



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 5, 2024 – 02:16 PM JST

PDB ID : 8IDX
Title : Structure of p205 HIN
Authors : Li, Y.L.; Jin, T.C.
Deposited on : 2023-02-14
Resolution : 1.75 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 : 4.02b-467
Mogul : 1.8.5 (274361), 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

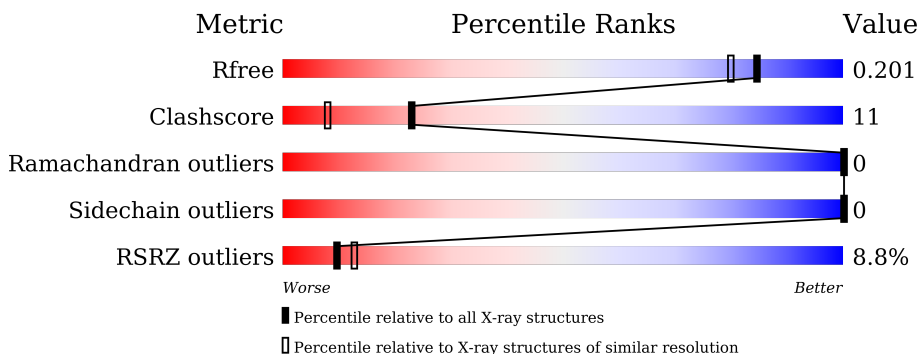
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 1.75 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	2340 (1.76-1.76)
Clashscore	141614	2466 (1.76-1.76)
Ramachandran outliers	138981	2437 (1.76-1.76)
Sidechain outliers	138945	2437 (1.76-1.76)
RSRZ outliers	127900	2298 (1.76-1.76)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	221	 6% 79% 9% 12%
1	B	221	 9% 78% 10% 12%

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	PEG	A	502	-	-	X	-
2	PEG	A	503	-	-	X	-
2	PEG	B	502	-	-	X	-
2	PEG	B	503	-	-	X	-
3	EDO	A	510	-	-	-	X
3	EDO	A	511	-	-	X	-
4	PGE	B	501	-	-	X	-

2 Entry composition

There are 5 unique types of molecules in this entry. The entry contains 3430 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 Interferon-activable protein 205-B.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	194	1533	977	260	288	8	0	0	0
1	B	194	1533	977	260	288	8	0	0	0

There are 16 discrepancies between the modelled and reference sequences:

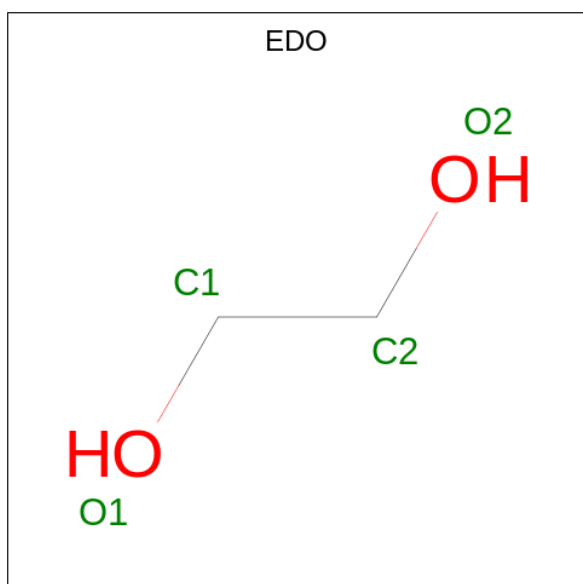
Chain	Residue	Modelled	Actual	Comment	Reference
A	188	GLY	-	expression tag	UNP P0DOV1
A	189	SER	-	expression tag	UNP P0DOV1
A	190	VAL	-	expression tag	UNP P0DOV1
A	191	ASP	-	expression tag	UNP P0DOV1
A	405	ALA	-	expression tag	UNP P0DOV1
A	406	ALA	-	expression tag	UNP P0DOV1
A	407	ALA	-	expression tag	UNP P0DOV1
A	408	SER	-	expression tag	UNP P0DOV1
B	188	GLY	-	expression tag	UNP P0DOV1
B	189	SER	-	expression tag	UNP P0DOV1
B	190	VAL	-	expression tag	UNP P0DOV1
B	191	ASP	-	expression tag	UNP P0DOV1
B	405	ALA	-	expression tag	UNP P0DOV1
B	406	ALA	-	expression tag	UNP P0DOV1
B	407	ALA	-	expression tag	UNP P0DOV1
B	408	SER	-	expression tag	UNP P0DOV1

