



Full wwPDB X-ray Structure Validation Report ⓘ

Oct 4, 2021 – 10:03 am BST

PDB ID : 7P0Y
Title : Crystal Structure of mtbMGL K74A (Substrate Analog Complex)
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Deposited on : 2021-06-30
Resolution : 2.25 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 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 : 2.23.2
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0267
CCP4 : 7.1.010 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.23.2

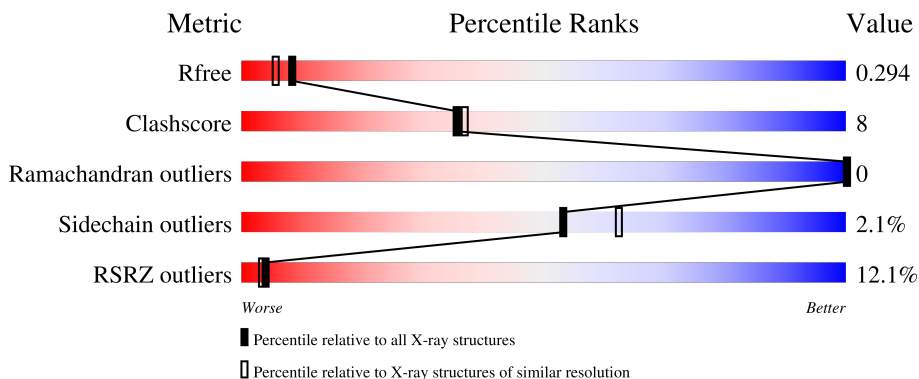
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION


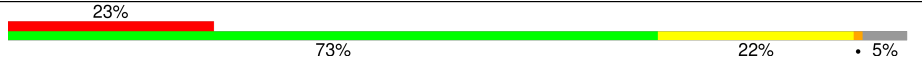
The reported resolution of this entry is 2.25 Å.

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	1377 (2.26-2.26)
Clashscore	141614	1487 (2.26-2.26)
Ramachandran outliers	138981	1449 (2.26-2.26)
Sidechain outliers	138945	1450 (2.26-2.26)
RSRZ outliers	127900	1356 (2.26-2.26)

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	284	
1	B	284	

2 Entry composition

There are 3 unique types of molecules in this entry. The entry contains 4381 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.

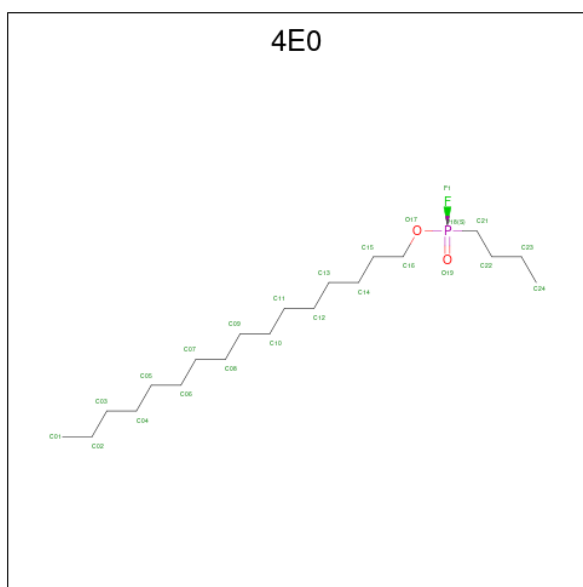
- Molecule 1 is a protein called Monoacylglycerol lipase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	278	2130	1343	388	394	5	0	1	0
1	B	271	2064	1300	378	381	5	25	0	0

There are 12 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-4	GLY	-	expression tag	UNP O07427
A	-3	ALA	-	expression tag	UNP O07427
A	-2	MET	-	expression tag	UNP O07427
A	-1	GLY	-	expression tag	UNP O07427
A	0	SER	-	expression tag	UNP O07427
A	74	ALA	LYS	engineered mutation	UNP O07427
B	-4	GLY	-	expression tag	UNP O07427
B	-3	ALA	-	expression tag	UNP O07427
B	-2	MET	-	expression tag	UNP O07427
B	-1	GLY	-	expression tag	UNP O07427
B	0	SER	-	expression tag	UNP O07427
B	74	ALA	LYS	engineered mutation	UNP O07427

