WORLDWIDE wwPDB

PROTEIN DATA BANK

Full wwPDB X-ray Structure Validation Report ⓘ

Feb 24, 2026 – 12:36 AM EST

PDB ID	:	2AB2 / pdb_00002ab2
Title	:	Mineralocorticoid Receptor Double Mutant with Bound Spironolactone
Authors	:	Bledsoe, R.K.; Madauss, K.P.; Holt, J.A.; Apolito, C.J.; Lambert, M.H.; Pearce, K.H.; Stanley, T.B.; Stewart, E.L.; Trump, R.P.; Willson, T.M.; Williams, S.P.
Deposited on	:	2005-07-14
Resolution	:	1.85 Å(reported)

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

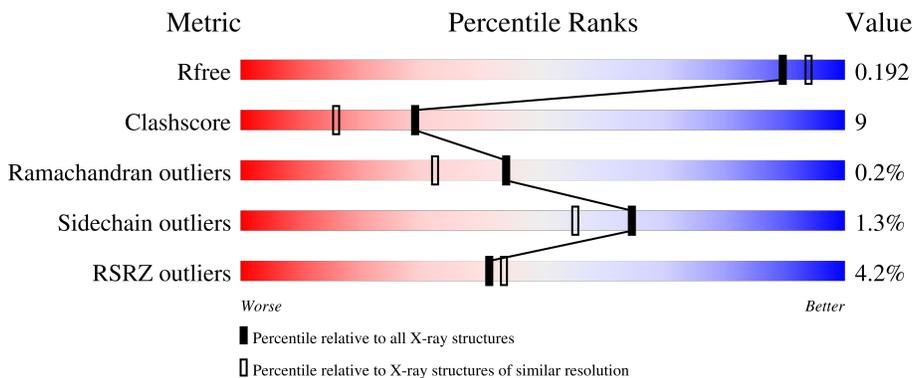|		
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.48.1

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 1.85 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		0.192
Clashscore		9
Ramachandran outliers		0.2%
Sidechain outliers		1.3%
RSRZ outliers		4.2%

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}	164625	3097 (1.86-1.86)
Clashscore	180529	3359 (1.86-1.86)
Ramachandran outliers	177936	3335 (1.86-1.86)
Sidechain outliers	177891	3335 (1.86-1.86)
RSRZ outliers	164620	3097 (1.86-1.86)

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	275	4% / 80% / 13% / · 6%
1	B	275	4% / 77% / 16% / 6%

2 Entry composition ⓘ

There are 4 unique types of molecules in this entry. The entry contains 4596 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 Mineralocorticoid receptor.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	259	Total	C	N	O	S	0	4	0
			2056	1333	324	386	13			
1	B	259	Total	C	N	O	S	0	3	0
			2048	1328	322	385	13			

There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	710	GLY	-	cloning artifact	UNP P08235
A	711	SER	-	cloning artifact	UNP P08235
A	808	SER	CYS	engineered mutation	UNP P08235
A	810	LEU	SER	engineered mutation	UNP P08235
B	710	GLY	-	cloning artifact	UNP P08235
B	711	SER	-	cloning artifact	UNP P08235
B	808	SER	CYS	engineered mutation	UNP P08235
B	810	LEU	SER	engineered mutation	UNP P08235

- Molecule 2 is SPIRONOLACTONE (CCD ID: SNL) (formula: $C_{24}H_{32}O_4S$).
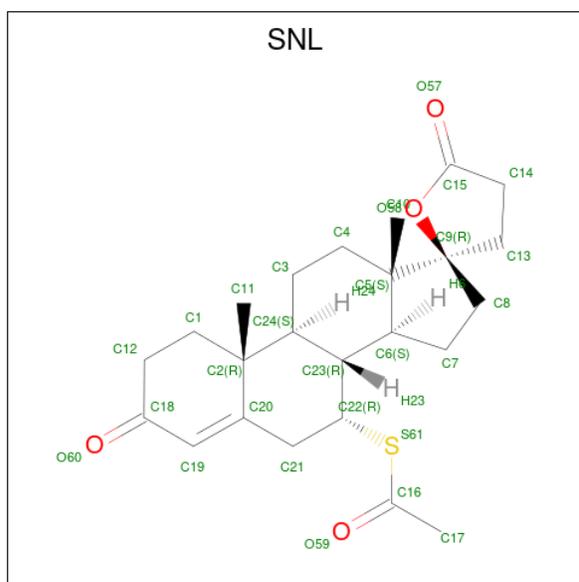
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
2	A	1	Total 29	C 24	O 4	S 1	0	0
2	B	1	Total 29	C 24	O 4	S 1	0	0

