



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 7, 2026 – 03:10 AM UTC

PDB ID : 1P47 / pdb_00001p47
Title : Crystal Structure of tandem Zif268 molecules complexed to DNA
Authors : Peisach, E.; Pabo, C.O.
Deposited on : 2003-04-21
Resolution : 2.20 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
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

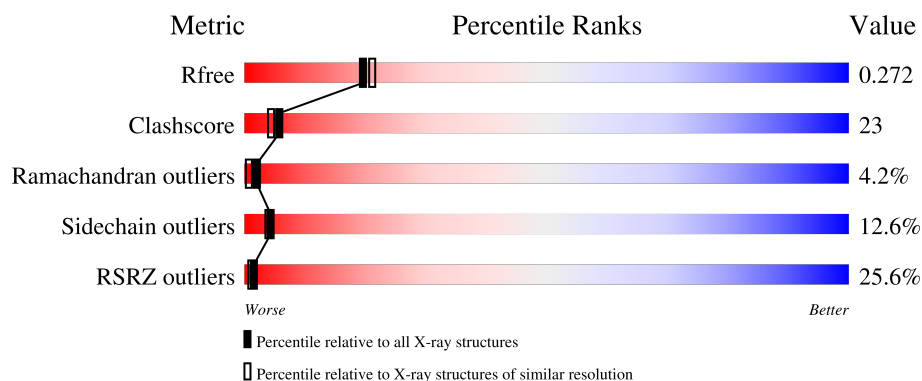
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.20 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	6164 (2.20-2.20)
Clashscore	190562	6851 (2.20-2.20)
Ramachandran outliers	187476	6768 (2.20-2.20)
Sidechain outliers	187428	6769 (2.20-2.20)
RSRZ outliers	180081	6166 (2.20-2.20)

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	C	22	
2	D	22	
3	A	87	
3	B	87	

2 Entry composition [i](#)

There are 5 unique types of molecules in this entry. The entry contains 2433 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 DNA chain called 5'-D(*GP*TP*GP*GP*CP*GP*TP*GP*GP*GP*CP*GP*GP*CP*GP*TP*GP*GP*GP*CP*GP*T)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	C	22	Total	C	N	O	P	0	0	0
			461	216	90	134	21			

- Molecule 2 is a DNA chain called 5'-D(*CP*AP*CP*GP*CP*CP*CP*AP*CP*GP*CP*CP*GP*CP*CP*CP*AP*CP*GP*CP*CP*A)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	D	22	Total	C	N	O	P	0	0	0
			435	206	82	126	21			

- Molecule 3 is a protein called Early growth response protein 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	A	87	Total	C	N	O	S	0	0	0
			730	443	155	125	7			
3	B	84	Total	C	N	O	S	0	0	0
			701	427	148	119	7			

- Molecule 4 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	3	Total	Zn	0	0
			3	3		
4	B	3	Total	Zn	0	0
			3	3		

- Molecule 5 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	C	24	Total	O	0	0
			24	24		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	D	19	Total 19	O 19	0	0
5	A	36	Total 36	O 36	0	0
5	B	21	Total 21	O 21	0	0

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: 5'-D(*GP*TP*GP*GP*CP*GP*TP*GP*GP*GP*CP*GP*GP*CP*GP*TP*GP*GP*GP*CP*GP*T)-3'

Chain C: 



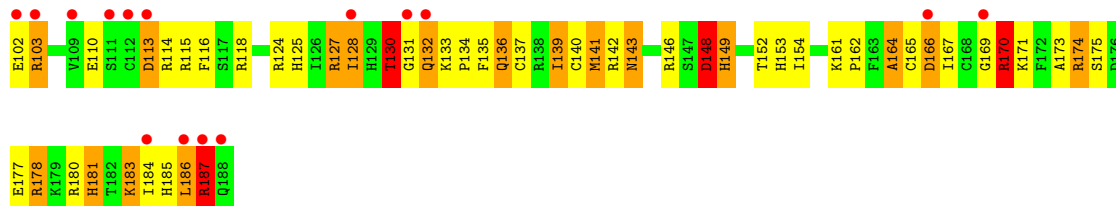
- Molecule 2: 5'-D(*CP*AP*CP*GP*CP*CP*CP*AP*CP*GP*CP*CP*GP*CP*CP*CP*AP*CP*GP*CP*CP*A)-3'

Chain D: 



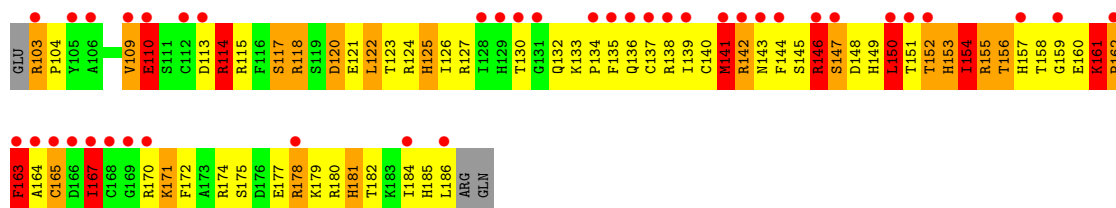
- Molecule 3: Early growth response protein 1

Chain A: 



- Molecule 3: Early growth response protein 1

Chain B: 



