



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 17, 2026 – 10:37 PM UTC

PDB ID : 6NZ5 / pdb_00006nz5
Title : YcjX-GDPCP
Authors : Lee, S.; Tsai, J.; Tsai, F.T.; Sung, N.; Lee, J.; Chang, C.
Deposited on : 2019-02-12
Resolution : 2.23 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 : 4-5-2 with Phenix2.0
Mogul : 2022.3.0, CSD as543be (2022)
Xtriage (Phenix) : 2.0
EDS : 3.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4 : 9.0.010 (Gargrove)
Density-Fitness : 1.0.12
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

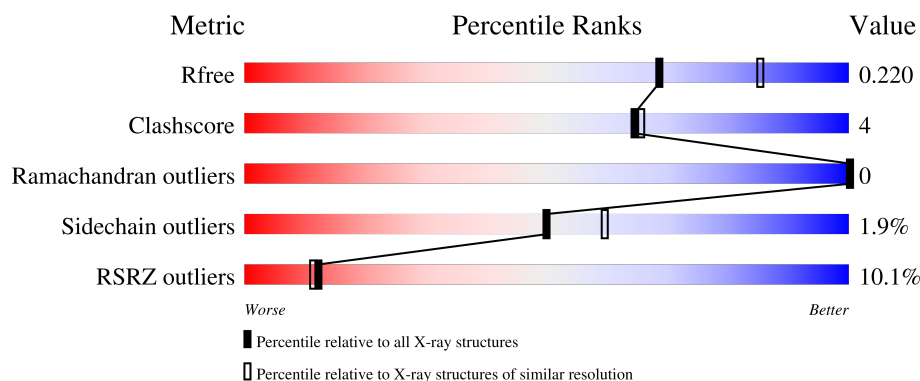
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.23 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}	180053	3416 (2.26-2.22)
Clashscore	190562	3556 (2.26-2.22)
Ramachandran outliers	187476	3500 (2.26-2.22)
Sidechain outliers	187428	3501 (2.26-2.22)
RSRZ outliers	180081	3415 (2.26-2.22)

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	485	7% 86% 8% 6%
1	B	485	12% 83% 10% 6%

2 Entry composition [i](#)

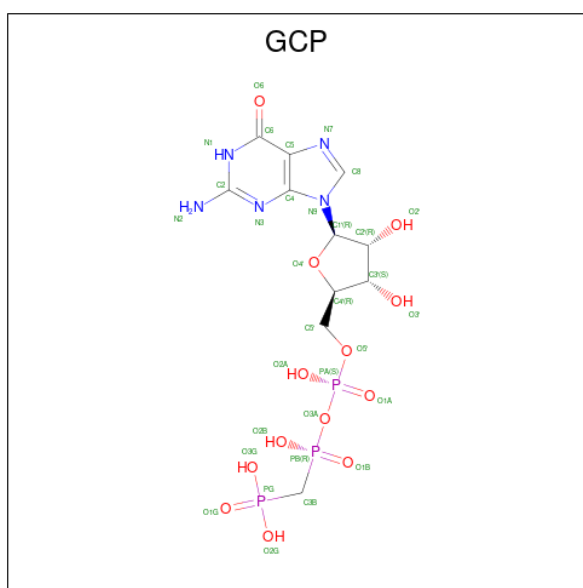
There are 4 unique types of molecules in this entry. The entry contains 7497 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 YcjX Stress Protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	458	Total	C	N	O	S	0	2	0
			3617	2312	628	664	13			
1	B	454	Total	C	N	O	S	0	2	0
			3538	2270	608	647	13			

- Molecule 2 is PHOSPHOMETHYLPHOSPHONIC ACID GUANYLATE ESTER (CCD ID: GCP) (formula: $C_{11}H_{18}N_5O_{13}P_3$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	N	O	P	0	0
			32	11	5	13	3		

- Molecule 3 is GUANOSINE-5'-DIPHOSPHATE (CCD ID: GDP) (formula: $C_{10}H_{15}N_5O_{11}P_2$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	B	1	Total	C	N	O	P	0	0
			28	10	5	11	2		