- Molecule 3 is SULFATE ION (CCD ID: SO4) (formula: O_4S).
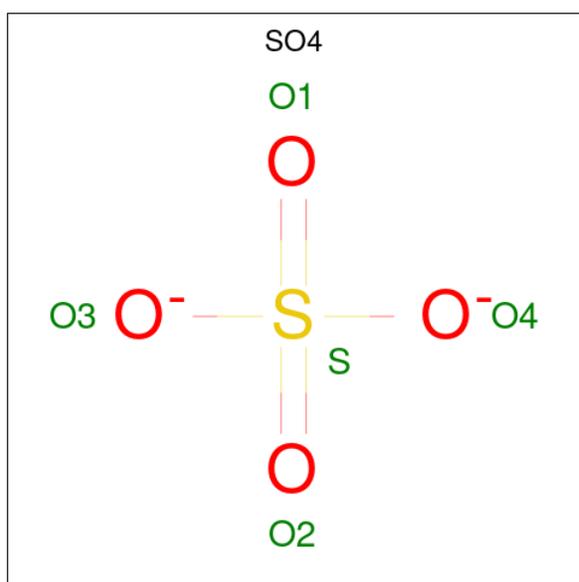
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	B	1	Total 5	O 4	S 1	0	0

- Molecule 4 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	A	207	Total　O 207　　207	0	0
4	B	222	Total　O 222　　222	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.
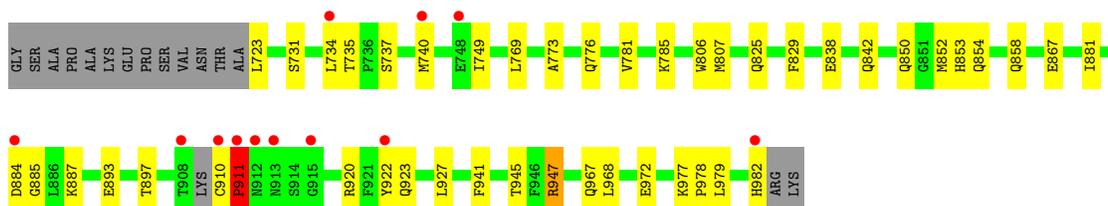
• Molecule 1: Mineralocorticoid receptor

Chain A:
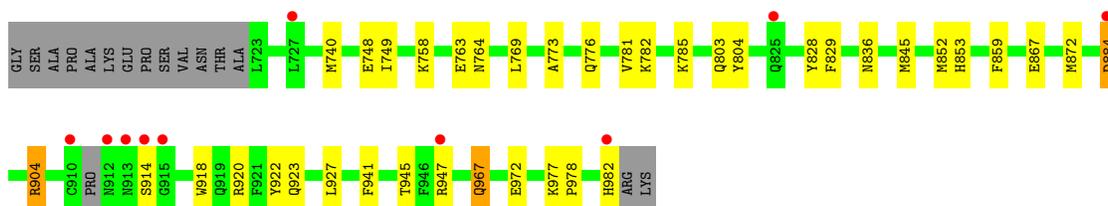
• Molecule 1: Mineralocorticoid receptor

Chain B:

