

wwPDB X-ray Structure Validation Summary Report (i)

Aug 27, 2020 – 01:38 PM BST

PDB ID	:	6KU2
Title	:	The structure of $\mathrm{EanB}/\mathrm{Y353A}$ complex with ergothioneine covalent linked with
		persulfide Cys412
Authors	:	Wu, L.; Liu, P.H.; Zhou, J.H.
Deposited on		
$\operatorname{Resolution}$:	2.34 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 (i) symbol.

The following versions of software and data (see references (1)) were used in the production of this report:

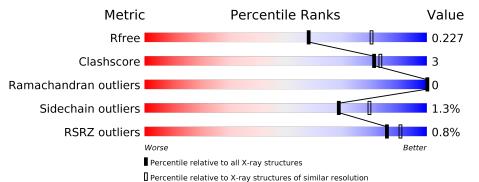
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.13
buster-report	:	1.1.7(2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.13

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure: X-RAY DIFFRACTION

The reported resolution of this entry is 2.34 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	$egin{array}{c} { m Whole \ archive} \ (\#{ m Entries}) \end{array}$	${f Similar\ resolution}\ (\#{ m Entries},{ m resolution\ range}({ m \AA}))$
R _{free}	130704	$2096\ (2.36-2.32)$
Clashscore	141614	2193 (2.36-2.32)
Ramachandran outliers	138981	2159 (2.36-2.32)
Sidechain outliers	138945	2160 (2.36-2.32)
RSRZ outliers	127900	2067 (2.36-2.32)

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 on 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	А	460	% 8 5%	7%	7%
1	Е	460	% • 88%	5%	7%

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
5	GOL	А	504	-	-	Х	-
9	PEG	А	508	-	-	Х	-



2 Entry composition (i)

There are 11 unique types of molecules in this entry. The entry contains 7222 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 Sulfurtransferase.

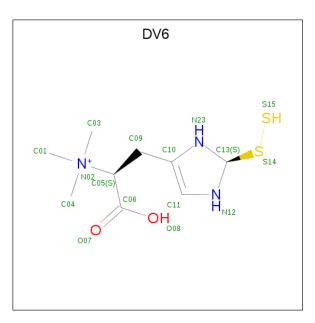
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	Λ	426	Total	С	Ν	Ο	\mathbf{S}	0	1	0
	л	420	3407	2161	582	649	15	0	1	0
1	F	428	Total	С	Ν	Ο	S	0	9	0
	Ľ	420	3435	2180	587	652	16	0	2	0

Chain	Residue	Modelled	Actual	Comment	Reference
А	-2	GLY	-	expression tag	UNP B3ECE3
А	-1	SER	-	expression tag	UNP B3ECE3
А	0	GLU	-	expression tag	UNP B3ECE3
А	1	PHE	-	expression tag	UNP B3ECE3
A	353	ALA	TYR	engineered mutation	UNP B3ECE3
Е	-2	GLY	-	expression tag	UNP B3ECE3
Е	-1	SER	-	expression tag	UNP B3ECE3
Е	0	GLU	-	expression tag	UNP B3ECE3
Е	1	PHE	-	expression tag	UNP B3ECE3
Е	353	ALA	TYR	engineered mutation	UNP B3ECE3

There are 10 discrepancies between the modelled and reference sequences:

• Molecule 2 is [(2S)-3-[(2S)-2-(disulfanyl)-2,3-dihydro-1H-imidazol-4-yl]-1-oxidanyl-1-oxida nylidene-propan-2-yl]-trimethyl-azanium (three-letter code: DV6) (formula: C₉H₁₈N₃O₂S₂) (labeled as "Ligand of Interest" by author).





Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	Λ	1	Total	С	Ν	0	S	0	0
	А	L	16	9	3	2	2	0	0
0	F	1	Total	С	Ν	Ο	S	0	0
	Ľ	L	16	9	3	2	2	0	0

• Molecule 3 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

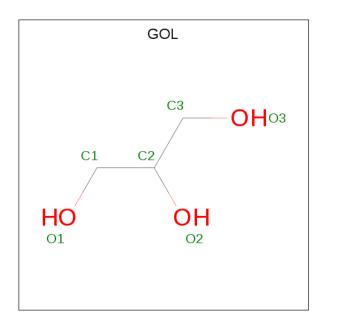
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	А	1	Total Mg 1 1	0	0
3	Е	1	Total Mg 1 1	0	0

• Molecule 4 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	А	1	Total Cl 1 1	0	0
4	Е	2	Total Cl 2 2	0	0

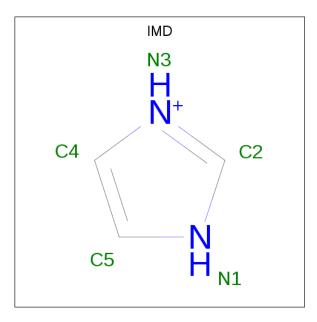
• Molecule 5 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).





Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
5	А	1	Total 6	${ m C} { m 3}$	O 3	0	0

 $\bullet\,$ Molecule 6 is IMIDAZOLE (three-letter code: IMD) (formula: $C_3H_5N_2).$



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	А	1	$\begin{array}{c cc} Total & C & N \\ 5 & 3 & 2 \end{array}$	0	0
6	E	1	$\begin{array}{ccc} \text{Total} \text{C} \text{N} \\ 5 3 2 \end{array}$	0	0

• Molecule 7 is ZINC ION (three-letter code: ZN) (formula: Zn).

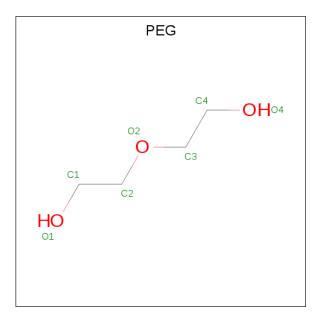


Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
7	А	1	Total Zn 1 1	0	0
7	Е	1	Total Zn 1 1	0	0

• Molecule 8 is BROMIDE ION (three-letter code: BR) (formula: Br).

Mo	Chain	Residues	Atoms	ZeroOcc	AltConf
8	A	1	Total Br 1 1	0	0
8	Е	1	Total Br 1 1	0	0

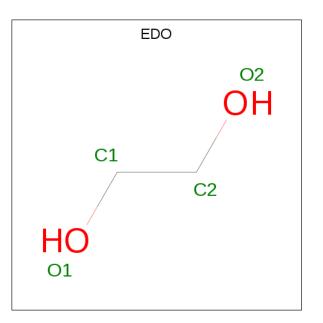
• Molecule 9 is DI(HYDROXYETHYL)ETHER (three-letter code: PEG) (formula: $C_4H_{10}O_3$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
9	А	1	Total 7	$\begin{array}{c} \mathrm{C} \\ 4 \end{array}$	O 3	0	0

• Molecule 10 is 1,2-ETHANEDIOL (three-letter code: EDO) (formula: C₂H₆O₂).





Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
10	Е	1	$\begin{array}{ccc} \text{Total} & \text{C} & \text{O} \\ 4 & 2 & 2 \end{array}$	0	0
10	Е	1	$\begin{array}{ccc} \text{Total} & \text{C} & \text{O} \\ 4 & 2 & 2 \end{array}$	0	0

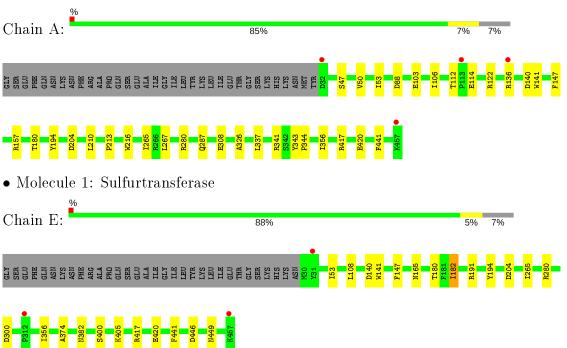
• Molecule 11 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
11	А	185	Total O 185 185	0	0
11	Е	123	Total O 123 123	0	0



3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.



• Molecule 1: Sulfurtransferase



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants	62.68Å 88.24 Å 90.77 Å	Deresiter
a, b, c, α , β , γ	90.00° 90.35° 90.00°	Depositor
Resolution (Å)	47.34 - 2.34	Depositor
Resolution (A)	45.38 - 2.34	EDS
% Data completeness	94.0(47.34-2.34)	Depositor
(in resolution range)	$94.0\ (45.38-2.34)$	EDS
R _{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) > 1$	$2.67 (at 2.34 \text{\AA})$	Xtriage
Refinement program	PHENIX 1.12-2829	Depositor
D D	0.171 , 0.228	Depositor
R, R_{free}	0.177 , 0.227	DCC
R_{free} test set	1890 reflections (4.80%)	wwPDB-VP
Wilson B-factor $(Å^2)$	32.7	Xtriage
Anisotropy	0.108	Xtriage
Bulk solvent $k_{sol}(e/Å^3), B_{sol}(Å^2)$	0.33 , 34.2	EDS
L-test for twinning ²	$< L >=0.51, < L^2>=0.34$	Xtriage
	0.000 for -h,l,k	
Estimated twinning fraction	0.016 for -h,-l,-k	Xtriage
	0.026 for h,-k,-l	
F_o, F_c correlation	0.95	EDS
Total number of atoms	7222	wwPDB-VP
Average B, all atoms $(Å^2)$	36.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 7.19% of the height of the origin peak. No significant pseudotranslation is detected.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.