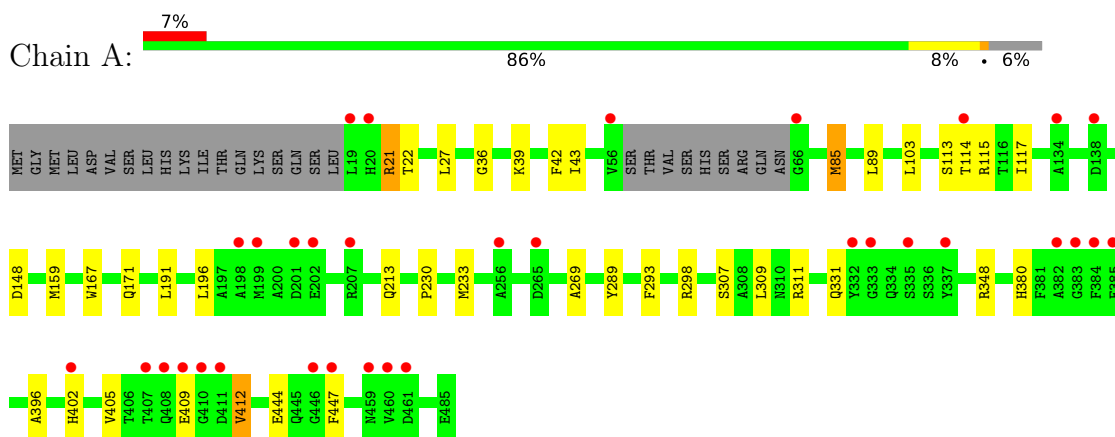
- Molecule 4 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	A	194	Total O 194 194	0	0
4	B	88	Total O 88 88	0	0

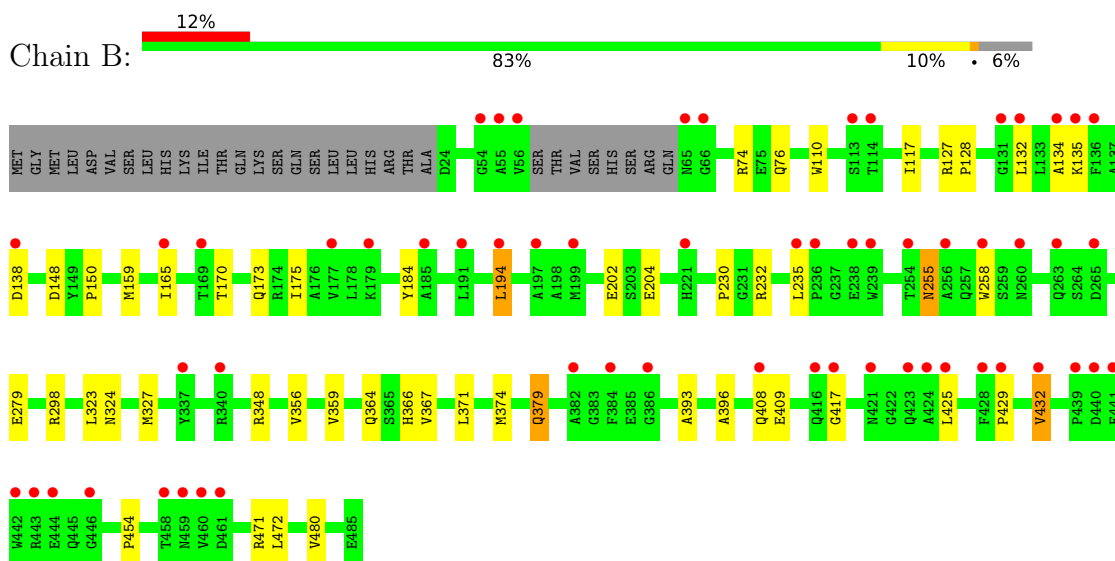
3 Residue-property plots [i](#)

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: YcjX Stress Protein



• Molecule 1: YcjX Stress Protein



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	59.47Å 128.26Å 148.06Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	46.36 – 2.23 46.36 – 2.23	Depositor EDS
% Data completeness (in resolution range)	71.3 (46.36-2.23) 83.1 (46.36-2.23)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.05 (at 2.22Å)	Xtriage
Refinement program	PHENIX (1.14_3260: ???)	Depositor
R, R_{free}	0.178 , 0.217 0.181 , 0.220	Depositor DCC
R_{free} test set	2000 reflections (3.58%)	wwPDB-VP
Wilson B-factor (Å ²)	28.4	Xtriage
Anisotropy	0.102	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.32 , 52.9	EDS
L-test for twinning ²	$\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.30$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	7497	wwPDB-VP
Average B, all atoms (Å ²)	46.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.60% 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 [i](#)

5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: GCP, GDP

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	0.14	0/3703	0.34	0/5026
1	B	0.11	0/3624	0.29	0/4923
All	All	0.13	0/7327	0.32	0/9949

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	3617	0	3552	26	0
1	B	3538	0	3451	32	0
2	A	32	0	14	3	0
3	B	28	0	12	1	0
4	A	194	0	0	2	0
4	B	88	0	0	3	0
All	All	7497	0	7029	56	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 4.