4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	42.19Å 89.94Å 171.88Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	20.00 – 1.85 20.00 – 1.85	Depositor EDS
% Data completeness (in resolution range)	96.2 (20.00-1.85) 96.3 (20.00-1.85)	Depositor EDS
R_{merge}	0.06	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.67 (at 1.85Å)	Xtriage
Refinement program	CNS	Depositor
R, R_{free}	0.197 , 0.218 0.195 , 0.192	Depositor DCC
R_{free} test set	3874 reflections (7.08%)	wwPDB-VP
Wilson B-factor (Å^2)	18.0	Xtriage
Anisotropy	0.242	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.37 , 46.6	EDS
L-test for twinning[2]	$< |L| > = 0.50, < L^2 > = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	4596	wwPDB-VP
Average B, all atoms (Å^2)	20.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 12.63% 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: SO4, SNL

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	0.51	0/2125	0.81	2/2890 (0.1%)
1	B	0.51	0/2112	0.82	3/2872 (0.1%)
All	All	0.51	0/4237	0.82	5/5762 (0.1%)

There are no bond length outliers.

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	B	967	GLN	N-CA-C	8.58	120.71	111.36
1	A	967	GLN	N-CA-C	7.96	120.04	111.36
1	B	911	PRO	N-CA-CB	6.45	110.02	103.25
1	B	806	TRP	N-CA-C	5.69	117.94	111.11
1	A	836	ASN	N-CA-C	-5.37	102.07	110.17

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	2056	0	1994	32	0
1	B	2048	0	1985	40	0
2	A	29	0	32	9	0
2	B	29	0	32	10	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	B	5	0	0	0	0
4	A	207	0	0	6	0
4	B	222	0	0	6	0
All	All	4596	0	4043	71	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 9.

