WORLD WIDE wwPDB PROTEIN DATA BANK

wwPDB X-ray Structure Validation Summary Report ⓘ

Jan 10, 2024 – 03:37 pm GMT

PDB ID	:	8OXT
Title	:	CRYSTAL STRUCTURE OF THE COFACTOR-DEVOID 1-H-3-HYDROXY-4- OXOQUINALDINE 2,4-DIOXYGENASE (HOD) H251A VARIANT COMPLEXED WITH N-ACETYLANTHRANILATE AS RESULT OF IN CRYSTALLO TURNOVER OF ITS NATURAL SUBSTRATE 1-H-3-HYDROXY-4- OXOQUINALDINE UNDER HYPEROXIC CONDITIONS
Authors	:	Bui, S.; Steiner, R.A.
Deposited on	:	2023-05-02
Resolution	:	2.00 Å(reported)

This is a wwPDB X-ray Structure Validation Summary 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:

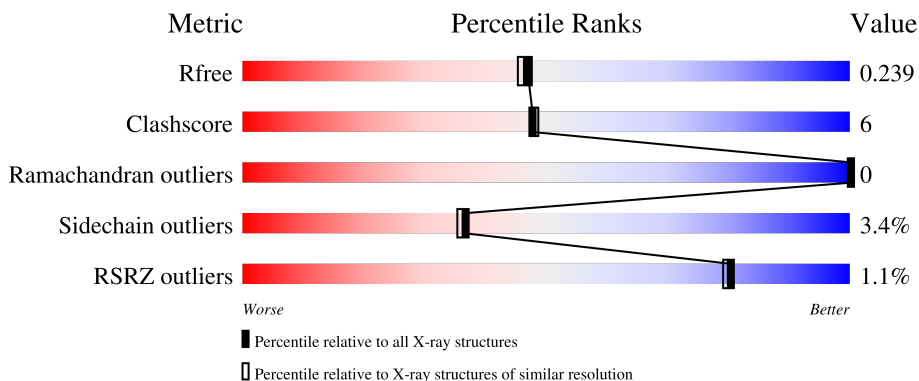|		
MolProbity	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)

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 2.00 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		0.239
Clashscore		6
Ramachandran outliers		0
Sidechain outliers		3.4%
RSRZ outliers		1.1%

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	8085 (2.00-2.00)
Clashscore	141614	9178 (2.00-2.00)
Ramachandran outliers	138981	9054 (2.00-2.00)
Sidechain outliers	138945	9053 (2.00-2.00)
RSRZ outliers	127900	7900 (2.00-2.00)

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	AAA	288	80% 14% 6%
1	BBB	288	2% 82% 12% 5%

Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

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2 Entry composition ⓘ

There are 6 unique types of molecules in this entry. The entry contains 4791 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 1H-3-hydroxy-4-oxoquinaldine 2,4-dioxygenase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AAA	272	Total 2280	C 1453	N 403	O 416	S 8	0	7	0
1	BBB	273	Total 2249	C 1435	N 394	O 412	S 8	0	3	0

There are 28 discrepancies between the modelled and reference sequences:

| Chain	Residue	Modelled	Actual	Comment	Reference
AAA	-11	MET	-	initiating methionine	UNP O31266
AAA	-10	ARG	-	expression tag	UNP O31266
AAA	-9	GLY	-	expression tag	UNP O31266
AAA	-8	SER	-	expression tag	UNP O31266
AAA	-7	HIS	-	expression tag	UNP O31266
AAA	-6	HIS	-	expression tag	UNP O31266
AAA	-5	HIS	-	expression tag	UNP O31266
AAA	-4	HIS	-	expression tag	UNP O31266
AAA	-3	HIS	-	expression tag	UNP O31266
AAA	-2	HIS	-	expression tag	UNP O31266
AAA	-1	GLY	-	expression tag	UNP O31266
AAA	0	SER	-	expression tag	UNP O31266
AAA	69	SER	CYS	engineered mutation	UNP O31266
AAA	251	ALA	HIS	engineered mutation	UNP O31266
BBB	-11	MET	-	initiating methionine	UNP O31266
BBB	-10	ARG	-	expression tag	UNP O31266
BBB	-9	GLY	-	expression tag	UNP O31266
BBB	-8	SER	-	expression tag	UNP O31266
BBB	-7	HIS	-	expression tag	UNP O31266
BBB	-6	HIS	-	expression tag	UNP O31266
BBB	-5	HIS	-	expression tag	UNP O31266
BBB	-4	HIS	-	expression tag	UNP O31266
BBB	-3	HIS	-	expression tag	UNP O31266
BBB	-2	HIS	-	expression tag	UNP O31266
BBB	-1	GLY	-	expression tag	UNP O31266