4 Data and refinement statistics

Property	Value	Source
Space group	P 31	Depositor
Cell constants a, b, c, α , β , γ	70.63Å 70.63Å 99.61Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	60.86 – 2.20 60.86 – 2.20	Depositor EDS
% Data completeness (in resolution range)	90.4 (60.86-2.20) 87.9 (60.86-2.20)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.05	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.08 (at 2.20Å)	Xtriage
Refinement program	REFMAC 5.1.22	Depositor
R, R_{free}	0.214 , 0.267 0.226 , 0.272	Depositor DCC
R_{free} test set	2429 reflections (9.79%)	wwPDB-VP
Wilson B-factor (Å ²)	47.4	Xtriage
Anisotropy	0.059	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.39 , 57.7	EDS
L-test for twinning ²	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.32$	Xtriage
Estimated twinning fraction	0.018 for -h,-k,l 0.057 for h,-h-k,-l 0.034 for -k,-h,-l	Xtriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	2433	wwPDB-VP
Average B, all atoms (Å ²)	66.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.17% 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:
ZN

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	C	2.16	13/518 (2.5%)	3.05	79/802 (9.9%)
2	D	2.07	12/486 (2.5%)	3.40	90/744 (12.1%)
3	A	2.53	41/746 (5.5%)	2.08	21/996 (2.1%)
3	B	2.58	38/717 (5.3%)	1.99	28/958 (2.9%)
All	All	2.39	104/2467 (4.2%)	2.62	218/3500 (6.2%)

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	C	0	1
3	A	0	3
All	All	0	4

All (104) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	B	165	CYS	CA-C	13.25	1.71	1.52
3	B	141	MET	SD-CE	11.63	2.08	1.79
3	B	177	GLU	C-O	10.12	1.35	1.24
3	B	174	ARG	NE-CZ	9.40	1.43	1.33
3	B	153	HIS	C-O	9.23	1.34	1.24
3	A	167	ILE	CA-CB	-9.19	1.43	1.54
2	D	53	DC	P-OP2	8.85	1.66	1.48
3	A	135	PHE	CA-C	8.56	1.62	1.52
1	C	14	DC	C4'-C3'	8.38	1.69	1.52
3	B	171	LYS	CA-C	8.29	1.63	1.52
3	A	130	THR	CA-CB	7.95	1.65	1.53
3	B	110	GLU	CA-C	7.82	1.63	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	B	154	ILE	CA-CB	7.59	1.65	1.54
3	A	133	LYS	CA-C	-7.55	1.43	1.52
3	B	167	ILE	CA-C	7.50	1.61	1.52
3	B	123	THR	C-O	7.36	1.32	1.24
3	A	152	THR	N-CA	7.36	1.55	1.46
3	A	165	CYS	CA-C	7.34	1.62	1.52
2	D	55	DC	O3'-P	7.30	1.72	1.61
3	B	178	ARG	CA-C	-7.22	1.42	1.52
3	A	170	ARG	CA-C	7.22	1.61	1.52
3	B	150	LEU	CA-CB	-7.19	1.41	1.53
3	A	143	ASN	C-O	7.13	1.33	1.23
1	C	13	DG	P-O5'	7.06	1.74	1.60
3	A	175	SER	C-O	-7.06	1.15	1.24
2	D	52	DC	P-OP2	6.96	1.62	1.48
3	A	146	ARG	CA-C	-6.96	1.43	1.52
3	B	172	PHE	CA-C	-6.96	1.44	1.52
3	B	120	ASP	N-CA	6.96	1.54	1.46
3	B	122	LEU	C-O	6.88	1.32	1.24
3	A	148	ASP	N-CA	6.87	1.55	1.46
3	B	161	LYS	N-CA	-6.79	1.36	1.46
3	A	174	ARG	CZ-NH1	6.75	1.42	1.32
2	D	54	DG	C8-N7	6.74	1.44	1.30
1	C	1	DG	O3'-P	6.70	1.71	1.61
3	A	185	HIS	C-O	-6.61	1.15	1.24
3	A	113	ASP	CB-CG	6.41	1.68	1.52
3	A	124	ARG	CG-CD	6.41	1.71	1.52
3	A	153	HIS	CA-C	-6.39	1.44	1.52
3	A	161	LYS	C-O	-6.39	1.17	1.24
3	A	132	GLN	CG-CD	6.37	1.68	1.52
3	A	171	LYS	CA-C	6.37	1.60	1.52
3	A	173	ALA	C-O	-6.33	1.16	1.24
1	C	15	DG	C5-C6	-6.29	1.29	1.42
2	D	42	DC	O3'-P	6.25	1.70	1.61
3	A	142	ARG	C-O	6.24	1.31	1.23
3	A	181	HIS	C-O	-6.22	1.16	1.24
3	A	173	ALA	CA-CB	6.19	1.62	1.53
3	B	109	VAL	CA-C	6.17	1.60	1.52
3	A	132	GLN	C-O	6.17	1.31	1.23
2	D	52	DC	O3'-P	6.16	1.70	1.61
3	A	154	ILE	C-O	6.08	1.31	1.24
3	B	152	THR	N-CA	6.07	1.53	1.46
2	D	50	DC	O5'-C5'	6.00	1.60	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	1	DG	C6-O6	6.00	1.36	1.24
3	A	136	GLN	CA-C	-5.96	1.45	1.52
3	B	181	HIS	CA-CB	-5.96	1.44	1.53
3	A	167	ILE	CA-C	-5.95	1.45	1.52
3	B	178	ARG	CB-CG	5.93	1.70	1.52
1	C	5	DC	C4'-C3'	5.89	1.64	1.52
1	C	8	DG	N7-C5	5.88	1.51	1.39
3	A	132	GLN	CB-CG	5.87	1.70	1.52
3	B	147	SER	CA-CB	5.86	1.62	1.53
3	B	121	GLU	C-O	5.84	1.31	1.24
3	B	152	THR	C-O	-5.84	1.17	1.24
3	B	174	ARG	CD-NE	5.84	1.54	1.46
3	A	171	LYS	CD-CE	5.82	1.70	1.52
3	B	125	HIS	C-O	-5.77	1.17	1.24
3	B	115	ARG	CA-C	5.75	1.59	1.52
3	A	116	PHE	CA-C	-5.73	1.45	1.52
3	B	147	SER	C-O	5.69	1.30	1.24
3	A	178	ARG	N-CA	-5.68	1.39	1.46
3	B	174	ARG	CA-C	-5.66	1.45	1.52
1	C	1	DG	N7-C5	5.59	1.50	1.39
2	D	55	DC	P-OP1	-5.49	1.37	1.48
3	B	180	ARG	CA-CB	5.48	1.61	1.53
1	C	17	DG	C8-N7	5.47	1.41	1.30
3	B	154	ILE	CB-CG2	5.47	1.70	1.52
3	A	140	CYS	CA-C	5.46	1.60	1.52
3	A	132	GLN	CA-CB	5.44	1.62	1.53
3	B	164	ALA	CA-C	-5.43	1.46	1.52
2	D	51	DG	C8-N7	5.42	1.41	1.30
3	B	180	ARG	N-CA	5.39	1.52	1.46
1	C	2	DT	C2-O2	5.37	1.32	1.22
3	A	183	LYS	CE-NZ	5.32	1.65	1.49
3	A	124	ARG	CA-CB	-5.31	1.44	1.53
3	B	152	THR	CA-CB	-5.31	1.45	1.53
3	B	163	PHE	CA-C	5.26	1.59	1.52
3	A	169	GLY	CA-C	5.25	1.58	1.51
3	A	142	ARG	CA-C	5.19	1.59	1.52
3	B	151	THR	C-O	5.18	1.30	1.24
3	A	142	ARG	N-CA	5.18	1.52	1.46
2	D	50	DC	P-OP1	5.17	1.58	1.48
2	D	51	DG	C2-N2	-5.16	1.24	1.34
2	D	49	DA	O3'-P	5.13	1.68	1.61
3	A	133	LYS	C-N	-5.13	1.28	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	1	DG	C3'-O3'	5.10	1.57	1.42
3	B	148	ASP	CA-C	5.10	1.59	1.52
1	C	18	DG	C8-N7	5.05	1.41	1.30
3	B	117	SER	CA-C	5.04	1.59	1.52
3	A	133	LYS	C-O	-5.04	1.17	1.24
3	A	113	ASP	CA-CB	5.01	1.59	1.53
1	C	19	DG	C6-O6	5.00	1.34	1.24
3	B	146	ARG	NE-CZ	5.00	1.38	1.33