All (71) 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:737:SER:H	1:B:740:MET:HE3	1.17	1.08
1:B:881:ILE:HD11	1:B:977:LYS:HZ1	1.24	0.99
1:A:829:PHE:CZ	2:A:502:SNL:H173	2.03	0.94
1:B:829:PHE:CZ	2:B:503:SNL:H173	2.04	0.92
2:A:502:SNL:H24	2:A:502:SNL:O59	1.70	0.91
2:B:503:SNL:O59	2:B:503:SNL:H24	1.72	0.90
1:A:829:PHE:HZ	2:A:502:SNL:H173	1.36	0.86
1:B:829:PHE:HZ	2:B:503:SNL:H173	1.37	0.84
1:A:852:MET:HE1	2:A:502:SNL:S61	2.21	0.81
1:B:881:ILE:HD11	1:B:977:LYS:NZ	2.02	0.73
1:A:769:LEU:HD13	2:A:502:SNL:O59	1.89	0.72
1:B:852:MET:HE1	2:B:503:SNL:S61	2.29	0.72
1:A:872:MET:HE1	1:A:927[B]:LEU:HD23	1.73	0.70
1:B:858:GLN:NE2	1:B:927:LEU:HD13	2.07	0.70
1:A:884:ASP:HA	4:A:398:HOH:O	1.92	0.68
1:B:893:GLU:O	1:B:897:THR:HG23	1.95	0.66
1:B:731:SER:O	1:B:735:THR:HG23	1.98	0.64
1:B:737:SER:N	1:B:740:MET:HE3	2.02	0.63
1:B:977:LYS:NZ	1:B:979:LEU:HD21	2.13	0.62
1:B:887:LYS:HD2	4:B:211:HOH:O	2.03	0.59
1:B:947:ARG:NH2	1:B:972:GLU:OE2	2.36	0.58
1:B:884:ASP:OD1	1:B:885:GLY:N	2.37	0.57
1:A:758:LYS:HD3	4:A:254:HOH:O	2.03	0.57
1:B:947:ARG:HH22	1:B:972:GLU:CD	2.13	0.57
1:A:947:ARG:NH2	1:A:972:GLU:OE1	2.37	0.57
1:A:853:HIS:HD2	4:A:28:HOH:O	1.88	0.56
1:B:853:HIS:HD2	4:B:80:HOH:O	1.87	0.56
1:A:782:LYS:HE3	4:A:330:HOH:O	2.07	0.55
1:A:982:HIS:ND1	1:B:922:TYR:CD1	2.67	0.54
1:B:825:GLN:NE2	4:B:338:HOH:O	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:852:MET:HE1	2:B:503:SNL:H171	1.89	0.54
1:A:852:MET:CE	2:A:502:SNL:S61	2.97	0.53
1:B:922:TYR:HB2	4:B:323:HOH:O	2.09	0.51
1:B:723:LEU:HA	4:B:412:HOH:O	2.10	0.50
1:B:920:ARG:HA	1:B:923:GLN:HE21	1.76	0.50
1:A:941:PHE:O	1:A:945[B]:THR:HG23	2.11	0.50
1:A:922:TYR:CD1	1:B:982:HIS:ND1	2.79	0.50
1:A:859:PHE:HE2	1:A:927[B]:LEU:HD21	1.77	0.49
1:B:884:ASP:CG	4:B:158:HOH:O	2.54	0.49
1:A:852:MET:HE1	2:A:502:SNL:H171	1.95	0.48
1:A:782:LYS:HG3	4:A:330:HOH:O	2.14	0.47
1:B:781:VAL:O	1:B:785:LYS:HG3	2.14	0.47
1:B:807:MET:HE1	2:B:503:SNL:H101	1.97	0.46
1:B:968:LEU:C	1:B:968:LEU:HD23	2.41	0.46
1:A:781:VAL:O	1:A:785:LYS:HG3	2.15	0.46
1:B:977:LYS:HA	1:B:978:PRO:HD3	1.80	0.45
1:A:920:ARG:HA	1:A:923:GLN:HE21	1.81	0.45
1:A:914:SER:HB3	1:B:897:THR:HG22	1.96	0.45
1:B:734:LEU:O	1:B:734:LEU:HD23	2.17	0.45
1:B:769:LEU:HD13	2:B:503:SNL:O59	2.16	0.45
1:B:945[B]:THR:OG1	2:B:503:SNL:O57	2.32	0.45
1:B:884:ASP:OD1	1:B:884:ASP:C	2.60	0.44
1:A:904:ARG:NH2	1:A:918:TRP:CD2	2.86	0.44
1:B:776:GLN:NE2	2:B:503:SNL:H122	2.32	0.44
1:B:910:CYS:O	1:B:911:PRO:C	2.59	0.44
1:A:803:GLN:NE2	4:A:250:HOH:O	2.50	0.44
1:A:977:LYS:HA	1:A:978:PRO:HD3	1.88	0.44
1:A:773:ALA:HB2	2:A:502:SNL:H12	1.99	0.43
1:A:845:MET:HE3	1:A:845:MET:HB2	1.95	0.43
1:B:850:GLN:O	1:B:854:GLN:HG2	2.17	0.43
1:A:763:GLU:HG3	1:A:764:ASN:N	2.34	0.43
1:A:804:TYR:HA	1:A:967:GLN:NE2	2.34	0.42
1:A:776:GLN:NE2	2:A:502:SNL:H122	2.35	0.42
1:B:838:GLU:O	1:B:842:GLN:HG3	2.19	0.41
1:B:867:GLU:CD	1:B:867:GLU:H	2.29	0.40
1:B:773:ALA:HB2	2:B:503:SNL:H12	2.03	0.40
1:B:941:PHE:O	1:B:945[B]:THR:HG23	2.21	0.40
1:A:749:ILE:HD11	1:A:828:TYR:HE1	1.86	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	259/275 (94%)	257 (99%)	2 (1%)	0	100	100
1	B	258/275 (94%)	255 (99%)	2 (1%)	1 (0%)	30	18
All	All	517/550 (94%)	512 (99%)	4 (1%)	1 (0%)	44	32

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	911	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	227/251 (90%)	223 (98%)	4 (2%)	54	41
1	B	226/251 (90%)	224 (99%)	2 (1%)	75	70
All	All	453/502 (90%)	447 (99%)	6 (1%)	65	55

All (6) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	740	MET
1	A	748	GLU
1	A	884	ASP
1	A	904	ARG
1	B	749	ILE

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Mol	Chain	Res	Type
1	B	947	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (21) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	776	GLN
1	A	803	GLN
1	A	825	GLN
1	A	853	HIS
1	A	854	GLN
1	A	898	ASN
1	A	919	GLN
1	A	923	GLN
1	A	967	GLN
1	B	764	ASN
1	B	776	GLN
1	B	779	GLN
1	B	803	GLN
1	B	823	ASN
1	B	825	GLN
1	B	842	GLN
1	B	853	HIS
1	B	858	GLN
1	B	898	ASN
1	B	923	GLN
1	B	975	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 ⓘ

There are no oligosaccharides in this entry.

