Full wwPDB X-ray Structure Validation Report ⓘ

Oct 4, 2023 – 05:59 PM EDT

PDB ID	:	4PX2
Title	:	Human GKRP bound to AMG2882 and Sorbitol-6-Phosphate
Authors	:	Jordan, S.R.; Chmait, S.
Deposited on	:	2014-03-21
Resolution	:	2.15 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	:	2.35.1
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

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 2.15 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		0.281
Clashscore		8
Ramachandran outliers		0.9%
Sidechain outliers		7.2%
RSRZ outliers		6.6%

Worse   *Better*

▮ Percentile relative to all X-ray structures

▯ Percentile relative to X-ray structures of similar resolution
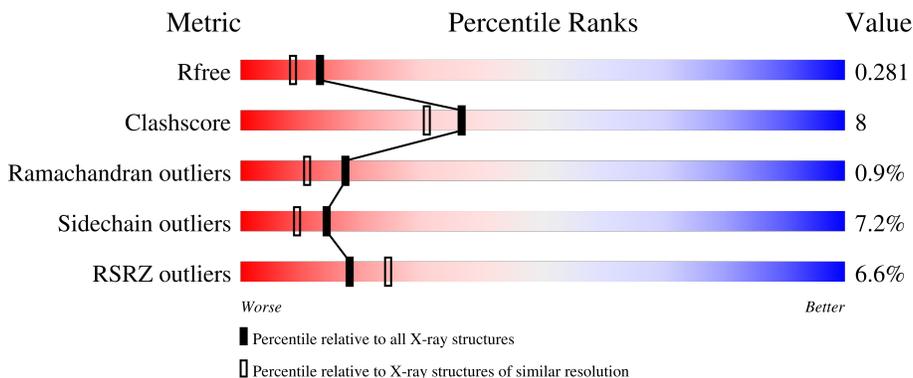
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1479 (2.16-2.16)
Clashscore	141614	1585 (2.16-2.16)
Ramachandran outliers	138981	1560 (2.16-2.16)
Sidechain outliers	138945	1559 (2.16-2.16)
RSRZ outliers	127900	1456 (2.16-2.16)

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

Mol	Chain	Length	Quality of chain
1	A	638	6% 70% 18% • 8%
1	B	638	6% 77% 13% • 8%

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
4	IOD	A	711	-	-	X	-
4	IOD	B	712	-	-	X	-
4	IOD	B	713	-	-	X	-
4	IOD	B	716	-	-	X	-

2 Entry composition ⓘ

There are 7 unique types of molecules in this entry. The entry contains 9386 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 Glucokinase regulatory protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	585	Total	C	N	O	S	0	0	0
			4521	2882	774	841	24			
1	B	590	Total	C	N	O	S	0	0	0
			4554	2901	781	848	24			

There are 26 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-11	MET	-	initiating methionine	UNP Q14397
A	-10	ALA	-	expression tag	UNP Q14397
A	-9	HIS	-	expression tag	UNP Q14397
A	-8	HIS	-	expression tag	UNP Q14397
A	-7	HIS	-	expression tag	UNP Q14397
A	-6	HIS	-	expression tag	UNP Q14397
A	-5	HIS	-	expression tag	UNP Q14397
A	-4	HIS	-	expression tag	UNP Q14397
A	-3	ASP	-	expression tag	UNP Q14397
A	-2	GLU	-	expression tag	UNP Q14397
A	-1	VAL	-	expression tag	UNP Q14397
A	0	ASP	-	expression tag	UNP Q14397
A	626	GLY	-	expression tag	UNP Q14397
B	-11	MET	-	initiating methionine	UNP Q14397
B	-10	ALA	-	expression tag	UNP Q14397
B	-9	HIS	-	expression tag	UNP Q14397
B	-8	HIS	-	expression tag	UNP Q14397
B	-7	HIS	-	expression tag	UNP Q14397
B	-6	HIS	-	expression tag	UNP Q14397
B	-5	HIS	-	expression tag	UNP Q14397
B	-4	HIS	-	expression tag	UNP Q14397
B	-3	ASP	-	expression tag	UNP Q14397
B	-2	GLU	-	expression tag	UNP Q14397
B	-1	VAL	-	expression tag	UNP Q14397
B	0	ASP	-	expression tag	UNP Q14397

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Chain	Residue	Modelled	Actual	Comment	Reference
B	626	GLY	-	expression tag	UNP Q14397

- Molecule 2 is N-[(R)-1-benzofuran-2-yl(phenyl)methyl]-3,4-dihydro-2H-1,5-benzodioxepine-7 -sulfonamide (three-letter code: 2WY) (formula: $C_{24}H_{21}NO_5S$).
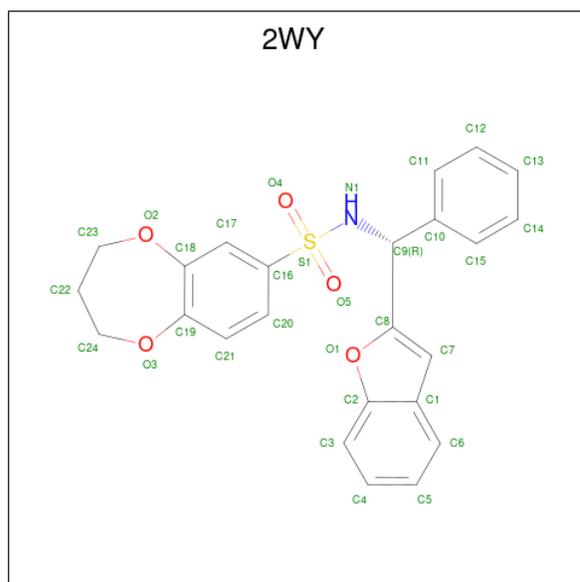
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	N	O	S	0	0
			31	24	1	5	1		
2	B	1	Total	C	N	O	S	0	0
			31	24	1	5	1		

- Molecule 3 is D-SORBITOL-6-PHOSPHATE (three-letter code: S6P) (formula: $C_6H_{15}O_9P$).

S6P
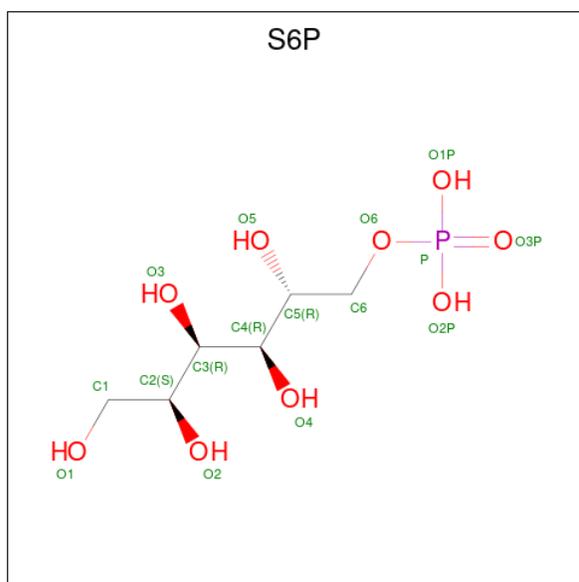
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
3	A	1	Total 16	C 6	O 9	P 1	0	0
3	B	1	Total 16	C 6	O 9	P 1	0	0

- Molecule 4 is IODIDE ION (three-letter code: IOD) (formula: I).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	13	Total 13	I 13	0	0
4	B	15	Total 15	I 15	0	0

- Molecule 5 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).