All (218) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	50	DC	P-O5'-C5'	-14.25	98.63	120.00
3	B	167	ILE	N-CA-C	12.33	122.26	110.42
3	A	139	ILE	N-CA-C	-12.32	100.96	111.56
2	D	60	DG	O4'-C1'-N9	12.20	126.71	108.40
2	D	46	DC	P-O3'-C3'	-11.88	102.38	120.20
1	C	2	DT	C5'-C4'-O4'	-11.73	91.80	109.40
1	C	3	DG	C2'-C3'-O3'	10.97	127.95	111.50
2	D	46	DC	O3'-P-O5'	-10.85	87.73	104.00
2	D	57	DC	C5'-C4'-C3'	-10.72	98.83	114.90
1	C	18	DG	C5'-C4'-O4'	-10.09	94.26	109.40
2	D	61	DC	P-O5'-C5'	-10.05	104.93	120.00
2	D	52	DC	P-O3'-C3'	-9.84	105.44	120.20
2	D	53	DC	O3'-P-O5'	-9.79	89.31	104.00
3	B	104	PRO	N-CA-C	9.78	126.08	113.86
2	D	49	DA	OP1-P-O3'	-9.78	78.67	108.00
2	D	46	DC	O5'-C5'-C4'	-9.48	96.58	110.80
3	A	118	ARG	NE-CZ-NH2	9.45	127.70	119.20
2	D	46	DC	C4'-C3'-O3'	9.38	124.07	110.00
2	D	48	DC	C5'-C4'-O4'	-9.33	95.41	109.40
2	D	53	DC	C5'-C4'-O4'	-9.27	95.49	109.40
1	C	12	DG	P-O5'-C5'	-9.10	106.36	120.00
1	C	2	DT	C2'-C3'-O3'	9.00	125.00	111.50
1	C	3	DG	C4'-C3'-O3'	-8.75	96.88	110.00
1	C	2	DT	P-O3'-C3'	-8.71	107.13	120.20
1	C	4	DG	C5-N7-C8	8.59	117.09	104.20
2	D	43	DA	C5'-C4'-O4'	8.55	122.23	109.40
1	C	4	DG	O3'-P-O5'	-8.54	91.19	104.00
2	D	52	DC	O3'-P-O5'	-8.52	91.22	104.00
1	C	21	DG	O4'-C1'-C2'	-8.49	93.67	106.40
2	D	42	DC	C6-N1-C1'	8.45	132.37	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	13	DG	O3'-P-O5'	-8.43	91.36	104.00
2	D	52	DC	OP2-P-O3'	8.34	133.02	108.00
2	D	56	DC	O3'-P-O5'	-8.33	91.50	104.00
3	A	187	ARG	O-C-N	8.21	126.91	120.83
1	C	1	DG	C4'-C3'-O3'	8.20	122.30	110.00
3	A	177	GLU	N-CA-C	-8.17	101.64	111.69
3	B	165	CYS	CA-CB-SG	-8.17	95.61	114.40
2	D	45	DG	O4'-C1'-C2'	-8.16	94.16	106.40
3	A	118	ARG	NE-CZ-NH1	-8.13	113.36	121.50
1	C	19	DG	O3'-P-O5'	-8.07	91.89	104.00
2	D	51	DG	OP1-P-O3'	-8.06	83.82	108.00
2	D	58	DA	C5'-C4'-C3'	-8.04	102.84	114.90
1	C	16	DT	O4'-C1'-C2'	-7.89	94.56	106.40
2	D	56	DC	P-O5'-C5'	-7.80	108.30	120.00
3	B	110	GLU	N-CA-C	7.79	127.39	110.80
2	D	58	DA	P-O5'-C5'	-7.76	108.36	120.00
2	D	55	DC	N1-C2-N3	7.74	130.50	118.90
2	D	43	DA	C5'-C4'-C3'	-7.71	103.33	114.90
2	D	52	DC	C5'-C4'-C3'	-7.71	103.34	114.90
1	C	21	DG	C4-N9-C1'	7.68	138.51	127.00
1	C	16	DT	N3-C2-O2	-7.58	110.64	122.00
2	D	54	DG	P-O3'-C3'	-7.53	108.91	120.20
2	D	56	DC	O4'-C1'-C2'	-7.45	95.23	106.40
3	A	139	ILE	CA-C-O	-7.41	113.62	120.73
2	D	46	DC	OP1-P-O3'	7.36	130.07	108.00
2	D	52	DC	P-O5'-C5'	-7.34	108.98	120.00
3	B	159	GLY	N-CA-C	-7.31	105.13	115.43
2	D	42	DC	C5'-C4'-C3'	-7.25	104.02	114.90
2	D	51	DG	P-O5'-C5'	-7.24	109.14	120.00
2	D	42	DC	C2-N1-C1'	-7.22	108.87	119.70
1	C	20	DC	P-O3'-C3'	7.12	130.88	120.20
3	A	132	GLN	CA-CB-CG	7.09	128.28	114.10
1	C	14	DC	C2'-C3'-O3'	-7.04	100.93	111.50
2	D	56	DC	O5'-P-OP1	6.98	129.95	109.00
1	C	18	DG	C5'-C4'-C3'	6.96	125.33	114.90
3	B	164	ALA	N-CA-C	6.93	120.95	108.69
3	A	135	PHE	O-C-N	-6.92	114.42	123.21
2	D	43	DA	O4'-C1'-C2'	-6.87	96.09	106.40
2	D	54	DG	O5'-P-OP2	-6.87	87.38	108.00
1	C	2	DT	N1-C1'-C2'	6.86	123.79	113.50
1	C	3	DG	C5'-C4'-C3'	-6.85	104.63	114.90
