WORLDWIDE wwPDB PROTEIN DATA BANK

Full wwPDB X-ray Structure Validation Report ⓘ

Sep 25, 2023 – 09:43 AM EDT

PDB ID	:	5VEV
Title	:	Crystal Structure of Phosphoribosylamine-glycine Ligase from Neisseria gonorrhoeae
Authors	:	Seattle Structural Genomics Center for Infectious Disease (SSGCID)
Deposited on	:	2017-04-05
Resolution	:	1.90 Å(reported)

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	:	2.35.1
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)	:	2.35.1

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 1.90 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		0.201
Clashscore		2
Ramachandran outliers		0
Sidechain outliers		1.2%
RSRZ outliers		7.9%

Worse — *Better*

▌Percentile relative to all X-ray structures

▯Percentile relative to X-ray structures of similar resolution
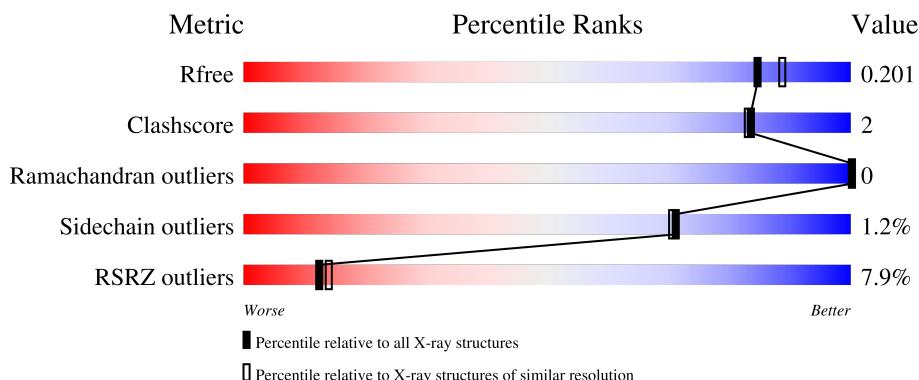
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R$_{free}$	130704	6207 (1.90-1.90)
Clashscore	141614	6847 (1.90-1.90)
Ramachandran outliers	138981	6760 (1.90-1.90)
Sidechain outliers	138945	6760 (1.90-1.90)
RSRZ outliers	127900	6082 (1.90-1.90)

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	431	7% / 89% / 5% / 6%
1	B	431	7% / 87% / 7% / 6%

2 Entry composition (i)

There are 6 unique types of molecules in this entry. The entry contains 6654 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 Phosphoribosylamine--glycine ligase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	406	Total 3030	C 1925	N 506	O 583	S 16	0	7	0
1	B	407	Total 2991	C 1901	N 497	O 578	S 15	0	5	0

There are 18 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-7	MET	-	expression tag	UNP B4RPN9
A	-6	ALA	-	expression tag	UNP B4RPN9
A	-5	HIS	-	expression tag	UNP B4RPN9
A	-4	HIS	-	expression tag	UNP B4RPN9
A	-3	HIS	-	expression tag	UNP B4RPN9
A	-2	HIS	-	expression tag	UNP B4RPN9
A	-1	HIS	-	expression tag	UNP B4RPN9
A	0	HIS	-	expression tag	UNP B4RPN9
A	211	GLN	ARG	engineered mutation	UNP B4RPN9
B	-7	MET	-	expression tag	UNP B4RPN9
B	-6	ALA	-	expression tag	UNP B4RPN9
B	-5	HIS	-	expression tag	UNP B4RPN9
B	-4	HIS	-	expression tag	UNP B4RPN9
B	-3	HIS	-	expression tag	UNP B4RPN9
B	-2	HIS	-	expression tag	UNP B4RPN9
B	-1	HIS	-	expression tag	UNP B4RPN9
B	0	HIS	-	expression tag	UNP B4RPN9
B	211	GLN	ARG	engineered mutation	UNP B4RPN9

- Molecule 2 is SODIUM ION (three-letter code: NA) (formula: Na).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	1	Total 1	Na 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	B	1	Total Na 1 1		0	0

