WORLDWIDE wwPDB PROTEIN DATA BANK

wwPDB X-ray Structure Validation Summary Report ⓘ

Aug 28, 2023 – 11:35 AM EDT

PDB ID : 3KH2

Title : Crystal structure of the P1 bacteriophage Doc toxin (F68S) in complex with the Phd antitoxin (L17M/V39A). Northeast Structural Genomics targets ER385-ER386

Authors : Arbing, M.A.; Kuzin, A.P.; Su, M.; Abashidze, M.; Verdon, G.; Liu, M.; Xiao, R.; Acton, T.; Inouye, M.; Montelione, G.T.; Woychik, N.A.; Hunt, J.F.; Northeast Structural Genomics Consortium (NESG)

Deposited on : 2009-10-29

Resolution : 2.71 Å(reported)

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The following versions of software and data (see references ⓘ) were used in the production of this report:

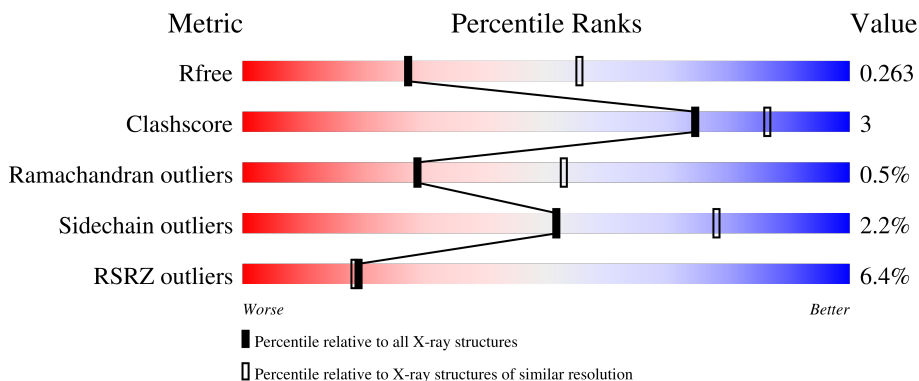|		
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.35
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)

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 2.71 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.
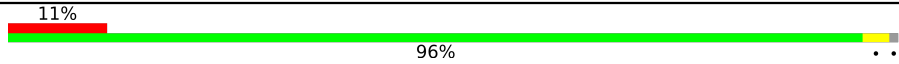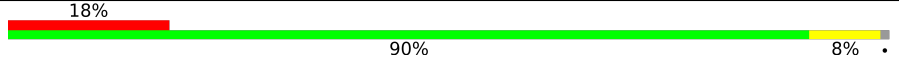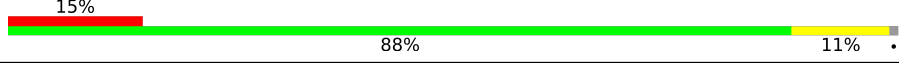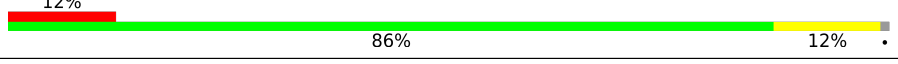
Metric	Percentile Ranks	Value
Rfree		0.263
Clashscore		3
Ramachandran outliers		0.5%
Sidechain outliers		2.2%
RSRZ outliers		6.4%

Worse   *Better*

▮ Percentile relative to all X-ray structures

▯ Percentile relative to X-ray structures of similar resolution

Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R$_{free}$	130704	3359 (2.74-2.70)
Clashscore	141614	3686 (2.74-2.70)
Ramachandran outliers	138981	3622 (2.74-2.70)
Sidechain outliers	138945	3623 (2.74-2.70)
RSRZ outliers	127900	3276 (2.74-2.70)

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	134	86% 7% 7%
1	B	134	81% 10% · 7%
1	C	134	5% 80% 12% 8%
1	D	134	.% 87% · · 8%

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Mol	Chain	Length	Quality of chain
2	E	73	11% / 96%
2	F	73	18% / 90% / 8%
2	G	73	15% / 88% / 11%
2	H	73	12% / 86% / 12%

2 Entry composition ⓘ

There are 7 unique types of molecules in this entry. The entry contains 6160 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 Death on curing protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	124	Total	C	N	O	Se	1	1	0
			944	586	173	183	2			
1	B	124	Total	C	N	O	Se	0	1	0
			944	586	173	183	2			
1	C	123	Total	C	N	O	Se	2	1	0
			938	583	172	181	2			
1	D	123	Total	C	N	O	Se	1	1	0
			938	583	172	181	2			