GOL
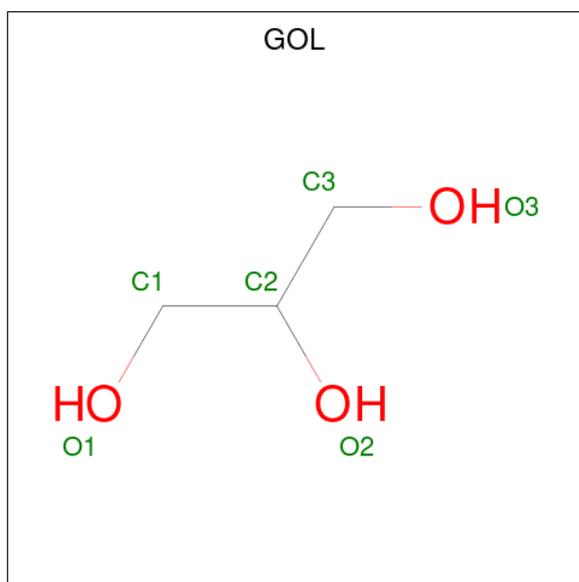
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
5	A	1	Total 6	C 3	O 3	0	0
5	B	1	Total 6	C 3	O 3	0	0
5	B	1	Total 6	C 3	O 3	0	0

- Molecule 6 is SULFATE ION (three-letter code: SO4) (formula: O_4S).
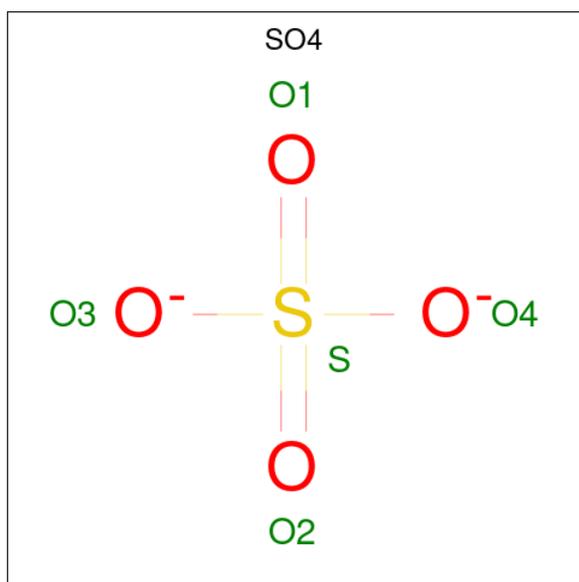
SO4

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
6	B	1	Total 5	O 4	S 1	0	0

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WORLDWIDE

PDB

PROTEIN DATA BANK

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
6	B	1	Total 5	O 4	S 1	0	0
6	B	1	Total 5	O 4	S 1	0	0
6	B	1	Total 5	O 4	S 1	0	0

- Molecule 7 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
7	A	53	Total 53	O 53	0	0
7	B	98	Total 98	O 98	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: Glucokinase regulatory protein

- Molecule 1: Glucokinase regulatory protein

K451 L452 F453 P464 S455 I456 I457 S458 I459 L463 L464 F465 F466 E467 Y468 E469 G470 N471 K499 Q502 N503 A519 L520 L523 Q529 S530 K531 A532 R533 A554 A555 I571 P572 L576 C582 E586 V601 A606 GLY PRO GLY GLN LYS ARG THR ALA ASP

PRO LEU GLU ILE LEU GLU PRO ASP VAL GLN GLY
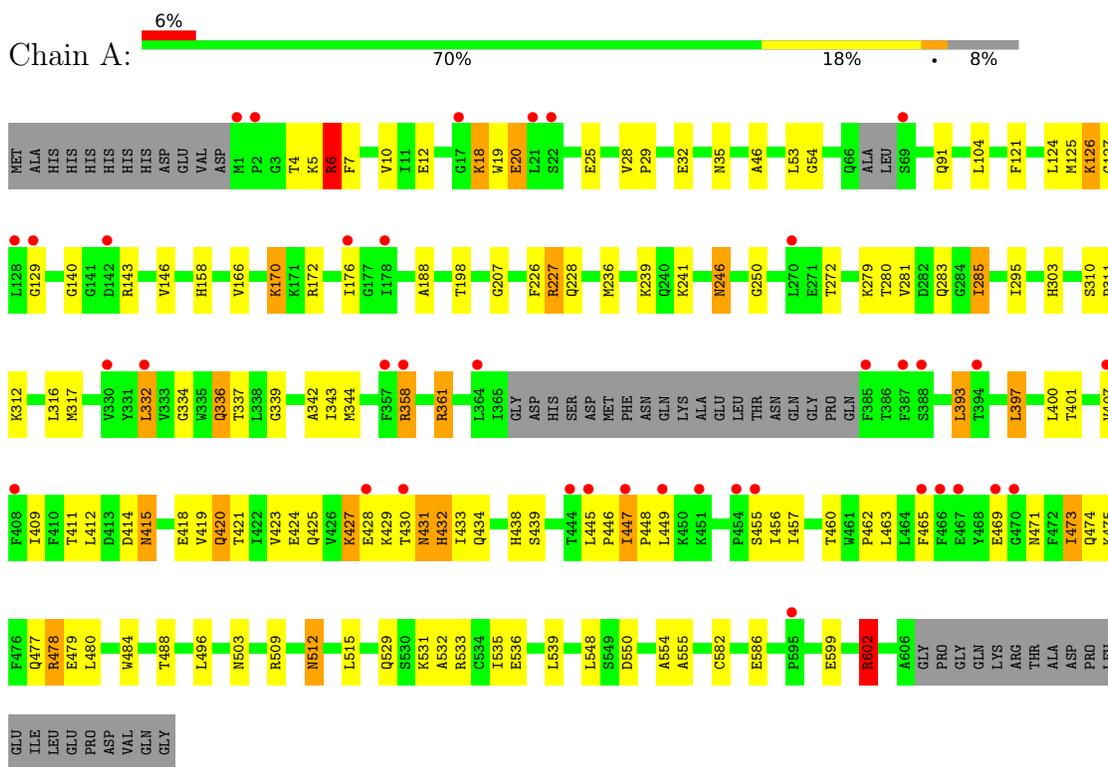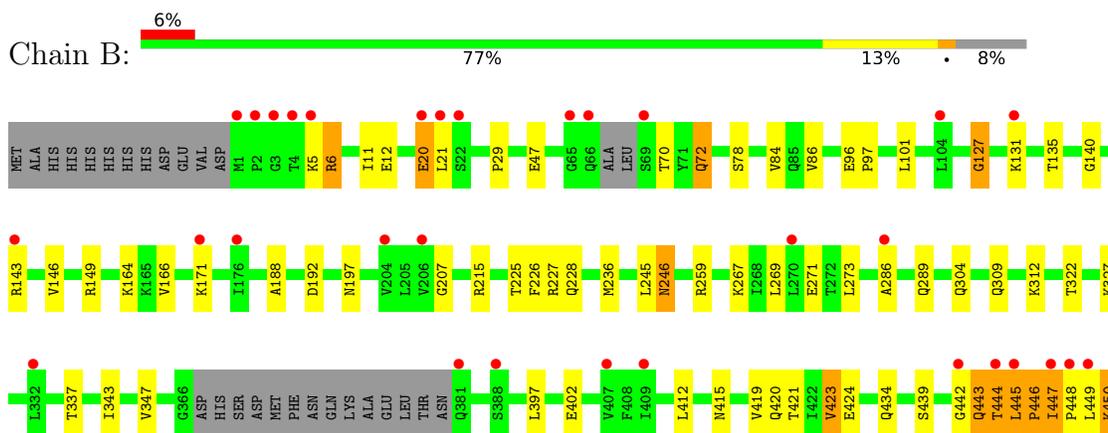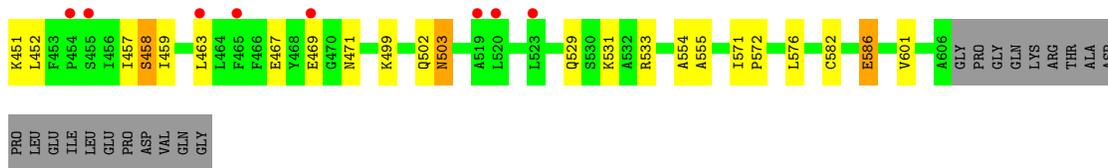
4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 65	Depositor
Cell constants a, b, c, α, β, γ	148.16Å 148.16Å 131.43Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	27.00 – 2.15 27.62 – 2.15	Depositor EDS
% Data completeness (in resolution range)	98.3 (27.00-2.15) 98.4 (27.62-2.15)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.45 (at 2.16Å)	Xtriage
Refinement program	REFMAC 5.8.0049	Depositor
R, R_{free}	0.227 , 0.279 0.234 , 0.281	Depositor DCC
R_{free} test set	4370 reflections (5.00%)	wwPDB-VP
Wilson B-factor (Å^2)	41.6	Xtriage
Anisotropy	0.050	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.35 , 40.6	EDS
L-test for twinning[2]	$< |L| > = 0.51, < L^2 > = 0.35$	Xtriage
Estimated twinning fraction	0.028 for h,-h-k,-l	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	9386	wwPDB-VP
Average B, all atoms (Å^2)	49.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.00% 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 ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: 2WY, S6P, GOL, SO4, IOD

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	0.81	1/4603 (0.0%)	0.91	10/6228 (0.2%)
1	B	0.81	0/4637	0.93	5/6274 (0.1%)
All	All	0.81	1/9240 (0.0%)	0.92	15/12502 (0.1%)