All (56) 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:298:ARG:HD3	1:A:348:ARG:HB2	1.71	0.73
1:A:85:MET:HE2	1:B:202:GLU:HB3	1.71	0.72
1:A:331:GLN:NE2	1:A:380:HIS:O	2.22	0.72
1:B:298:ARG:HD3	1:B:348:ARG:HB2	1.77	0.65
1:B:371:LEU:HA	1:B:374:MET:HE3	1.82	0.62
1:B:232[B]:ARG:NH1	4:B:601:HOH:O	2.16	0.60
1:B:324:ASN:HA	1:B:327:MET:HE2	1.84	0.60
1:A:36:GLY:H	2:A:500:GCP:H3B1	1.70	0.56
1:B:110:TRP:CD1	3:B:500:GDP:HO2'	2.23	0.56
1:B:150:PRO:HB3	1:B:235:LEU:HD13	1.86	0.56
1:A:115:ARG:NE	4:A:605:HOH:O	2.39	0.56
1:A:213:GLN:HB2	1:A:233:MET:HE2	1.90	0.53
1:A:309:LEU:HB3	1:A:447:PHE:HE2	1.73	0.52
1:A:196:LEU:HA	1:A:269:ALA:HB3	1.90	0.52
1:A:409:GLU:N	1:A:409:GLU:OE1	2.43	0.51
1:A:27:LEU:HD11	1:A:298:ARG:HG3	1.92	0.51
1:B:356:VAL:HG11	1:B:393:ALA:HB1	1.93	0.50
1:A:309:LEU:HB3	1:A:447:PHE:CE2	2.47	0.50
1:B:359:VAL:HA	1:B:429:PRO:HG3	1.93	0.49
1:B:76:GLN:NE2	4:B:610:HOH:O	2.45	0.49
1:A:230:PRO:HG2	1:A:233:MET:HB2	1.95	0.49
1:B:117:ILE:HA	1:B:148:ASP:O	2.12	0.49
1:B:367:VAL:HG23	1:B:432:VAL:HG11	1.96	0.48
1:B:175:ILE:HD11	1:B:184:TYR:OH	2.13	0.48
1:B:396:ALA:HA	1:B:472:LEU:HD11	1.96	0.47
1:B:408:GLN:HG3	1:B:409:GLU:HG3	1.97	0.46
1:B:127:ARG:HG3	1:B:138:ASP:O	2.16	0.46
1:B:255:ASN:HA	1:B:258:TRP:HD1	1.81	0.46
1:B:379:GLN:HE21	1:B:379:GLN:HB2	1.51	0.46
1:B:170:THR:O	1:B:173:GLN:HG2	2.16	0.45
1:A:21:ARG:HG2	1:A:22:THR:N	2.30	0.45
1:A:167:TRP:O	1:A:171:GLN:HG2	2.17	0.45
1:A:85:MET:HE3	1:A:85:MET:HB2	1.77	0.45
1:B:366:HIS:HB2	1:B:432:VAL:HG13	1.99	0.45
1:A:113:SER:HB3	2:A:500:GCP:O2G	2.16	0.45
1:A:117:ILE:HA	1:A:148:ASP:O	2.16	0.44
1:A:405:VAL:HB	1:A:412:VAL:HG12	2.00	0.44
1:B:364:GLN:HB3	1:B:471:ARG:HH22	1.83	0.44
1:A:159:MET:HE1	1:A:230:PRO:HB3	2.01	0.43
1:A:39:LYS:NZ	2:A:500:GCP:O1G	2.48	0.43
1:B:128:PRO:HB2	1:B:134:ALA:HB2	1.99	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:42:PHE:HA	1:A:396:ALA:CB	2.49	0.43
1:A:114:THR:HA	4:A:779:HOH:O	2.19	0.43
1:A:307:SER:O	1:A:311:ARG:HG3	2.18	0.43
1:B:159:MET:HE1	1:B:230:PRO:HB3	2.01	0.42
1:A:89:LEU:HD22	1:B:279:GLU:HG3	2.00	0.42
1:B:74:ARG:NH1	4:B:605:HOH:O	2.33	0.42
1:A:289:TYR:HA	1:A:293:PHE:HB3	2.02	0.42
1:B:165:ILE:HD12	1:B:165:ILE:H	1.85	0.42
1:A:43:ILE:CD1	1:A:148:ASP:HB2	2.50	0.41
1:B:417:GLY:O	1:B:425:LEU:N	2.52	0.41
1:B:110:TRP:CD2	1:B:454:PRO:HG3	2.56	0.40
1:B:255:ASN:O	1:B:255:ASN:ND2	2.53	0.40
1:B:298:ARG:CD	1:B:348:ARG:HB2	2.47	0.40
1:B:323:LEU:O	1:B:327:MET:HG3	2.21	0.40
1:B:194:LEU:HD23	1:B:204:GLU:CD	2.47	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	456/485 (94%)	446 (98%)	10 (2%)	0	100	100
1	B	452/485 (93%)	435 (96%)	17 (4%)	0	100	100
All	All	908/970 (94%)	881 (97%)	27 (3%)	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	380/413 (92%)	372 (98%)	8 (2%)	47	56
1	B	367/413 (89%)	360 (98%)	7 (2%)	50	59
All	All	747/826 (90%)	732 (98%)	15 (2%)	50	58

