Full wwPDB X-ray Structure Validation Report ⓘ

Aug 16, 2023 – 11:39 PM EDT

PDB ID	:	2BCG
Title	:	Structure of doubly prenylated Ypt1:GDI complex
Authors	:	Pylypenko, O.; Rak, A.; Alexandrov, K.
Deposited on	:	2005-10-19
Resolution	:	1.48 Å(reported)

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

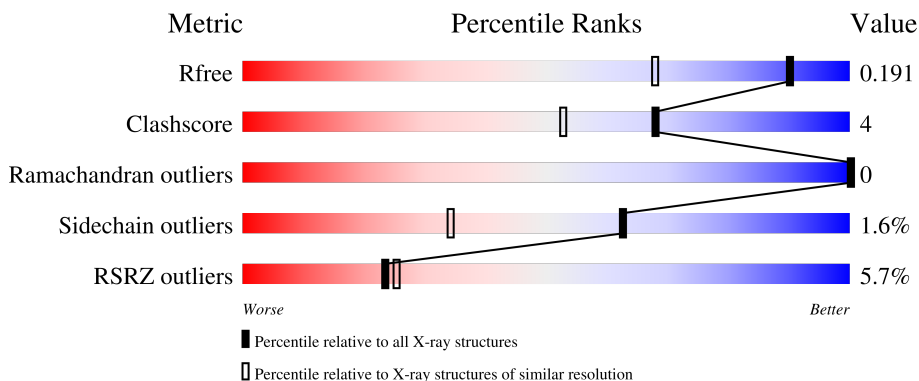|		
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.35
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.35

1 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 1.48 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		0.191
Clashscore		4
Ramachandran outliers		0
Sidechain outliers		1.6%
RSRZ outliers		5.7%

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	4690 (1.50-1.46)
Clashscore	141614	4955 (1.50-1.46)
Ramachandran outliers	138981	4846 (1.50-1.46)
Sidechain outliers	138945	4844 (1.50-1.46)
RSRZ outliers	127900	4614 (1.50-1.46)

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	G	453	3% / 90% / 8% ·
2	Y	206	11% / 86% / 8% / 6%

2 Entry composition ⓘ

There are 7 unique types of molecules in this entry. The entry contains 6268 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 Secretory pathway GDP dissociation inhibitor.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	G	442	Total 3668	C 2358	N 603	O 693	S 14	0	28	0

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
G	-1	GLY	-	cloning artifact	UNP P39958
G	0	HIS	-	cloning artifact	UNP P39958

- Molecule 2 is a protein called GTP-binding protein YPT1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	Y	194	Total 1600	C 1015	N 263	O 316	S 6	0	11	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
Y	204	CYS	GLY	engineered mutation	UNP P01123

- Molecule 3 is GERAN-8-YL GERAN (three-letter code: GER) (formula: $C_{20}H_{34}$).
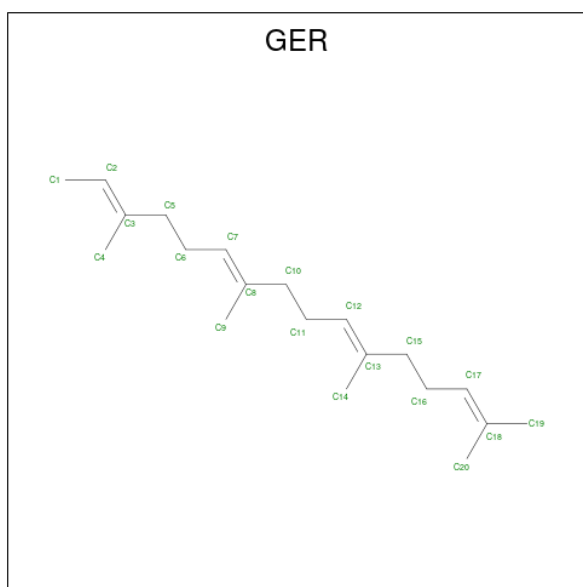
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	G	1	Total 20	C 20	0	0
3	G	1	Total 20	C 20	0	0

- Molecule 4 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	Y	1	Total 1	Mg 1	0	0