1	C	3	DG	O3'-P-O5'	-6.84	93.75	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	47	DC	C5'-C4'-C3'	-6.82	104.67	114.90
2	D	61	DC	O4'-C1'-N1	6.82	118.62	108.40
1	C	15	DG	N3-C2-N2	-6.81	109.49	119.70
1	C	16	DT	P-O5'-C5'	6.80	130.20	120.00
1	C	22	DT	C4-C5-C7	-6.78	112.22	122.40
3	A	166	ASP	N-CA-CB	6.78	120.20	110.16
2	D	51	DG	N1-C2-N3	6.75	134.12	124.00
1	C	14	DC	O4'-C1'-N1	6.71	118.46	108.40
2	D	61	DC	C5'-C4'-O4'	6.70	119.46	109.40
1	C	11	DC	O4'-C1'-N1	6.69	118.44	108.40
1	C	2	DT	O4'-C4'-C3'	6.68	115.43	105.40
1	C	8	DG	C5-N7-C8	-6.67	94.19	104.20
1	C	4	DG	N7-C8-N9	-6.65	103.53	113.50
2	D	53	DC	O5'-C5'-C4'	6.62	120.74	110.80
1	C	21	DG	O3'-P-O5'	6.62	113.92	104.00
1	C	5	DC	O3'-P-O5'	-6.57	94.15	104.00
2	D	49	DA	O4'-C1'-C2'	-6.55	96.58	106.40
2	D	57	DC	O4'-C1'-N1	6.54	118.21	108.40
3	A	162	PRO	CB-CA-C	-6.52	101.60	111.44
2	D	47	DC	O3'-P-O5'	-6.51	94.24	104.00
1	C	21	DG	C8-N9-C1'	-6.50	117.25	127.00
1	C	2	DT	O3'-P-O5'	-6.45	94.33	104.00
2	D	51	DG	N3-C2-N2	-6.44	110.04	119.70
3	B	163	PHE	N-CA-C	6.43	124.50	110.80
2	D	42	DC	N1-C1'-C2'	-6.40	103.90	113.50
1	C	2	DT	O5'-P-OP1	-6.39	89.84	109.00
3	A	113	ASP	N-CA-C	-6.36	102.90	111.87
2	D	56	DC	C2-N1-C1'	6.35	129.23	119.70
1	C	16	DT	N1-C2-O2	6.34	132.71	123.20
2	D	56	DC	C1'-O4'-C4'	6.32	119.19	109.70
3	A	149	HIS	N-CA-C	-6.31	104.50	111.82
2	D	43	DA	C4-N9-C1'	6.31	136.51	127.05
2	D	60	DG	O5'-C5'-C4'	-6.30	101.35	110.80
3	B	146	ARG	NE-CZ-NH2	6.29	124.86	119.20
2	D	52	DC	C1'-O4'-C4'	-6.27	100.29	109.70
2	D	50	DC	OP1-P-OP2	6.24	138.72	120.00
1	C	13	DG	N9-C1'-C2'	6.24	122.86	113.50
1	C	8	DG	C1'-O4'-C4'	6.21	119.01	109.70
2	D	43	DA	P-O5'-C5'	6.21	129.31	120.00
3	A	135	PHE	CA-C-N	-6.21	112.67	122.73
3	A	135	PHE	C-N-CA	-6.21	112.67	122.73
1	C	21	DG	C5'-C4'-O4'	6.21	118.71	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	8	DG	C2'-C3'-O3'	-6.19	102.21	111.50
1	C	21	DG	P-O3'-C3'	6.19	129.49	120.20
2	D	43	DA	O3'-P-O5'	-6.18	94.72	104.00
2	D	51	DG	P-O3'-C3'	-6.17	110.94	120.20
2	D	43	DA	N9-C1'-C2'	-6.15	104.27	113.50
1	C	7	DT	OP1-P-OP2	6.14	138.43	120.00
2	D	51	DG	C6-N1-C2	-6.12	115.72	124.90
2	D	51	DG	O5'-C5'-C4'	-6.12	101.62	110.80
3	B	154	ILE	N-CA-C	-6.10	103.50	112.04
2	D	55	DC	C5'-C4'-C3'	-6.08	105.78	114.90
3	B	142	ARG	N-CA-C	-6.07	99.76	109.96
1	C	15	DG	C2'-C3'-O3'	-6.04	102.44	111.50
3	A	165	CYS	CB-CA-C	-6.03	101.68	110.06
3	B	156	THR	N-CA-CB	6.03	119.37	110.33
1	C	7	DT	C4-C5-C7	-6.01	113.38	122.40
3	B	103	ARG	CA-C-N	6.01	125.63	119.56
3	B	103	ARG	C-N-CA	6.01	125.63	119.56
2	D	54	DG	C2'-C3'-O3'	-5.94	102.59	111.50
1	C	10	DG	C5'-C4'-O4'	5.93	118.30	109.40
3	A	152	THR	OG1-CB-CG2	-5.88	97.53	109.30
1	C	21	DG	OP1-P-OP2	5.87	137.61	120.00
1	C	5	DC	N3-C4-N4	-5.84	109.14	117.90
1	C	21	DG	C2'-C3'-O3'	5.84	120.25	111.50
1	C	6	DG	C6-C5-N7	-5.83	121.35	130.10
1	C	12	DG	OP1-P-O3'	5.80	125.41	108.00
3	B	114	ARG	N-CA-C	5.79	118.87	110.42
1	C	6	DG	O4'-C1'-C2'	-5.78	97.73	106.40
2	D	43	DA	C1'-O4'-C4'	5.75	118.33	109.70
3	A	124	ARG	CG-CD-NE	-5.75	99.35	112.00
2	D	43	DA	C2'-C3'-O3'	5.72	120.09	111.50
1	C	18	DG	C1'-O4'-C4'	5.72	118.28	109.70
