wwPDB X-ray Structure Validation Summary Report (i)

Apr 3, 2024 – 01:24 am BST

PDB ID	:	8ON5
Title	:	Structure of the tail fibre from an extracellular contractile injection system from Photorhabdus bacteria
Authors	:	Godfrey, A.E.; Diaz-Saez, L.
Deposited on	:	2023-03-31
Resolution	:	2.30 Å(reported)

This is a wwPDB X-ray Structure Validation Summary 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:

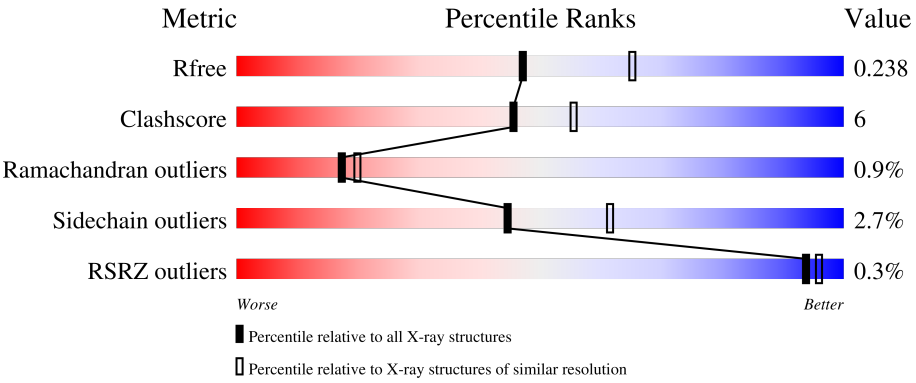
MolProbity	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

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 2.30 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	5042 (2.30-2.30)
Clashscore	141614	5643 (2.30-2.30)
Ramachandran outliers	138981	5575 (2.30-2.30)
Sidechain outliers	138945	5575 (2.30-2.30)
RSRZ outliers	127900	4938 (2.30-2.30)

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	217	81% 10% • 8%
1	B	217	78% 12% • 7%
1	C	217	79% 10% •• 8%
1	D	217	72% 18% • 8%
1	E	217	76% 12% • 9%

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Mol	Chain	Length	Quality of chain
1	F	217	81% 10% • 8%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
2	MPD	F	303	-	-	-	X

2 Entry composition (i)

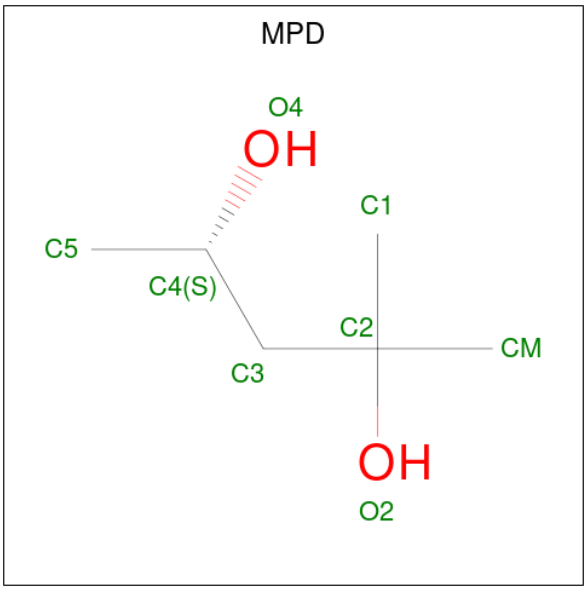
There are 5 unique types of molecules in this entry. The entry contains 9980 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 Adenoviral fiber protein.