- Molecule 2 is 1-[butyl(fluoranyl)phosphoryl]oxyhexadecane (three-letter code: 4E0) (formula: C₂₀H₄₂FO₂P) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf	
2	A	1	Total	C	O	P	0	0
			23	20	2	1		
2	B	1	Total	C	O	P	0	0
			23	20	2	1		

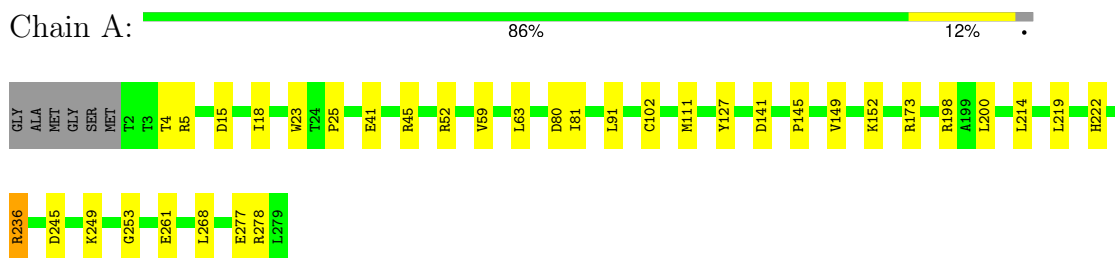
- Molecule 3 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	101	Total	O	0	0
			101	101		
3	B	40	Total	O	0	0
			40	40		

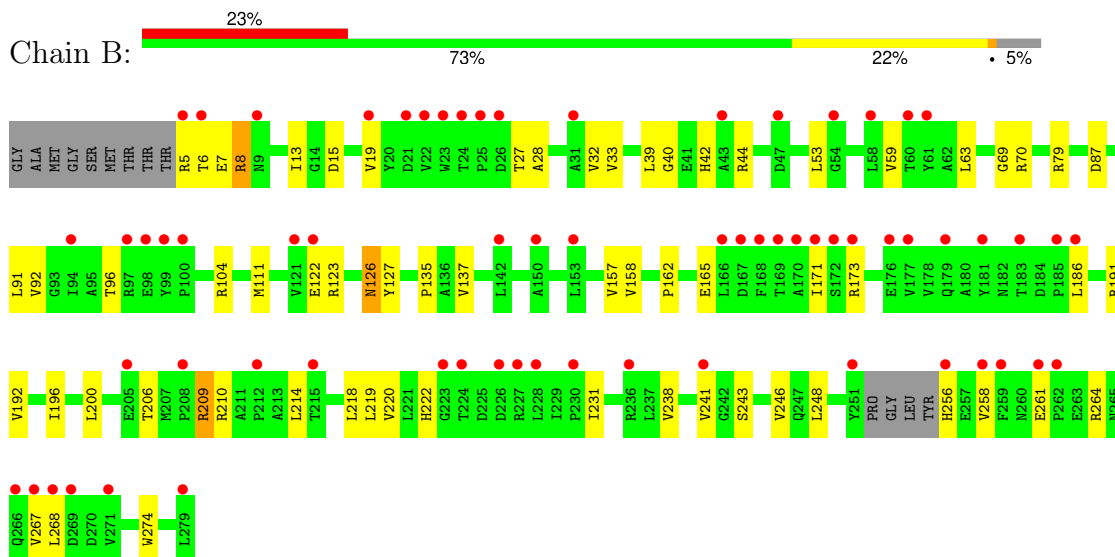
3 Residue-property plots [i](#)