1	C	6	DG	C4-N9-C1'	5.71	135.57	127.00
1	C	19	DG	C4'-C3'-O3'	-5.71	101.43	110.00
2	D	61	DC	C4'-C3'-O3'	-5.71	101.43	110.00
1	C	7	DT	O4'-C1'-C2'	-5.69	97.87	106.40
3	A	134	PRO	CA-C-N	-5.68	114.69	122.93
3	A	134	PRO	C-N-CA	-5.68	114.69	122.93
1	C	6	DG	N1-C2-N3	5.67	132.51	124.00
1	C	17	DG	C8-N9-C1'	5.65	135.47	127.00
2	D	56	DC	N3-C4-C5	-5.64	113.34	121.80
2	D	53	DC	C6-N1-C1'	5.64	128.15	119.70
2	D	48	DC	N3-C4-N4	-5.63	109.46	117.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	45	DG	C6-N1-C2	-5.62	116.46	124.90
2	D	42	DC	N1-C2-O2	-5.57	110.84	119.20
2	D	44	DC	N3-C4-N4	-5.57	109.55	117.90
2	D	60	DG	P-O5'-C5'	-5.56	111.66	120.00
2	D	57	DC	OP1-P-O3'	-5.56	91.32	108.00
2	D	46	DC	C2'-C3'-O3'	-5.55	103.17	111.50
1	C	6	DG	C8-N9-C1'	-5.54	118.68	127.00
2	D	43	DA	N1-C2-N3	5.54	137.31	129.00
2	D	50	DC	N1-C1'-C2'	5.54	121.80	113.50
1	C	18	DG	P-O5'-C5'	-5.50	111.75	120.00
2	D	46	DC	C3'-C2'-C1'	5.49	109.83	101.60
3	B	153	HIS	N-CA-C	5.49	117.97	111.33
2	D	58	DA	OP1-P-O3'	-5.48	91.56	108.00
1	C	3	DG	O5'-C5'-C4'	5.48	119.01	110.80
1	C	17	DG	C3'-C2'-C1'	5.48	109.81	101.60
1	C	5	DC	N1-C1'-C2'	-5.47	105.29	113.50
3	B	157	HIS	N-CA-C	5.47	118.42	111.69
1	C	6	DG	C2-N3-C4	-5.47	103.60	111.80
1	C	5	DC	C5-C4-N4	5.46	128.49	120.30
3	B	179	LYS	CA-C-O	5.46	126.74	120.90
3	B	146	ARG	CD-NE-CZ	-5.43	116.80	124.40
3	B	123	THR	O-C-N	5.42	127.87	122.12
3	B	113	ASP	N-CA-C	-5.42	106.68	113.72
2	D	55	DC	C2-N3-C4	-5.42	111.88	120.00
1	C	3	DG	C4-N9-C1'	-5.39	118.91	127.00
3	A	164	ALA	CB-CA-C	5.37	119.00	109.72
2	D	56	DC	O5'-C5'-C4'	-5.31	102.83	110.80
3	A	127	ARG	NE-CZ-NH1	-5.31	116.19	121.50
1	C	1	DG	C4'-C3'-C2'	-5.30	94.44	102.40
1	C	16	DT	C4-C5-C7	-5.30	114.45	122.40
1	C	21	DG	C3'-C2'-C1'	5.30	109.55	101.60
3	B	158	THR	N-CA-C	-5.30	106.98	113.50
3	B	148	ASP	N-CA-C	-5.30	105.40	111.07
2	D	55	DC	O5'-P-OP1	5.28	124.83	109.00
2	D	52	DC	OP1-P-O3'	-5.27	92.18	108.00
1	C	10	DG	O4'-C1'-C2'	-5.26	98.51	106.40
1	C	18	DG	O4'-C1'-C2'	-5.26	98.52	106.40
1	C	21	DG	O4'-C1'-N9	5.24	116.27	108.40
3	B	117	SER	N-CA-C	5.24	119.15	112.34
2	D	59	DC	P-O3'-C3'	5.23	128.05	120.20
2	D	49	DA	OP1-P-OP2	5.18	135.56	120.00
2	D	54	DG	O3'-P-O5'	-5.18	96.23	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	4	DG	C2'-C3'-O3'	-5.14	103.79	111.50
3	B	123	THR	CA-C-N	5.13	127.11	120.44
3	B	123	THR	C-N-CA	5.13	127.11	120.44
3	B	120	ASP	N-CA-CB	5.13	117.75	110.16
1	C	21	DG	O5'-C5'-C4'	-5.12	103.12	110.80
2	D	43	DA	C5-C6-N6	5.12	131.07	123.40
2	D	48	DC	O5'-P-OP1	-5.12	93.65	109.00
3	B	130	THR	OG1-CB-CG2	-5.09	99.12	109.30
2	D	63	DA	C5'-C4'-C3'	-5.09	107.27	114.90
1	C	1	DG	C3'-C2'-C1'	5.09	109.23	101.60
3	B	155	ARG	N-CA-C	-5.05	107.17	113.19
2	D	53	DC	O5'-P-OP1	5.04	124.13	109.00
1	C	3	DG	C1'-O4'-C4'	-5.03	102.15	109.70
1	C	3	DG	O4'-C1'-C2'	5.03	113.95	106.40
2	D	55	DC	N1-C2-O2	-5.03	111.66	119.20
2	D	47	DC	C5-C6-N1	5.03	128.54	121.00
1	C	15	DG	O5'-C5'-C4'	5.02	118.33	110.80
1	C	13	DG	C2'-C3'-O3'	5.02	119.03	111.50
1	C	21	DG	N1-C2-N3	5.01	131.52	124.00
2	D	60	DG	O4'-C1'-C2'	-5.01	98.89	106.40