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	32	GLU	CD-OE2	-5.33	1.19	1.25

All (15) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	259	ARG	NE-CZ-NH2	-18.32	111.14	120.30
1	B	259	ARG	NE-CZ-NH1	14.87	127.74	120.30
1	A	227	ARG	NE-CZ-NH2	-8.55	116.03	120.30
1	A	227	ARG	NE-CZ-NH1	8.54	124.57	120.30
1	A	361	ARG	NE-CZ-NH1	7.35	123.98	120.30
1	A	602	ARG	NE-CZ-NH1	6.80	123.70	120.30
1	A	550	ASP	CB-CG-OD1	6.42	124.08	118.30
1	B	192	ASP	CB-CG-OD1	6.26	123.93	118.30
1	B	586	GLU	OE1-CD-OE2	-6.04	116.06	123.30
1	A	361	ARG	NE-CZ-NH2	-5.89	117.35	120.30
1	A	344	MET	CG-SD-CE	5.73	109.37	100.20
1	A	6	ARG	NE-CZ-NH1	5.51	123.05	120.30
1	A	358	ARG	NE-CZ-NH1	5.44	123.02	120.30
1	A	478	ARG	NE-CZ-NH1	5.27	122.94	120.30
1	B	259	ARG	CD-NE-CZ	5.09	130.73	123.60

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	4521	0	4618	85	0
1	B	4554	0	4647	64	0
2	A	31	0	21	2	0
2	B	31	0	21	2	0
3	A	16	0	13	0	0
3	B	16	0	13	0	0
4	A	13	0	0	4	0
4	B	15	0	0	10	0
5	A	6	0	8	0	0
5	B	12	0	16	1	0
6	B	20	0	0	1	0
7	A	53	0	0	4	0
7	B	98	0	0	1	1
All	All	9386	0	9357	147	1

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 (147) 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:429:LYS:NZ	7:A:849:HOH:O	1.61	1.28
1:B:458:SER:HB3	4:B:713:IOD:I	2.37	0.94
1:A:337:THR:HG21	1:A:479:GLU:OE2	1.67	0.94
1:A:400:LEU:O	1:A:401:THR:OG1	1.92	0.87
1:B:20:GLU:HG2	1:B:21:LEU:HD22	1.64	0.80
1:A:6:ARG:HD3	1:A:555:ALA:O	1.82	0.78
1:A:4:THR:O	4:A:711:IOD:I	2.76	0.72
1:A:602:ARG:HH11	1:A:602:ARG:HG3	1.58	0.69
1:A:228:GLN:HE22	1:B:228:GLN:HE22	1.37	0.69
1:B:469:GLU:HG2	4:B:716:IOD:I	2.63	0.69
1:A:439:SER:OG	1:A:460:THR:HG22	1.91	0.69
1:A:393:LEU:O	1:A:397:LEU:HB3	1.93	0.68
1:B:140:GLY:O	1:B:149:ARG:NH2	2.27	0.68
1:A:474:GLN:HA	1:A:477:GLN:HE21	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:532:ALA:O	1:A:536:GLU:HG3	1.94	0.67
1:A:317:MET:HE2	1:A:496:LEU:HD11	1.77	0.66
1:A:336:GLN:NE2	1:A:414:ASP:OD1	2.29	0.66
1:A:140:GLY:H	1:A:158:HIS:HE1	1.42	0.65
1:A:433:ILE:O	1:A:434:GLN:HG2	1.98	0.63
1:A:474:GLN:O	1:A:478:ARG:HD3	1.98	0.62
1:B:502:GLN:NE2	4:B:717:IOD:I	3.01	0.62
1:A:415:ASN:HD22	1:A:418:GLU:H	1.46	0.62
1:B:72:GLN:CD	1:B:78:SER:HG	2.02	0.62
1:B:445:LEU:HG	4:B:713:IOD:I	2.70	0.61
1:A:283:GLN:HB2	1:A:285:ILE:HG22	1.84	0.60
1:B:448:PRO:O	1:B:451:LYS:HB2	2.01	0.60
1:B:6:ARG:HD2	1:B:554:ALA:O	2.02	0.59
1:A:146:VAL:HG12	1:A:146:VAL:O	2.03	0.59
1:B:146:VAL:HG12	1:B:146:VAL:O	2.01	0.59
1:A:582:CYS:HB2	1:A:586:GLU:OE2	2.02	0.58
1:A:339:GLY:O	1:A:342:ALA:HB3	2.04	0.58
1:A:246:ASN:H	1:A:246:ASN:HD22	1.50	0.58
1:A:19:TRP:O	1:A:20:GLU:CB	2.52	0.58
1:A:480:LEU:HD21	1:A:484:TRP:CH2	2.39	0.57
1:A:46:ALA:HA	1:A:317:MET:HE1	1.87	0.57
1:A:246:ASN:HD22	1:A:246:ASN:N	2.03	0.56
1:B:286:ALA:HA	1:B:289:GLN:HE21	1.70	0.56
1:B:6:ARG:HD3	1:B:555:ALA:O	2.05	0.56
1:A:312:LYS:HB3	1:A:457:ILE:HG12	1.88	0.55
1:A:317:MET:CE	1:A:496:LEU:HD11	2.36	0.55
1:A:529:GLN:HE22	1:A:533:ARG:HH21	1.54	0.55
1:B:127:GLY:O	4:B:716:IOD:I	2.94	0.55
1:B:419:VAL:O	1:B:423:VAL:HG12	2.05	0.55
1:B:531:LYS:HE2	4:B:712:IOD:I	2.76	0.55
1:B:5:LYS:HB2	4:B:710:IOD:I	2.77	0.55
1:B:529:GLN:HE21	1:B:533:ARG:HE	1.53	0.55
1:B:503:ASN:HD22	1:B:503:ASN:H	1.56	0.54
1:A:512:ASN:ND2	1:A:515:LEU:H	2.03	0.54
1:A:420:GLN:HB3	1:A:449:LEU:HG	1.90	0.54
1:B:225:THR:H	1:B:228:GLN:HE21	1.54	0.54
1:A:198:THR:HG21	1:A:236:MET:HE1	1.90	0.54
1:B:164:LYS:HE2	5:B:719:GOL:H12	1.89	0.54
1:A:228:GLN:HE22	1:B:228:GLN:NE2	2.04	0.54
1:B:146:VAL:HG13	1:B:343:ILE:CG2	2.38	0.53
1:B:442:GLY:O	1:B:443:GLN:O	2.26	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:146:VAL:HG13	1:B:343:ILE:HG21	1.91	0.53
1:A:431:ASN:H	1:A:431:ASN:HD22	1.56	0.52
1:A:6:ARG:HD2	1:A:554:ALA:O	2.10	0.52
1:A:602:ARG:HH11	1:A:602:ARG:CG	2.21	0.51
1:A:46:ALA:HA	1:A:317:MET:CE	2.39	0.51
1:A:447:ILE:N	1:A:448:PRO:HD2	2.25	0.51
1:B:420:GLN:HA	1:B:423:VAL:HG13	1.92	0.51
1:A:104:LEU:HD23	1:A:176:ILE:HB	1.93	0.51
1:A:53:LEU:HD12	1:A:488:THR:HG23	1.93	0.50
1:A:419:VAL:O	1:A:423:VAL:HG23	2.11	0.50
1:B:309:GLN:NE2	1:B:458:SER:O	2.45	0.50
1:A:146:VAL:HG13	1:A:343:ILE:CG2	2.40	0.50
1:A:473:ILE:HD13	1:A:473:ILE:O	2.12	0.50
1:A:29:PRO:HG2	2:A:701:2WY:C11	2.42	0.50
1:A:397:LEU:HD22	1:A:397:LEU:O	2.12	0.50
1:A:397:LEU:O	1:A:400:LEU:HD13	2.12	0.50
1:A:280:THR:HB	1:A:285:ILE:O	2.12	0.50
1:A:4:THR:HA	4:A:711:IOD:I	2.82	0.50
1:B:447:ILE:HG22	1:B:450:LYS:CE	2.41	0.50
1:A:236:MET:CE	1:A:241:LYS:HB3	2.42	0.49
1:B:246:ASN:HD22	1:B:246:ASN:N	2.09	0.49
1:A:91:GLN:HG2	1:A:281:VAL:HG13	1.95	0.49
1:B:458:SER:CB	4:B:713:IOD:I	3.23	0.49
1:B:444:THR:O	1:B:446:PRO:HD3	2.13	0.49
1:A:7:PHE:HB2	4:A:711:IOD:I	2.83	0.49
1:B:529:GLN:HE22	1:B:533:ARG:HH21	1.60	0.49
1:B:412:LEU:CD1	1:B:439:SER:HB3	2.43	0.48
1:A:121:PHE:O	1:A:125:MET:HG3	2.14	0.48
1:A:332:LEU:HD12	1:A:407:VAL:HB	1.94	0.48
1:B:236:MET:HG2	6:B:722:SO4:O3	2.13	0.48
1:A:207:GLY:O	1:A:246:ASN:HA	2.14	0.48
1:B:421:THR:O	1:B:424:GLU:HB2	2.13	0.48
1:A:18:LYS:HE2	7:A:850:HOH:O	2.14	0.47
1:A:475:LYS:HE2	1:A:479:GLU:OE2	2.14	0.47
1:A:126:LYS:O	1:A:129:GLY:N	2.38	0.47
1:B:207:GLY:O	1:B:246:ASN:HA	2.15	0.47
1:A:54:GLY:O	1:A:303:HIS:NE2	2.48	0.47
1:A:170:LYS:N	1:A:170:LYS:HD2	2.30	0.47
1:A:334:GLY:HA2	1:A:409:ILE:O	2.14	0.47
1:B:309:GLN:HG3	1:B:459:ILE:HD13	1.96	0.47
1:A:18:LYS:CE	7:A:850:HOH:O	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:571:ILE:HB	1:B:572:PRO:HD3	1.97	0.46
1:A:412:LEU:HD23	1:A:412:LEU:N	2.30	0.46
1:B:246:ASN:HD22	1:B:246:ASN:H	1.64	0.46
1:B:267:LYS:NZ	1:B:271:GLU:OE1	2.49	0.46
1:A:91:GLN:HG2	1:A:281:VAL:CG1	2.46	0.46
1:B:582:CYS:HB2	1:B:586:GLU:OE1	2.16	0.45
1:A:512:ASN:C	1:A:512:ASN:HD22	2.19	0.45
1:A:124:LEU:C	1:A:124:LEU:HD23	2.37	0.45
1:A:535:ILE:O	1:A:539:LEU:HG	2.17	0.44
1:A:427:LYS:O	1:A:427:LYS:HE2	2.17	0.44
1:A:509:ARG:NH1	7:A:841:HOH:O	2.43	0.44
1:B:529:GLN:NE2	1:B:533:ARG:HE	2.15	0.44
1:A:430:THR:HG22	1:A:432:HIS:H	1.81	0.44
1:B:245:LEU:HG	1:B:269:LEU:HD21	1.98	0.44
1:A:283:GLN:CB	1:A:285:ILE:HG22	2.48	0.44
1:B:11:ILE:HG22	1:B:12:GLU:N	2.33	0.44
1:A:10:VAL:HB	1:A:531:LYS:HE3	2.00	0.44
1:B:72:GLN:CG	1:B:78:SER:OG	2.66	0.44
1:B:503:ASN:HD22	1:B:503:ASN:N	2.14	0.44
1:B:503:ASN:H	1:B:503:ASN:ND2	2.16	0.44
1:B:449:LEU:HA	1:B:452:LEU:HD12	1.99	0.43
1:A:188:ALA:HB2	1:A:226:PHE:CD2	2.53	0.43
1:A:250:GLY:HA2	4:A:705:IOD:I	2.88	0.43
1:A:400:LEU:C	1:A:401:THR:HG1	2.08	0.43
1:B:86:VAL:HG12	1:B:273:LEU:HD21	2.00	0.43
1:B:215:ARG:HG3	2:B:701:2WY:C11	2.48	0.43
1:A:146:VAL:HG13	1:A:343:ILE:HG21	1.99	0.43
1:B:503:ASN:ND2	1:B:503:ASN:N	2.66	0.43
1:B:447:ILE:N	1:B:448:PRO:HD2	2.34	0.42
1:A:272:THR:HA	1:A:295:ILE:HG21	2.00	0.42
1:A:310:SER:HB2	1:A:311:PRO:HD3	2.01	0.42
1:B:412:LEU:HD12	1:B:443:GLN:HB3	2.01	0.42
1:B:101:LEU:HD11	1:B:135:THR:HG22	2.02	0.42
1:B:447:ILE:HG22	1:B:450:LYS:HE3	2.02	0.42
1:B:531:LYS:CE	4:B:712:IOD:I	3.38	0.42
1:A:28:VAL:HG22	2:A:701:2WY:C4	2.49	0.42
1:A:146:VAL:O	1:A:146:VAL:CG1	2.66	0.42
1:B:312:LYS:HB3	1:B:457:ILE:HG12	2.01	0.42
1:B:572:PRO:O	1:B:576:LEU:HG	2.20	0.41
1:B:188:ALA:HB2	1:B:226:PHE:CD2	2.55	0.41
1:B:96:GLU:N	1:B:97:PRO:HD3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:430:THR:HG22	1:A:432:HIS:N	2.35	0.41
1:B:29:PRO:HG2	2:B:701:2WY:C11	2.51	0.41
1:B:601:VAL:HG21	4:B:704:IOD:I	2.91	0.41
1:A:400:LEU:HD12	1:A:400:LEU:N	2.35	0.41
1:B:322:THR:HB	7:B:826:HOH:O	2.20	0.41
1:A:400:LEU:C	1:A:401:THR:OG1	2.57	0.41
1:A:421:THR:O	1:A:424:GLU:HB2	2.21	0.40
1:A:438:HIS:CG	1:A:478:ARG:HG2	2.56	0.40
1:A:548:LEU:HA	1:A:548:LEU:HD23	1.89	0.40
1:B:286:ALA:HA	1:B:289:GLN:NE2	2.34	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:B:891:HOH:O	7:B:895:HOH:O[6_554]	1.55	0.65