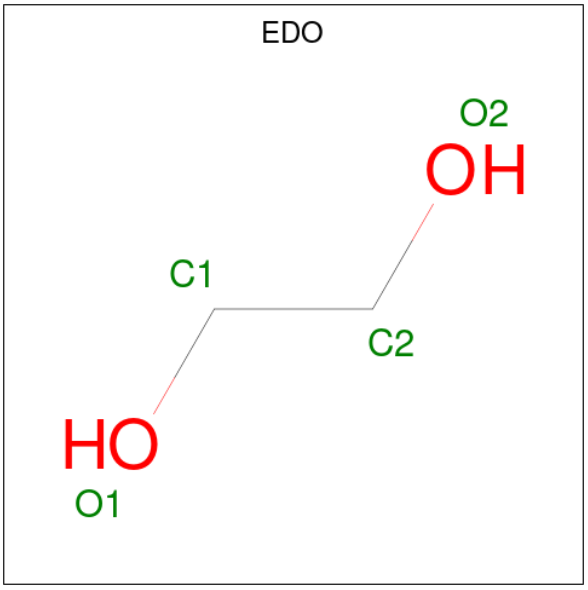
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	200	Total	C	N	O	S	7	6	0
			1548	974	266	303	5			
1	B	201	Total	C	N	O	S	19	11	0
			1592	1006	274	307	5			
1	C	200	Total	C	N	O	S	8	9	0
			1574	989	274	306	5			
1	D	200	Total	C	N	O	S	20	8	0
			1563	981	274	303	5			
1	E	198	Total	C	N	O	S	13	4	0
			1533	963	265	300	5			
1	F	200	Total	C	N	O	S	11	2	0
			1531	959	266	301	5			

- Molecule 2 is (4S)-2-METHYL-2,4-PENTANEDIOL (three-letter code: MPD) (formula: $C_6H_{14}O_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	A	1	Total C O 8 6 2	0	0
2	A	1	Total C O 8 6 2	0	0
2	B	1	Total C O 8 6 2	0	0
2	B	1	Total C O 8 6 2	0	0
2	C	1	Total C O 8 6 2	0	0
2	C	1	Total C O 8 6 2	0	0
2	D	1	Total C O 8 6 2	0	0
2	E	1	Total C O 8 6 2	0	0
2	F	1	Total C O 8 6 2	0	0
2	F	1	Total C O 8 6 2	0	0
2	F	1	Total C O 8 6 2	0	0

- Molecule 3 is 1,2-ETHANEDIOL (three-letter code: EDO) (formula: $C_2H_6O_2$).



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

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

- Molecule 4 is UNKNOWN ATOM OR ION (three-letter code: UNX) (formula: X).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	B	1	Total X 1 1	0	0
4	F	1	Total X 1 1	0	0

- Molecule 5 is water.

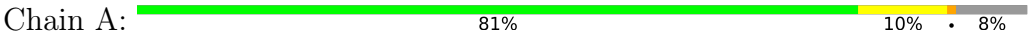
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	A	114	Total O 114 114	0	0
5	B	110	Total O 110 110	0	0
5	C	112	Total O 112 112	0	0
5	D	65	Total O 65 65	0	0
5	E	56	Total O 56 56	0	0
5	F	60	Total O 60 60	0	0

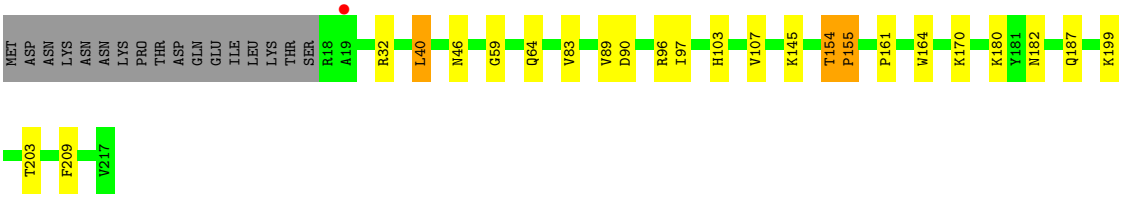
3 Residue-property plots (i)