¹Intensities estimated from amplitudes.

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, MG, PEG, IMD, CL, ZN, EDO, BR, DV6

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	А	0.80	0/3511	0.87	4/4775~(0.1%)
1	Е	0.73	0/3543	0.85	5/4817~(0.1%)
All	All	0.77	0/7054	0.86	9/9592~(0.1%)

There are no bond length outliers.

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

Mol	Chain	Res	Type	01		$\mathbf{Observed}(^{o})$	$Ideal(^{o})$
1	Е	280	ARG	NE-CZ-NH2	-7.64	116.48	120.30
1	А	88	ASP	CB-CG-OD1	7.25	124.82	118.30
1	А	122	ARG	NE-CZ-NH2	-6.24	117.18	120.30
1	Е	280	ARG	NE-CZ-NH1	5.94	123.27	120.30
1	Е	191	ARG	NE-CZ-NH1	5.62	123.11	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	А	3407	0	3215	17	0
1	Е	3435	0	3246	11	0
2	А	16	0	0	0	0
2	Е	16	0	0	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	А	1	0	0	0	0
3	Е	1	0	0	0	0
4	А	1	0	0	0	0
4	Ε	2	0	0	0	0
5	А	6	0	8	10	0
6	А	5	0	5	0	0
6	Ε	5	0	5	0	0
7	А	1	0	0	0	0
7	Ε	1	0	0	0	0
8	А	1	0	0	0	0
8	Ε	1	0	0	0	0
9	А	7	0	10	7	0
10	Ε	8	0	12	2	0
11	А	185	0	0	2	0
11	Ε	123	0	0	1	0
All	All	7222	0	6501	35	0

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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 3.

The worst 5 of 35 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:47:SER:O	5:A:504:GOL:H2	1.78	0.84
5:A:504:GOL:C1	9:A:508:PEG:H12	2.26	0.66
9:A:508:PEG:H21	11:A:771:HOH:O	1.95	0.66
1:A:50:VAL:O	5:A:504:GOL:O2	2.03	0.66
5:A:504:GOL:H12	9:A:508:PEG:H12	1.80	0.63

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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	Perce	ntiles
1	А	425/460 (92%)	404~(95%)	21~(5%)	0	100	100
1	Е	428/460 (93%)	404 (94%)	24 (6%)	0	100	100
All	All	853/920~(93%)	808~(95%)	45~(5%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains (i)

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	Rotameric Outliers	
1	А	357/385~(93%)	354~(99%)	3 (1%)	81 89
1	Ε	360/385~(94%)	354~(98%)	6(2%)	60 72
All	All	717/770~(93%)	708~(99%)	9 (1%)	69 79

5 of 9 residues with a non-rotameric sidechain are listed below:

Mol	Chain	\mathbf{Res}	Type
1	Ε	165	ASN
1	Е	405	LYS
1	Е	182	ILE
1	А	308	GLU
1	Е	180	THR

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (2) such sidechains are listed below:

Mol	Chain	Res	Type
1	Е	135	HIS
1	Е	165	ASN

5.3.3 RNA (i)

There are no RNA molecules in this entry.



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

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 17 ligands modelled in this entry, 9 are monoatomic - leaving 8 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	Turne	Chain	Res	Link	Bo	ond leng	ths	Bond angles		
	Type	Cham	nes		Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
9	PEG	А	508	-	$6,\!6,\!6$	0.30	0	5, 5, 5	0.31	0
5	GOL	А	504	-	$5,\!5,\!5$	0.19	0	5, 5, 5	0.38	0
6	IMD	Е	507	-	$3,\!5,\!5$	0.42	0	4,5,5	0.60	0
10	EDO	Е	506	-	3,3,3	0.45	0	2,2,2	0.23	0
2	DV6	А	501	1	10, 16, 16	3.49	<mark>5 (50%)</mark>	11,23,23	1.52	3 (27%)
2	DV6	Е	501	1	10, 16, 16	2.92	3 (30%)	11,23,23	1.60	2 (18%)
10	EDO	Е	505	-	3,3,3	1.79	1 (33%)	2,2,2	2.00	1(50%)
6	IMD	А	505	-	$3,\!5,\!5$	0.37	0	4,5,5	0.39	0