- Molecule 5 is GUANOSINE-5'-DIPHOSPHATE (three-letter code: GDP) (formula: $C_{10}H_{15}N_5O_{11}P_2$).
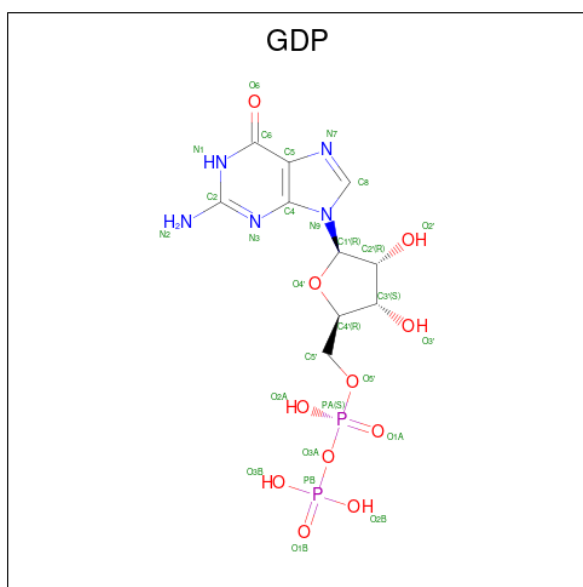
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
			Total	C	N	O	P		
5	Y	1	28	10	5	11	2	0	0

- Molecule 6 is 2-AMINO-2-HYDROXYMETHYL-PROPANE-1,3-DIOL (three-letter code: TRS) (formula: $C_4H_{12}NO_3$).
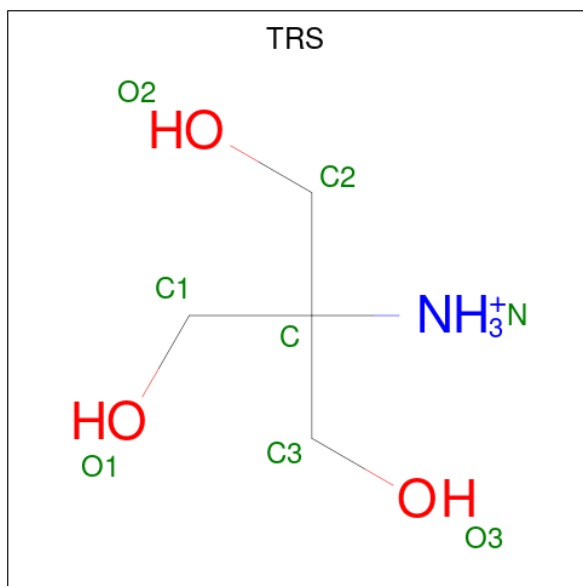
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	N	O		
6	Y	1	8	4	1	3	0	0

- Molecule 7 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
7	G	601	Total 601	O 601	0	0
7	Y	322	Total 322	O 322	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: Secretory pathway GDP dissociation inhibitor

Chain G:
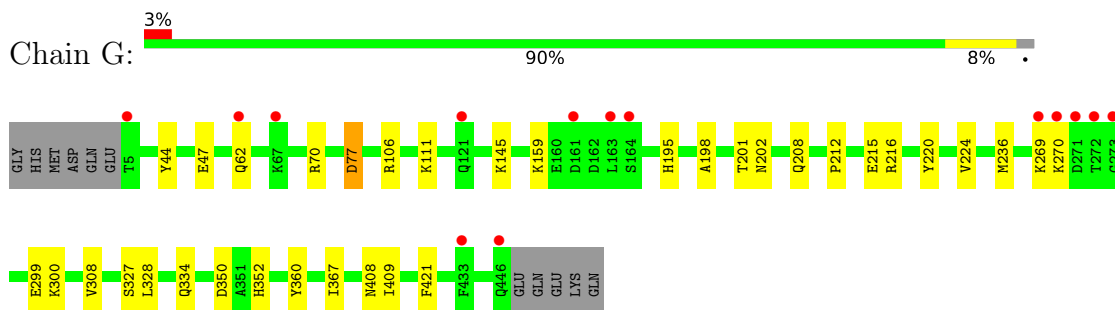
• Molecule 2: GTP-binding protein YPT1