All (15) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	21	ARG
1	A	85	MET
1	A	103	LEU
1	A	191	LEU
1	A	402	HIS
1	A	412	VAL
1	A	444[A]	GLU
1	A	444[B]	GLU
1	B	132	LEU
1	B	135	LYS
1	B	194	LEU
1	B	255	ASN
1	B	379	GLN
1	B	432	VAL
1	B	480	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (7) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	299	GLN
1	A	358	HIS
1	B	49	GLN
1	B	213	GLN
1	B	255	ASN
1	B	260	ASN
1	B	299	GLN

5.3.3 RNA ⓘ

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 oligosaccharides 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	$\# Z > 2$
3	GDP	B	500	-	29,30,30	1.23	4 (13%)	45,47,47	1.78	8 (17%)
2	GCP	A	500	-	32,34,34	3.53	12 (37%)	49,54,54	1.70	13 (26%)

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	GDP	B	500	-	-	3/16/32/32	0/3/3/3
2	GCP	A	500	-	-	0/19/38/38	0/3/3/3

All (16) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	500	GCP	C3'-C4'	-9.87	1.28	1.53
2	A	500	GCP	C2'-C1'	-8.14	1.27	1.53
2	A	500	GCP	O4'-C1'	6.36	1.56	1.42
2	A	500	GCP	PA-O3A	6.02	1.66	1.59
2	A	500	GCP	PB-O3A	5.85	1.64	1.58
2	A	500	GCP	C2-N2	5.23	1.46	1.34

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	500	GCP	C2'-C3'	4.67	1.66	1.53
2	A	500	GCP	O4'-C4'	4.63	1.55	1.45
3	B	500	GDP	C5-C4	3.22	1.47	1.38
2	A	500	GCP	C6-N1	-2.72	1.33	1.38
3	B	500	GDP	PA-O3A	2.65	1.62	1.59
2	A	500	GCP	C5-N7	-2.39	1.34	1.39
3	B	500	GDP	C6-N1	-2.35	1.34	1.38
2	A	500	GCP	O6-C6	-2.29	1.19	1.23
3	B	500	GDP	C5-N7	-2.14	1.34	1.39
2	A	500	GCP	PA-O5'	2.08	1.67	1.59