5.6 Ligand geometry ⓘ

3 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	SO4	B	501	-	4,4,4	0.44	0	6,6,6	0.44	0
2	SNL	A	502	-	33,33,33	1.67	8 (24%)	54,54,54	2.36	11 (20%)
2	SNL	B	503	-	33,33,33	1.74	5 (15%)	54,54,54	2.44	11 (20%)

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	SNL	A	502	-	-	1/4/80/80	0/5/5/5
2	SNL	B	503	-	-	1/4/80/80	0/5/5/5

All (13) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	503	SNL	C23-C22	4.71	1.58	1.53
2	A	502	SNL	C23-C22	4.22	1.58	1.53
2	B	503	SNL	C2-C24	3.89	1.62	1.56
2	B	503	SNL	C10-C5	3.32	1.60	1.54
2	A	502	SNL	C10-C5	3.27	1.60	1.54
2	A	502	SNL	C2-C24	3.12	1.61	1.56
2	B	503	SNL	C8-C9	2.85	1.58	1.53
2	B	503	SNL	C3-C24	2.41	1.57	1.53
2	A	502	SNL	C23-C24	2.37	1.58	1.53
2	A	502	SNL	C3-C24	2.34	1.57	1.53
2	A	502	SNL	C9-C5	2.33	1.58	1.54
2	A	502	SNL	C1-C12	2.16	1.57	1.53
2	A	502	SNL	C8-C9	2.15	1.57	1.53

All (22) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	503	SNL	C22-S61-C16	12.11	114.92	100.68
2	A	502	SNL	C22-S61-C16	11.52	114.23	100.68
2	B	503	SNL	C21-C22-C23	7.66	114.69	110.27
2	A	502	SNL	C21-C22-C23	7.13	114.39	110.27
2	A	502	SNL	C21-C22-S61	5.43	114.94	110.43
2	B	503	SNL	C21-C22-S61	4.80	114.42	110.43
2	B	503	SNL	C5-C6-C23	-3.73	109.92	113.41
2	A	502	SNL	C5-C6-C23	-3.52	110.11	113.41
2	B	503	SNL	C14-C13-C9	-3.26	99.92	103.81
2	A	502	SNL	C14-C13-C9	-2.90	100.35	103.81
2	A	502	SNL	C7-C6-C5	2.65	107.11	103.70
2	A	502	SNL	C6-C23-C22	2.55	114.55	112.94
2	B	503	SNL	C7-C6-C5	2.52	106.94	103.70
2	B	503	SNL	O58-C9-C8	-2.51	106.61	109.42
2	B	503	SNL	O59-C16-S61	2.45	124.69	122.93
2	A	502	SNL	C1-C2-C20	2.39	112.87	108.74
2	A	502	SNL	O58-C9-C8	-2.20	106.95	109.42
2	B	503	SNL	C10-C5-C9	-2.14	106.16	108.69
2	B	503	SNL	C9-C5-C6	2.12	101.98	99.78
2	A	502	SNL	O59-C16-S61	2.11	124.45	122.93
2	B	503	SNL	O58-C15-O57	-2.11	119.04	120.81
2	A	502	SNL	C4-C3-C24	-2.04	109.67	113.14

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	502	SNL	C23-C22-S61-C16
2	B	503	SNL	C23-C22-S61-C16

There are no ring outliers.