Chain Y:
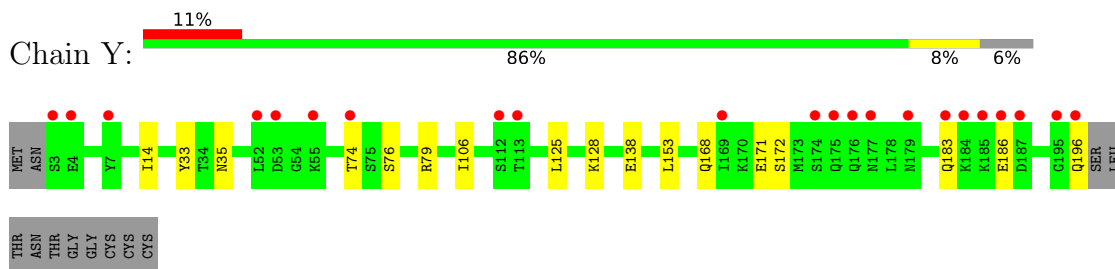
4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	47.66Å 120.23Å 60.55Å 90.00° 90.67° 90.00°	Depositor
Resolution (Å)	19.92 – 1.48 19.90 – 1.48	Depositor EDS
% Data completeness (in resolution range)	96.5 (19.92-1.48) 96.6 (19.90-1.48)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.08	Depositor
$< I/\sigma(I) >$ [1]	2.95 (at 1.48Å)	Xtriage
Refinement program	REFMAC 5.2.0005	Depositor
R, R_{free}	0.163 , 0.193 0.161 , 0.191	Depositor DCC
R_{free} test set	5459 reflections (5.00%)	wwPDB-VP
Wilson B-factor (Å^2)	15.8	Xtriage
Anisotropy	0.451	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.33 , 44.7	EDS
L-test for twinning[2]	$< |L| > = 0.49, < L^2 > = 0.33$	Xtriage
Estimated twinning fraction	0.029 for h,-k,-l	Xtriage
F_o,F_c correlation	0.97	EDS
Total number of atoms	6268	wwPDB-VP
Average B, all atoms (Å^2)	22.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.95% 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: MG, GER, TRS, 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	G	0.64	0/3866	0.73	1/5218 (0.0%)
2	Y	0.65	0/1666	0.73	0/2241
All	All	0.64	0/5532	0.73	1/7459 (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	G	106	ARG	NE-CZ-NH2	-6.38	117.11	120.30