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Chain	Residue	Modelled	Actual	Comment	Reference
BBB	0	SER	-	expression tag	UNP O31266
BBB	69	SER	CYS	engineered mutation	UNP O31266
BBB	251	ALA	HIS	engineered mutation	UNP O31266

- Molecule 2 is 2-(ACETYLAMINO)BENZOIC ACID (three-letter code: ZZ8) (formula: $C_9H_9NO_3$) (labeled as "Ligand of Interest" by depositor).
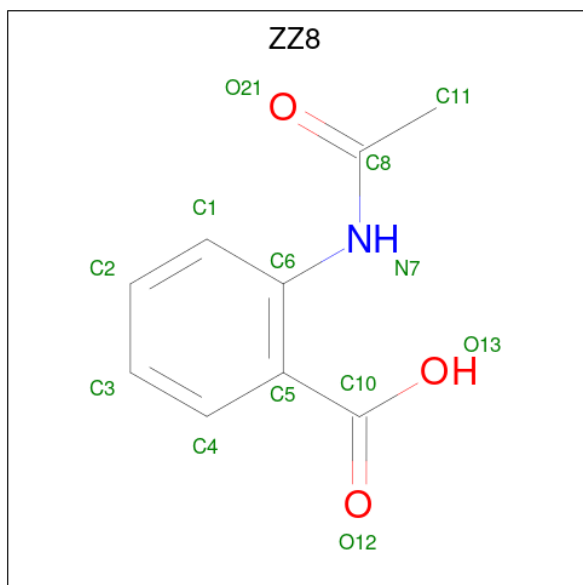
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
2	AAA	1	Total 13	C 9	N 1	O 3	0	0
2	BBB	1	Total 13	C 9	N 1	O 3	0	0

- Molecule 3 is S,R MESO-TARTARIC ACID (three-letter code: SRT) (formula: $C_4H_6O_6$).

SRT

O1
OH

O11 O — C1

C2(S) — OH O2

O3 HO — C3(R)

C4 — O O4

HO
O41
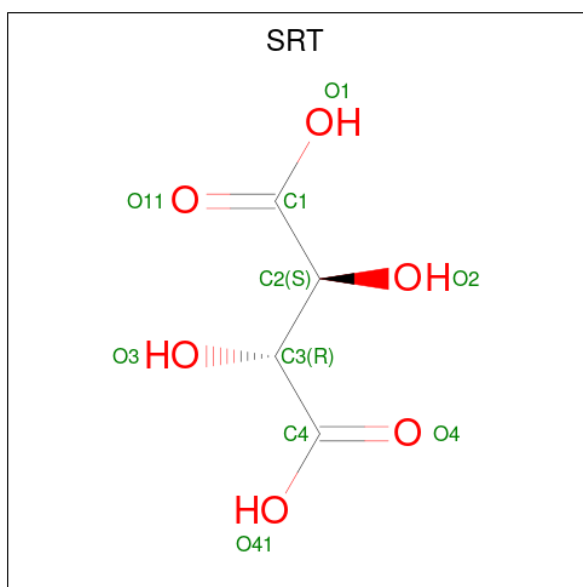
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	AAA	1	Total 10	C 4	O 6	0	0
3	AAA	1	Total 10	C 4	O 6	0	0
3	BBB	1	Total 10	C 4	O 6	0	0
3	BBB	1	Total 20	C 8	O 12	0	1

- Molecule 4 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).