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	A	164	ALA	Mainchain
3	A	174	ARG	Mainchain
3	A	187	ARG	Peptide
1	C	14	DC	Sidechain

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	C	461	0	245	14	0
2	D	435	0	242	14	0
3	A	730	0	714	20	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	B	701	0	687	50	0
4	A	3	0	0	0	0
4	B	3	0	0	0	0
5	A	36	0	0	7	0
5	B	21	0	0	13	0
5	C	24	0	0	3	0
5	D	19	0	0	1	0
All	All	2433	0	1888	94	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 23.

All (94) 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:B:141:MET:SD	3:B:141:MET:CE	2.08	1.40
3:B:182:THR:HB	5:B:82:HOH:O	1.57	1.02
3:A:183:LYS:HB2	5:A:87:HOH:O	1.61	0.99
3:B:114:ARG:HG2	3:B:114:ARG:HH11	1.40	0.86
3:B:178:ARG:HD2	5:B:64:HOH:O	1.76	0.85
3:B:118:ARG:NH2	3:B:120:ASP:OD2	2.10	0.85
2:D:43:DA:H2''	2:D:44:DC:C5'	2.11	0.81
2:D:43:DA:H2''	2:D:44:DC:H5''	1.64	0.78
3:B:122:LEU:HD11	3:B:126:ILE:HD11	1.64	0.78
1:C:1:DG:H1'	5:C:41:HOH:O	1.83	0.77
3:B:122:LEU:CD1	3:B:126:ILE:HD11	2.15	0.77
2:D:47:DC:H2''	2:D:48:DC:H5'	1.67	0.77
1:C:8:DG:N7	3:A:149:HIS:NE2	2.31	0.75
3:A:102:GLU:HB2	5:A:94:HOH:O	1.86	0.74
2:D:52:DC:H2''	2:D:53:DC:H5'	1.71	0.73
2:D:60:DG:O5'	2:D:60:DG:H2'	1.90	0.72
1:C:1:DG:H2''	1:C:2:DT:H5''	1.70	0.71
1:C:17:DG:O6	2:D:48:DC:N4	2.17	0.70
3:B:114:ARG:HH11	3:B:114:ARG:CG	2.04	0.69
3:B:109:VAL:HG13	3:B:110:GLU:OE1	1.94	0.68
3:B:161:LYS:HB3	5:B:71:HOH:O	1.92	0.67
3:B:135:PHE:CZ	3:B:147:SER:HB3	2.30	0.67
3:B:135:PHE:CE1	3:B:147:SER:HB3	2.30	0.67
1:C:9:DG:OP2	5:C:46:HOH:O	2.12	0.67
3:B:160:GLU:HG2	3:B:162:PRO:HD3	1.76	0.66
1:C:17:DG:H2''	1:C:18:DG:H5'	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:59:DC:OP2	5:D:67:HOH:O	2.15	0.64
3:B:171:LYS:HB3	5:B:71:HOH:O	1.99	0.62
1:C:1:DG:H2''	1:C:2:DT:C5'	2.30	0.60
1:C:21:DG:H2''	1:C:22:DT:H5'	1.82	0.60
3:A:128:ILE:C	3:A:128:ILE:HD12	2.27	0.60
2:D:43:DA:H2''	2:D:44:DC:H5'	1.84	0.59
2:D:43:DA:C2'	2:D:44:DC:H5''	2.31	0.59
3:B:114:ARG:CG	3:B:114:ARG:NH1	2.61	0.59
3:B:186:LEU:HG	5:B:100:HOH:O	2.02	0.59
3:A:137:CYS:O	3:A:141:MET:HA	2.04	0.57
1:C:3:DG:H5''	3:A:170:ARG:NH2	2.20	0.57
3:B:152:THR:HG21	5:B:17:HOH:O	2.04	0.57
3:B:165:CYS:HB2	3:B:181:HIS:CD2	2.39	0.57
2:D:60:DG:O5'	2:D:60:DG:C2'	2.45	0.56
3:B:167:ILE:HB	3:B:185:HIS:CD2	2.40	0.56
3:A:113:ASP:HB2	5:A:88:HOH:O	2.04	0.56
3:B:162:PRO:HB2	3:B:163:PHE:CD2	2.40	0.56