All (21) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	B	500	GDP	C5-C4-N3	-6.16	118.59	128.39
3	B	500	GDP	C2-N3-C4	4.95	120.83	112.30
2	A	500	GCP	C5-C4-N3	-4.79	120.77	128.39
3	B	500	GDP	N9-C4-N3	4.56	135.06	125.95
2	A	500	GCP	C2-N3-C4	4.23	119.58	112.30
2	A	500	GCP	N9-C8-N7	-3.20	107.46	113.40
3	B	500	GDP	C6-C5-N7	3.08	135.90	130.29
2	A	500	GCP	N2-C2-N3	2.80	125.14	119.67
2	A	500	GCP	N9-C4-N3	2.66	131.27	125.95
2	A	500	GCP	C2-N1-C6	-2.56	120.47	125.11
2	A	500	GCP	PB-O3A-PA	-2.51	124.19	132.37
3	B	500	GDP	C4-C5-N7	-2.49	106.72	110.67
3	B	500	GDP	C3'-C2'-C1'	2.44	106.08	101.46
2	A	500	GCP	C5-C6-N1	2.41	119.40	113.25
2	A	500	GCP	C4'-O4'-C1'	-2.41	104.15	109.47
3	B	500	GDP	O2A-PA-O3A	2.34	113.60	107.27
2	A	500	GCP	O6-C6-C5	-2.28	120.51	126.53
2	A	500	GCP	C8-N7-C5	2.20	108.18	104.26
3	B	500	GDP	O6-C6-C5	-2.14	120.89	126.53
2	A	500	GCP	C3'-C2'-C1'	2.10	105.44	101.46
2	A	500	GCP	C1'-N9-C8	-2.01	121.01	126.73

There are no chirality outliers.

All (3) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	B	500	GDP	PA-O3A-PB-O3B
3	B	500	GDP	PA-O3A-PB-O2B

Continued on next page...

Continued from previous page...

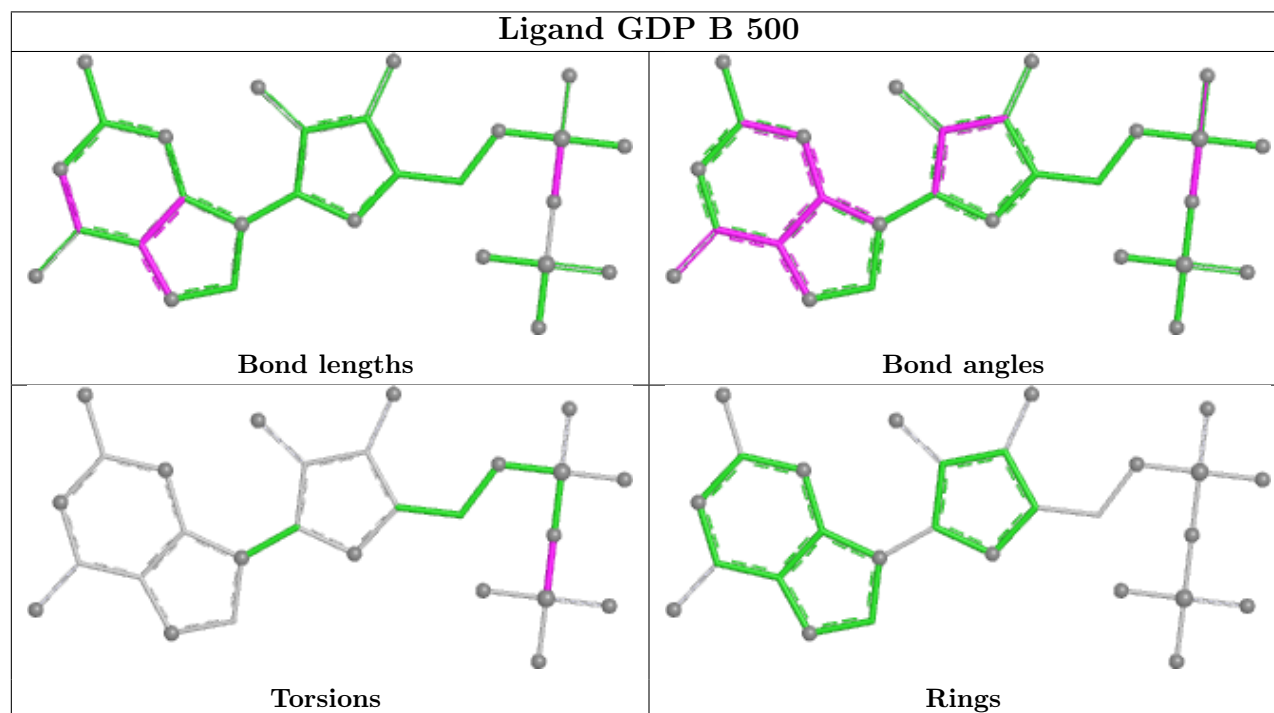
Mol	Chain	Res	Type	Atoms
3	B	500	GDP	PA-O3A-PB-O1B