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	G	3668	0	3660	30	0
2	Y	1600	0	1604	11	0
3	G	40	0	68	1	0
4	Y	1	0	0	0	0
5	Y	28	0	12	0	0
6	Y	8	0	12	1	0
7	G	601	0	0	12	0
7	Y	322	0	0	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
All	All	6268	0	5356	41	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 (41) 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:G:62[C]:GLN:NE2	7:G:4517:HOH:O	1.66	1.21
2:Y:14[A]:ILE:HD11	2:Y:106:ILE:HD11	1.38	1.02
1:G:202:ASN:HA	1:G:334:GLN:NE2	1.84	0.92
1:G:202:ASN:HA	1:G:334:GLN:HE22	1.41	0.82
1:G:308:VAL:HG22	1:G:367[A]:ILE:HD13	1.68	0.75
1:G:360[A]:TYR:OH	7:G:4211:HOH:O	2.05	0.73
1:G:367[B]:ILE:HD12	7:G:4543:HOH:O	1.87	0.73
1:G:367[B]:ILE:CD1	7:G:4543:HOH:O	2.39	0.70
1:G:47[A]:GLU:OE1	7:G:4455:HOH:O	2.09	0.69
1:G:111:LYS:HB2	1:G:352[A]:HIS:NE2	2.09	0.67
1:G:201:THR:HG22	7:G:4193:HOH:O	1.94	0.67
1:G:201:THR:HG21	7:G:4543:HOH:O	1.95	0.66
1:G:195:HIS:HE1	1:G:334:GLN:HE21	1.44	0.64
2:Y:14[B]:ILE:HG13	7:Y:3146:HOH:O	1.96	0.64
1:G:208[A]:GLN:OE1	7:G:4440:HOH:O	2.15	0.63
2:Y:138:GLU:HG3	7:Y:3177:HOH:O	1.99	0.63
1:G:145:LYS:HB3	3:G:2000:GER:H193	1.84	0.59
1:G:269:LYS:HD2	7:G:4246:HOH:O	2.06	0.55
1:G:408[A]:ASN:ND2	7:G:4236:HOH:O	2.40	0.54
1:G:308:VAL:HG22	1:G:367[A]:ILE:CD1	2.38	0.53
1:G:202:ASN:CA	1:G:334:GLN:HE22	2.17	0.52
1:G:70[A]:ARG:HH22	1:G:77:ASP:N	2.11	0.49
1:G:70[A]:ARG:HH22	1:G:77:ASP:H	1.61	0.48
2:Y:183:GLN:O	2:Y:186:GLU:HG2	2.14	0.48
2:Y:168:GLN:O	2:Y:172[B]:SER:HB3	2.14	0.48
1:G:220:TYR:O	1:G:224[B]:VAL:HG23	2.13	0.47
2:Y:14[A]:ILE:CD1	2:Y:106:ILE:HD11	2.27	0.47
1:G:212:PRO:HA	1:G:215[B]:GLU:HG2	2.00	0.43
2:Y:76:SER:HA	2:Y:79:ARG:HG2	1.99	0.43
1:G:327:SER:HB3	1:G:352[B]:HIS:CE1	2.54	0.43
1:G:220:TYR:O	1:G:224[A]:VAL:HG12	2.19	0.43
1:G:111:LYS:HG3	1:G:236:MET:SD	2.58	0.43
1:G:198:ALA:O	1:G:216:ARG:HD3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:33:TYR:HE2	2:Y:35:ASN:HD22	1.66	0.42
2:Y:153:LEU:C	2:Y:153:LEU:HD23	2.40	0.42
2:Y:125:LEU:HD22	2:Y:128[B]:LYS:HE3	2.02	0.41
1:G:44:TYR:CE2	2:Y:74:THR:HG22	2.56	0.41
1:G:352[A]:HIS:CE1	7:G:4267:HOH:O	2.74	0.41
6:Y:3000:TRS:H32	7:Y:3268:HOH:O	2.20	0.40
1:G:300[B]:LYS:HE2	1:G:409:ILE:HD12	2.03	0.40
1:G:367[B]:ILE:HD11	7:G:4543:HOH:O	2.12	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	G	469/453 (104%)	466 (99%)	3 (1%)	0	100	100
2	Y	203/206 (98%)	200 (98%)	3 (2%)	0	100	100
All	All	672/659 (102%)	666 (99%)	6 (1%)	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	G	419/400 (105%)	411 (98%)	8 (2%)	57	26

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	Y	185/184 (100%)	183 (99%)	2 (1%)	73 50
All	All	604/584 (103%)	594 (98%)	10 (2%)	62 31

All (10) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	G	77	ASP
1	G	159	LYS
1	G	270	LYS
1	G	299	GLU
1	G	328	LEU
1	G	350[A]	ASP
1	G	350[B]	ASP
1	G	421	PHE
2	Y	171	GLU
2	Y	196	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (8) such sidechains are listed below:

Mol	Chain	Res	Type
1	G	167	GLN
1	G	329	GLN
1	G	334	GLN
1	G	353	ASN
2	Y	35	ASN
2	Y	176	GLN
2	Y	177	ASN
2	Y	179	ASN

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 (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 5 ligands modelled in this entry, 1 is monoatomic - leaving 4 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	$\#|Z| > 2$
3	GER	G	2000	-	19,19,19	2.05	7 (36%)	22,22,22	1.19	3 (13%)
6	TRS	Y	3000	-	7,7,7	0.23	0	9,9,9	0.47	0
3	GER	G	4000	-	19,19,19	2.08	7 (36%)	22,22,22	1.38	4 (18%)
5	GDP	Y	1207	4	24,30,30	0.82	0	30,47,47	0.95	1 (3%)

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	GER	G	2000	-	-	1/20/20/20	-
6	TRS	Y	3000	-	-	0/9/9/9	-
3	GER	G	4000	-	-	7/20/20/20	-
5	GDP	Y	1207	4	-	0/12/32/32	0/3/3/3