3:A:128:ILE:HD12	3:A:128:ILE:O	2.06	0.56
3:B:122:LEU:O	3:B:126:ILE:HG12	2.06	0.55
3:A:187:ARG:HH11	3:A:187:ARG:HA	1.72	0.54
3:A:103:ARG:O	3:A:115:ARG:NH1	2.40	0.54
3:B:161:LYS:CB	5:B:71:HOH:O	2.54	0.53
2:D:56:DC:H2''	2:D:57:DC:H5''	1.90	0.52
3:B:133:LYS:HB3	3:B:144:PHE:C	2.34	0.52
3:B:149:HIS:HB2	5:B:90:HOH:O	2.10	0.51
3:B:145:SER:C	3:B:146:ARG:HG3	2.36	0.51
3:A:181:HIS:O	3:A:184:ILE:HG12	2.11	0.51
3:B:122:LEU:HD11	3:B:126:ILE:CD1	2.39	0.51
3:B:140:CYS:SG	3:B:142:ARG:HB3	2.51	0.50
3:B:165:CYS:HB2	3:B:181:HIS:HD2	1.76	0.50
3:B:135:PHE:CE2	3:B:146:ARG:HA	2.46	0.49
3:B:181:HIS:O	3:B:184:ILE:HG12	2.13	0.49
3:A:178:ARG:NE	5:A:32:HOH:O	2.39	0.49
2:D:53:DC:H2''	2:D:54:DG:O5'	2.12	0.48
1:C:2:DT:H5'	5:C:29:HOH:O	2.13	0.48
3:B:167:ILE:HD12	3:B:185:HIS:CB	2.44	0.48
3:B:137:CYS:C	3:B:139:ILE:H	2.22	0.47
2:D:47:DC:H2''	2:D:48:DC:C5'	2.40	0.47
1:C:2:DT:H2''	1:C:3:DG:O5'	2.15	0.46
3:B:153:HIS:CD2	3:B:153:HIS:C	2.93	0.46
1:C:18:DG:OP1	3:B:125:HIS:ND1	2.35	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:183:LYS:HD3	5:A:87:HOH:O	2.14	0.45
3:B:122:LEU:CD1	3:B:126:ILE:CD1	2.92	0.45
3:B:132:GLN:HG2	3:B:134:PRO:HD3	1.97	0.45
3:B:124:ARG:HD2	3:B:146:ARG:HD2	1.97	0.45
3:B:124:ARG:O	3:B:127:ARG:HB2	2.17	0.45
3:B:136:GLN:HG3	3:B:143:ASN:ND2	2.32	0.45
2:D:63:DA:H2'	2:D:63:DA:O5'	2.17	0.45
3:B:135:PHE:HB3	3:B:150:LEU:HD22	1.99	0.45
3:A:130:THR:O	3:A:132:GLN:N	2.50	0.44
3:B:138:ARG:HA	5:B:83:HOH:O	2.17	0.44
3:B:155:ARG:HB3	3:B:160:GLU:O	2.19	0.43
3:A:136:GLN:HG3	3:A:143:ASN:ND2	2.34	0.43
3:B:170:ARG:HD2	5:B:70:HOH:O	2.18	0.43
3:A:127:ARG:HH11	3:A:127:ARG:HD3	1.57	0.43
3:B:163:PHE:HZ	5:B:39:HOH:O	2.01	0.43
1:C:17:DG:H2''	1:C:18:DG:C5'	2.46	0.43
3:B:160:GLU:HB3	5:B:31:HOH:O	2.18	0.43
3:A:186:LEU:CD1	5:A:95:HOH:O	2.66	0.42
1:C:12:DG:H2''	1:C:13:DG:OP2	2.19	0.42
3:A:148:ASP:N	3:A:148:ASP:OD1	2.49	0.42
3:B:135:PHE:CE1	3:B:147:SER:CB	3.00	0.42
3:A:180:ARG:O	5:A:87:HOH:O	2.21	0.41
3:B:178:ARG:CD	5:B:64:HOH:O	2.52	0.41
3:B:126:ILE:HD12	3:B:126:ILE:HG23	1.76	0.41
3:B:144:PHE:HZ	3:B:153:HIS:CE1	2.38	0.41
3:A:125:HIS:O	3:A:128:ILE:HG23	2.20	0.40
3:B:154:ILE:C	3:B:156:THR:H	2.30	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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	
3	A	85/87 (98%)	77 (91%)	4 (5%)	4 (5%)	2	0
3	B	82/87 (94%)	72 (88%)	7 (8%)	3 (4%)	2	1
All	All	167/174 (96%)	149 (89%)	11 (7%)	7 (4%)	2	1