- Molecule 2 is DI(HYDROXYETHYL)ETHER (three-letter code: PEG) (formula: C₄H₁₀O₃).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	A	1	Total C O 7 4 3	0	0
2	A	1	Total C O 7 4 3	0	0
2	A	1	Total C O 7 4 3	0	0
2	B	1	Total C O 7 4 3	0	0
2	B	1	Total C O 7 4 3	0	0

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



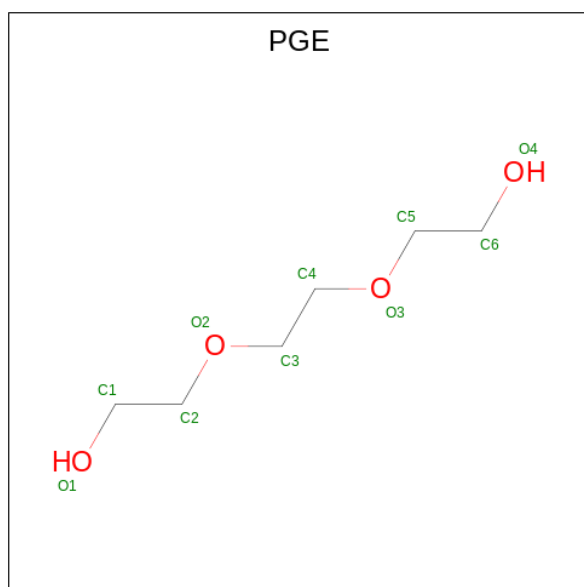
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	1	Total C O 4 2 2	0	0
3	A	1	Total C O 4 2 2	0	0
3	A	1	Total C O 4 2 2	0	0
3	A	1	Total C O 4 2 2	0	0
3	A	1	Total C O 4 2 2	0	0
3	A	1	Total C O 4 2 2	0	0
3	A	1	Total C O 4 2 2	0	0
3	A	1	Total C O 4 2 2	0	0
3	A	1	Total C O 4 2 2	0	0
3	A	1	Total C O 4 2 2	0	0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

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

- Molecule 4 is TRIETHYLENE GLYCOL (three-letter code: PGE) (formula: C₆H₁₄O₄).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	B	1	Total	C	O	0	0
			10	6	4		
4	B	1	Total	C	O	0	0
			10	6	4		

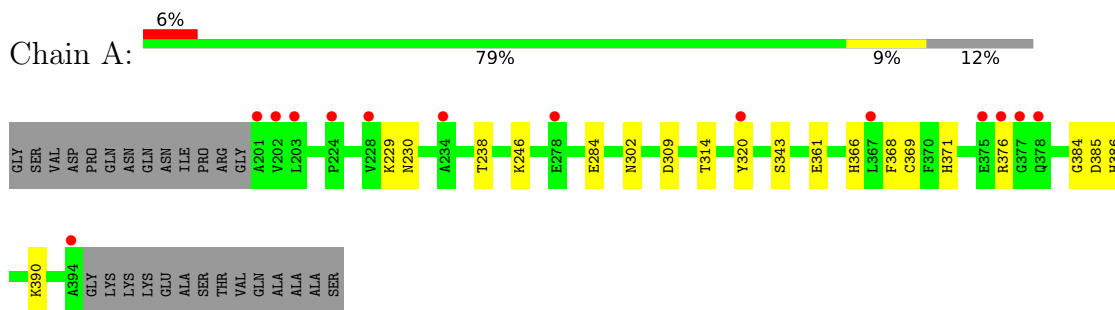
- Molecule 5 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	108	Total	O	0	0
			108	108		
5	B	101	Total	O	0	0
			101	101		