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	579/638 (91%)	540 (93%)	31 (5%)	8 (1%)	11	5
1	B	584/638 (92%)	554 (95%)	27 (5%)	3 (0%)	29	22
All	All	1163/1276 (91%)	1094 (94%)	58 (5%)	11 (1%)	17	11

All (11) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	20	GLU
1	B	443	GLN
1	A	456	ILE

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Mol	Chain	Res	Type
1	B	127	GLY
1	A	127	GLY
1	A	336	GLN
1	A	469	GLU
1	A	446	PRO
1	A	432	HIS
1	A	462	PRO
1	B	446	PRO

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	498/542 (92%)	458 (92%)	40 (8%)	12	7
1	B	501/542 (92%)	469 (94%)	32 (6%)	17	12
All	All	999/1084 (92%)	927 (93%)	72 (7%)	14	9

All (72) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	5	LYS
1	A	6	ARG
1	A	12	GLU
1	A	18	LYS
1	A	25	GLU
1	A	35	ASN
1	A	126	LYS
1	A	143	ARG
1	A	166	VAL
1	A	170	LYS
1	A	172	ARG
1	A	227	ARG
1	A	239	LYS
1	A	246	ASN
1	A	279	LYS

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Mol	Chain	Res	Type
1	A	285	ILE
1	A	316	LEU
1	A	332	LEU
1	A	358	ARG
1	A	361	ARG
1	A	393	LEU
1	A	397	LEU
1	A	411	THR
1	A	415	ASN
1	A	420	GLN
1	A	425	GLN
1	A	427	LYS
1	A	428	GLU
1	A	431	ASN
1	A	445	LEU
1	A	447	ILE
1	A	455	SER
1	A	463	LEU
1	A	465	PHE
1	A	471	ASN
1	A	473	ILE
1	A	503	ASN
1	A	512	ASN
1	A	599	GLU
1	A	602	ARG
1	B	6	ARG
1	B	20	GLU
1	B	47	GLU
1	B	70	THR
1	B	72	GLN
1	B	84	VAL
1	B	131	LYS
1	B	143	ARG
1	B	166	VAL
1	B	171	LYS
1	B	197	ASN
1	B	227	ARG
1	B	246	ASN
1	B	304	GLN
1	B	327	LYS
1	B	337	THR
1	B	347	VAL

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Mol	Chain	Res	Type
1	B	397	LEU
1	B	402	GLU
1	B	415	ASN
1	B	423	VAL
1	B	434	GLN
1	B	444	THR
1	B	445	LEU
1	B	447	ILE
1	B	450	LYS
1	B	458	SER
1	B	463	LEU
1	B	467	GLU
1	B	471	ASN
1	B	499	LYS
1	B	503	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (32) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	9	HIS
1	A	35	ASN
1	A	91	GLN
1	A	123	GLN
1	A	158	HIS
1	A	190	GLN
1	A	196	ASN
1	A	246	ASN
1	A	289	GLN
1	A	415	ASN
1	A	431	ASN
1	A	471	ASN
1	A	477	GLN
1	A	503	ASN
1	A	512	ASN
1	A	529	GLN
1	B	8	GLN
1	B	9	HIS
1	B	39	GLN
1	B	48	ASN
1	B	130	GLN
1	B	197	ASN
1	B	228	GLN

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Mol	Chain	Res	Type
1	B	246	ASN
1	B	289	GLN
1	B	389	GLN
1	B	415	ASN
1	B	431	ASN
1	B	434	GLN
1	B	471	ASN
1	B	503	ASN
1	B	529	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

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

5.5 Carbohydrates ⓘ

There are no monosaccharides in this entry.