GOL

C3
OH O3

C1   C2

HO   OH
O1   O2

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	AAA	1	Total 6	C 3	O 3	0	0
4	AAA	1	Total 6	C 3	O 3	0	0

- Molecule 5 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	AAA	3	Total 3	K 3	0	0
5	BBB	1	Total 1	K 1	0	0

- Molecule 6 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
6	AAA	87	Total 88	O 88	0	1
6	BBB	80	Total 82	O 82	0	2

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.
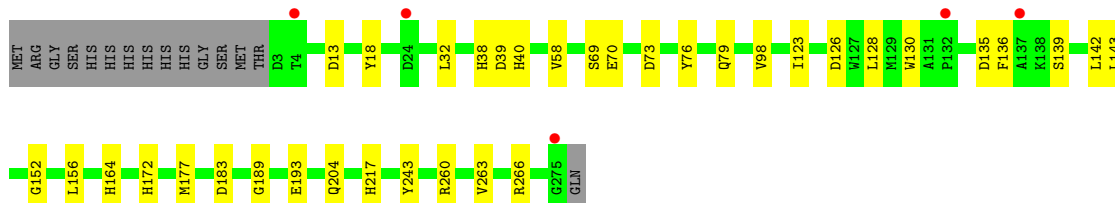
• Molecule 1: 1H-3-hydroxy-4-oxoquinaldine 2,4-dioxygenase
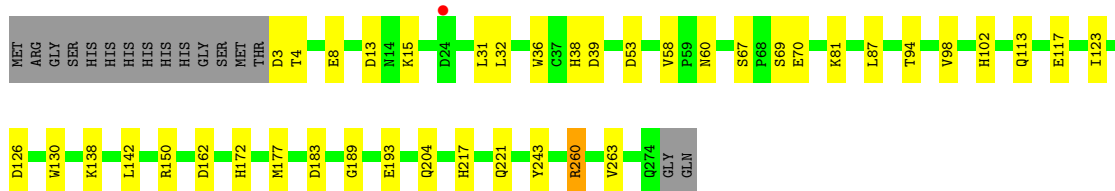
• Molecule 1: 1H-3-hydroxy-4-oxoquinaldine 2,4-dioxygenase

4   Data and refinement statistics   ⓘ

Property	Value	Source
Space group	P 41	Depositor
Cell constants a, b, c, α, β, γ	120.06Å 120.06Å 44.50Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	29.12 – 2.00 29.76 – 2.00	Depositor EDS
% Data completeness (in resolution range)	87.4 (29.12-2.00) 87.4 (29.76-2.00)	Depositor EDS
R_{merge}	0.07	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.88 (at 2.00Å)	Xtriage
Refinement program	REFMAC 5.8.0267	Depositor
R, R_{free}	0.203 , 0.235 0.207 , 0.239	Depositor DCC
R_{free} test set	1910 reflections (5.06%)	wwPDB-VP
Wilson B-factor (Å^2)	23.4	Xtriage
Anisotropy	0.041	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.39 , 21.9	EDS
L-test for twinning[2]	$< |L| > = 0.37, < L^2 > = 0.19$	Xtriage
Estimated twinning fraction	0.097 for h,-k,-l	Xtriage
Reported twinning fraction	0.853 for H, K, L 0.147 for -K, -H, -L	Depositor
Outliers	0 of 37766 reflections	Xtriage
F_o,F_c correlation	0.92	EDS
Total number of atoms	4791	wwPDB-VP
Average B, all atoms (Å^2)	28.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 16.55% 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: GOL, ZZ8, SRT, K

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	AAA	0.66	0/2351	0.79	2/3197 (0.1%)
1	BBB	0.68	0/2319	0.78	1/3155 (0.0%)
All	All	0.67	0/4670	0.79	3/6352 (0.0%)

There are no bond length outliers.

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AAA	260	ARG	NE-CZ-NH2	-6.25	117.17	120.30
1	AAA	260	ARG	NE-CZ-NH1	5.60	123.10	120.30
1	BBB	260	ARG	NE-CZ-NH2	-5.12	117.74	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	AAA	2280	0	2171	30	0
1	BBB	2249	0	2141	22	0
2	AAA	13	0	8	3	0
2	BBB	13	0	8	1	0
3	AAA	20	0	8	0	0
3	BBB	30	0	12	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	AAA	12	0	16	3	0
5	AAA	3	0	0	0	0
5	BBB	1	0	0	0	0
6	AAA	88	0	0	10	0
6	BBB	82	0	0	8	0
All	All	4791	0	4364	55	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 6.