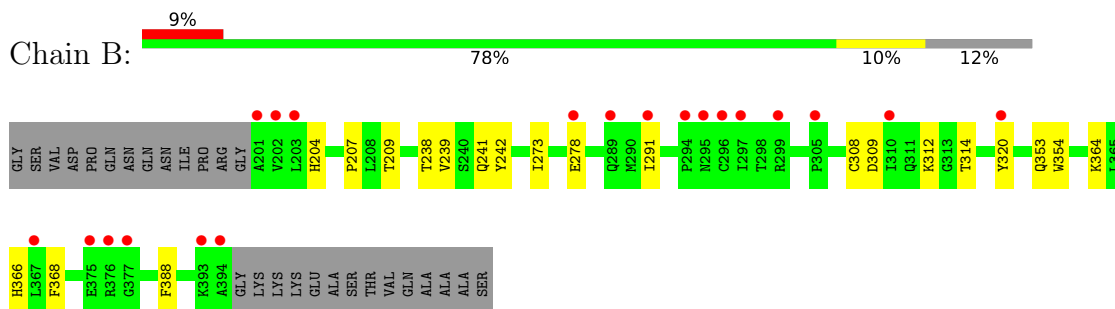
3 Residue-property plots [i](#)

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: Interferon-activable protein 205-B



- Molecule 1: Interferon-activable protein 205-B



4 Data and refinement statistics

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, α , β , γ	48.64Å 51.12Å 56.58Å 103.15° 105.17° 108.29°	Depositor
Resolution (Å)	29.55 – 1.75 29.55 – 1.75	Depositor EDS
% Data completeness (in resolution range)	95.9 (29.55-1.75) 95.9 (29.55-1.75)	Depositor EDS
R_{merge}	0.02	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.90 (at 1.75Å)	Xtrriage
Refinement program	PHENIX (1.15_3459: ???)	Depositor
R, R_{free}	0.172 , 0.199 0.175 , 0.201	Depositor DCC
R_{free} test set	2277 reflections (5.01%)	wwPDB-VP
Wilson B-factor (Å ²)	30.7	Xtrriage
Anisotropy	0.370	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.34 , 51.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.51$, $\langle L^2 \rangle = 0.34$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.97	EDS
Total number of atoms	3430	wwPDB-VP
Average B, all atoms (Å ²)	45.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 7.77% 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: PGE, PEG, 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	0.41	0/1567	0.57	0/2116
1	B	0.38	0/1567	0.55	0/2116
All	All	0.39	0/3134	0.56	0/4232

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1533	0	1527	33	0
1	B	1533	0	1527	30	0
2	A	21	0	30	16	0
2	B	14	0	20	13	0
3	A	60	0	90	12	0
3	B	40	0	60	9	0
4	B	20	0	28	13	0
5	A	108	0	0	4	0
5	B	101	0	0	4	0
All	All	3430	0	3282	74	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 11.