All (7) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	A	141	MET
3	B	110	GLU
3	B	162	PRO
3	A	110	GLU
3	A	131	GLY
3	B	163	PHE
3	A	103	ARG

5.3.2 Protein sidechains ⓘ

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	
3	A	81/81 (100%)	72 (89%)	9 (11%)	6	6
3	B	78/81 (96%)	67 (86%)	11 (14%)	3	3
All	All	159/162 (98%)	139 (87%)	20 (13%)	4	4

All (20) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	A	114	ARG
3	A	128	ILE
3	A	130	THR
3	A	139	ILE
3	A	148	ASP
3	A	166	ASP
3	A	170	ARG
3	A	186	LEU
3	A	187	ARG

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Mol	Chain	Res	Type
3	B	103	ARG
3	B	114	ARG
3	B	117	SER
3	B	118	ARG
3	B	141	MET
3	B	146	ARG
3	B	150	LEU
3	B	154	ILE
3	B	161	LYS
3	B	167	ILE
3	B	175	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (4) such sidechains are listed below:

Mol	Chain	Res	Type
3	A	132	GLN
3	A	143	ASN
3	B	136	GLN
3	B	143	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 oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 6 ligands modelled in this entry, 6 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	C	22/22 (100%)	0.25	0	100 100	45, 56, 63, 71	0
2	D	22/22 (100%)	0.43	0	100 100	41, 61, 71, 74	0
3	A	87/87 (100%)	0.98	15 (17%)	4 3	39, 61, 97, 102	0
3	B	84/87 (96%)	2.01	40 (47%)	0 0	59, 80, 103, 107	0
All	All	215/218 (98%)	1.25	55 (25%)	1 1	39, 64, 100, 107	0

All (55) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
3	B	186	LEU	5.7
3	B	131	GLY	4.4
3	A	188	GLN	4.3
3	B	165	CYS	4.3
3	B	151	THR	4.0
3	B	168	CYS	3.8
3	B	169	GLY	3.8
3	A	102	GLU	3.7
3	B	141	MET	3.7
3	A	187	ARG	3.5
3	A	113	ASP	3.5
3	B	135	PHE	3.5
3	B	112	CYS	3.2
3	B	137	CYS	3.1
3	B	184	ILE	3.1
3	B	162	PRO	3.1
3	B	170	ARG	2.9
3	B	147	SER	2.9
3	B	139	ILE	2.9
3	B	166	ASP	2.8
3	A	132	GLN	2.8

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Mol	Chain	Res	Type	RSRZ
3	B	105	TYR	2.8
3	B	144	PHE	2.7
3	B	113	ASP	2.7
3	B	130	THR	2.7
3	B	152	THR	2.7
3	A	166	ASP	2.6
3	B	128	ILE	2.6
3	B	167	ILE	2.6
3	A	112	CYS	2.5
3	B	150	LEU	2.5
3	B	159	GLY	2.5
3	B	138	ARG	2.4
3	B	146	ARG	2.4
3	B	178	ARG	2.4
3	A	131	GLY	2.4
3	B	163	PHE	2.4
3	B	129	HIS	2.4
3	A	186	LEU	2.3
3	A	103	ARG	2.3
3	B	142	ARG	2.3
3	B	109	VAL	2.3
3	B	106	ALA	2.3
3	B	157	HIS	2.3
3	B	134	PRO	2.2
3	B	103	ARG	2.2
3	B	110	GLU	2.1
3	A	111	SER	2.1
3	A	128	ILE	2.1
3	B	143	ASN	2.1
3	A	109	VAL	2.1
3	B	164	ALA	2.1
3	A	169	GLY	2.1
3	A	184	ILE	2.0
3	B	136	GLN	2.0

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 [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
4	ZN	B	206	1/1	0.96	0.10	71,71,71,71	0
4	ZN	B	205	1/1	0.98	0.06	82,82,82,82	0
4	ZN	A	203	1/1	0.99	0.03	55,55,55,55	0
4	ZN	B	204	1/1	0.99	0.03	78,78,78,78	0
4	ZN	A	201	1/1	0.99	0.04	83,83,83,83	0
4	ZN	A	202	1/1	0.99	0.04	51,51,51,51	0

6.5 Other polymers [i](#)

There are no such residues in this entry.