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: Monoacylglycerol lipase



- Molecule 1: Monoacylglycerol lipase



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 2 21	Depositor
Cell constants a, b, c, α , β , γ	74.69Å 82.60Å 93.78Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	40.78 – 2.25 40.78 – 2.25	Depositor EDS
% Data completeness (in resolution range)	99.2 (40.78-2.25) 90.1 (40.78-2.25)	Depositor EDS
R_{merge}	0.15	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.03 (at 2.24Å)	Xtrriage
Refinement program	PHENIX 1.19.2_4158	Depositor
R, R_{free}	0.253 , 0.295 0.253 , 0.294	Depositor DCC
R_{free} test set	1986 reflections (7.11%)	wwPDB-VP
Wilson B-factor (Å ²)	31.2	Xtrriage
Anisotropy	0.523	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	(Not available) , (Not available)	EDS
L-test for twinning ²	$\langle L \rangle = 0.50$, $\langle L^2 \rangle = 0.34$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	4381	wwPDB-VP
Average B, all atoms (Å ²)	45.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 38.76 % 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 3.5109e-04. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

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 [i](#)

5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: 4E0

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	0.25	0/2178	0.54	0/2973
1	B	0.26	0/2106	0.54	0/2872
All	All	0.25	0/4284	0.54	0/5845

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 [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	2130	0	2130	20	0
1	B	2064	0	2054	49	0
2	A	23	0	0	0	0
2	B	23	0	0	0	0
3	A	101	0	0	2	0
3	B	40	0	0	0	0
All	All	4381	0	4184	68	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 8.