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: Adenoviral fiber protein

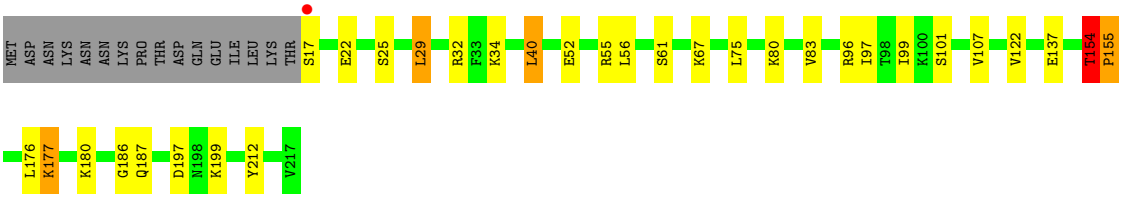
Chain A:





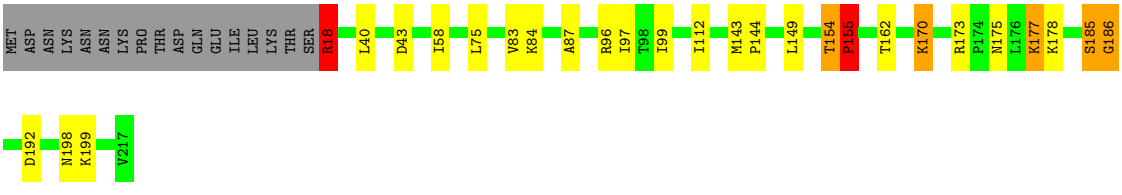
- Molecule 1: Adenoviral fiber protein

Chain B:



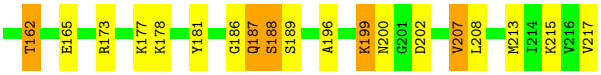
- Molecule 1: Adenoviral fiber protein

Chain C:



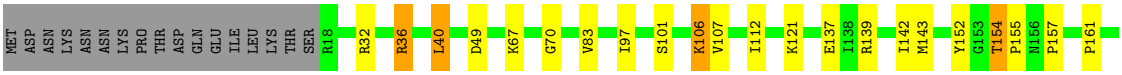
- Molecule 1: Adenoviral fiber protein

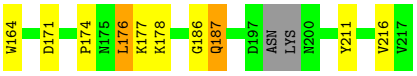
Chain D:



• Molecule 1: Adenoviral fiber protein

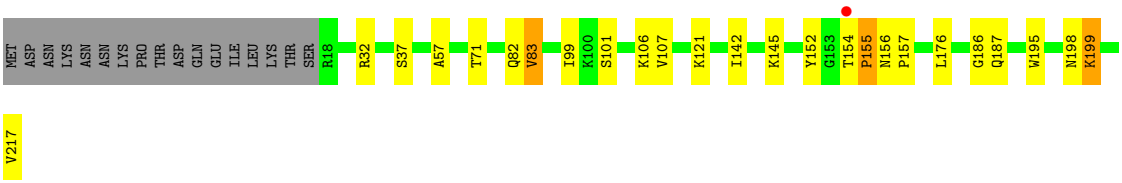
Chain E:





• Molecule 1: Adenoviral fiber protein

Chain F:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	67.46Å 53.54Å 220.66Å 90.00° 95.65° 90.00°	Depositor
Resolution (Å)	60.03 – 2.30 59.96 – 2.30	Depositor EDS
% Data completeness (in resolution range)	99.9 (60.03-2.30) 99.9 (59.96-2.30)	Depositor EDS
R_{merge}	0.10	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.48 (at 2.29Å)	Xtriage
Refinement program	REFMAC 5.8.0403	Depositor
R, R_{free}	0.179 , 0.236 0.186 , 0.238	Depositor DCC
R_{free} test set	3581 reflections (5.08%)	wwPDB-VP
Wilson B-factor (Å^2)	36.1	Xtriage
Anisotropy	0.515	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.31 , 45.2	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.96	EDS
Total number of atoms	9980	wwPDB-VP
Average B, all atoms (Å^2)	46.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 22.21 % of the origin peak, indicating pseudo-translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo-translational symmetry is equal to 5.9711e-03. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