- Molecule 3 is ACETATE ION (three-letter code: ACT) (formula: $C_2H_3O_2$).
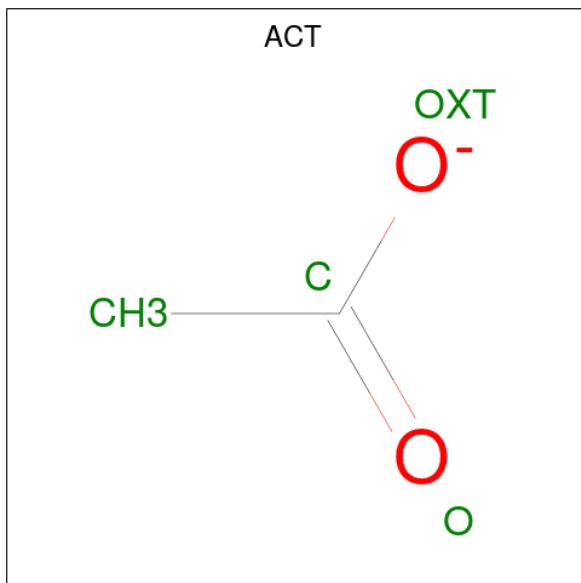
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	A	1	Total C O 4 2 2			0	0
3	A	1	Total C O 4 2 2			0	0
3	B	1	Total C O 4 2 2			0	0

- Molecule 4 is 1,2-ETHANEDIOL (three-letter code: EDO) (formula: $C_2H_6O_2$).

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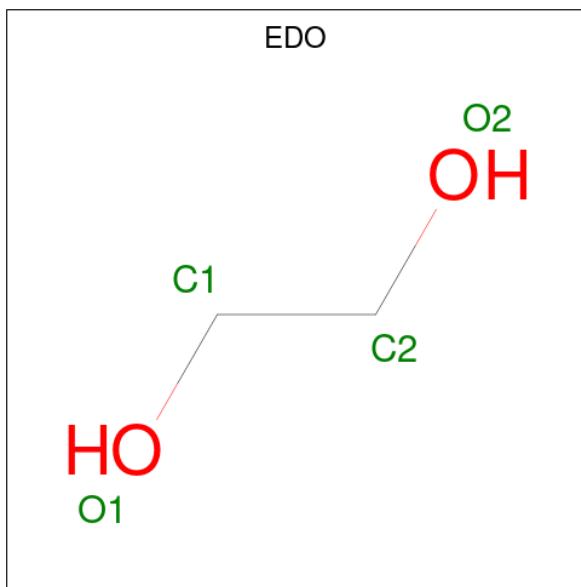
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	A	1	Total 4	C 2	O 2	0	0
4	A	1	Total 4	C 2	O 2	0	0
4	A	1	Total 4	C 2	O 2	0	0
4	A	1	Total 4	C 2	O 2	0	0
4	A	1	Total 4	C 2	O 2	0	0
4	A	1	Total 4	C 2	O 2	0	0
4	A	1	Total 4	C 2	O 2	0	0
4	B	1	Total 4	C 2	O 2	0	0
4	B	1	Total 4	C 2	O 2	0	0
4	B	1	Total 4	C 2	O 2	0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

- Molecule 5 is SULFATE ION (three-letter code: SO4) (formula: O_4S).
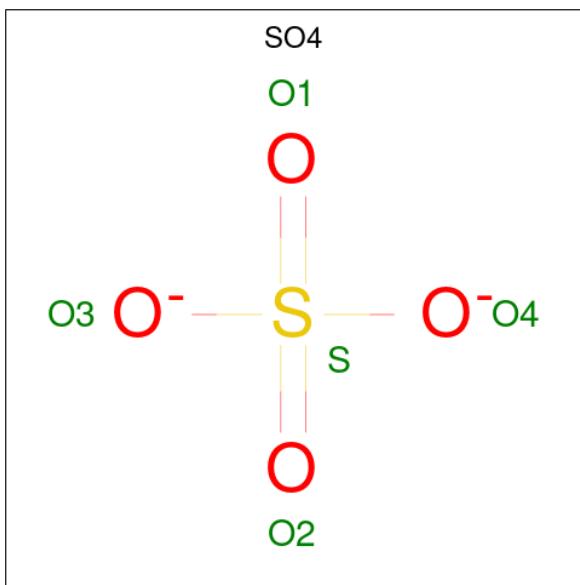
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
5	A	1	Total 5	O 4	S 1	0	0
5	B	1	Total 5	O 4	S 1	0	0
5	B	1	Total 5	O 4	S 1	0	0