All (68) 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:63:LEU:HB3	1:B:91:LEU:HD22	1.59	0.83
1:B:42:HIS:CE1	1:B:44:ARG:HB2	2.18	0.79
1:B:218:LEU:HD12	1:B:246:VAL:HG23	1.67	0.77
1:B:5:ARG:NH1	1:B:44:ARG:HD3	2.00	0.75
1:B:218:LEU:HD11	1:B:220:VAL:HG23	1.69	0.73
1:A:63:LEU:HB3	1:A:91:LEU:HD22	1.71	0.71
1:B:111:MET:HG3	1:B:200:LEU:HD21	1.78	0.64
1:B:69:GLY:HA2	1:B:186:LEU:HB3	1.80	0.64
1:B:171:ILE:HA	1:B:256:HIS:HB3	1.81	0.61
1:B:92:VAL:O	1:B:96:THR:HG23	2.01	0.61
1:B:165:GLU:HG3	1:B:191:ARG:HG2	1.81	0.60
1:A:5:ARG:HD3	1:A:23:TRP:CZ2	2.36	0.59
1:B:123:ARG:HB3	1:B:126:ASN:HB2	1.83	0.59
1:A:111:MET:HG3	1:A:200:LEU:HD21	1.86	0.58
1:B:32:VAL:HG23	1:B:59:VAL:HG13	1.85	0.58
1:B:5:ARG:HH11	1:B:44:ARG:HD3	1.65	0.57
1:B:44:ARG:HG2	1:B:70:ARG:HH22	1.69	0.56
1:B:157:VAL:HG23	1:B:158:VAL:HG22	1.87	0.54
1:A:41:GLU:OE1	1:A:45:ARG:NH1	2.40	0.54
1:B:96:THR:HG22	1:B:104:ARG:HD3	1.89	0.54
1:B:220:VAL:HG12	1:B:248:LEU:HD13	1.90	0.53
1:B:8:ARG:N	1:B:8:ARG:HD2	2.24	0.53
1:B:258:VAL:HB	1:B:267:VAL:HG11	1.92	0.52
1:B:261:GLU:O	1:B:264:ARG:HG3	2.09	0.52
1:B:241:VAL:HG22	1:B:243:SER:H	1.76	0.50
1:A:219:LEU:HD11	1:A:249:LYS:HG3	1.95	0.48
1:B:209:ARG:HD3	1:B:210:ARG:HD2	1.95	0.48
1:A:245:ASP:OD2	1:A:278:ARG:NE	2.36	0.48
1:B:218:LEU:CD1	1:B:220:VAL:HG23	2.42	0.47
1:B:39:LEU:HD13	1:B:196:ILE:HD13	1.95	0.47
1:B:27:THR:HG22	1:B:28:ALA:H	1.80	0.46
1:A:52:ARG:HG2	1:A:268:LEU:HB3	1.98	0.46
1:B:162:PRO:HB3	1:B:191:ARG:HB2	1.98	0.46
1:B:214:LEU:HB2	1:B:241:VAL:HG23	1.98	0.46
1:A:102:CYS:SG	3:A:494:HOH:O	2.61	0.45
1:B:13:ILE:HG22	1:B:87:ASP:OD1	2.16	0.45
1:B:42:HIS:HE1	1:B:44:ARG:HB2	1.79	0.45
1:B:238:VAL:HG11	1:B:248:LEU:HB2	1.98	0.45
1:A:80:ASP:OD1	1:A:81:ILE:N	2.51	0.44
1:A:173:ARG:HD3	1:A:253:GLY:O	2.17	0.43
1:B:206:THR:O	1:B:210:ARG:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:39:LEU:HD12	1:B:40:GLY:N	2.34	0.43
1:B:122:GLU:O	1:B:123:ARG:HD2	2.17	0.43
1:B:7:GLU:C	1:B:8:ARG:HD2	2.38	0.43
1:B:5:ARG:HE	1:B:5:ARG:HB3	1.66	0.43
1:B:122:GLU:HA	1:B:122:GLU:OE1	2.19	0.43
1:B:27:THR:HG22	1:B:28:ALA:N	2.34	0.42
1:A:173:ARG:HG3	1:A:261:GLU:OE2	2.20	0.42
1:B:127:TYR:OH	1:B:214:LEU:HD22	2.20	0.42
1:A:18:ILE:HG21	1:A:63:LEU:HD12	2.02	0.41
1:B:33:VAL:HG21	1:B:53:LEU:HD13	2.01	0.41
1:B:39:LEU:HD21	1:B:192:VAL:HG22	2.03	0.41
1:A:25:PRO:HD2	1:A:59:VAL:HG22	2.02	0.41
1:A:141:ASP:OD2	1:A:236:ARG:NH2	2.48	0.41
1:A:277:GLU:HG2	1:B:79:ARG:HH22	1.85	0.41
1:B:222:HIS:CE1	1:B:231:ILE:HA	2.55	0.41
1:A:152:LYS:O	1:A:198[A]:ARG:HD2	2.20	0.41
1:B:122:GLU:C	1:B:123:ARG:HD2	2.40	0.41
1:A:152:LYS:O	1:A:198[B]:ARG:HD2	2.20	0.41
1:B:135:PRO:HB2	1:B:137:VAL:HG13	2.02	0.41
1:A:145:PRO:O	1:A:149:VAL:HG23	2.20	0.41
1:A:277:GLU:OE1	3:A:401:HOH:O	2.22	0.41
1:A:127:TYR:OH	1:A:214:LEU:HD22	2.21	0.41
1:B:258:VAL:HA	1:B:261:GLU:HG2	2.02	0.40
1:B:268:LEU:HA	1:B:268:LEU:HD12	1.84	0.40
1:B:219:LEU:HB2	1:B:274:TRP:CE2	2.57	0.40
1:B:5:ARG:HG2	1:B:6:THR:N	2.36	0.40
1:B:19:VAL:HG11	1:B:70:ARG:HD2	2.04	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	277/284 (98%)	269 (97%)	8 (3%)	0	100	100
1	B	267/284 (94%)	259 (97%)	8 (3%)	0	100	100
All	All	544/568 (96%)	528 (97%)	16 (3%)	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	223/225 (99%)	219 (98%)	4 (2%)	59	68
1	B	214/225 (95%)	209 (98%)	5 (2%)	50	59
All	All	437/450 (97%)	428 (98%)	9 (2%)	53	62