All (74) 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:385:ASP:N	2:A:503:PEG:H42	1.63	1.09
2:B:502:PEG:H41	2:B:502:PEG:H12	1.38	1.03
2:A:502:PEG:H12	5:A:687:HOH:O	1.75	0.86
1:A:386:HIS:H	2:A:503:PEG:C4	1.95	0.79
1:B:366:HIS:HB3	2:B:503:PEG:H21	1.64	0.79
1:A:385:ASP:H	2:A:503:PEG:H42	1.44	0.77
1:B:241:GLN:HB3	3:B:513:EDO:H11	1.67	0.77
1:B:209:THR:HG22	2:B:502:PEG:H42	1.65	0.77
2:B:502:PEG:H12	2:B:502:PEG:C4	2.00	0.77
1:A:376:ARG:HG3	1:A:376:ARG:HH11	1.49	0.76
4:B:501:PGE:H4	4:B:501:PGE:O4	1.84	0.76
1:B:368:PHE:CZ	2:B:503:PEG:H22	2.23	0.74
1:A:229:LYS:HB3	3:A:511:EDO:H22	1.70	0.72
1:B:309:ASP:OD1	4:B:501:PGE:H6	1.91	0.70
1:A:371:HIS:CE1	2:A:503:PEG:H32	2.26	0.69
1:A:229:LYS:HB3	3:A:511:EDO:C2	2.23	0.69
2:A:502:PEG:O2	3:A:512:EDO:H22	1.92	0.69
1:A:229:LYS:HD3	3:A:511:EDO:H21	1.74	0.68
1:B:278:GLU:H	1:B:278:GLU:CD	1.97	0.68
1:B:204:HIS:HB3	3:B:509:EDO:H22	1.75	0.68
1:B:364:LYS:NZ	5:B:602:HOH:O	2.26	0.67
1:A:361:GLU:OE1	3:A:518:EDO:H22	1.95	0.66
1:A:376:ARG:HH11	1:A:376:ARG:CG	2.08	0.66
2:A:503:PEG:H11	3:A:506:EDO:O1	1.98	0.63
1:A:384:GLY:C	2:A:503:PEG:H42	2.18	0.62
2:A:502:PEG:H42	5:A:691:HOH:O	1.99	0.62
1:B:238:THR:HA	2:B:502:PEG:H21	1.83	0.60
1:B:291:ILE:HB	2:B:502:PEG:H11	1.87	0.57
2:A:502:PEG:C1	5:A:687:HOH:O	2.41	0.57
1:B:309:ASP:OD2	4:B:501:PGE:H62	2.06	0.56
1:B:239:VAL:HG13	2:B:502:PEG:H22	1.87	0.55
1:A:366:HIS:HB2	1:A:390:LYS:HG2	1.88	0.55
1:B:239:VAL:N	2:B:502:PEG:H21	2.23	0.54
1:A:314:THR:HG22	1:B:314:THR:HG22	1.90	0.54
1:A:368:PHE:CZ	3:A:512:EDO:H11	2.43	0.54
1:B:309:ASP:OD1	4:B:501:PGE:C6	2.54	0.54
1:B:312:LYS:CE	4:B:501:PGE:H2	2.38	0.54
1:A:371:HIS:NE2	2:A:503:PEG:C3	2.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:309:ASP:OD2	4:B:501:PGE:C6	2.57	0.52
1:A:376:ARG:CG	1:A:376:ARG:NH1	2.73	0.52
1:B:238:THR:CA	2:B:502:PEG:H21	2.40	0.52
1:B:238:THR:C	2:B:502:PEG:H21	2.30	0.52
1:B:354:TRP:CZ3	3:B:510:EDO:H22	2.45	0.51
1:A:361:GLU:CG	3:A:518:EDO:H22	2.40	0.51
1:A:371:HIS:NE2	2:A:503:PEG:H32	2.26	0.51
1:A:386:HIS:H	2:A:503:PEG:H42	1.75	0.50
4:B:504:PGE:H5	5:B:688:HOH:O	2.11	0.50
1:A:343:SER:C	3:B:513:EDO:H12	2.33	0.49
1:A:230:ASN:H	3:A:511:EDO:H22	1.78	0.49
1:A:246:LYS:NZ	1:A:369:CYS:SG	2.70	0.48
3:B:514:EDO:H11	5:B:673:HOH:O	2.13	0.48
2:A:501:PEG:H31	1:B:308:CYS:HB2	1.96	0.47
1:A:229:LYS:HB3	3:A:511:EDO:H21	1.95	0.46
2:A:503:PEG:H11	2:A:503:PEG:H31	1.77	0.46
1:B:388:PHE:CZ	3:B:512:EDO:H11	2.50	0.46
1:A:376:ARG:NH1	1:A:376:ARG:HB2	2.31	0.46
1:A:309:ASP:OD1	4:B:504:PGE:H12	2.16	0.45
1:A:238:THR:HA	3:A:515:EDO:H22	2.00	0.44
1:A:302:ASN:ND2	5:A:608:HOH:O	2.49	0.44
3:B:510:EDO:H21	3:B:512:EDO:O2	2.17	0.44
1:B:368:PHE:CE2	2:B:503:PEG:H32	2.53	0.43
1:B:242:TYR:CZ	3:B:506:EDO:H11	2.53	0.43
4:B:504:PGE:H1	4:B:504:PGE:H32	1.50	0.43
1:B:320:TYR:HB3	2:B:503:PEG:H31	1.99	0.43
1:A:320:TYR:H	4:B:501:PGE:H52	1.84	0.42
1:A:320:TYR:H	4:B:501:PGE:C5	2.32	0.42
1:A:386:HIS:H	2:A:503:PEG:H41	1.80	0.42
1:A:284:GLU:H	1:A:284:GLU:CD	2.24	0.41
1:B:273:ILE:HD11	4:B:504:PGE:H6	2.03	0.41
1:B:353:GLN:NE2	5:B:614:HOH:O	2.54	0.41
1:A:361:GLU:HG3	3:A:518:EDO:H22	2.03	0.41
1:B:309:ASP:CG	4:B:501:PGE:C6	2.90	0.41
1:A:314:THR:HG23	1:B:312:LYS:O	2.21	0.40
1:B:207:PRO:O	3:B:514:EDO:O2	2.28	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	192/221 (87%)	188 (98%)	4 (2%)	0	100	100
1	B	192/221 (87%)	188 (98%)	4 (2%)	0	100	100
All	All	384/442 (87%)	376 (98%)	8 (2%)	0	100	100