5.6 Ligand geometry ⓘ

Of 39 ligands modelled in this entry, 28 are monoatomic - leaving 11 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#|Z| > 2$	Counts	RMSZ	$\#|Z| > 2$
5	GOL	A	716	-	5,5,5	0.39	0	5,5,5	1.74	2 (40%)
6	SO4	B	720	-	4,4,4	0.53	0	6,6,6	0.50	0
2	2WY	A	701	-	32,35,35	2.60	12 (37%)	41,50,50	2.61	16 (39%)
5	GOL	B	718	-	5,5,5	0.69	0	5,5,5	0.90	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
2	2WY	B	701	-	32,35,35	2.52	9 (28%)	41,50,50	3.16	16 (39%)
3	S6P	A	702	-	15,15,15	1.16	1 (6%)	21,21,21	1.95	3 (14%)
6	SO4	B	721	-	4,4,4	0.28	0	6,6,6	0.58	0
5	GOL	B	719	-	5,5,5	0.47	0	5,5,5	0.22	0
6	SO4	B	723	-	4,4,4	0.43	0	6,6,6	0.34	0
6	SO4	B	722	-	4,4,4	0.63	0	6,6,6	0.62	0
3	S6P	B	702	-	15,15,15	2.11	5 (33%)	21,21,21	1.09	1 (4%)

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
5	GOL	A	716	-	-	2/4/4/4	-
2	2WY	A	701	-	-	1/15/27/27	0/5/5/5
5	GOL	B	718	-	-	3/4/4/4	-
2	2WY	B	701	-	-	0/15/27/27	0/5/5/5
3	S6P	A	702	-	-	0/20/20/20	-
5	GOL	B	719	-	-	0/4/4/4	-
3	S6P	B	702	-	-	0/20/20/20	-

All (27) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	701	2WY	C16-S1	7.61	1.88	1.76
2	A	701	2WY	O4-S1	6.49	1.50	1.43
2	B	701	2WY	O5-S1	6.23	1.50	1.43
2	A	701	2WY	S1-N1	5.58	1.71	1.61
2	A	701	2WY	C7-C8	-5.53	1.32	1.39
2	B	701	2WY	O4-S1	5.18	1.49	1.43
2	A	701	2WY	O5-S1	5.11	1.49	1.43
3	B	702	S6P	P-O3P	4.56	1.65	1.50
2	B	701	2WY	C7-C8	-4.45	1.33	1.39
3	B	702	S6P	C2-C3	-3.84	1.46	1.53
2	A	701	2WY	C16-S1	3.27	1.81	1.76
3	A	702	S6P	C2-C3	-3.22	1.47	1.53
2	A	701	2WY	O3-C24	3.21	1.49	1.44
2	A	701	2WY	C11-C10	3.18	1.44	1.39
2	B	701	2WY	O2-C23	2.90	1.49	1.44
3	B	702	S6P	C6-C5	2.86	1.55	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	701	2WY	C20-C16	2.62	1.43	1.38
2	B	701	2WY	S1-N1	2.58	1.66	1.61
2	A	701	2WY	C22-C23	2.46	1.57	1.51
2	A	701	2WY	C22-C24	2.45	1.57	1.51
2	B	701	2WY	O3-C24	2.43	1.48	1.44
2	B	701	2WY	C22-C23	2.39	1.57	1.51
3	B	702	S6P	P-O1P	-2.31	1.45	1.54
2	B	701	2WY	C22-C24	2.28	1.56	1.51
2	A	701	2WY	C10-C9	2.28	1.55	1.52
3	B	702	S6P	C5-C4	-2.16	1.49	1.53
2	A	701	2WY	C9-N1	2.03	1.52	1.47

All (38) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	701	2WY	O2-C23-C22	9.35	124.34	112.72
2	B	701	2WY	O3-C24-C22	7.69	122.29	112.72
2	A	701	2WY	O5-S1-O4	-7.47	110.37	119.55
2	B	701	2WY	O5-S1-C16	7.14	116.77	107.97
2	B	701	2WY	O5-S1-O4	-7.10	110.83	119.55
2	A	701	2WY	O4-S1-C16	6.62	116.12	107.97
2	A	701	2WY	O2-C23-C22	5.97	120.15	112.72
3	A	702	S6P	C5-C4-C3	-5.67	103.59	112.47
2	B	701	2WY	O3-C19-C18	5.18	128.75	123.17
3	A	702	S6P	O6-P-O3P	4.24	118.37	106.47
2	B	701	2WY	C21-C20-C16	4.20	123.80	119.45
2	A	701	2WY	O2-C18-C19	3.95	127.42	123.17
3	A	702	S6P	O1-C1-C2	-3.92	102.54	111.07
2	B	701	2WY	C14-C15-C10	-3.68	116.09	120.65
2	A	701	2WY	C24-O3-C19	-3.66	110.95	116.03
2	A	701	2WY	C13-C12-C11	-3.65	114.63	120.19
2	B	701	2WY	C17-C16-S1	3.60	123.11	119.08
2	B	701	2WY	C13-C12-C11	-3.52	114.83	120.19
2	A	701	2WY	O2-C18-C17	-3.44	111.96	116.95
2	B	701	2WY	C20-C16-C17	-3.40	116.44	120.62
2	A	701	2WY	C5-C4-C3	3.23	124.96	120.44
2	A	701	2WY	C12-C11-C10	2.85	124.17	120.65
2	A	701	2WY	O3-C19-C18	2.60	125.97	123.17
2	A	701	2WY	C14-C15-C10	-2.58	117.46	120.65
2	B	701	2WY	O2-C18-C17	-2.57	113.22	116.95
2	B	701	2WY	C7-C1-C2	2.55	108.50	106.27
5	A	716	GOL	O2-C2-C1	-2.50	98.13	109.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	A	716	GOL	O2-C2-C3	2.48	120.05	109.12
2	B	701	2WY	C15-C10-C11	2.47	121.38	118.29
2	A	701	2WY	C5-C6-C1	-2.29	116.86	120.44
3	B	702	S6P	O2P-P-O6	2.26	112.76	106.73
2	B	701	2WY	C23-O2-C18	2.26	119.18	116.03
2	A	701	2WY	O3-C24-C22	2.18	115.44	112.72
2	A	701	2WY	C23-O2-C18	2.16	119.04	116.03
2	A	701	2WY	C10-C9-N1	-2.15	105.13	110.34
2	B	701	2WY	O3-C19-C21	-2.14	112.39	117.23
2	B	701	2WY	O2-C18-C19	2.10	125.43	123.17
2	A	701	2WY	C13-C14-C15	2.10	123.38	120.19

There are no chirality outliers.

All (6) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	A	716	GOL	O1-C1-C2-C3
5	B	718	GOL	O1-C1-C2-O2
5	B	718	GOL	O1-C1-C2-C3
2	A	701	2WY	C9-N1-S1-O4
5	A	716	GOL	O1-C1-C2-O2
5	B	718	GOL	C1-C2-C3-O3

There are no ring outliers.