[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: UNX, MPD, EDO

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	0.57	2/1594 (0.1%)	0.77	1/2157 (0.0%)
1	B	0.87	3/1656 (0.2%)	0.88	2/2236 (0.1%)
1	C	0.61	2/1623 (0.1%)	0.84	4/2194 (0.2%)
1	D	1.01	4/1615 (0.2%)	0.90	6/2183 (0.3%)
1	E	0.84	4/1575 (0.3%)	0.94	5/2128 (0.2%)
1	F	0.56	1/1565 (0.1%)	0.75	2/2116 (0.1%)
All	All	0.76	16/9628 (0.2%)	0.85	20/13014 (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
1	A	0	1
1	B	0	4
1	C	0	7
1	D	0	4
1	E	0	4
1	F	0	3
All	All	0	23

The worst 5 of 16 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	34	LYS	CD-CE	-26.88	0.84	1.51
1	E	178	LYS	CE-NZ	-23.04	0.91	1.49
1	D	199	LYS	CA-CB	-22.53	1.04	1.53
1	D	34	LYS	CE-NZ	-19.85	0.99	1.49
1	D	106	LYS	CG-CD	17.65	2.12	1.52

The worst 5 of 20 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	177	LYS	CD-CE-NZ	23.30	165.29	111.70
1	B	34	LYS	CG-CD-CE	13.84	153.42	111.90
1	D	106	LYS	CB-CG-CD	-12.76	78.42	111.60
1	D	34	LYS	CD-CE-NZ	-12.24	83.56	111.70
1	D	200	ASN	CB-CA-C	-10.24	89.92	110.40

There are no chirality outliers.

5 of 23 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	32	ARG	Sidechain
1	B	154	THR	Peptide
1	B	186	GLY	Peptide,Mainchain
1	B	32	ARG	Sidechain
1	C	18	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	1548	0	1565	22	0
1	B	1592	0	1638	24	0
1	C	1574	0	1597	32	0
1	D	1563	0	1586	33	0
1	E	1533	0	1541	19	0
1	F	1531	0	1531	17	0
2	A	16	0	28	2	0
2	B	16	0	28	1	0
2	C	16	0	28	1	0
2	D	8	0	14	0	0
2	E	8	0	14	4	0
2	F	24	0	42	6	0
3	A	8	0	12	0	0
3	B	8	0	12	0	0
3	C	8	0	12	0	0
3	D	4	0	6	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	E	4	0	6	1	0
4	B	1	0	0	0	0
4	F	1	0	0	0	0
5	A	114	0	0	1	0
5	B	110	0	0	5	0
5	C	112	0	0	0	0
5	D	65	0	0	3	0
5	E	56	0	0	4	0
5	F	60	0	0	2	0
All	All	9980	0	9660	121	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 6.

The worst 5 of 121 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:B:154:THR:HG22	1:B:155:PRO:HD3	1.46	0.95
1:C:185:SER:OG	1:C:186:GLY:N	1.95	0.93
1:C:175[B]:ASN:HD21	1:C:178[B]:LYS:HD3	1.36	0.91
1:C:175[B]:ASN:HD21	1:C:178[B]:LYS:CD	1.85	0.90
1:C:175[B]:ASN:ND2	1:C:178[B]:LYS:HB2	1.86	0.90

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	204/217 (94%)	199 (98%)	5 (2%)	0	100 100
1	B	211/217 (97%)	202 (96%)	7 (3%)	2 (1%)	17 20