There are no Ramachandran outliers to report.

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	174/194 (90%)	174 (100%)	0	100	100
1	B	174/194 (90%)	174 (100%)	0	100	100
All	All	348/388 (90%)	348 (100%)	0	100	100

There are no protein residues with a non-rotameric sidechain to report.

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

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 monosaccharides in this entry.

5.6 Ligand geometry [i](#)

32 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
3	EDO	B	512	-	3,3,3	0.45	0	2,2,2	0.41	0
3	EDO	A	515	-	3,3,3	0.48	0	2,2,2	0.22	0
3	EDO	B	511	-	3,3,3	0.47	0	2,2,2	0.39	0
3	EDO	A	510	-	3,3,3	0.48	0	2,2,2	0.19	0
3	EDO	A	516	-	3,3,3	0.46	0	2,2,2	0.29	0
2	PEG	A	503	-	6,6,6	0.62	0	5,5,5	0.21	0
3	EDO	A	518	-	3,3,3	0.54	0	2,2,2	0.40	0
3	EDO	B	510	-	3,3,3	0.47	0	2,2,2	0.17	0
3	EDO	B	509	-	3,3,3	0.58	0	2,2,2	0.44	0
3	EDO	B	505	-	3,3,3	0.47	0	2,2,2	0.36	0
3	EDO	A	507	-	3,3,3	0.48	0	2,2,2	0.29	0
3	EDO	A	513	-	3,3,3	0.48	0	2,2,2	0.38	0
2	PEG	A	501	-	6,6,6	0.48	0	5,5,5	0.25	0
3	EDO	B	507	-	3,3,3	0.48	0	2,2,2	0.39	0
3	EDO	A	505	-	3,3,3	0.48	0	2,2,2	0.34	0
3	EDO	A	504	-	3,3,3	0.44	0	2,2,2	0.32	0
3	EDO	A	511	-	3,3,3	0.57	0	2,2,2	0.16	0
3	EDO	A	514	-	3,3,3	0.48	0	2,2,2	0.30	0
2	PEG	A	502	-	6,6,6	0.51	0	5,5,5	0.35	0
3	EDO	A	512	-	3,3,3	0.61	0	2,2,2	0.40	0
3	EDO	A	508	-	3,3,3	0.47	0	2,2,2	0.37	0
2	PEG	B	502	-	6,6,6	0.59	0	5,5,5	0.17	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	EDO	B	508	-	3,3,3	0.50	0	2,2,2	0.50	0
4	PGE	B	501	-	9,9,9	0.65	0	8,8,8	0.40	0
3	EDO	A	506	-	3,3,3	0.48	0	2,2,2	0.41	0
3	EDO	B	506	-	3,3,3	0.45	0	2,2,2	0.27	0
4	PGE	B	504	-	9,9,9	0.52	0	8,8,8	0.21	0
3	EDO	B	514	-	3,3,3	0.45	0	2,2,2	0.35	0
3	EDO	B	513	-	3,3,3	0.48	0	2,2,2	0.32	0
3	EDO	A	517	-	3,3,3	0.48	0	2,2,2	0.29	0
2	PEG	B	503	-	6,6,6	0.63	0	5,5,5	0.43	0
3	EDO	A	509	-	3,3,3	0.47	0	2,2,2	0.35	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
3	EDO	B	512	-	-	0/1/1/1	-
3	EDO	A	515	-	-	0/1/1/1	-
3	EDO	B	511	-	-	0/1/1/1	-
3	EDO	A	510	-	-	0/1/1/1	-