- Molecule 6 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
6	A	336	Total 340	O 340	0	5
6	B	210	Total 212	O 212	0	3

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: Phosphoribosylamine--glycine ligase

Chain A:

• Molecule 1: Phosphoribosylamine--glycine ligase

Chain B:
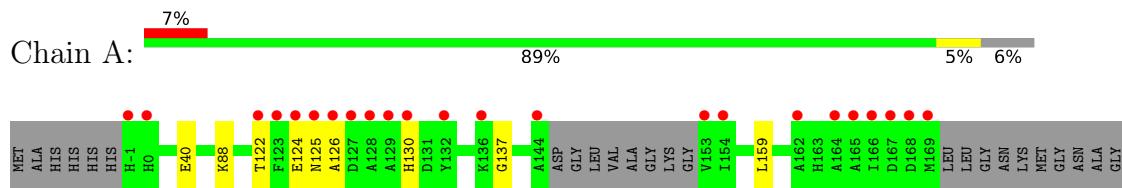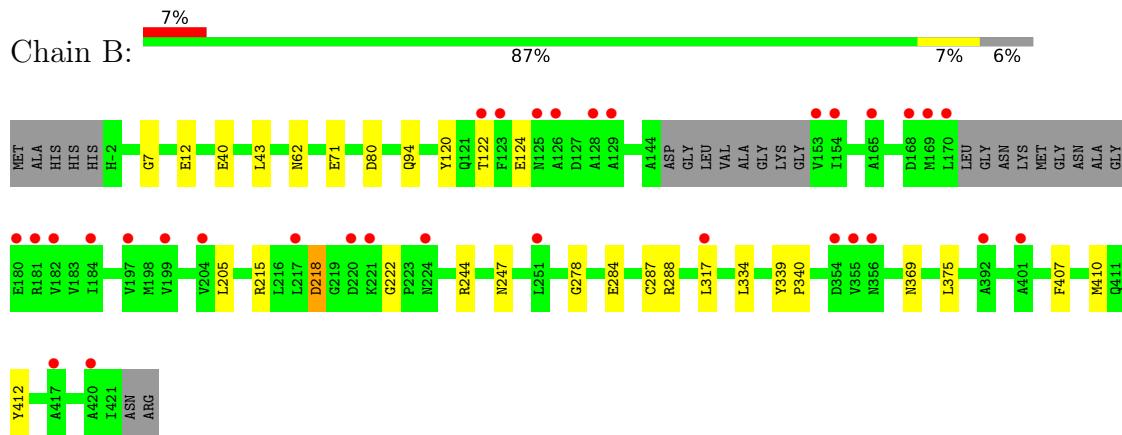
4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	73.31Å 99.45Å 131.60Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	46.52 – 1.90 46.52 – 1.90	Depositor EDS
% Data completeness (in resolution range)	97.9 (46.52-1.90) 97.9 (46.52-1.90)	Depositor EDS
R_{merge}	0.06	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	3.35 (at 1.90Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.166 , 0.201 0.166 , 0.201	Depositor DCC
R_{free} test set	2063 reflections (2.76%)	wwPDB-VP
Wilson B-factor (Å^2)	28.2	Xtriage
Anisotropy	0.296	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.33 , 57.1	EDS
L-test for twinning[2]	$< |L| > = 0.50, < L^2 > = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.97	EDS
Total number of atoms	6654	wwPDB-VP
Average B, all atoms (Å^2)	41.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.98% 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: ACT, EDO, SO4, NA

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	0.37	0/3107	0.56	1/4223 (0.0%)
1	B	0.33	0/3062	0.52	0/4172
All	All	0.35	0/6169	0.54	1/8395 (0.0%)

There are no bond length outliers.