4 monomers are involved in 6 short contacts:

| Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	701	2WY	2	0
2	B	701	2WY	2	0
5	B	719	GOL	1	0
6	B	722	SO4	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 2WY A 701

Bond lengths

Bond angles

Torsions

Rings

Ligand 2WY B 701

Bond lengths

Bond angles

Torsions

Rings

Ligand S6P A 702

Bond lengths

Bond angles

Torsions

Rings

Ligand S6P B 702

Bond lengths

Bond angles

Torsions

Rings
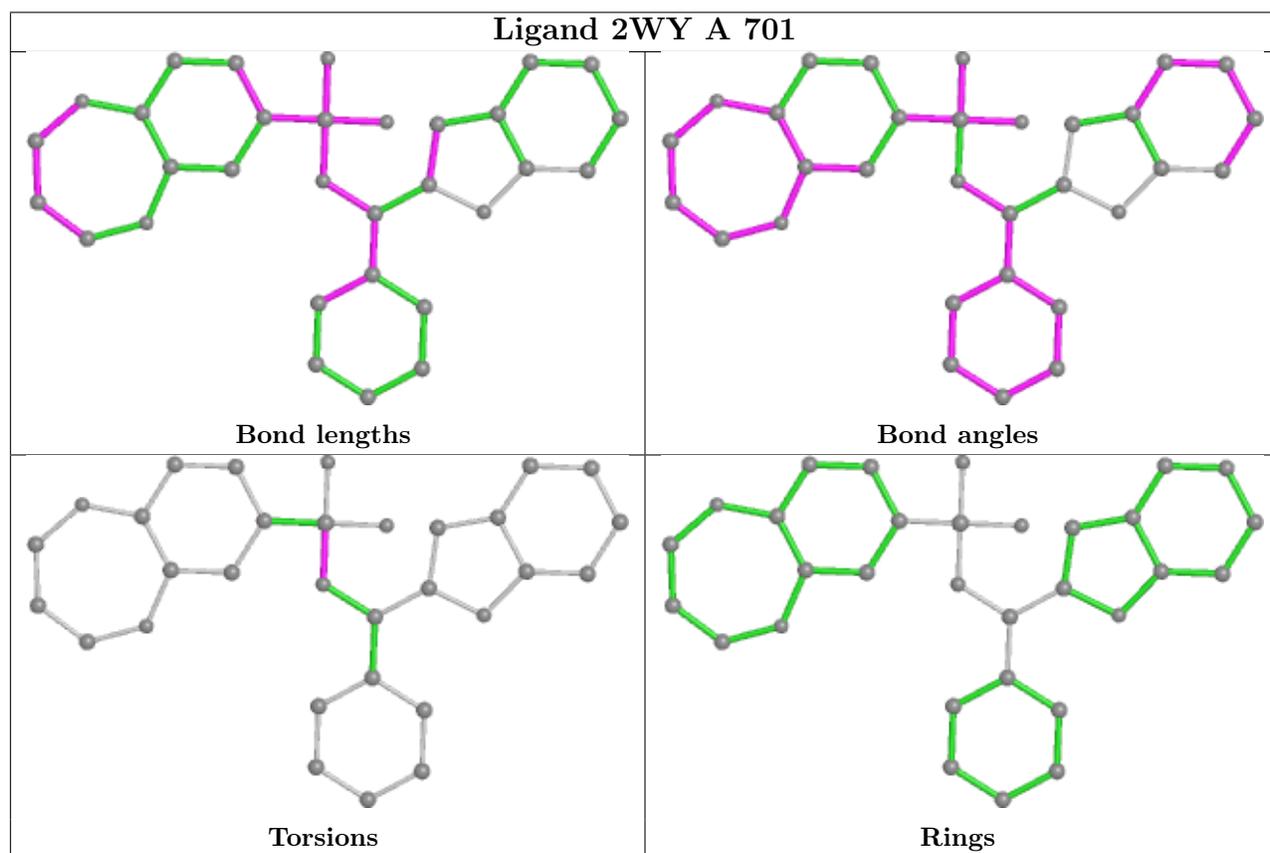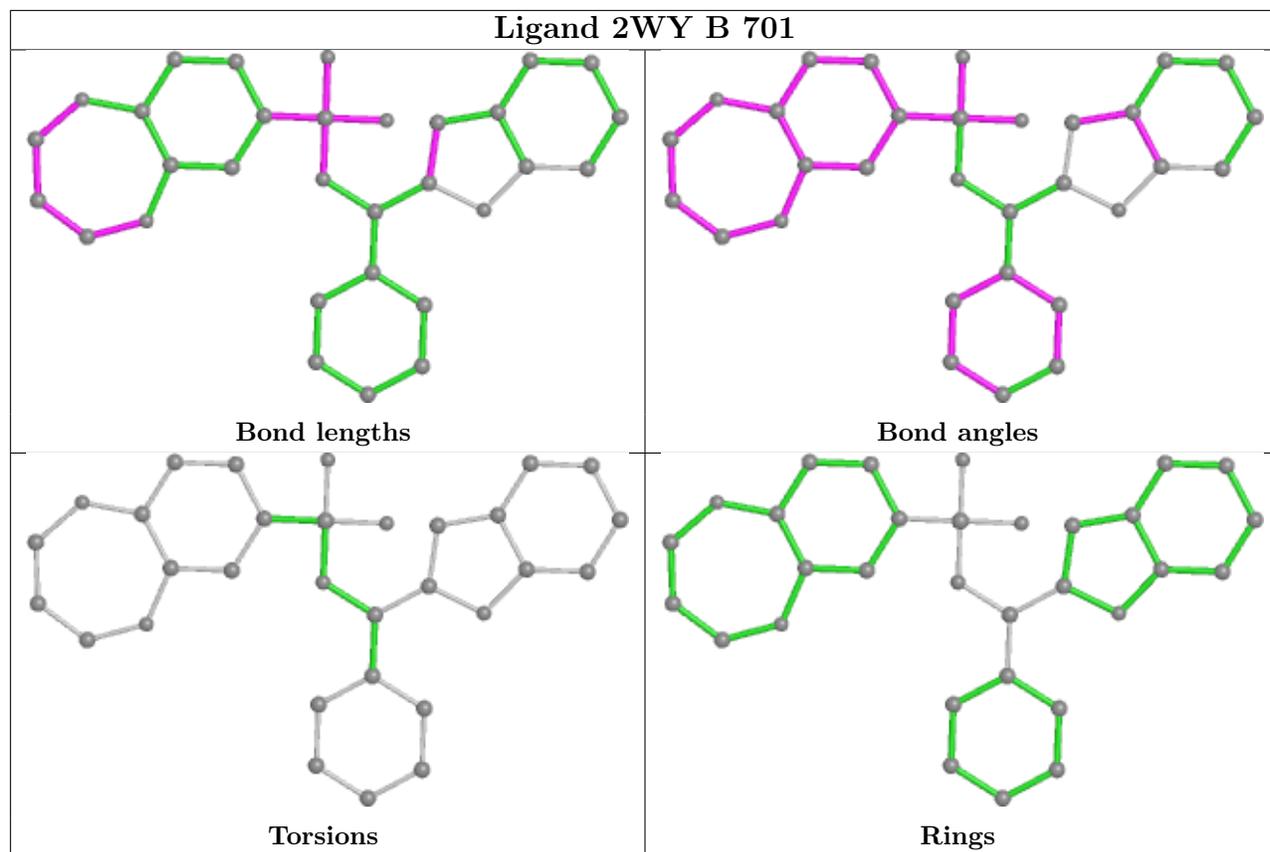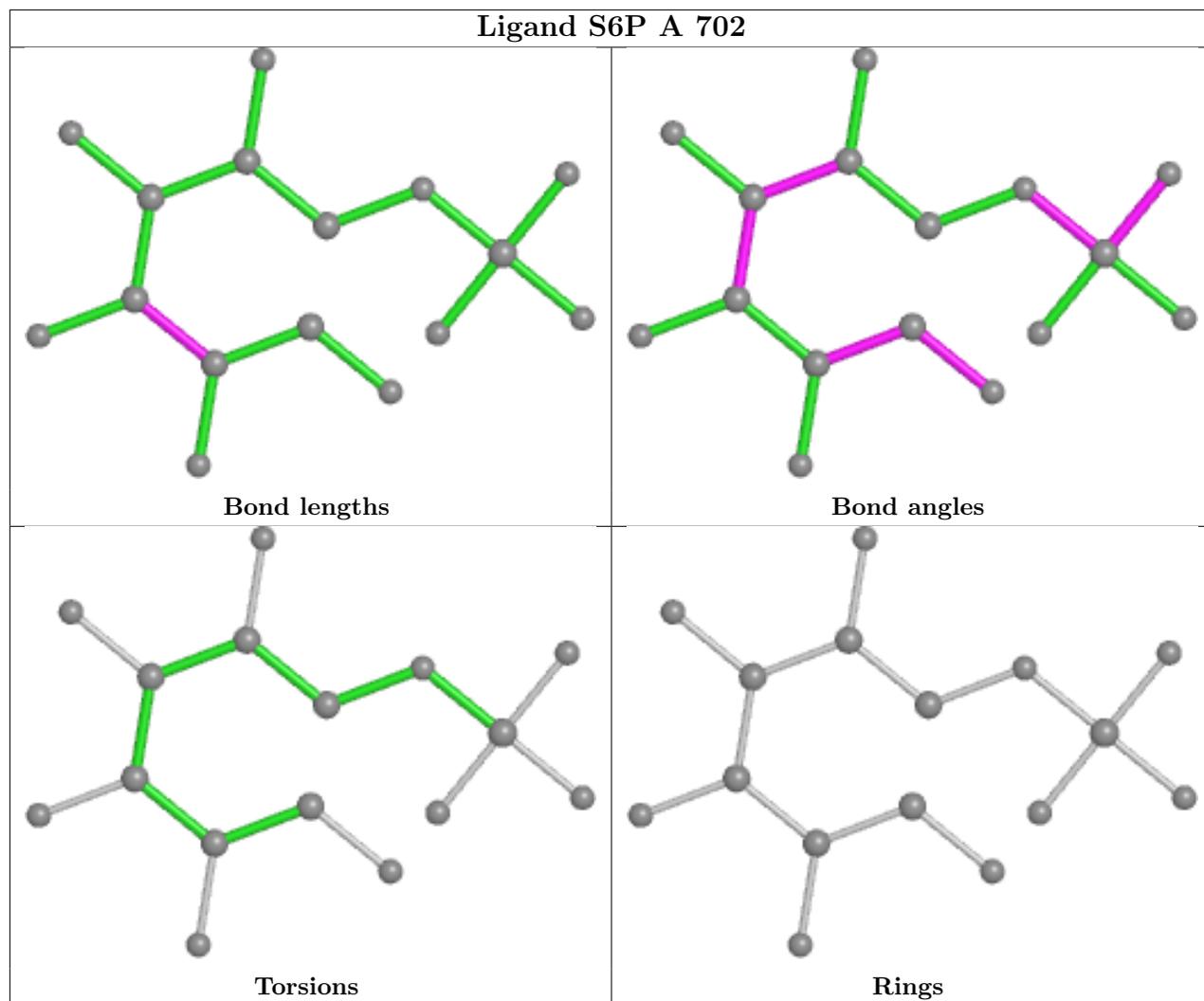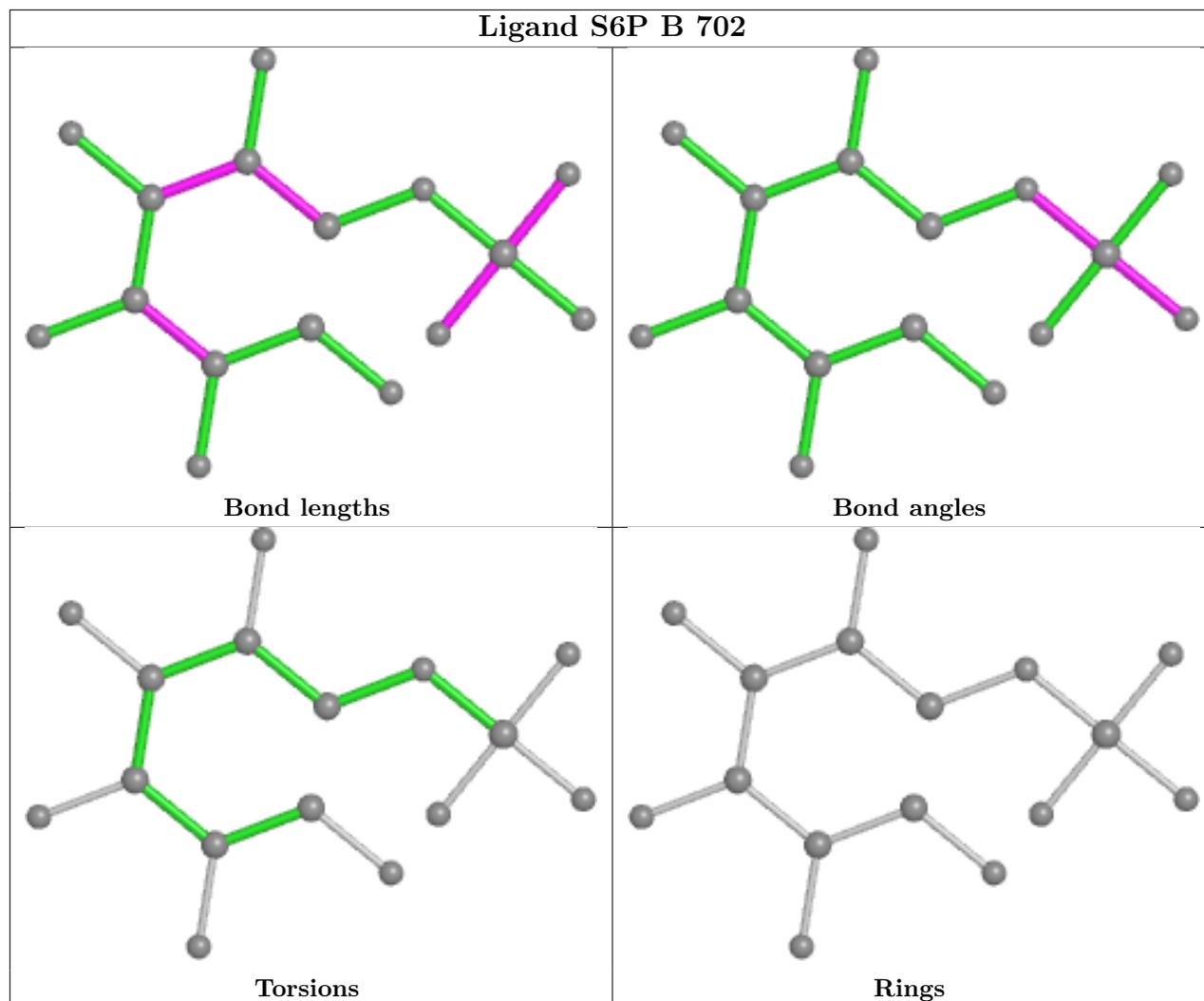
5.7 Other polymers ⓘ