There are 40 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	1	MSE	-	initiating methionine	UNP Q06259
A	68	SER	PHE	engineered mutation	UNP Q06259
A	127	LEU	-	expression tag	UNP Q06259
A	128	GLU	-	expression tag	UNP Q06259
A	129	HIS	-	expression tag	UNP Q06259
A	130	HIS	-	expression tag	UNP Q06259
A	131	HIS	-	expression tag	UNP Q06259
A	132	HIS	-	expression tag	UNP Q06259
A	133	HIS	-	expression tag	UNP Q06259
A	134	HIS	-	expression tag	UNP Q06259
B	1	MSE	-	initiating methionine	UNP Q06259
B	68	SER	PHE	engineered mutation	UNP Q06259
B	127	LEU	-	expression tag	UNP Q06259
B	128	GLU	-	expression tag	UNP Q06259
B	129	HIS	-	expression tag	UNP Q06259
B	130	HIS	-	expression tag	UNP Q06259
B	131	HIS	-	expression tag	UNP Q06259
B	132	HIS	-	expression tag	UNP Q06259
B	133	HIS	-	expression tag	UNP Q06259
B	134	HIS	-	expression tag	UNP Q06259
C	1	MSE	-	initiating methionine	UNP Q06259

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Chain	Residue	Modelled	Actual	Comment	Reference
C	68	SER	PHE	engineered mutation	UNP Q06259
C	127	LEU	-	expression tag	UNP Q06259
C	128	GLU	-	expression tag	UNP Q06259
C	129	HIS	-	expression tag	UNP Q06259
C	130	HIS	-	expression tag	UNP Q06259
C	131	HIS	-	expression tag	UNP Q06259
C	132	HIS	-	expression tag	UNP Q06259
C	133	HIS	-	expression tag	UNP Q06259
C	134	HIS	-	expression tag	UNP Q06259
D	1	MSE	-	initiating methionine	UNP Q06259
D	68	SER	PHE	engineered mutation	UNP Q06259
D	127	LEU	-	expression tag	UNP Q06259
D	128	GLU	-	expression tag	UNP Q06259
D	129	HIS	-	expression tag	UNP Q06259
D	130	HIS	-	expression tag	UNP Q06259
D	131	HIS	-	expression tag	UNP Q06259
D	132	HIS	-	expression tag	UNP Q06259
D	133	HIS	-	expression tag	UNP Q06259
D	134	HIS	-	expression tag	UNP Q06259

- Molecule 2 is a protein called Prevent host death protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	E	72	Total	C	N	O	Se	0	0	0
			562	345	101	115	1			
2	F	72	Total	C	N	O	Se	0	0	0
			562	345	101	115	1			
2	G	72	Total	C	N	O	Se	0	0	0
			562	345	101	115	1			
2	H	72	Total	C	N	O	Se	0	0	0
			562	345	101	115	1			

There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
E	17	MSE	LEU	engineered mutation	UNP Q06253
E	39	ALA	VAL	engineered mutation	UNP Q06253
F	17	MSE	LEU	engineered mutation	UNP Q06253
F	39	ALA	VAL	engineered mutation	UNP Q06253
G	17	MSE	LEU	engineered mutation	UNP Q06253
G	39	ALA	VAL	engineered mutation	UNP Q06253
H	17	MSE	LEU	engineered mutation	UNP Q06253

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Chain	Residue	Modelled	Actual	Comment	Reference
H	39	ALA	VAL	engineered mutation	UNP Q06253

- Molecule 3 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	1	Total Cl 1 1	0	0

- Molecule 4 is 2-HYDROXYETHYL DISULFIDE (three-letter code: HED) (formula: $C_4H_{10}O_2S_2$).
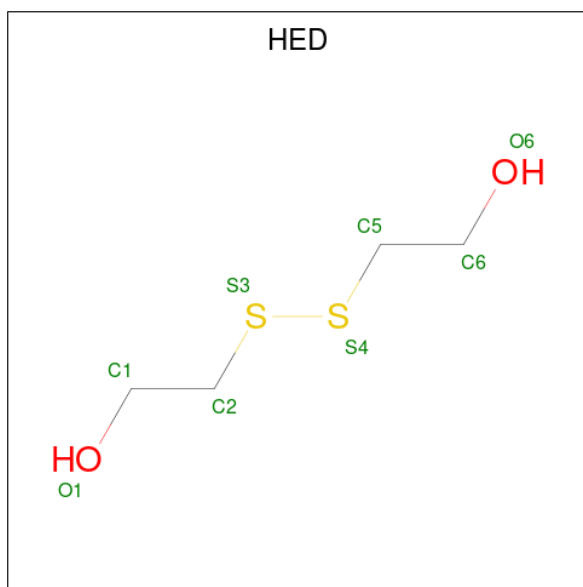
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	A	1	Total C O S 8 4 2 2	0	0
4	B	1	Total C O S 8 4 2 2	0	0

- Molecule 5 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).