All (9) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	4	THR
1	A	15	ASP
1	A	222	HIS
1	A	236	ARG
1	B	8	ARG
1	B	15	ASP
1	B	126	ASN
1	B	173	ARG
1	B	209	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (6) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	65	HIS
1	A	247	GLN
1	B	42	HIS
1	B	51	GLN

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Mol	Chain	Res	Type
1	B	126	ASN
1	B	247	GLN

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](#)

2 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
2	4E0	B	301	1	19,22,23	0.50	0	17,22,25	0.50	0
2	4E0	A	301	1	19,22,23	0.49	0	17,22,25	0.47	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	4E0	B	301	1	-	10/17/21/23	-
2	4E0	A	301	1	-	11/17/21/23	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

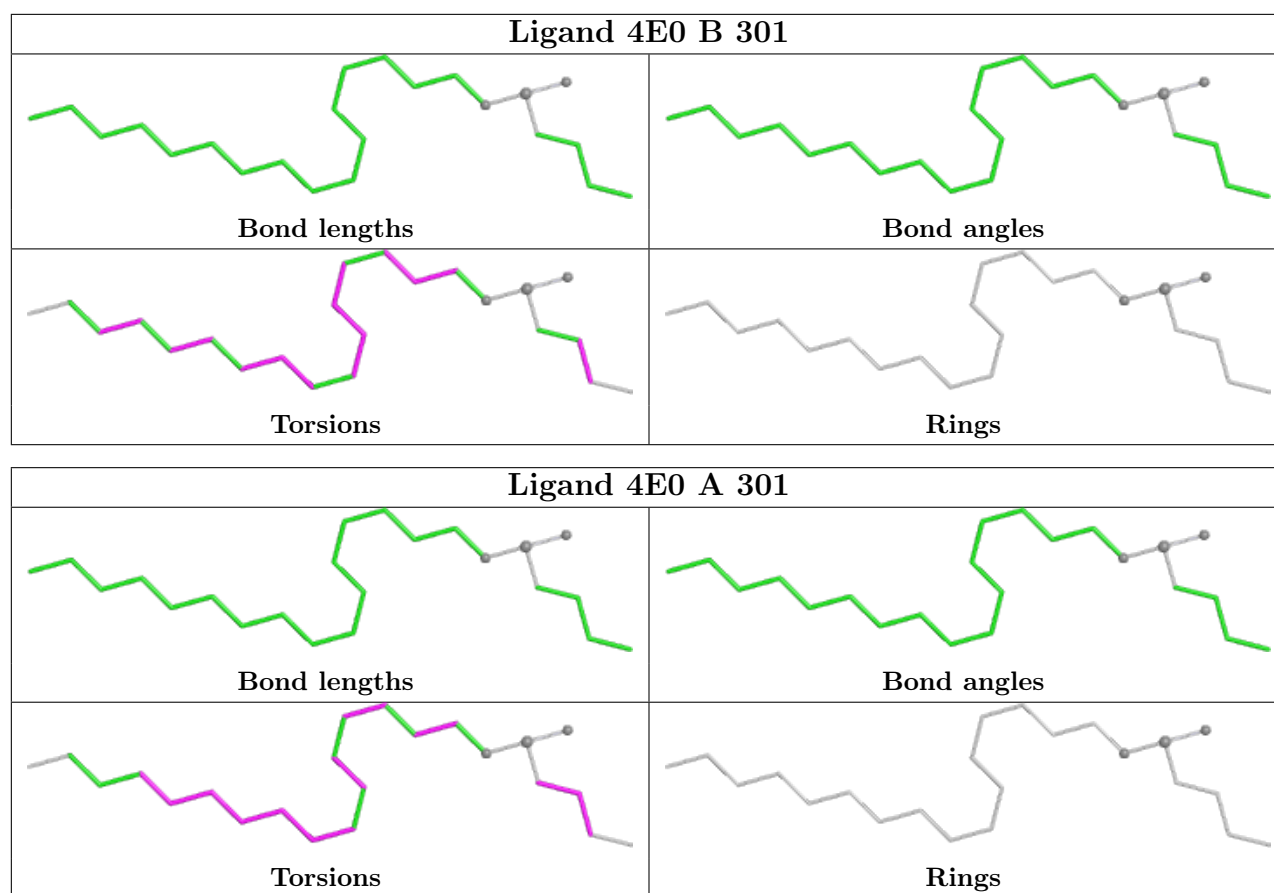
All (21) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	301	4E0	P18-C21-C22-C23
2	B	301	4E0	C02-C03-C04-C05
2	B	301	4E0	C21-C22-C23-C24
2	B	301	4E0	C06-C07-C08-C09
2	A	301	4E0	C05-C06-C07-C08
2	B	301	4E0	C09-C10-C11-C12
2	A	301	4E0	C06-C07-C08-C09
2	A	301	4E0	C04-C05-C06-C07
2	B	301	4E0	C04-C05-C06-C07
2	B	301	4E0	C13-C14-C15-C16
2	A	301	4E0	C08-C09-C10-C11
2	A	301	4E0	C03-C04-C05-C06
2	B	301	4E0	C10-C11-C12-C13
2	A	301	4E0	C21-C22-C23-C24
2	A	301	4E0	C12-C13-C14-C15
2	B	301	4E0	C14-C15-C16-O17
2	A	301	4E0	C07-C08-C09-C10
2	A	301	4E0	C10-C11-C12-C13
2	B	301	4E0	C11-C12-C13-C14
2	B	301	4E0	C07-C08-C09-C10
2	A	301	4E0	C14-C15-C16-O17