The worst 5 of 55 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:AAA:150[B]:ARG:HH11	1:AAA:150[B]:ARG:HG2	1.20	1.00
3:BBB:303[B]:SRT:O1	3:BBB:303[B]:SRT:C4	2.13	0.95
1:AAA:150[B]:ARG:HH11	1:AAA:150[B]:ARG:CG	1.80	0.94
1:BBB:128:LEU:HD22	6:BBB:474:HOH:O	1.82	0.80
1:AAA:126:ASP:OD1	4:AAA:304:GOL:H2	1.92	0.69

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	AAA	277/288 (96%)	269 (97%)	8 (3%)	0	100	100
1	BBB	274/288 (95%)	266 (97%)	8 (3%)	0	100	100
All	All	551/576 (96%)	535 (97%)	16 (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	AAA	241/247 (98%)	232 (96%)	9 (4%)	34	32
1	BBB	237/247 (96%)	229 (97%)	8 (3%)	37	36
All	All	478/494 (97%)	461 (96%)	17 (4%)	37	34

5 of 17 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	BBB	204	GLN
1	BBB	263[B]	VAL
1	AAA	142	LEU
1	AAA	204	GLN
1	BBB	38	HIS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

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 13 ligands modelled in this entry, 4 are monoatomic - leaving 9 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	#$|Z| > 2$
4	GOL	AAA	305	-	5,5,5	0.17	0	5,5,5	0.57	0
2	ZZ8	AAA	301	-	13,13,13	1.17	2 (15%)	17,17,17	1.15	3 (17%)
3	SRT	BBB	303[B]	-	9,9,9	0.84	0	12,12,12	1.01	0
2	ZZ8	BBB	301	-	13,13,13	0.44	0	17,17,17	0.72	0
4	GOL	AAA	304	-	5,5,5	0.12	0	5,5,5	0.38	0
3	SRT	AAA	303	5	9,9,9	1.11	1 (11%)	12,12,12	1.31	1 (8%)
3	SRT	AAA	302	-	9,9,9	1.14	0	12,12,12	1.17	1 (8%)
3	SRT	BBB	302	-	9,9,9	1.23	1 (11%)	12,12,12	1.36	3 (25%)
3	SRT	BBB	303[A]	-	9,9,9	0.87	0	12,12,12	1.32	1 (8%)

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
4	GOL	AAA	305	-	-	4/4/4/4	-
2	ZZ8	AAA	301	-	-	7/8/8/8	0/1/1/1
3	SRT	BBB	303[B]	-	-	8/12/12/12	-
2	ZZ8	BBB	301	-	-	7/8/8/8	0/1/1/1
4	GOL	AAA	304	-	-	2/4/4/4	-
3	SRT	AAA	303	5	-	8/12/12/12	-
3	SRT	AAA	302	-	-	3/12/12/12	-
3	SRT	BBB	302	-	-	7/12/12/12	-
3	SRT	BBB	303[A]	-	-	8/12/12/12	-

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AAA	301	ZZ8	O12-C10	2.97	1.31	1.22
2	AAA	301	ZZ8	O13-C10	-2.50	1.22	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	AAA	303	SRT	O1-C1	-2.15	1.23	1.30
3	BBB	302	SRT	O1-C1	-2.14	1.23	1.30

The worst 5 of 9 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AAA	301	ZZ8	O12-C10-C5	-3.14	114.32	121.94
3	BBB	302	SRT	C2-C3-C4	2.19	114.77	109.87
2	AAA	301	ZZ8	O13-C10-C5	2.18	121.58	115.31
3	BBB	302	SRT	O3-C3-C2	-2.13	106.00	110.23
3	BBB	303[A]	SRT	O4-C4-C3	-2.09	116.13	121.63

There are no chirality outliers.

5 of 54 torsion outliers are listed below:

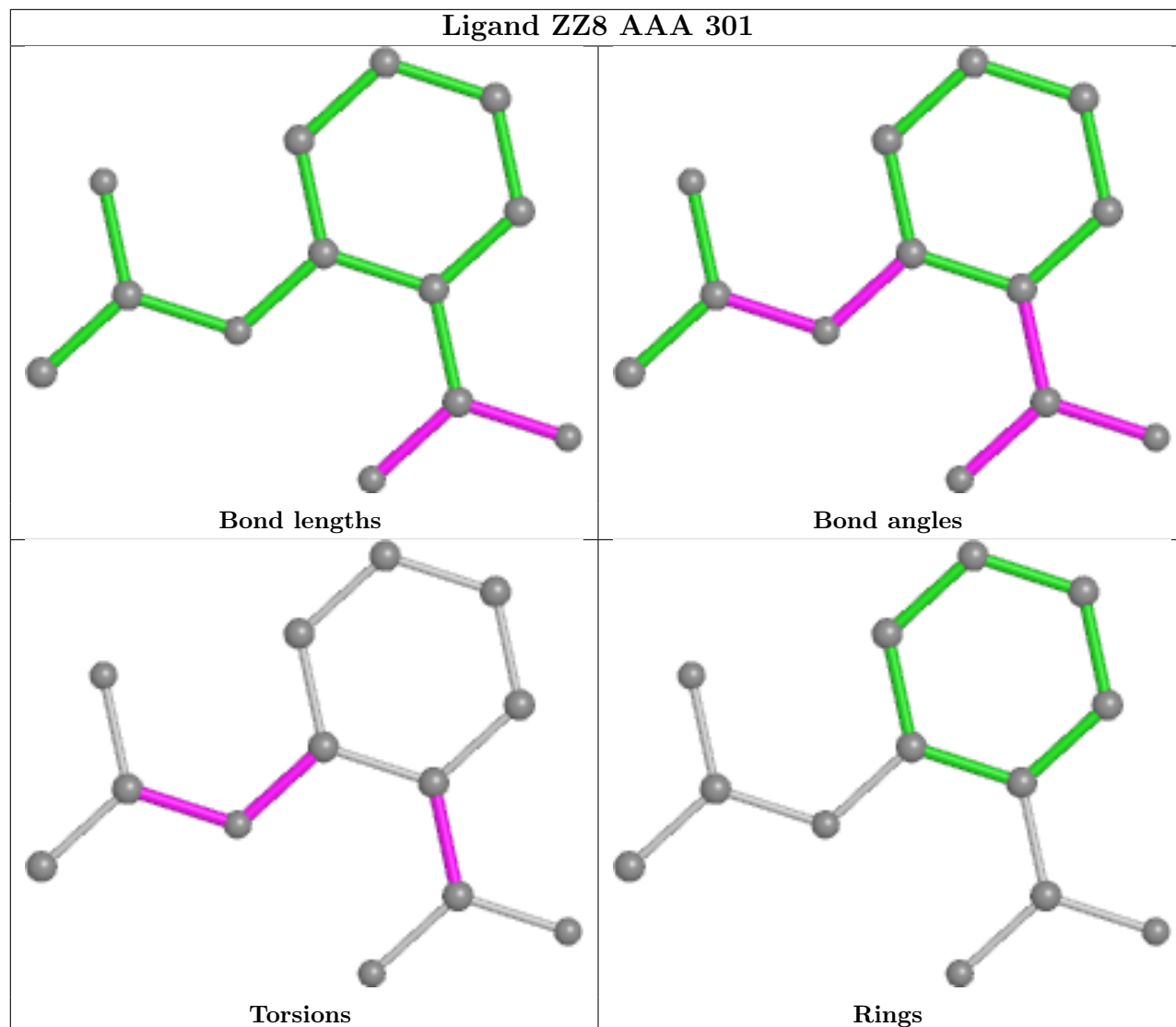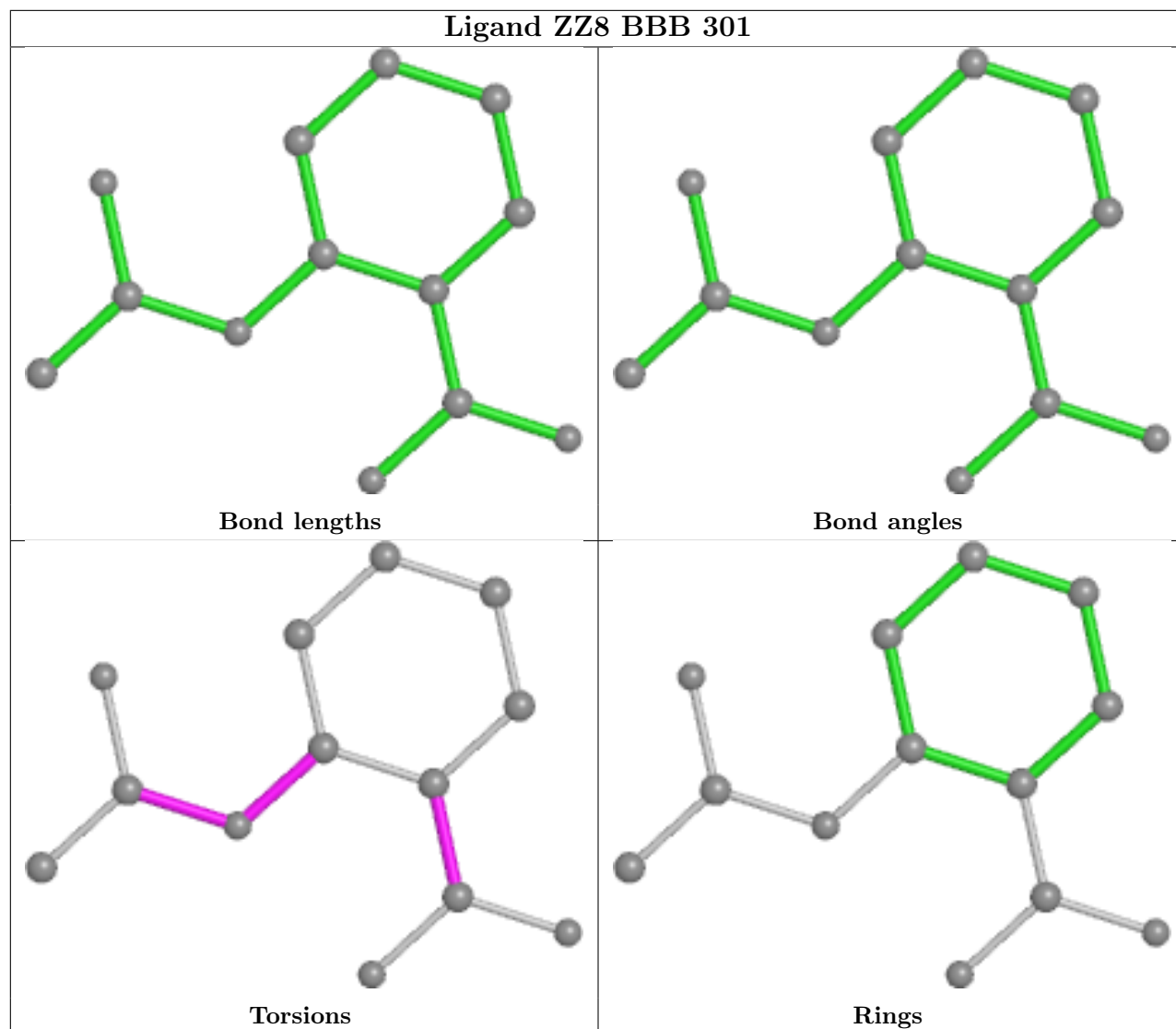| Mol	Chain	Res	Type	Atoms
2	AAA	301	ZZ8	O21-C8-N7-C6
2	AAA	301	ZZ8	C11-C8-N7-C6
2	BBB	301	ZZ8	O21-C8-N7-C6
2	BBB	301	ZZ8	C11-C8-N7-C6
3	AAA	302	SRT	O11-C1-C2-O2