GOL

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
5	B	1	Total 6	C 3	O 3	0	0
5	B	1	Total 6	C 3	O 3	0	0
5	H	1	Total 6	C 3	O 3	0	0

- Molecule 6 is PHOSPHATE ION (three-letter code: PO4) (formula: O_4P).

PO4
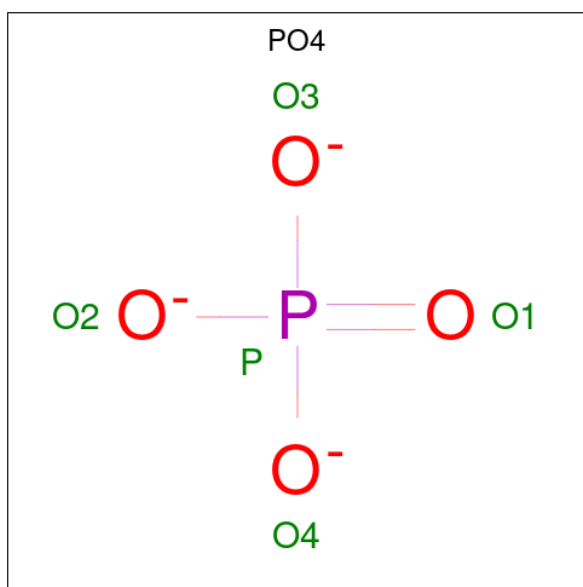
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
6	E	1	Total 5	O 4	P 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
6	F	1	Total 5	O 4	P 1	0	0
6	G	1	Total 5	O 4	P 1	0	0
6	H	1	Total 5	O 4	P 1	0	0

- Molecule 7 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
7	A	24	Total 24	O 24	0	0
7	B	24	Total 24	O 24	0	0
7	C	7	Total 7	O 7	0	0
7	D	21	Total 21	O 21	0	0
7	E	4	Total 4	O 4	0	0
7	F	6	Total 6	O 6	0	0
7	G	2	Total 2	O 2	0	0
7	H	5	Total 5	O 5	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: Death on curing protein

Chain A:

- Molecule 1: Death on curing protein

Chain B:
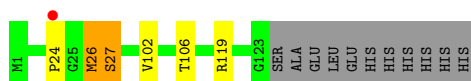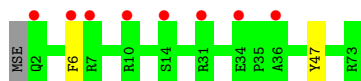

- Molecule 1: Death on curing protein

Chain C:

- Molecule 1: Death on curing protein

Chain D:
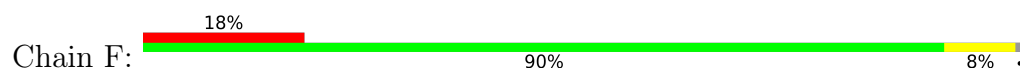

- Molecule 2: Prevent host death protein

Chain E:

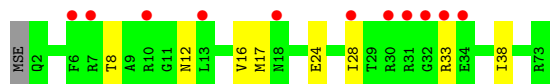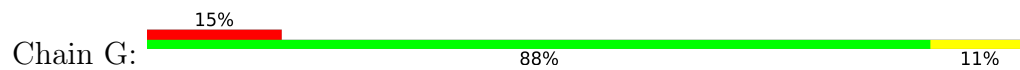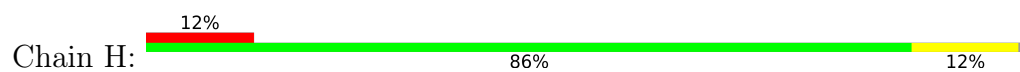- Molecule 2: Prevent host death protein

Chain F:

• Molecule 2: Prevent host death protein

Chain G:

• Molecule 2: Prevent host death protein

Chain H:

4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	95.90Å 111.28Å 118.75Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	30.00 – 2.71 37.39 – 2.71	Depositor EDS
% Data completeness (in resolution range)	90.9 (30.00-2.71) 90.9 (37.39-2.71)	Depositor EDS
R_{merge}	0.14	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.49 (at 2.72Å)	Xtriage
Refinement program	REFMAC	Depositor
R, R_{free}	0.217 , 0.267 0.220 , 0.263	Depositor DCC
R_{free} test set	1583 reflections (4.93%)	wwPDB-VP
Wilson B-factor (Å^2)	50.6	Xtriage
Anisotropy	0.238	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.33 , 37.0	EDS
L-test for twinning[2]	$< |L| > = 0.48, < L^2 > = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	6160	wwPDB-VP
Average B, all atoms (Å^2)	55.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.21% of the height of the origin peak. No significant pseudotranslation is detected.*

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[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 (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: PO4, HED, GOL, CL

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$|Z|$ >5	RMSZ	#$|Z|$ >5
1	A	0.55	2/960 (0.2%)	0.61	1/1300 (0.1%)
1	B	0.42	0/960	0.56	0/1300
1	C	0.52	1/954 (0.1%)	0.62	2/1292 (0.2%)
1	D	0.71	2/954 (0.2%)	0.65	1/1292 (0.1%)
2	E	0.34	0/566	0.51	0/758
2	F	0.38	0/566	0.54	0/758
2	G	0.37	0/566	0.49	0/758
2	H	0.37	0/566	0.51	0/758
All	All	0.50	5/6092 (0.1%)	0.58	4/8216 (0.0%)

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	119	ARG	CZ-NH1	15.49	1.53	1.33
1	D	119	ARG	NE-CZ	9.57	1.45	1.33
1	A	119	ARG	CZ-NH2	8.05	1.43	1.33
1	C	119	ARG	CZ-NH1	7.17	1.42	1.33
1	A	119	ARG	NE-CZ	6.43	1.41	1.33

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	D	119	ARG	NE-CZ-NH2	10.85	125.72	120.30
1	C	50	ASP	CB-CG-OD2	8.43	125.89	118.30
1	A	119	ARG	NE-CZ-NH1	6.44	123.52	120.30
1	C	50	ASP	OD1-CG-OD2	-5.44	112.97	123.30

There are no chirality outliers.

There are no planarity outliers.

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	944	0	943	4	0
1	B	944	0	943	13	0
1	C	938	0	938	10	0
1	D	938	0	938	3	0
2	E	562	0	552	1	0
2	F	562	0	552	4	0
2	G	562	0	552	3	0
2	H	562	0	552	3	0
3	A	1	0	0	0	0
4	A	8	0	10	0	0
4	B	8	0	10	1	0
5	B	12	0	16	0	0
5	H	6	0	8	0	0
6	E	5	0	0	0	0
6	F	5	0	0	0	0
6	G	5	0	0	0	0
6	H	5	0	0	0	0
7	A	24	0	0	1	0
7	B	24	0	0	2	0
7	C	7	0	0	0	0
7	D	21	0	0	0	0
7	E	4	0	0	0	0
7	F	6	0	0	0	0
7	G	2	0	0	0	0
7	H	5	0	0	0	0
All	All	6160	0	6014	38	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 3.

The worst 5 of 38 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:F:28:ILE:HD11	2:F:38:ILE:HD11	1.58	0.83
1:A:10:ILE:HD11	1:A:29:PRO:HA	1.66	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:50:ASP:OD1	1:B:119:ARG:NH1	2.24	0.71
1:B:50:ASP:CG	1:B:119:ARG:HH12	1.95	0.69
1:A:23:LEU:HD12	1:A:24:PRO:HD2	1.83	0.60

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	
1	A	123/134 (92%)	121 (98%)	2 (2%)	0	100	100
1	B	123/134 (92%)	121 (98%)	2 (2%)	0	100	100
1	C	122/134 (91%)	121 (99%)	1 (1%)	0	100	100
1	D	122/134 (91%)	118 (97%)	1 (1%)	3 (2%)	5	13
2	E	70/73 (96%)	69 (99%)	1 (1%)	0	100	100
2	F	70/73 (96%)	68 (97%)	1 (1%)	1 (1%)	11	26
2	G	70/73 (96%)	65 (93%)	5 (7%)	0	100	100
2	H	70/73 (96%)	66 (94%)	4 (6%)	0	100	100
All	All	770/828 (93%)	749 (97%)	17 (2%)	4 (0%)	29	53

All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	F	6	PHE
1	D	24	PRO
1	D	26	MSE
1	D	27	SER