There are no ring outliers.

No monomer is involved in short contacts.

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



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	278/284 (97%)	0.26	0 100 100	19, 35, 49, 61	0
1	B	269/284 (94%)	1.31	66 (24%) 0 0	23, 56, 81, 97	1 (0%)
All	All	547/568 (96%)	0.78	66 (12%) 4 3	19, 41, 76, 97	1 (0%)

All (66) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	230	PRO	5.0
1	B	177	VAL	5.0
1	B	168	PHE	5.0
1	B	47	ASP	4.7
1	B	98	GLU	4.7
1	B	122	GLU	4.7
1	B	208	PRO	4.6
1	B	61	TYR	4.5
1	B	267	VAL	4.5
1	B	241	VAL	4.4
1	B	23	TRP	3.9
1	B	172	SER	3.8
1	B	258	VAL	3.8
1	B	251	TYR	3.7
1	B	21	ASP	3.7
1	B	153	LEU	3.6
1	B	43	ALA	3.6
1	B	215	THR	3.6
1	B	25	PRO	3.5
1	B	5	ARG	3.5
1	B	100	PRO	3.4
1	B	266	GLN	3.4
1	B	6	THR	3.4
1	B	256	HIS	3.3

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Mol	Chain	Res	Type	RSRZ
1	B	99	TYR	3.3
1	B	181	TYR	3.3
1	B	262	PRO	3.2
1	B	185	PRO	3.1
1	B	259	PHE	3.1
1	B	60	THR	3.0
1	B	24	THR	3.0
1	B	169	THR	3.0
1	B	94	ILE	3.0
1	B	212	PRO	2.9
1	B	186	LEU	2.9
1	B	22	VAL	2.8
1	B	171	ILE	2.8
1	B	9	ASN	2.7
1	B	142	LEU	2.7
1	B	19	VAL	2.7
1	B	121	VAL	2.6
1	B	228	LEU	2.6
1	B	269	ASP	2.5
1	B	167	ASP	2.5
1	B	170	ALA	2.5
1	B	58	LEU	2.5
1	B	236	ARG	2.5
1	B	179	GLN	2.5
1	B	223	GLY	2.4
1	B	26	ASP	2.4
1	B	205	GLU	2.4
1	B	31	ALA	2.4
1	B	173	ARG	2.3
1	B	268	LEU	2.3
1	B	176	GLU	2.3
1	B	183	THR	2.3
1	B	226	ASP	2.2
1	B	97	ARG	2.2
1	B	54	GLY	2.2
1	B	150	ALA	2.2
1	B	227	ARG	2.2
1	B	224	THR	2.1
1	B	261	GLU	2.1
1	B	271	VAL	2.1
1	B	166	LEU	2.1
1	B	279	LEU	2.0