All (14) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	2000	GER	C16-C17	-3.48	1.39	1.50
3	G	4000	GER	C7-C8	3.30	1.40	1.33
3	G	4000	GER	C12-C13	3.29	1.40	1.33
3	G	2000	GER	C11-C12	-3.18	1.40	1.50
3	G	2000	GER	C7-C8	3.15	1.40	1.33
3	G	4000	GER	C16-C17	-3.14	1.40	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	2000	GER	C6-C7	-3.09	1.40	1.50
3	G	4000	GER	C6-C7	-2.95	1.40	1.50
3	G	2000	GER	C12-C13	2.95	1.40	1.33
3	G	4000	GER	C11-C12	-2.95	1.40	1.50
3	G	4000	GER	C17-C18	2.90	1.40	1.32
3	G	2000	GER	C17-C18	2.50	1.39	1.32
3	G	2000	GER	C2-C3	2.37	1.41	1.33
3	G	4000	GER	C2-C3	2.29	1.40	1.33

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	G	4000	GER	C14-C13-C15	2.78	119.95	115.27
3	G	2000	GER	C20-C18-C19	2.72	120.60	114.60
3	G	2000	GER	C9-C8-C10	2.65	119.73	115.27
3	G	4000	GER	C11-C12-C13	2.38	133.40	127.66
3	G	4000	GER	C9-C8-C10	2.28	119.11	115.27
3	G	4000	GER	C4-C3-C5	2.05	118.73	115.27
5	Y	1207	GDP	PA-O3A-PB	-2.05	125.80	132.83
3	G	2000	GER	C4-C3-C5	2.00	118.64	115.27

There are no chirality outliers.
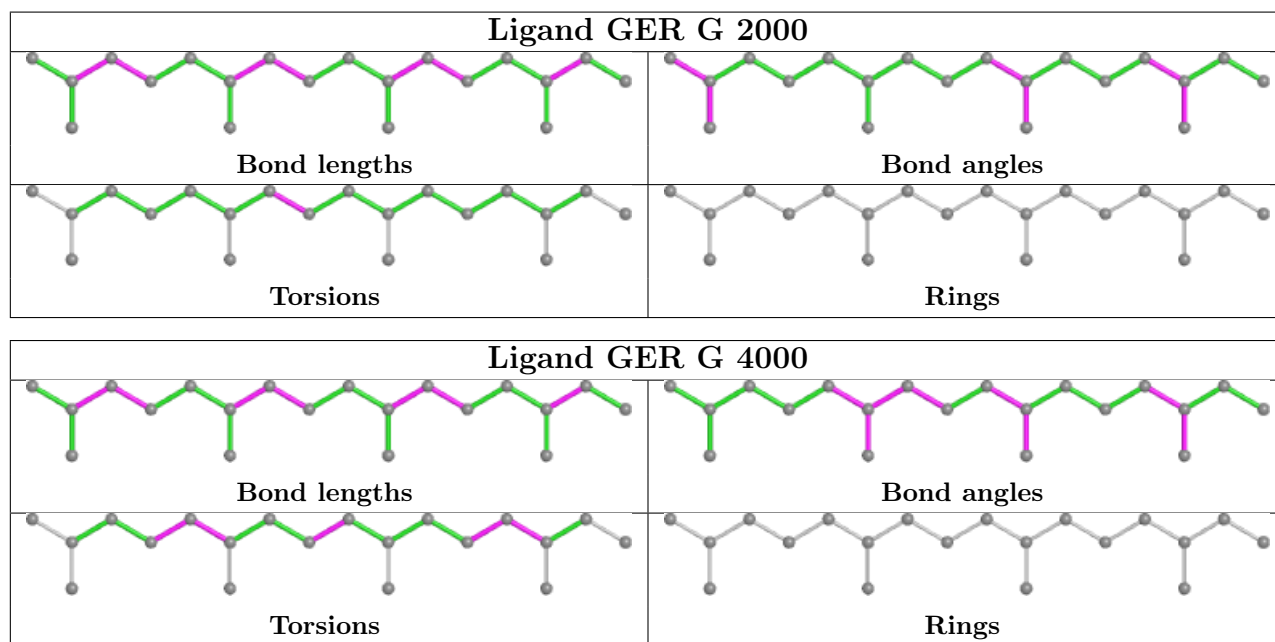
All (8) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	G	4000	GER	C13-C15-C16-C17
3	G	4000	GER	C14-C13-C15-C16
3	G	4000	GER	C8-C10-C11-C12
3	G	4000	GER	C3-C5-C6-C7
3	G	4000	GER	C12-C13-C15-C16
3	G	4000	GER	C4-C3-C5-C6
3	G	4000	GER	C2-C3-C5-C6
3	G	2000	GER	C10-C11-C12-C13

There are no ring outliers.