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	402	LEU	CA-CB-CG	6.47	130.18	115.30

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	3030	0	2956	14	0
1	B	2991	0	2870	17	0
2	A	1	0	0	0	0
2	B	1	0	0	0	0
3	A	8	0	6	0	0
3	B	4	0	3	0	0
4	A	28	0	42	2	0
4	B	24	0	36	4	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	A	5	0	0	0	0
5	B	10	0	0	0	0
6	A	340	0	0	1	0
6	B	212	0	0	0	0
All	All	6654	0	5913	29	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 2.

All (29) 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:A:284:GLU:OE1	1:A:288:ARG:NE	2.24	0.71
1:B:284:GLU:OE2	1:B:288:ARG:NE	2.23	0.69
1:A:124:GLU:HG2	1:A:125:ASN:H	1.57	0.68
1:A:122:THR:HG22	1:A:183:VAL:HG22	1.78	0.64
1:A:316:ARG:NH1	1:B:247:ASN:HD21	1.99	0.60
1:B:218:ASP:N	1:B:218:ASP:OD1	2.34	0.60
1:B:62:ASN:HA	4:B:504:EDO:H11	1.84	0.60
1:A:316:ARG:HH11	1:B:247:ASN:HD21	1.53	0.56
1:B:339:TYR:CD1	1:B:340:PRO:HA	2.43	0.53
1:B:278:GLY:HA3	4:B:506:EDO:H22	1.90	0.53
1:B:215:ARG:NH1	1:B:222:GLY:O	2.43	0.51
1:A:126:ALA:HB1	1:A:130:HIS:CD2	2.49	0.48
1:B:94:GLN:HG2	4:B:505:EDO:H22	1.96	0.47
1:B:7:GLY:HA3	1:B:12:GLU:HG2	1.95	0.47
1:B:334:LEU:HD23	1:B:412:TYR:HB3	1.96	0.47
1:B:369:ASN:HB3	1:B:375:LEU:HD11	1.98	0.46
1:A:88:LYS:NZ	6:A:614[B]:HOH:O	2.50	0.45
1:A:387:LEU:O	1:A:397:LYS:HG3	2.17	0.44
1:A:339:TYR:CD1	1:A:340:PRO:HA	2.52	0.44
1:A:40:GLU:OE2	1:A:360:LYS:NZ	2.40	0.43
1:A:345:LYS:HG2	1:A:377:ASN:HA	2.00	0.43
1:B:407:PHE:H	1:B:410:MET:HE1	1.84	0.43
1:B:244:ARG:HG3	4:B:508:EDO:H21	2.01	0.42
1:A:243:GLU:HG2	4:A:510:EDO:H11	2.00	0.42
1:A:300:ARG:HH22	4:A:506:EDO:C2	2.33	0.42
1:B:71:GLU:HB3	1:B:287:CYS:SG	2.60	0.42
1:B:40:GLU:HB3	1:B:43:LEU:HB2	2.03	0.41
1:B:205:LEU:HB2	1:B:317[A]:LEU:HG	2.01	0.41
1:A:137:GLY:HA2	1:A:159:LEU:HD21	2.03	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	
1	A	407/431 (94%)	394 (97%)	13 (3%)	0	100	100
1	B	406/431 (94%)	388 (96%)	18 (4%)	0	100	100
All	All	813/862 (94%)	782 (96%)	31 (4%)	0	100	100

There are no Ramachandran outliers to report.