There are no ring outliers.

4 monomers are involved in 10 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	AAA	301	ZZ8	3	0
3	BBB	303[B]	SRT	3	0
2	BBB	301	ZZ8	1	0
4	AAA	304	GOL	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 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 ZZ8 AAA 301

Bond lengths

Bond angles

Torsions

Rings

Ligand ZZ8 BBB 301

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	AAA	272/288 (94%)	-0.11	1 (0%)	92	92	10, 24, 42, 51	0
1	BBB	273/288 (94%)	0.14	5 (1%)	68	66	15, 30, 49, 60	0
All	All	545/576 (94%)	0.02	6 (1%)	80	79	10, 28, 45, 60	0

The worst 5 of 6 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	BBB	24	ASP	4.7
1	BBB	4	THR	4.1
1	BBB	275	GLY	3.2
1	BBB	132	PRO	2.4
1	BBB	137	ALA	2.2

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

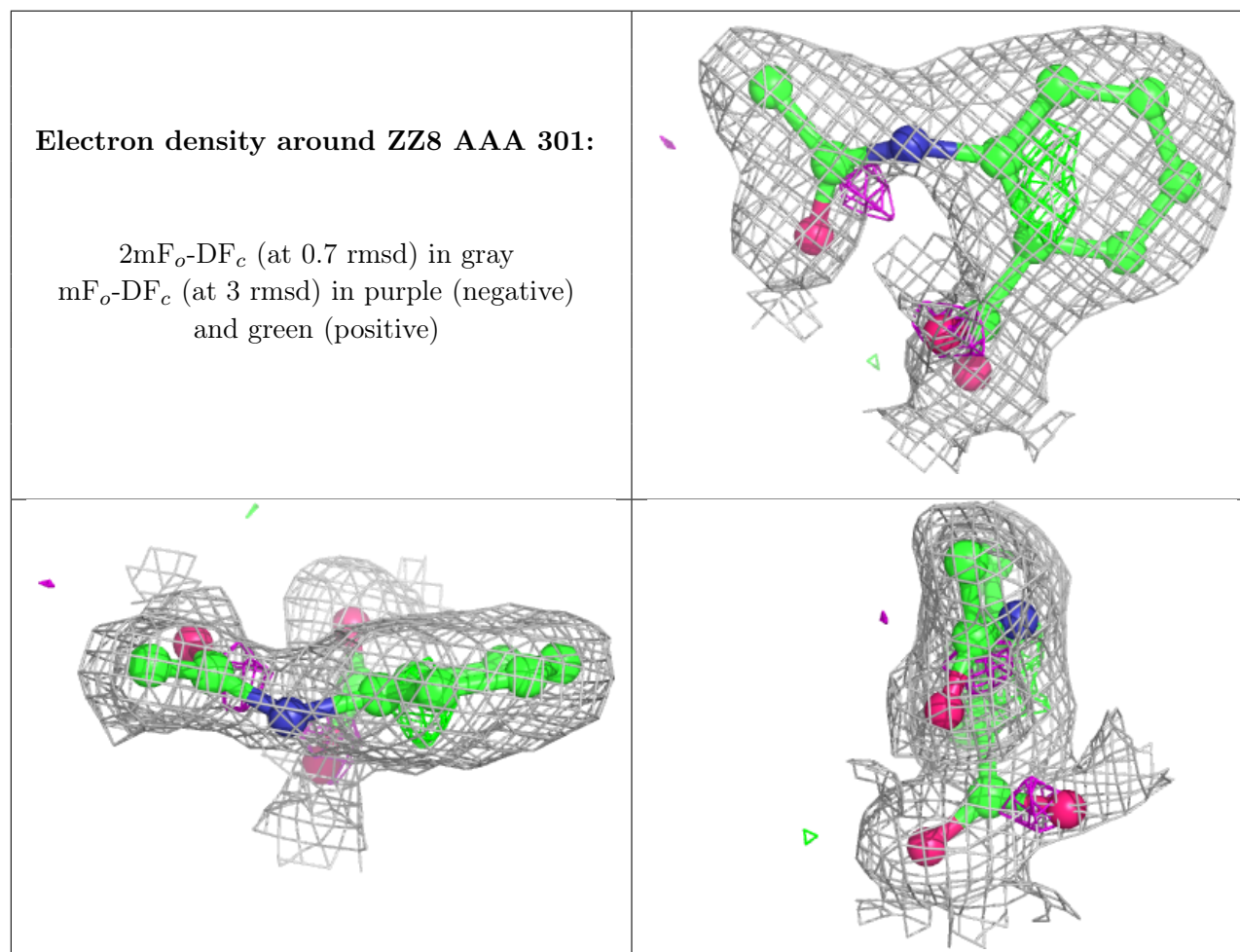There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates ⓘ

There are no monosaccharides in this entry.