2 monomers are involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	G	2000	GER	1	0
6	Y	3000	TRS	1	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 then 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.

Ligand GER G 2000

Bond lengths   Bond angles

Torsions   Rings

Ligand GER G 4000

Bond lengths   Bond angles

Torsions   Rings

Ligand GDP Y 1207
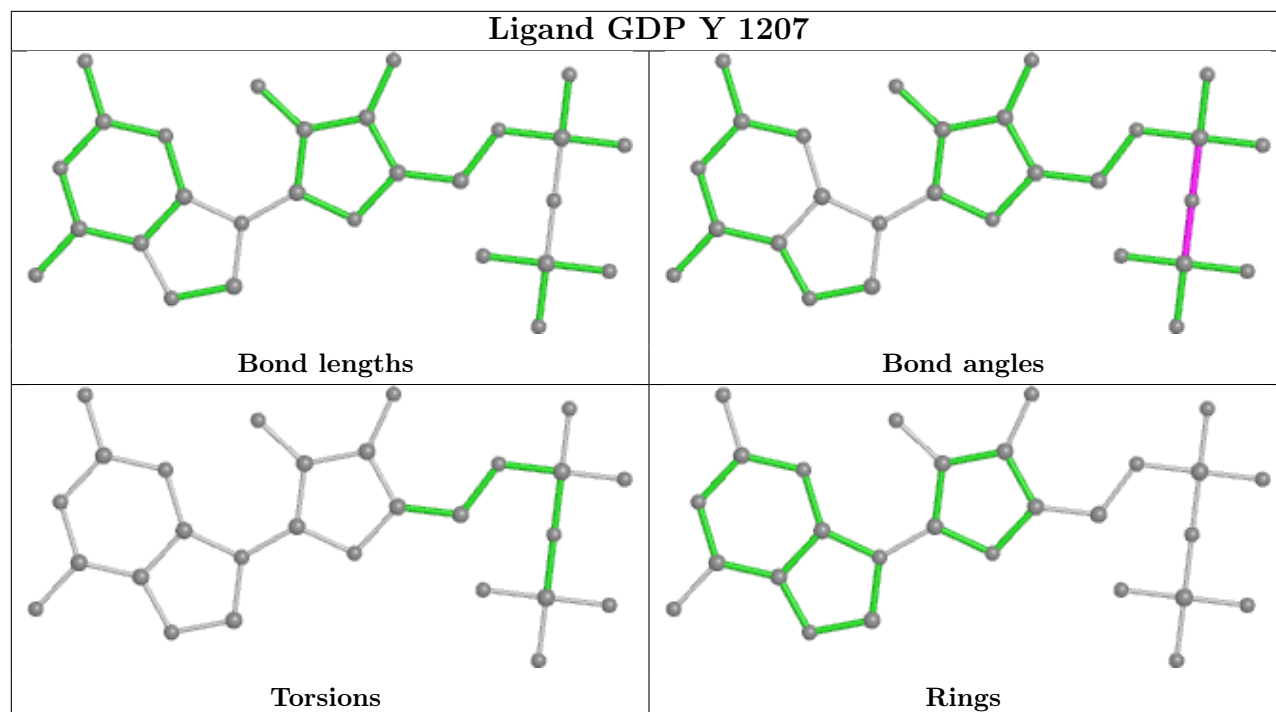
5.7 Other polymers ⓘ

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	G	442/453 (97%)	0.07	14 (3%)	47	52	10, 18, 35, 50	1 (0%)
2	Y	194/206 (94%)	0.34	22 (11%)	5	5	8, 18, 45, 49	0
All	All	636/659 (96%)	0.16	36 (5%)	23	25	8, 18, 41, 50	1 (0%)

All (36) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	Y	196	GLN	8.4
1	G	271	ASP	7.2
2	Y	3	SER	6.6
1	G	272	THR	6.4
2	Y	195	GLY	6.3
1	G	163	LEU	5.8
2	Y	184	LYS	5.5
1	G	5	THR	5.4
2	Y	174	SER	5.0
1	G	270	LYS	4.5
1	G	446	GLN	4.3
1	G	161	ASP	4.1
2	Y	187	ASP	4.0
2	Y	4	GLU	3.8
1	G	273	GLY	3.7
2	Y	185	LYS	3.4
2	Y	175	GLN	3.2
1	G	67	LYS	2.9
2	Y	7	TYR	2.8
2	Y	186	GLU	2.8
2	Y	176	GLN	2.6
2	Y	112	SER	2.6
1	G	164	SER	2.4
2	Y	183	GLN	2.4