2 monomers are involved in 19 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	502	SNL	9	0
2	B	503	SNL	10	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 SNL A 502

Bond lengths

Bond angles

Torsions

Rings

Ligand SNL B 503

Bond lengths

Bond angles

Torsions

Rings
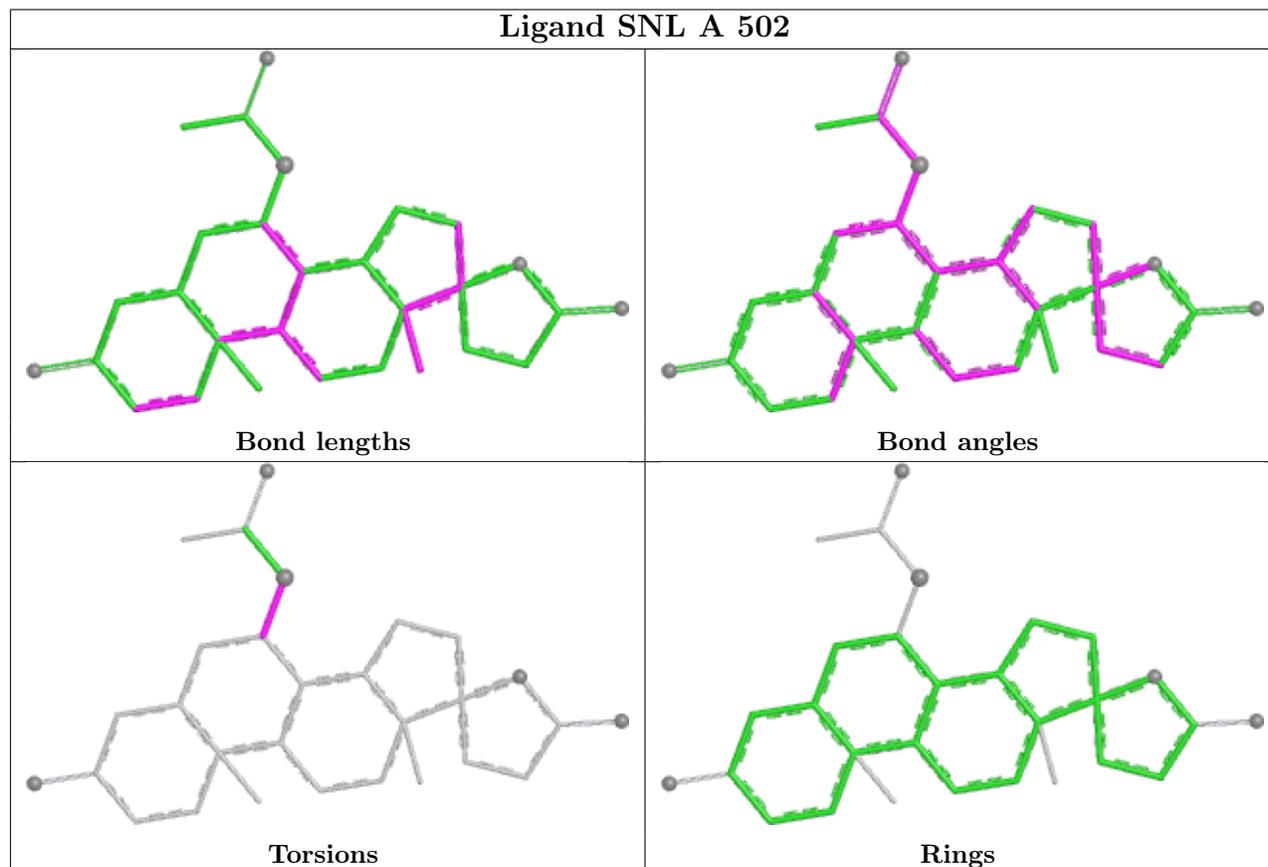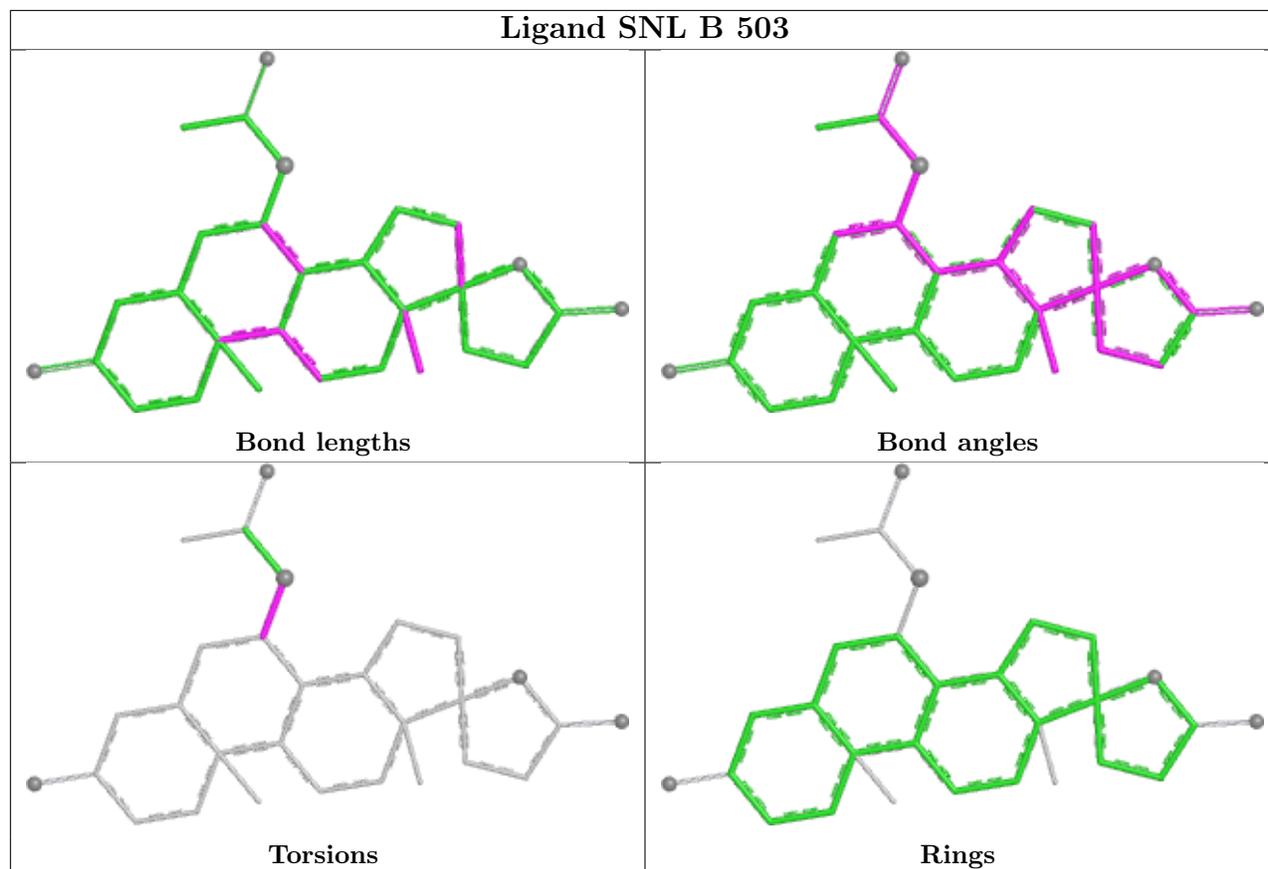
5.7 Other polymers ⓘ