3	EDO	A	516	-	-	0/1/1/1	-
2	PEG	A	503	-	-	3/4/4/4	-
3	EDO	A	518	-	-	1/1/1/1	-
3	EDO	B	510	-	-	0/1/1/1	-
3	EDO	B	509	-	-	1/1/1/1	-
3	EDO	B	505	-	-	0/1/1/1	-
3	EDO	A	507	-	-	1/1/1/1	-
3	EDO	A	513	-	-	0/1/1/1	-
2	PEG	A	501	-	-	1/4/4/4	-
3	EDO	B	507	-	-	0/1/1/1	-
3	EDO	A	505	-	-	0/1/1/1	-
3	EDO	A	504	-	-	0/1/1/1	-
3	EDO	A	511	-	-	0/1/1/1	-
3	EDO	A	514	-	-	0/1/1/1	-
2	PEG	A	502	-	-	2/4/4/4	-
3	EDO	A	512	-	-	0/1/1/1	-
3	EDO	A	508	-	-	0/1/1/1	-
2	PEG	B	502	-	-	3/4/4/4	-
3	EDO	B	508	-	-	1/1/1/1	-
4	PGE	B	501	-	-	3/7/7/7	-
3	EDO	A	506	-	-	1/1/1/1	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	EDO	B	506	-	-	0/1/1/1	-
4	PGE	B	504	-	-	5/7/7/7	-
3	EDO	B	514	-	-	1/1/1/1	-
3	EDO	B	513	-	-	0/1/1/1	-
3	EDO	A	517	-	-	0/1/1/1	-
2	PEG	B	503	-	-	3/4/4/4	-
3	EDO	A	509	-	-	1/1/1/1	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (27) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	B	501	PGE	C6-C5-O3-C4
4	B	504	PGE	C1-C2-O2-C3
2	A	503	PEG	C1-C2-O2-C3
2	B	502	PEG	O1-C1-C2-O2
2	B	502	PEG	C1-C2-O2-C3
4	B	504	PGE	O2-C3-C4-O3
2	A	502	PEG	O2-C3-C4-O4
2	B	503	PEG	O2-C3-C4-O4
4	B	501	PGE	O1-C1-C2-O2
3	B	514	EDO	O1-C1-C2-O2
2	A	503	PEG	O2-C3-C4-O4
4	B	504	PGE	O3-C5-C6-O4
4	B	504	PGE	C6-C5-O3-C4
4	B	501	PGE	C3-C4-O3-C5
2	A	502	PEG	C4-C3-O2-C2
2	B	502	PEG	O2-C3-C4-O4
4	B	504	PGE	O1-C1-C2-O2
2	A	501	PEG	C1-C2-O2-C3
3	A	507	EDO	O1-C1-C2-O2
2	B	503	PEG	C1-C2-O2-C3
3	A	506	EDO	O1-C1-C2-O2
2	B	503	PEG	C4-C3-O2-C2
2	A	503	PEG	O1-C1-C2-O2
3	A	509	EDO	O1-C1-C2-O2
3	A	518	EDO	O1-C1-C2-O2
3	B	508	EDO	O1-C1-C2-O2
3	B	509	EDO	O1-C1-C2-O2

There are no ring outliers.

18 monomers are involved in 61 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	B	512	EDO	2	0
3	A	515	EDO	1	0
2	A	503	PEG	11	0
3	A	518	EDO	3	0
3	B	510	EDO	2	0
3	B	509	EDO	1	0
2	A	501	PEG	1	0
3	A	511	EDO	5	0
2	A	502	PEG	4	0
3	A	512	EDO	2	0
2	B	502	PEG	9	0
4	B	501	PGE	9	0
3	A	506	EDO	1	0
3	B	506	EDO	1	0
4	B	504	PGE	4	0
3	B	514	EDO	2	0
3	B	513	EDO	2	0
2	B	503	PEG	4	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