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Mol	Chain	Res	Type	RSRZ
2	Y	177	ASN	2.4
1	G	62[A]	GLN	2.4
2	Y	52	LEU	2.3
1	G	433	PHE	2.3
2	Y	179	ASN	2.3
1	G	269	LYS	2.2
2	Y	53	ASP	2.2
2	Y	113	THR	2.2
2	Y	169	ILE	2.1
1	G	121	GLN	2.1
2	Y	55	LYS	2.1
2	Y	74	THR	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
3	GER	G	4000	20/20	0.36	0.28	50,59,64,67	0
3	GER	G	2000	20/20	0.73	0.21	36,45,51,52	0
6	TRS	Y	3000	8/8	0.74	0.34	33,35,36,39	0
5	GDP	Y	1207	28/28	0.99	0.06	7,9,10,11	0
4	MG	Y	1208	1/1	1.00	0.06	9,9,9,9	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.
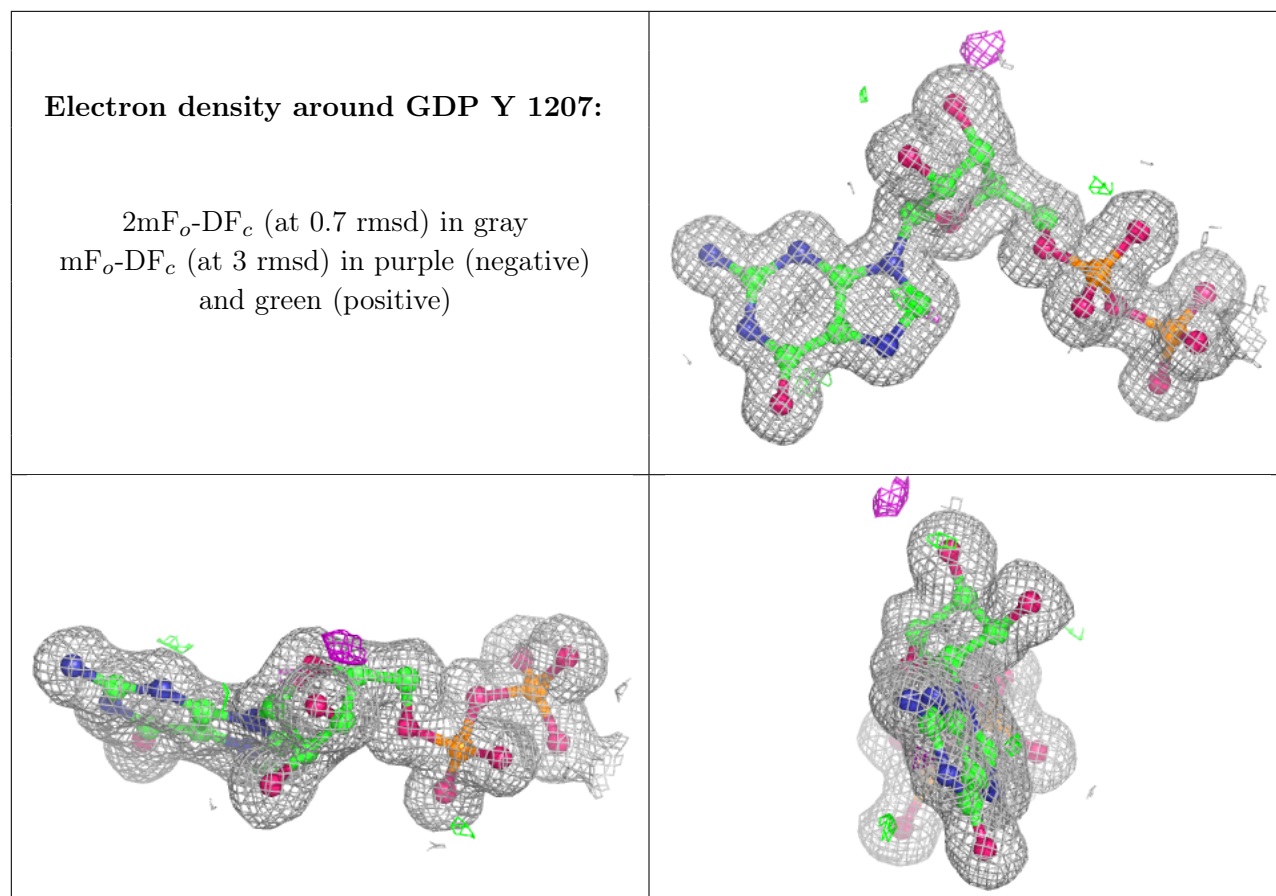
Electron density around GER G 4000:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
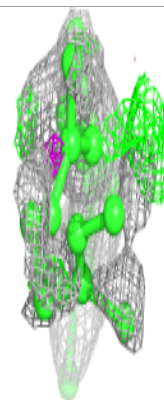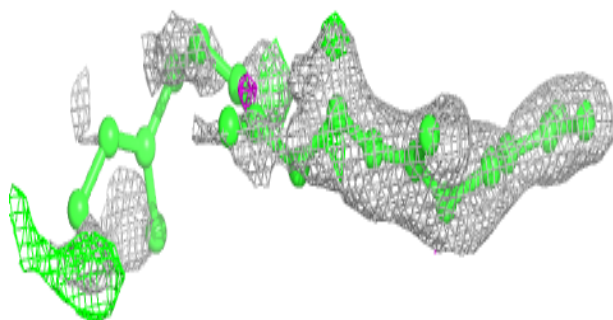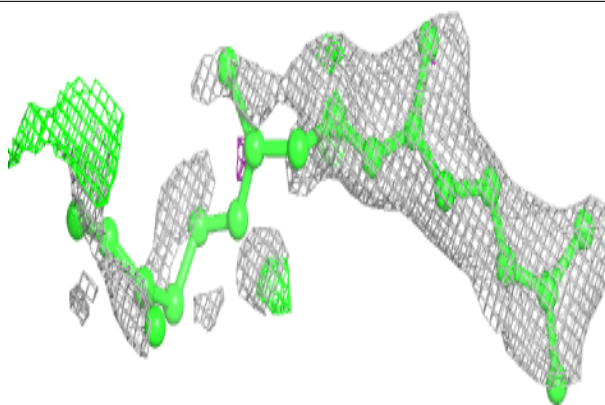
Electron density around GER G 2000:

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

Electron density around GDP Y 1207:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
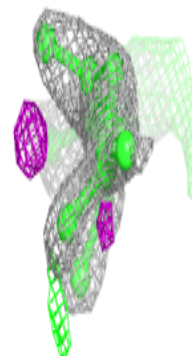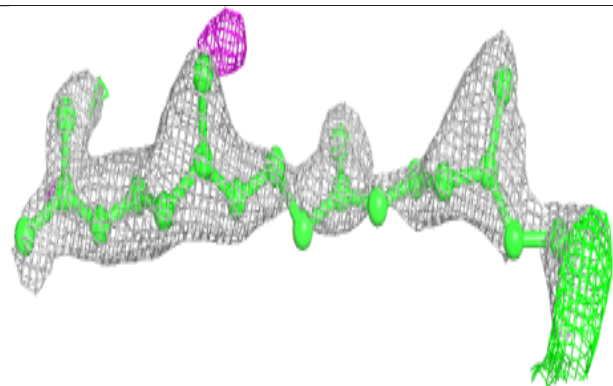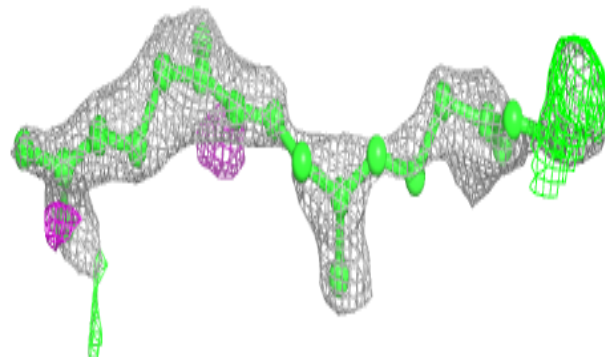
6.5 Other polymers (i)

There are no such residues in this entry.