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	C	207/217 (95%)	196 (95%)	10 (5%)	1 (0%)	29	35
1	D	206/217 (95%)	197 (96%)	6 (3%)	3 (2%)	10	10
1	E	199/217 (92%)	192 (96%)	5 (2%)	2 (1%)	15	17
1	F	200/217 (92%)	189 (94%)	8 (4%)	3 (2%)	10	10
All	All	1227/1302 (94%)	1175 (96%)	41 (3%)	11 (1%)	17	20

5 of 11 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	155	PRO
1	B	187	GLN
1	C	155	PRO
1	D	187	GLN
1	F	155	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	173/184 (94%)	168 (97%)	5 (3%)	42	58
1	B	180/184 (98%)	172 (96%)	8 (4%)	28	39
1	C	176/184 (96%)	168 (96%)	8 (4%)	27	39
1	D	175/184 (95%)	168 (96%)	7 (4%)	31	44
1	E	170/184 (92%)	164 (96%)	6 (4%)	36	50
1	F	169/184 (92%)	167 (99%)	2 (1%)	71	84
All	All	1043/1104 (94%)	1007 (96%)	36 (4%)	44	50

5 of 36 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	E	40[A]	LEU
1	F	217	VAL

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Mol	Chain	Res	Type
1	E	40[B]	LEU
1	E	176	LEU
1	B	199	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 6 such sidechains are listed below:

Mol	Chain	Res	Type
1	C	156	ASN
1	D	156	ASN
1	F	46	ASN
1	B	28	ASN
1	A	65	GLN

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 monosaccharides in this entry.

5.6 Ligand geometry

Of 21 ligands modelled in this entry, 2 are unknown - leaving 19 for Mogul analysis.

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	$\#\|Z\| > 2$
2	MPD	A	303	-	7,7,7	0.23	0	9,10,10	0.44	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
2	MPD	C	304	-	7,7,7	0.36	0	9,10,10	0.71	0
2	MPD	E	302	-	7,7,7	0.28	0	9,10,10	0.66	0
3	EDO	C	303	-	3,3,3	0.31	0	2,2,2	0.41	0
2	MPD	F	302	-	7,7,7	0.32	0	9,10,10	0.45	0
2	MPD	F	303	-	7,7,7	0.18	0	9,10,10	0.80	0
2	MPD	F	304	-	7,7,7	0.15	0	9,10,10	0.38	0
3	EDO	D	302	-	3,3,3	0.12	0	2,2,2	0.21	0
3	EDO	A	304	-	3,3,3	0.36	0	2,2,2	0.45	0
3	EDO	B	303	-	3,3,3	0.17	0	2,2,2	0.22	0
2	MPD	C	302	-	7,7,7	0.12	0	9,10,10	0.53	0
2	MPD	D	301	-	7,7,7	0.19	0	9,10,10	0.42	0
3	EDO	C	301	-	3,3,3	0.48	0	2,2,2	0.52	0
3	EDO	B	305	-	3,3,3	0.22	0	2,2,2	0.29	0
2	MPD	B	302	-	7,7,7	0.19	0	9,10,10	0.37	0
2	MPD	A	301	-	7,7,7	0.17	0	9,10,10	0.30	0
2	MPD	B	304	-	7,7,7	0.16	0	9,10,10	0.54	0
3	EDO	E	301	-	3,3,3	0.24	0	2,2,2	0.40	0
3	EDO	A	302	-	3,3,3	0.25	0	2,2,2	0.24	0

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
2	MPD	A	303	-	-	3/5/5/5	-
2	MPD	C	304	-	-	0/5/5/5	-
2	MPD	E	302	-	-	2/5/5/5	-
3	EDO	C	303	-	-	0/1/1/1	-
2	MPD	F	302	-	-	1/5/5/5	-
2	MPD	F	303	-	-	1/5/5/5	-
2	MPD	F	304	-	-	0/5/5/5	-
3	EDO	D	302	-	-	1/1/1/1	-
3	EDO	A	304	-	-	0/1/1/1	-
3	EDO	B	303	-	-	0/1/1/1	-
2	MPD	C	302	-	-	3/5/5/5	-
2	MPD	D	301	-	-	4/5/5/5	-
3	EDO	C	301	-	-	1/1/1/1	-
3	EDO	B	305	-	-	0/1/1/1	-
2	MPD	B	302	-	-	3/5/5/5	-
2	MPD	A	301	-	-	0/5/5/5	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	MPD	B	304	-	-	0/5/5/5	-
3	EDO	E	301	-	-	1/1/1/1	-
3	EDO	A	302	-	-	1/1/1/1	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