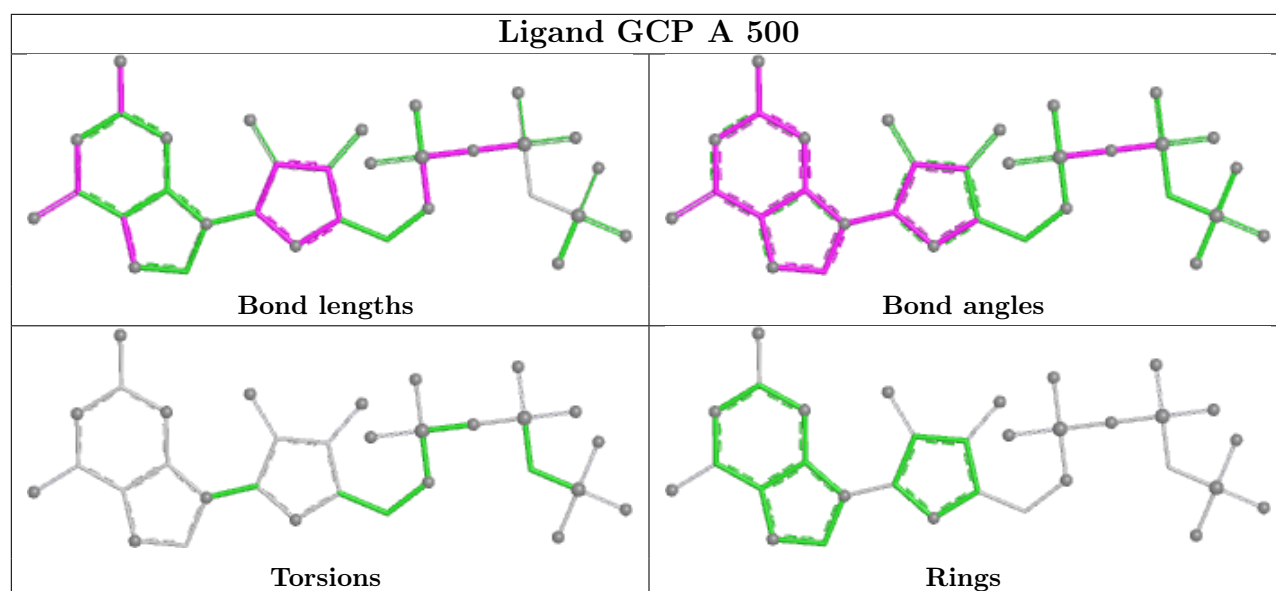
There are no ring outliers.

2 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	B	500	GDP	1	0
2	A	500	GCP	3	0

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	458/485 (94%)	0.12	33 (7%) 21 20	11, 35, 83, 121	2 (0%)
1	B	454/485 (93%)	0.68	59 (12%) 7 6	13, 51, 93, 134	2 (0%)
All	All	912/970 (94%)	0.40	92 (10%) 12 11	11, 43, 88, 134	4 (0%)

All (92) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	56	VAL	5.2
1	B	441	PHE	5.2
1	A	337	TYR	5.0
1	B	440	ASP	4.9
1	A	447	PHE	4.6
1	A	384	PHE	4.5
1	A	134	ALA	4.4
1	A	460	VAL	4.3
1	B	136	PHE	4.2
1	B	55	ALA	4.1
1	B	56	VAL	3.9
1	B	444	GLU	3.9
1	B	258	TRP	3.9
1	B	459	ASN	3.8
1	B	236	PRO	3.8
1	A	382	ALA	3.7
1	A	335	SER	3.6
1	B	408	GLN	3.6
1	B	235	LEU	3.5
1	B	256	ALA	3.4
1	B	337	TYR	3.3
1	B	443	ARG	3.3
1	B	439	PRO	3.3
1	B	134	ALA	3.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	B	429	PRO	3.2
1	B	114	THR	3.2
1	B	423	GLN	3.2
1	B	428	PHE	3.1
1	A	461	ASP	3.1
1	A	459	ASN	3.0
1	A	411	ASP	3.0
1	B	425	LEU	2.9
1	B	65	ASN	2.9
1	A	332	TYR	2.9
1	B	185	ALA	2.9
1	B	461	ASP	2.8
1	B	191	LEU	2.8
1	A	409	GLU	2.7
1	B	169	THR	2.7
1	A	410	GLY	2.7
1	B	113	SER	2.7
1	B	442	TRP	2.7
1	B	382	ALA	2.7
1	A	408	GLN	2.7
1	B	263	GLN	2.7
1	A	138	ASP	2.7
1	A	333	GLY	2.7
1	B	221	HIS	2.6
1	A	114	THR	2.6
1	A	66	GLY	2.6
1	A	202	GLU	2.6
1	B	384	PHE	2.6
1	B	386	GLY	2.6
1	B	66	GLY	2.6
1	B	165	ILE	2.6
1	B	421	ASN	2.6
1	B	432	VAL	2.6
1	A	19	LEU	2.5
1	A	20	HIS	2.5
1	B	54	GLY	2.5
1	B	131	GLY	2.5
1	A	201	ASP	2.5
1	A	199	MET	2.4
1	B	199	MET	2.4
1	A	256	ALA	2.4
1	A	446	GLY	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	B	138	ASP	2.4
1	B	197	ALA	2.4
1	B	458	THR	2.4
1	B	238	GLU	2.3
1	B	260	ASN	2.3
1	B	265	ASP	2.3
1	B	254	THR	2.3
1	B	135	LYS	2.3
1	B	460	VAL	2.3
1	A	402	HIS	2.2
1	B	177	VAL	2.2
1	A	198	ALA	2.2
1	A	265	ASP	2.2
1	B	446	GLY	2.2
1	B	132	LEU	2.1
1	B	194	LEU	2.1
1	B	239	TRP	2.1
1	A	383	GLY	2.1
1	B	340	ARG	2.1
1	B	424	ALA	2.1
1	B	179	LYS	2.1
1	A	407	THR	2.1
1	A	385	GLU	2.1
1	B	416	GLN	2.1
1	B	417	GLY	2.0
1	A	207	ARG	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](#)

