ILE	2.5
2	B	107	LYS	2.5
2	B	142	SER	2.5
1	A	2005	PHE	2.5
2	B	62	CYS	2.5
2	B	234	PHE	2.5
2	B	126	ILE	2.5
1	A	1962	ARG	2.5
2	B	292	CYS	2.5
1	A	2043	PHE	2.5
2	B	297	PHE	2.5
2	B	4	VAL	2.5
2	B	204[A]	TYR	2.4
2	B	237	TYR	2.4

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Mol	Chain	Res	Type	RSRZ
1	A	1905	LEU	2.4
2	B	211[A]	GLN	2.4
1	A	2002[A]	TYR	2.4
2	B	109	ASP	2.4
2	B	277	GLU	2.4
2	B	273	LYS	2.4
2	B	100	GLN	2.4
2	B	96	PHE	2.4
2	B	266	GLU	2.4
2	B	295	SER	2.3
2	B	29	PRO	2.3
2	B	151	GLU	2.3
1	A	1981	ALA	2.3
1	A	1965	PHE	2.3
1	A	1875	ILE	2.3
1	A	1999	ILE	2.3
1	A	1906	SER	2.3
1	A	2053[A]	SER	2.3
2	B	6	PHE	2.3
2	B	221	PHE	2.3
1	A	2056[A]	ARG	2.3
2	B	262	ASP	2.3
2	B	257	PRO	2.3
1	A	2009	THR	2.3
1	A	1970	SER	2.3
2	B	21	SER	2.3
2	B	181	ILE	2.3
2	B	272	ILE	2.3
1	A	1835	MET	2.3
2	B	41[A]	VAL	2.3
1	A	1911	TRP	2.2
1	A	1922	ARG	2.2
1	A	1959	THR	2.2
1	A	2066	LYS	2.2
2	B	307	LYS	2.2
1	A	1961[A]	LEU	2.2
1	A	1986	MET	2.2
2	B	80	MET	2.2
2	B	261	LEU	2.2
2	B	293	LEU	2.2
2	B	120	PHE	2.2
2	B	108	ILE	2.2

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Mol	Chain	Res	Type	RSRZ
1	A	2033	THR	2.2
2	B	299	LYS	2.2
2	B	313	TYR	2.2
1	A	1861	THR	2.2
1	A	1852	VAL	2.1
2	B	99	ARG	2.1
1	A	1837	SER	2.1
1	A	1934	ILE	2.1
2	B	260	MET	2.1
2	B	50	ASP	2.1
2	B	73	PRO	2.1
2	B	30	PHE	2.1
1	A	1919[A]	ALA	2.1
1	A	2046	GLU	2.1
2	B	110	GLU	2.1
2	B	283	LEU	2.1
1	A	1926	LYS	2.1
1	A	1931[A]	LYS	2.1
2	B	46	PHE	2.1
2	B	16	GLY	2.0
2	B	26	GLU	2.0
2	B	35	ASP	2.0
2	B	301	SER	2.0
1	A	1872	THR	2.0
1	A	1836	ASN	2.0
2	B	59	TRP	2.0
2	B	36	ILE	2.0
1	A	1997	ASP	2.0
2	B	24	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 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($\text{\AA}^2$)	Q<0.9
3	W6H	B	401	16/16	0.72	0.26	20,20,20,20	16
3	W6H	A	2101	16/16	0.73	0.23	20,20,20,20	16

6.5 Other polymers [i](#)

There are no such residues in this entry.