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](#)

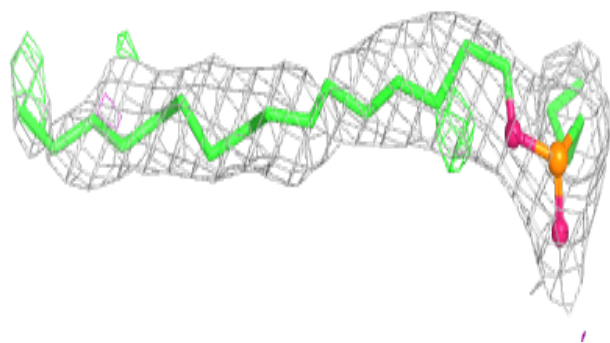
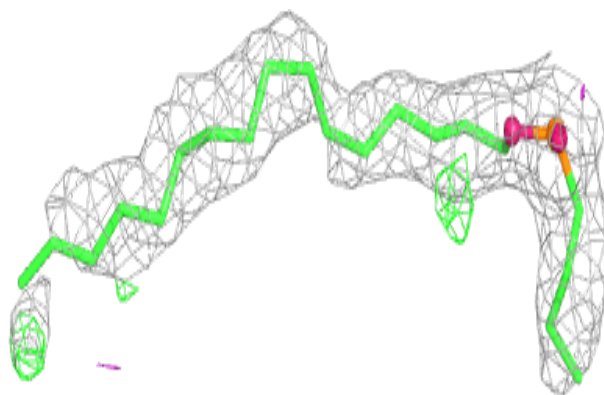
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
2	4E0	A	301	23/24	0.91	0.23	23,44,50,53	0
2	4E0	B	301	23/24	0.93	0.30	33,58,69,73	0

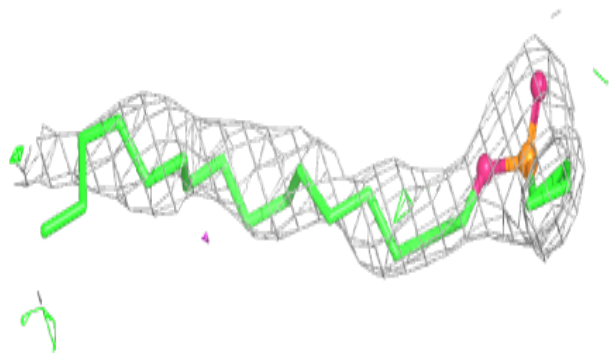
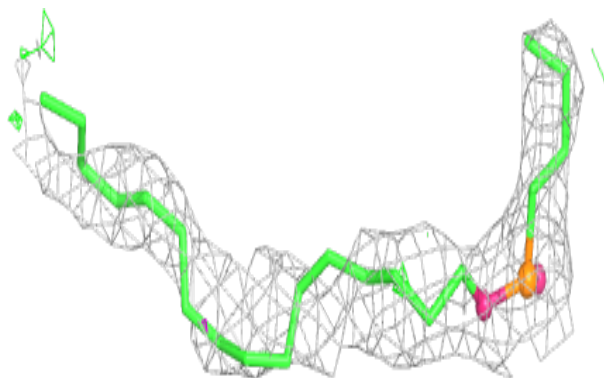
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around 4E0 A 301:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

**Electron density around 4E0 B 301:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



6.5 Other polymers [i](#)

There are no such residues in this entry.