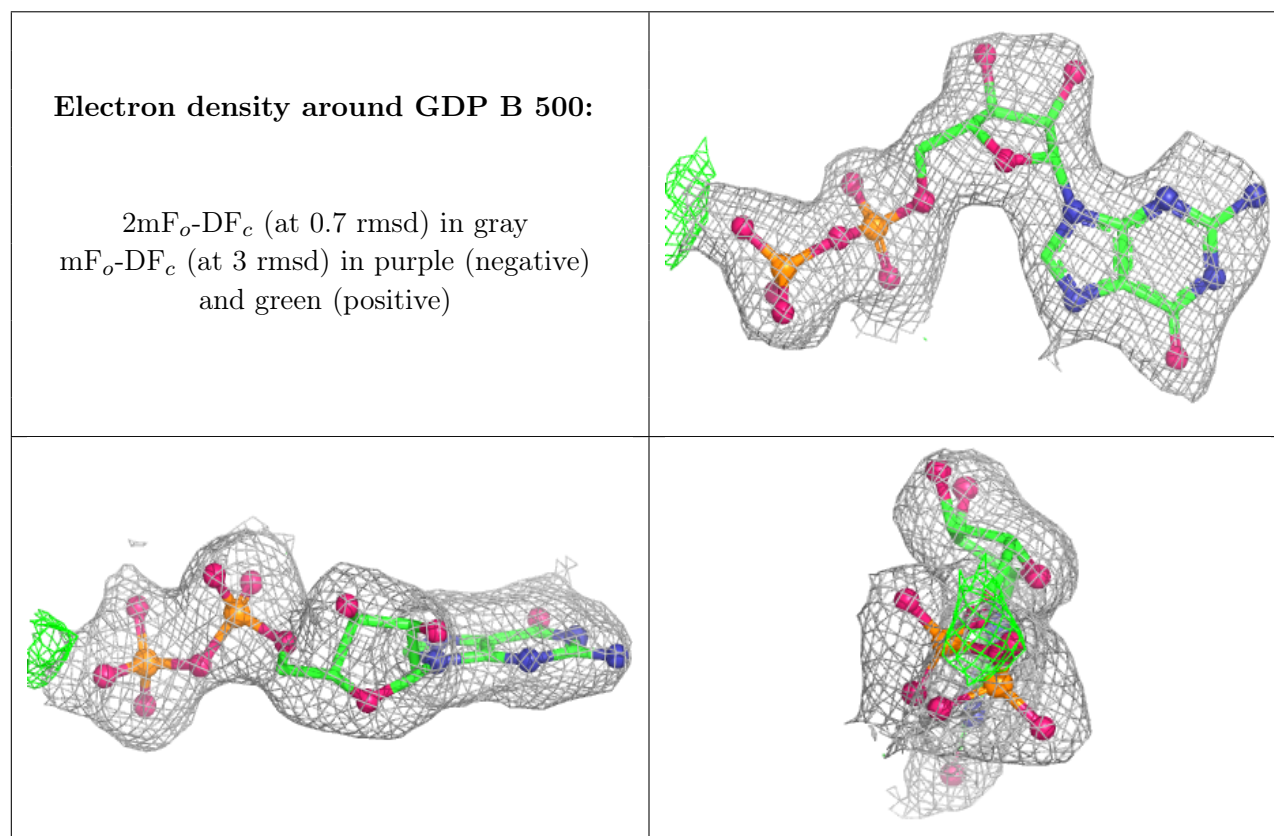
There are no oligosaccharides in this entry.