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	259/275 (94%)	-0.20	10 (3%)	44	46	9, 17, 32, 51	4 (1%)
1	B	259/275 (94%)	-0.12	12 (4%)	38	40	9, 17, 34, 56	3 (1%)
All	All	518/550 (94%)	-0.16	22 (4%)	41	43	9, 17, 33, 56	7 (1%)

All (22) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	910	CYS	7.0
1	B	911	PRO	5.3
1	A	910	CYS	4.7
1	B	884	ASP	4.2
1	B	982	HIS	3.3
1	B	734	LEU	3.1
1	A	884	ASP	2.8
1	B	913	ASN	2.7
1	B	915	GLY	2.6
1	A	913	ASN	2.6
1	A	915	GLY	2.5
1	B	740	MET	2.4
1	B	922	TYR	2.4
1	B	908	THR	2.3
1	A	982	HIS	2.2
1	A	914	SER	2.1
1	B	912	ASN	2.1
1	B	748	GLU	2.1
1	A	727	LEU	2.1
1	A	825	GLN	2.1
1	A	912	ASN	2.0
1	A	947	ARG	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 oligosaccharides 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
2	SNL	A	502	29/29	0.83	0.16	12,16,37,44	0
2	SNL	B	503	29/29	0.85	0.14	10,14,32,39	0
3	SO4	B	501	5/5	0.86	0.19	34,35,38,40	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 SNL A 502:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
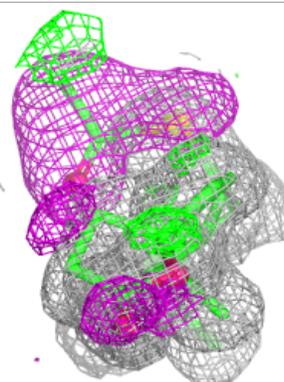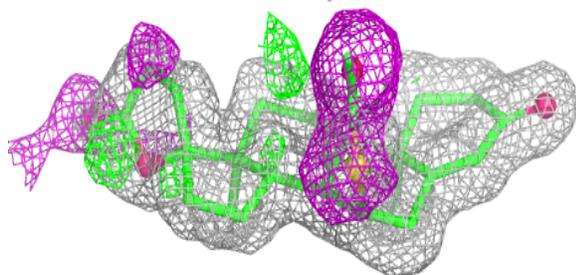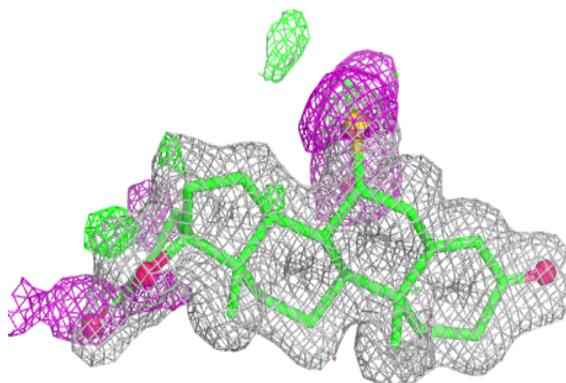
Electron density around SNL B 503:

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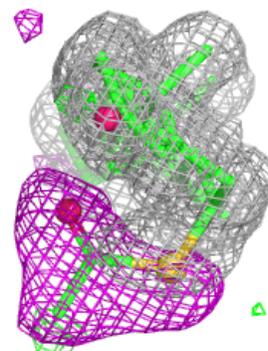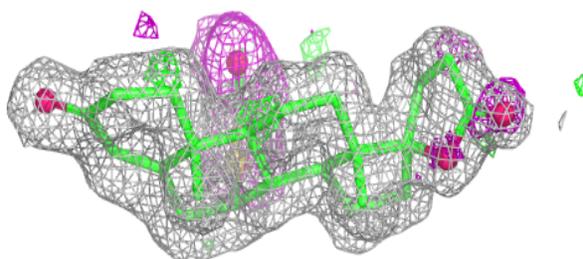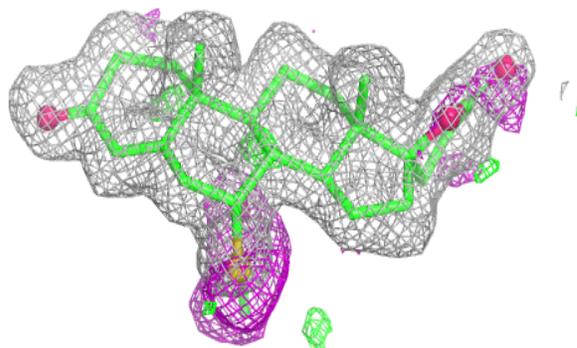
6.5 Other polymers (i)

There are no such residues in this entry.