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(Å^2)	Q<0.9
1	A	585/638 (91%)	0.33	38 (6%)	18	25	26, 48, 81, 109	0
1	B	590/638 (92%)	0.27	39 (6%)	18	24	25, 45, 74, 109	0
All	All	1175/1276 (92%)	0.30	77 (6%)	18	24	25, 46, 79, 109	0

All (77) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	2	PRO	7.3
1	A	465	PHE	6.8
1	A	357	PHE	6.1
1	B	1	MET	5.8
1	B	454	PRO	5.8
1	B	22	SER	5.7
1	B	21	LEU	5.4
1	A	69	SER	5.4
1	A	454	PRO	5.2
1	A	21	LEU	5.2
1	B	465	PHE	5.0
1	B	3	GLY	4.7
1	B	65	GLY	4.6
1	B	4	THR	4.4
1	A	469	GLU	4.2
1	A	470	GLY	4.2
1	A	445	LEU	4.2
1	A	2	PRO	4.1
1	B	381	GLN	4.0
1	A	447	ILE	3.9
1	A	1	MET	3.9
1	A	387	PHE	3.7
1	B	407	VAL	3.5
1	A	22	SER	3.5

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Mol	Chain	Res	Type	RSRZ
1	A	407	VAL	3.4
1	B	447	ILE	3.3
1	A	455	SER	3.3
1	A	444	THR	3.2
1	B	66	GLN	3.2
1	A	385	PHE	3.1
1	A	270	LEU	3.0
1	A	129	GLY	3.0
1	B	143	ARG	3.0
1	A	428	GLU	2.9
1	B	69	SER	2.9
1	A	466	PHE	2.9
1	A	451	LYS	2.9
1	A	330	VAL	2.8
1	A	595	PRO	2.8
1	A	449	LEU	2.8
1	B	463	LEU	2.8
1	B	442	GLY	2.7
1	A	142	ASP	2.7
1	A	394	THR	2.7
1	A	17	GLY	2.7
1	B	286	ALA	2.7
1	B	388	SER	2.6
1	B	270	LEU	2.6
1	B	444	THR	2.6
1	B	455	SER	2.6
1	A	358	ARG	2.6
1	B	448	PRO	2.5
1	B	445	LEU	2.5
1	A	430	THR	2.5
1	B	176	ILE	2.5
1	A	388	SER	2.4
1	B	206	VAL	2.4
1	A	176	ILE	2.4
1	B	469	GLU	2.4
1	A	332	LEU	2.3
1	B	332	LEU	2.3
1	B	409	ILE	2.3
1	A	128	LEU	2.3
1	A	178	ILE	2.2
1	B	449	LEU	2.2
1	A	467	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
1	A	408	PHE	2.2
1	B	20	GLU	2.2
1	B	520	LEU	2.1
1	B	5	LYS	2.1
1	B	171	LYS	2.1
1	B	131	LYS	2.1
1	B	204	VAL	2.1
1	B	519	ALA	2.1
1	A	364	LEU	2.0
1	B	104	LEU	2.0
1	B	523	LEU	2.0

6.2 Non-standard residues in protein, DNA, RNA chains ⓘ

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

6.3 Carbohydrates ⓘ

There are no monosaccharides in this entry.