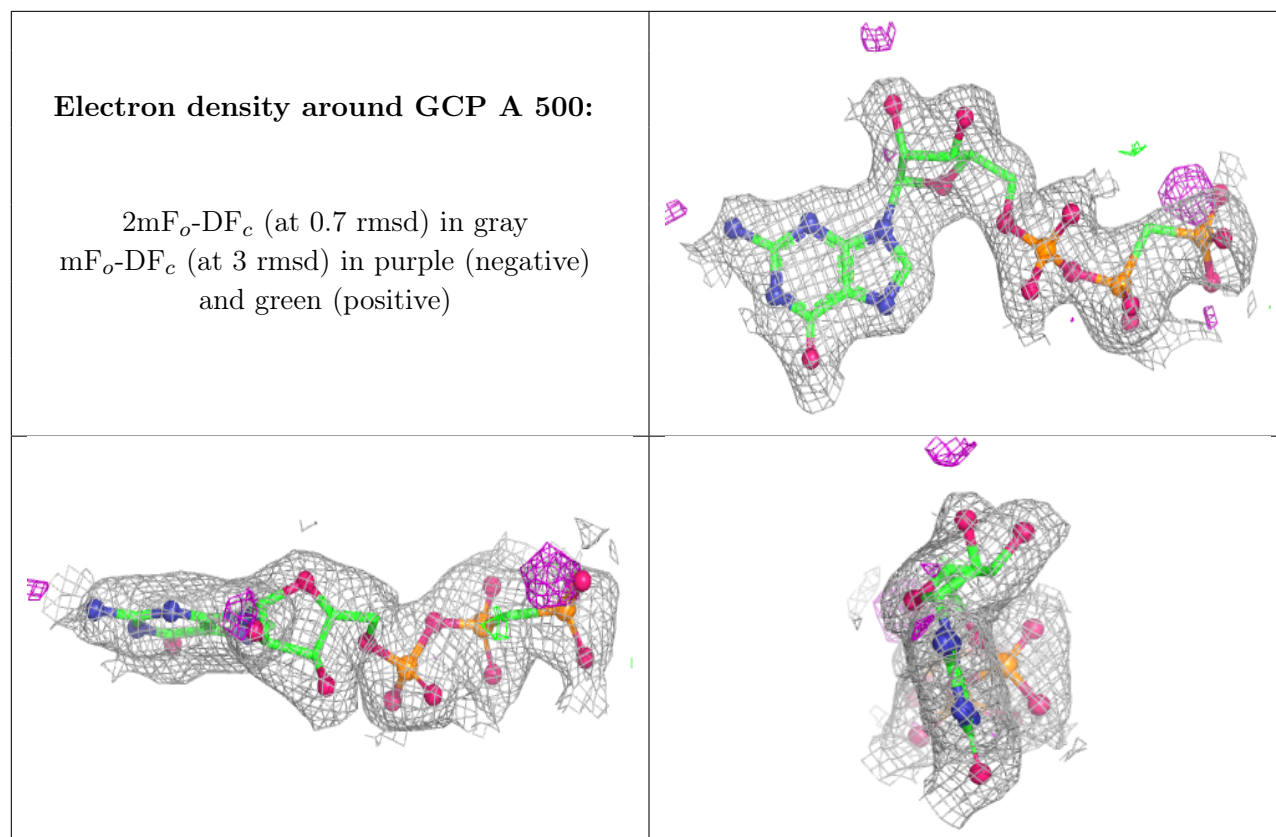
6.4 Ligands [i](#)

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($\text{\AA}^2$)	Q<0.9
3	GDP	B	500	28/28	0.96	0.08	29,42,52,61	0
2	GCP	A	500	32/32	0.98	0.07	15,24,85,99	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.





6.5 Other polymers [i](#)

There are no such residues in this entry.