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	306/334 (92%)	304 (99%)	2 (1%)	84	84
1	B	295/334 (88%)	290 (98%)	5 (2%)	60	57
All	All	601/668 (90%)	594 (99%)	7 (1%)	71	70

All (7) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	218	ASP
1	A	402	LEU
1	B	80	ASP
1	B	120	TYR
1	B	122	THR

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Mol	Chain	Res	Type
1	B	124	GLU
1	B	218	ASP

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

Mol	Chain	Res	Type
1	A	337	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 monoatomic - 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	#$|Z| > 2$
5	SO4	B	510	-	4,4,4	0.14	0	6,6,6	0.13	0
5	SO4	B	509	-	4,4,4	0.14	0	6,6,6	0.06	0
3	ACT	A	503	-	3,3,3	1.40	1 (33%)	3,3,3	1.40	0
4	EDO	B	507	-	3,3,3	0.49	0	2,2,2	0.24	0
4	EDO	B	503	-	3,3,3	0.51	0	2,2,2	0.28	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
4	EDO	B	504	-	3,3,3	0.47	0	2,2,2	0.25	0
4	EDO	A	509	-	3,3,3	0.50	0	2,2,2	0.20	0
3	ACT	B	502	-	3,3,3	1.34	0	3,3,3	1.50	0
4	EDO	A	506	-	3,3,3	0.43	0	2,2,2	0.38	0
5	SO4	A	511	-	4,4,4	0.12	0	6,6,6	0.20	0
4	EDO	A	510	-	3,3,3	0.46	0	2,2,2	0.16	0
4	EDO	A	505	-	3,3,3	0.44	0	2,2,2	0.33	0
4	EDO	A	508	-	3,3,3	0.45	0	2,2,2	0.39	0
4	EDO	A	504	-	3,3,3	0.51	0	2,2,2	0.18	0
3	ACT	A	502	-	3,3,3	1.30	0	3,3,3	1.36	0
4	EDO	A	507	-	3,3,3	0.46	0	2,2,2	0.42	0
4	EDO	B	505	-	3,3,3	0.46	0	2,2,2	0.32	0
4	EDO	B	506	-	3,3,3	0.59	0	2,2,2	0.08	0
4	EDO	B	508	-	3,3,3	0.41	0	2,2,2	0.42	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
4	EDO	A	507	-	-	0/1/1/1	-
4	EDO	A	509	-	-	1/1/1/1	-
4	EDO	A	508	-	-	0/1/1/1	-
4	EDO	A	504	-	-	0/1/1/1	-
4	EDO	B	505	-	-	0/1/1/1	-
4	EDO	A	506	-	-	1/1/1/1	-
4	EDO	B	507	-	-	1/1/1/1	-
4	EDO	B	503	-	-	1/1/1/1	-
4	EDO	B	504	-	-	0/1/1/1	-
4	EDO	B	508	-	-	0/1/1/1	-
4	EDO	A	510	-	-	0/1/1/1	-
4	EDO	A	505	-	-	0/1/1/1	-
4	EDO	B	506	-	-	1/1/1/1	-

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	503	ACT	CH3-C	2.08	1.57	1.49

There are no bond angle outliers.

There are no chirality outliers.

All (5) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	509	EDO	O1-C1-C2-O2
4	A	506	EDO	O1-C1-C2-O2
4	B	503	EDO	O1-C1-C2-O2
4	B	507	EDO	O1-C1-C2-O2
4	B	506	EDO	O1-C1-C2-O2

There are no ring outliers.

6 monomers are involved in 6 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	B	504	EDO	1	0
4	A	506	EDO	1	0
4	A	510	EDO	1	0
4	B	505	EDO	1	0
4	B	506	EDO	1	0
4	B	508	EDO	1	0

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(Å²)	Q<0.9
1	A	406/431 (94%)	0.27	32 (7%)	12	14	17, 33, 73, 101	0
1	B	407/431 (94%)	0.41	32 (7%)	12	14	19, 43, 80, 99	0
All	All	813/862 (94%)	0.34	64 (7%)	12	14	17, 38, 78, 101	0