6.4 Ligands ⓘ

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
4	IOD	A	715	1/1	0.71	0.13	85,85,85,85	1
4	IOD	B	715	1/1	0.74	0.10	90,90,90,90	1
4	IOD	B	712	1/1	0.83	0.21	89,89,89,89	1
5	GOL	A	716	6/6	0.83	0.20	38,50,55,62	0
6	SO4	B	723	5/5	0.86	0.18	76,80,90,91	0
5	GOL	B	719	6/6	0.87	0.15	41,43,50,58	0
2	2WY	B	701	31/31	0.88	0.18	42,56,65,65	0
6	SO4	B	722	5/5	0.88	0.26	53,69,75,87	0
4	IOD	A	711	1/1	0.88	0.11	90,90,90,90	1
5	GOL	B	718	6/6	0.89	0.13	40,55,60,64	0
2	2WY	A	701	31/31	0.89	0.16	37,48,54,57	0
4	IOD	B	713	1/1	0.90	0.10	80,80,80,80	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
4	IOD	B	716	1/1	0.91	0.14	92,92,92,92	1
4	IOD	A	713	1/1	0.92	0.04	62,62,62,62	1
4	IOD	B	714	1/1	0.93	0.09	61,61,61,61	1
6	SO4	B	720	5/5	0.93	0.14	65,67,73,90	0
4	IOD	A	707	1/1	0.94	0.08	51,51,51,51	1
4	IOD	A	708	1/1	0.94	0.06	73,73,73,73	1
4	IOD	B	709	1/1	0.94	0.05	74,74,74,74	1
4	IOD	B	710	1/1	0.94	0.16	91,91,91,91	1
4	IOD	A	703	1/1	0.94	0.05	61,61,61,61	0
4	IOD	A	712	1/1	0.95	0.10	66,66,66,66	1
4	IOD	B	707	1/1	0.95	0.04	72,72,72,72	0
4	IOD	B	708	1/1	0.95	0.05	57,57,57,57	1
4	IOD	A	714	1/1	0.95	0.06	65,65,65,65	1
4	IOD	B	706	1/1	0.96	0.07	48,48,48,48	1
4	IOD	B	703	1/1	0.96	0.07	53,53,53,53	0
6	SO4	B	721	5/5	0.97	0.10	40,44,46,52	5
4	IOD	A	706	1/1	0.97	0.03	77,77,77,77	0
4	IOD	A	709	1/1	0.97	0.11	87,87,87,87	1
4	IOD	B	717	1/1	0.98	0.07	86,86,86,86	1
4	IOD	B	711	1/1	0.98	0.03	62,62,62,62	1
4	IOD	A	704	1/1	0.98	0.04	60,60,60,60	0
3	S6P	B	702	16/16	0.98	0.14	25,28,33,33	0
4	IOD	B	705	1/1	0.99	0.04	48,48,48,48	1
3	S6P	A	702	16/16	0.99	0.15	25,28,31,33	0
4	IOD	A	705	1/1	0.99	0.06	42,42,42,42	1
4	IOD	A	710	1/1	0.99	0.05	53,53,53,53	1
4	IOD	B	704	1/1	0.99	0.05	53,53,53,53	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 2WY B 701:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
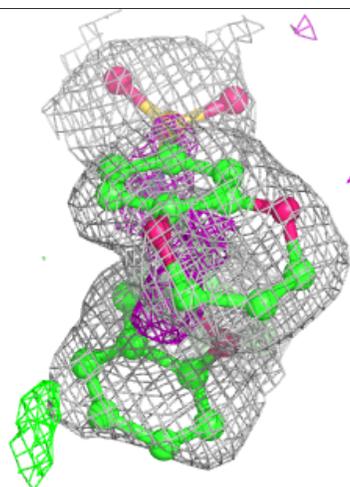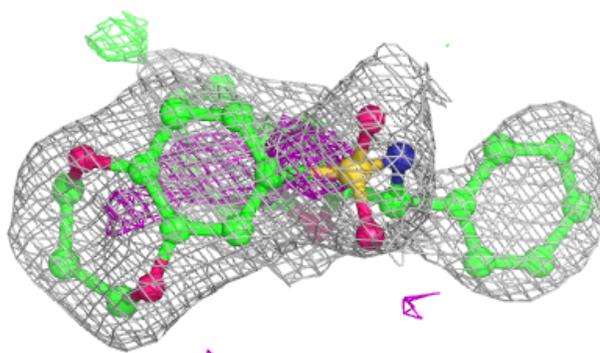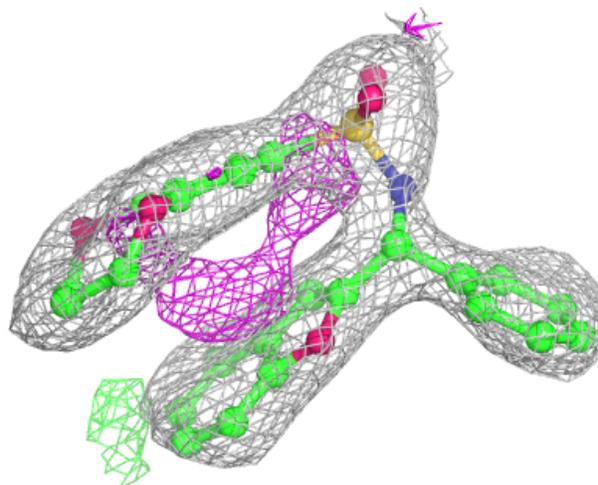
Electron density around 2WY A 701:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
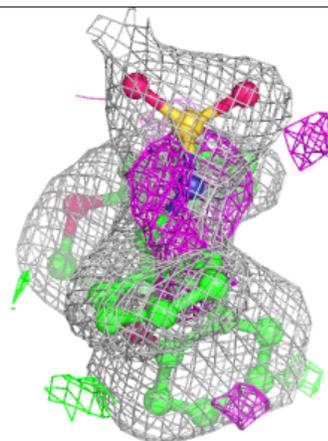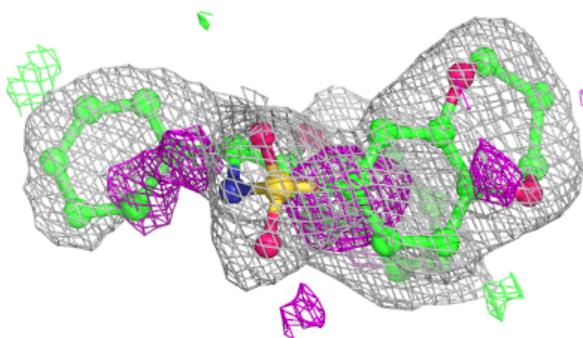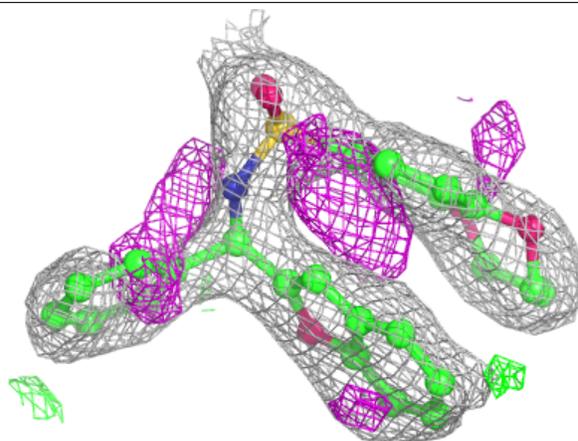
Electron density around S6P B 702:

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

Electron density around S6P A 702:

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

6.5 Other polymers ⓘ

There are no such residues in this entry.