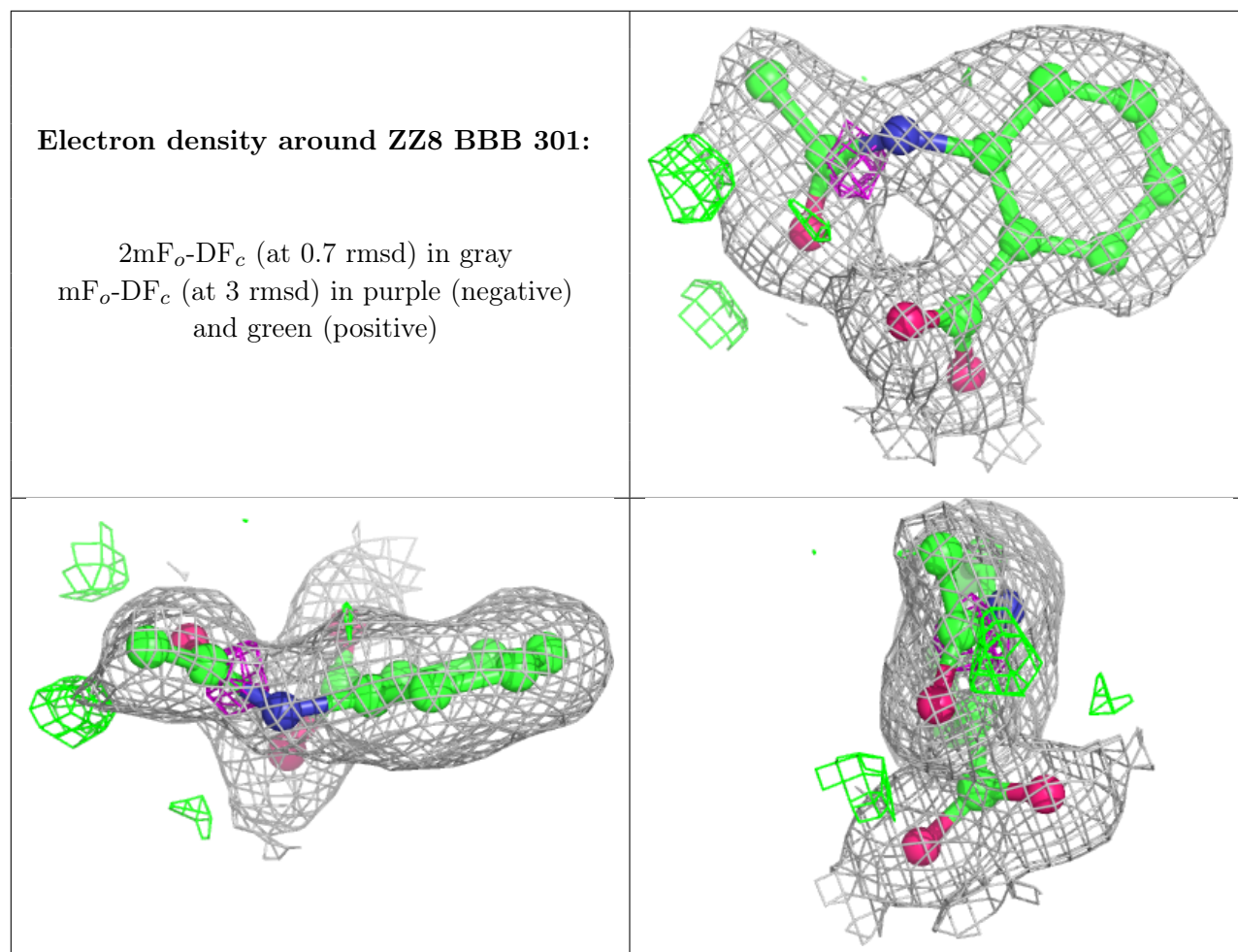## 6.4 Ligands ⓘ

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
2	ZZ8	AAA	301	13/13	0.69	0.22	23,26,29,30	13
3	SRT	BBB	303[A]	10/10	0.82	0.19	15,18,21,22	10
3	SRT	BBB	303[B]	10/10	0.82	0.19	18,20,23,24	10
4	GOL	AAA	304	6/6	0.83	0.17	23,31,32,32	0
2	ZZ8	BBB	301	13/13	0.85	0.17	22,24,26,26	0
4	GOL	AAA	305	6/6	0.87	0.13	26,29,30,35	0
3	SRT	AAA	302	10/10	0.90	0.14	23,25,27,28	0
3	SRT	BBB	302	10/10	0.93	0.12	19,21,24,24	0
3	SRT	AAA	303	10/10	0.94	0.10	19,23,27,27	0
5	K	AAA	308	1/1	0.98	0.07	31,31,31,31	0
5	K	BBB	304	1/1	0.99	0.04	29,29,29,29	0
5	K	AAA	306	1/1	1.00	0.07	30,30,30,30	0
5	K	AAA	307	1/1	1.00	0.04	16,16,16,16	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 ZZ8 AAA 301:

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

Electron density around ZZ8 BBB 301:

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

6.5   Other polymers (i)

There are no such residues in this entry.