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	
1	A	99/105 (94%)	98 (99%)	1 (1%)	76	90
1	B	99/105 (94%)	97 (98%)	2 (2%)	55	80
1	C	98/105 (93%)	97 (99%)	1 (1%)	76	90
1	D	98/105 (93%)	98 (100%)	0	100	100
2	E	59/58 (102%)	58 (98%)	1 (2%)	60	83
2	F	59/58 (102%)	57 (97%)	2 (3%)	37	65
2	G	59/58 (102%)	55 (93%)	4 (7%)	16	35
2	H	59/58 (102%)	56 (95%)	3 (5%)	24	48
All	All	630/652 (97%)	616 (98%)	14 (2%)	52	78

5 of 14 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	G	8	THR
2	G	17	MSE
2	H	65	SER
2	H	8	THR
2	H	24	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

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 10 ligands modelled in this entry, 1 is monoatomic - leaving 9 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	$\#|Z| > 2$
6	PO4	F	4001	-	4,4,4	0.96	0	6,6,6	0.21	0
6	PO4	H	4004	-	4,4,4	0.81	0	6,6,6	0.65	0
5	GOL	H	2003	-	5,5,5	0.41	0	5,5,5	0.30	0
5	GOL	B	2001	-	5,5,5	0.42	0	5,5,5	0.36	0
4	HED	A	1002	-	7,7,7	0.30	0	6,6,6	0.62	0
4	HED	B	1001	-	7,7,7	0.25	0	6,6,6	0.47	0
5	GOL	B	2002	-	5,5,5	0.36	0	5,5,5	0.27	0
6	PO4	E	4003	-	4,4,4	0.84	0	6,6,6	0.57	0
6	PO4	G	4002	-	4,4,4	0.78	0	6,6,6	0.54	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
5	GOL	H	2003	-	-	0/4/4/4	-
5	GOL	B	2001	-	-	2/4/4/4	-
4	HED	A	1002	-	-	1/5/5/5	-
4	HED	B	1001	-	-	2/5/5/5	-
5	GOL	B	2002	-	-	2/4/4/4	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

5 of 7 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	1002	HED	O1-C1-C2-S3
4	B	1001	HED	S4-C5-C6-O6
5	B	2001	GOL	O1-C1-C2-C3
5	B	2002	GOL	C1-C2-C3-O3
5	B	2001	GOL	O1-C1-C2-O2

There are no ring outliers.

1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	B	1001	HED	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, 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(Å²)	Q<0.9
1	A	122/134 (91%)	0.09	0	100	100	19, 30, 45, 59	1 (0%)
1	B	122/134 (91%)	0.09	0	100	100	18, 33, 51, 67	3 (2%)
1	C	121/134 (90%)	0.32	7 (5%)	23	22	28, 46, 69, 96	4 (3%)
1	D	121/134 (90%)	0.05	1 (0%)	86	87	20, 34, 52, 61	2 (1%)
2	E	71/73 (97%)	0.80	8 (11%)	5	4	33, 69, 147, 157	0
2	F	71/73 (97%)	0.93	13 (18%)	1	1	33, 64, 137, 156	0
2	G	71/73 (97%)	0.91	11 (15%)	2	1	37, 76, 161, 180	0
2	H	71/73 (97%)	0.79	9 (12%)	3	3	30, 74, 149, 167	0
All	All	770/828 (92%)	0.40	49 (6%)	19	18	18, 41, 137, 180	10 (1%)

The worst 5 of 49 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	H	6	PHE	6.9
1	C	95	PRO	5.2
1	C	25	GLY	4.9
2	G	32	GLY	4.4
2	E	31	ARG	4.1

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, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
5	GOL	B	2002	6/6	0.60	0.34	97,97,98,98	0
4	HED	B	1001	8/8	0.76	0.38	97,98,99,99	0
5	GOL	B	2001	6/6	0.79	0.32	90,90,91,91	0
5	GOL	H	2003	6/6	0.84	0.25	77,78,79,79	0
6	PO4	F	4001	5/5	0.87	0.18	80,81,82,82	0
6	PO4	G	4002	5/5	0.92	0.26	92,92,93,93	0
4	HED	A	1002	8/8	0.93	0.28	53,53,56,56	0
6	PO4	E	4003	5/5	0.93	0.16	78,79,79,80	0
6	PO4	H	4004	5/5	0.95	0.13	82,82,83,83	0
3	CL	A	1001	1/1	0.97	0.14	46,46,46,46	0

6.5 Other polymers ⓘ

There are no such residues in this entry.