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	A	194/221 (87%)	0.59	14 (7%) 15 20	27, 39, 66, 100	0
1	B	194/221 (87%)	0.65	20 (10%) 6 9	28, 42, 71, 86	0
All	All	388/442 (87%)	0.62	34 (8%) 10 13	27, 41, 70, 100	0

All (34) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	394	ALA	10.9
1	A	377	GLY	8.3
1	A	376	ARG	7.1
1	B	202	VAL	6.6
1	A	394	ALA	6.4
1	A	202	VAL	4.8
1	B	376	ARG	4.3
1	B	299	ARG	4.3
1	B	201	ALA	4.2
1	B	377	GLY	4.0
1	B	296	CYS	3.8
1	A	228	VAL	3.6
1	A	201	ALA	3.2
1	B	295	ASN	3.2
1	A	224	PRO	3.1
1	A	320	TYR	3.1
1	A	375	GLU	3.0
1	B	203	LEU	2.9
1	B	320	TYR	2.9
1	A	367	LEU	2.8
1	B	278	GLU	2.6
1	B	393	LYS	2.5
1	A	278	GLU	2.5
1	B	367	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
1	B	294	PRO	2.4
1	B	305	PRO	2.4
1	A	378	GLN	2.3
1	B	291	ILE	2.3
1	B	297	ILE	2.3
1	B	289	GLN	2.2
1	B	310	ILE	2.2
1	A	234	ALA	2.2
1	A	203	LEU	2.1
1	B	375	GLU	2.1

6.2 Non-standard residues in protein, DNA, RNA chains [i](#)

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

6.3 Carbohydrates [i](#)

There are no monosaccharides 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(Å ²)	Q<0.9
2	PEG	A	502	7/7	0.66	0.30	66,77,82,84	0
3	EDO	A	510	4/4	0.69	0.41	74,77,80,81	0
2	PEG	A	503	7/7	0.74	0.36	40,63,67,71	0
3	EDO	A	512	4/4	0.79	0.21	61,64,67,69	0
3	EDO	A	506	4/4	0.81	0.17	77,79,84,85	0
3	EDO	A	511	4/4	0.83	0.31	47,48,49,59	0
2	PEG	A	501	7/7	0.83	0.19	55,61,66,68	0
3	EDO	B	511	4/4	0.83	0.16	73,78,79,80	0
4	PGE	B	504	10/10	0.83	0.23	46,54,61,64	0
2	PEG	B	502	7/7	0.85	0.23	57,60,70,70	0
3	EDO	A	505	4/4	0.85	0.12	64,72,74,77	0
3	EDO	B	506	4/4	0.86	0.30	66,66,68,72	0
3	EDO	B	510	4/4	0.86	0.21	51,51,52,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
4	PGE	B	501	10/10	0.87	0.19	47,64,70,78	0
3	EDO	A	516	4/4	0.87	0.19	55,64,67,67	0
3	EDO	A	509	4/4	0.88	0.24	69,71,77,79	0
3	EDO	A	507	4/4	0.88	0.29	57,69,71,76	0
3	EDO	A	514	4/4	0.88	0.11	52,57,58,58	0
3	EDO	B	512	4/4	0.89	0.20	53,54,61,74	0
3	EDO	A	517	4/4	0.90	0.11	67,70,76,82	0
3	EDO	A	515	4/4	0.91	0.13	52,55,55,60	0
3	EDO	B	513	4/4	0.91	0.21	48,55,58,71	0
3	EDO	A	518	4/4	0.91	0.15	54,59,60,64	0
3	EDO	B	505	4/4	0.91	0.09	68,71,75,75	0
3	EDO	A	508	4/4	0.93	0.10	59,62,62,75	0
2	PEG	B	503	7/7	0.93	0.14	47,54,58,69	0
3	EDO	B	508	4/4	0.93	0.21	51,51,58,66	0
3	EDO	B	507	4/4	0.94	0.15	67,68,70,74	0
3	EDO	A	513	4/4	0.94	0.08	44,48,50,50	0
3	EDO	B	514	4/4	0.95	0.23	67,70,77,79	0
3	EDO	A	504	4/4	0.95	0.13	47,50,50,52	0
3	EDO	B	509	4/4	0.95	0.23	50,60,71,76	0

6.5 Other polymers [i](#)

There are no such residues in this entry.