All (64) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	127	ASP	5.1
1	A	144	ALA	5.1
1	A	125	ASN	5.0
1	A	165	ALA	5.0
1	A	166	ILE	5.0
1	B	169	MET	4.9
1	A	123	PHE	4.7
1	A	129	ALA	4.6
1	B	221	LYS	3.9
1	A	128	ALA	3.8
1	A	169	MET	3.8
1	B	170	LEU	3.6
1	A	126	ALA	3.5
1	B	126	ALA	3.5
1	B	354	ASP	3.4
1	A	-1	HIS	3.4
1	A	153	VAL	3.3
1	A	183	VAL	3.2
1	B	184	ILE	3.2
1	B	181	ARG	3.2
1	B	153	VAL	3.1
1	A	124	GLU	3.1
1	B	356	ASN	3.1
1	B	180	GLU	3.0

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Mol	Chain	Res	Type	RSRZ
1	A	130	HIS	3.0
1	B	417	ALA	2.9
1	B	220	ASP	2.9
1	B	128	ALA	2.8
1	B	168	ASP	2.8
1	A	342	THR	2.8
1	B	317[A]	LEU	2.8
1	B	182	VAL	2.7
1	B	355	VAL	2.7
1	B	224	ASN	2.7
1	B	204[A]	VAL	2.6
1	A	162	ALA	2.6
1	A	122	THR	2.6
1	A	181	ARG	2.5
1	A	167	ASP	2.5
1	A	154	ILE	2.5
1	B	154	ILE	2.5
1	B	197	VAL	2.4
1	B	420	ALA	2.4
1	A	355	VAL	2.4
1	B	123	PHE	2.4
1	B	199	VAL	2.3
1	A	187	PHE	2.3
1	A	0	HIS	2.3
1	A	132	TYR	2.3
1	B	217	LEU	2.2
1	B	401	ALA	2.2
1	A	254	VAL	2.2
1	A	204[A]	VAL	2.2
1	B	165	ALA	2.1
1	A	168	ASP	2.1
1	B	122	THR	2.1
1	B	125	ASN	2.1
1	A	136	LYS	2.1
1	A	422	ASN	2.1
1	B	392	ALA	2.1
1	A	164	ALA	2.1
1	B	129	ALA	2.0
1	B	251	LEU	2.0
1	A	182	VAL	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 ⓘ

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
3	ACT	A	503	4/4	0.61	0.40	68,70,74,76	0
4	EDO	B	507	4/4	0.64	0.19	66,71,72,73	0
4	EDO	B	505	4/4	0.76	0.19	63,68,70,70	0
4	EDO	B	503	4/4	0.76	0.23	57,58,58,61	0
4	EDO	B	506	4/4	0.78	0.31	40,51,54,56	0
5	SO4	B	509	5/5	0.80	0.26	142,142,143,144	0
4	EDO	A	508	4/4	0.83	0.13	59,60,63,70	0
4	EDO	A	509	4/4	0.84	0.28	57,63,65,68	0
3	ACT	A	502	4/4	0.84	0.14	68,70,71,74	0
3	ACT	B	502	4/4	0.85	0.15	72,76,77,82	0
4	EDO	B	504	4/4	0.86	0.17	67,67,70,70	0
4	EDO	B	508	4/4	0.89	0.24	64,66,66,69	0
4	EDO	A	505	4/4	0.90	0.23	34,35,36,50	0
4	EDO	A	507	4/4	0.92	0.22	62,66,71,72	0
4	EDO	A	510	4/4	0.94	0.18	44,49,51,61	0
2	NA	B	501	1/1	0.94	0.09	36,36,36,36	0
4	EDO	A	506	4/4	0.95	0.15	30,37,52,58	0
4	EDO	A	504	4/4	0.96	0.22	33,36,42,49	0
5	SO4	A	511	5/5	0.98	0.10	46,48,54,59	0
5	SO4	B	510	5/5	0.98	0.10	60,63,73,73	0
2	NA	A	501	1/1	0.99	0.06	27,27,27,27	0

6.5 Other polymers ⓘ

There are no such residues in this entry.

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