5 of 21 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	303	MPD	C1-C2-C3-C4
3	E	301	EDO	O1-C1-C2-O2
2	A	303	MPD	O2-C2-C3-C4
2	B	302	MPD	O2-C2-C3-C4
2	C	302	MPD	O2-C2-C3-C4

There are no ring outliers.

8 monomers are involved in 15 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	303	MPD	2	0
2	C	304	MPD	1	0
2	E	302	MPD	4	0
2	F	302	MPD	1	0
2	F	303	MPD	2	0
2	F	304	MPD	3	0
2	B	304	MPD	1	0
3	E	301	EDO	1	0

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	200/217 (92%)	-0.15	1 (0%)	91	94	19, 36, 64, 80	4 (2%)
1	B	201/217 (92%)	-0.12	1 (0%)	91	94	20, 38, 61, 98	6 (2%)
1	C	200/217 (92%)	-0.24	0	100	100	18, 39, 64, 83	3 (1%)
1	D	200/217 (92%)	-0.25	0	100	100	31, 47, 72, 86	6 (3%)
1	E	198/217 (91%)	-0.24	0	100	100	35, 50, 70, 86	7 (3%)
1	F	200/217 (92%)	-0.26	1 (0%)	91	94	34, 51, 77, 139	4 (2%)
All	All	1199/1302 (92%)	-0.21	3 (0%)	94	96	18, 45, 70, 139	30 (2%)

All (3) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	F	154	THR	2.5
1	A	19	ALA	2.5
1	B	17	SER	2.1

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

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

6.3 Carbohydrates

There are no monosaccharides in this entry.

6.4 Ligands

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, 95^{th} 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
2	MPD	F	303	8/8	0.71	0.40	40,43,46,52	8
2	MPD	F	304	8/8	0.81	0.39	42,46,57,57	8
3	EDO	B	303	4/4	0.83	0.21	57,64,66,66	0
3	EDO	A	304	4/4	0.84	0.22	69,77,79,80	0
2	MPD	C	304	8/8	0.85	0.53	40,47,50,52	8
2	MPD	A	303	8/8	0.86	0.34	36,43,47,50	8
3	EDO	C	301	4/4	0.86	0.15	47,49,54,56	0
2	MPD	A	301	8/8	0.87	0.19	74,82,89,94	0
2	MPD	E	302	8/8	0.88	0.37	46,48,48,50	8
2	MPD	D	301	8/8	0.88	0.22	41,47,50,51	8
2	MPD	B	302	8/8	0.90	0.14	68,72,76,76	0
3	EDO	C	303	4/4	0.90	0.20	58,66,70,70	0
3	EDO	D	302	4/4	0.91	0.28	61,65,67,67	0
3	EDO	B	305	4/4	0.93	0.19	55,56,59,59	0
4	UNX	F	301	1/1	0.93	0.54	40,40,40,40	0
2	MPD	F	302	8/8	0.94	0.11	59,64,67,67	0
2	MPD	B	304	8/8	0.94	0.17	55,62,69,69	0
3	EDO	E	301	4/4	0.95	0.09	65,69,69,71	0
2	MPD	C	302	8/8	0.95	0.12	69,69,73,76	0
4	UNX	B	301	1/1	0.96	0.71	39,39,39,39	0
3	EDO	A	302	4/4	0.96	0.16	41,48,52,53	0

6.5 Other polymers (i)

There are no such residues in this entry.