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
9	PEG	А	508	-	-	1/4/4/4	-
5	GOL	А	504	-	-	4/4/4/4	-
6	IMD	Е	507	-	-	-	0/1/1/1
10	EDO	Е	506	-	-	0/1/1/1	-
2	DV6	А	501	1	-	0/10/25/25	0/1/1/1
2	DV6	Е	501	1	-	0/10/25/25	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
10	EDO	Е	505	-	-	0/1/1/1	-
6	IMD	А	505	-	-	-	0/1/1/1

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

Mol	Chain	Res	Type	Atoms	Z	$\operatorname{Observed}(\operatorname{\AA})$	$\operatorname{Ideal}(\operatorname{\AA})$
2	А	501	DV6	C11-N12	8.09	1.45	1.33
2	Е	501	DV6	C11-N12	6.27	1.42	1.33
2	Е	501	DV6	C11-C10	4.99	1.42	1.36
2	А	501	DV6	C11-C10	4.65	1.42	1.36
2	А	501	DV6	C09-C10	-3.81	1.43	1.49

The worst 5 of 6 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	$\mathbf{Observed}(^{o})$	$\mathbf{Ideal}(^{o})$
2	Е	501	DV6	C11-C10-N23	3.49	109.25	105.99
2	Е	501	DV6	C04-N02-C05	3.08	118.18	110.51
2	А	501	DV6	C10-C11-N12	-3.00	103.57	107.39
2	А	501	DV6	C04-N02-C05	2.34	116.35	110.51
2	А	501	DV6	C11-C10-N23	2.31	108.16	105.99

There are no chirality outliers.

All (5) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	А	504	GOL	O1-C1-C2-C3
9	А	508	PEG	O1-C1-C2-O2
5	А	504	GOL	O1-C1-C2-O2
5	А	504	GOL	C1-C2-C3-O3
5	А	504	GOL	O2-C2-C3-O3

There are no ring outliers.

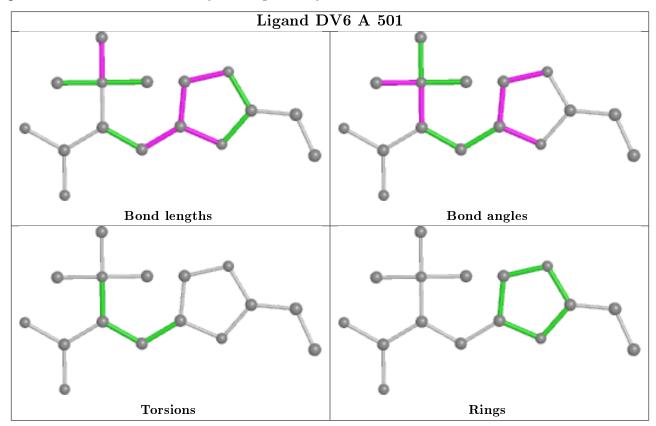
4 monomers are involved in 15 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
9	А	508	PEG	7	0
5	А	504	GOL	10	0
2	Е	501	DV6	2	0
10	Е	505	EDO	2	0

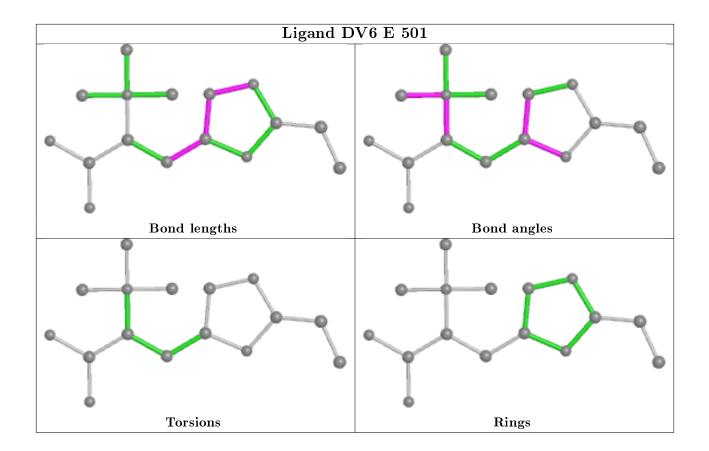
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths,



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.







5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.



6 Fit of model and data (i)

6.1 Protein, DNA and RNA chains (i)

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, 95^{th} 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	2	$\mathbf{OWAB}(\mathbf{\AA}^2)$	Q<0.9
1	А	426/460~(92%)	-0.30	4 (0%) 84	89	18,30,52,98	1 (0%)
1	Е	428/460~(93%)	-0.18	3 (0%) 87	92	23, 38, 59, 111	0
All	All	854/920~(92%)	-0.24	7 (0%) 86	90	18, 34, 57, 111	1 (0%)

The worst 5 of 7 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	А	457	LYS	4.6
1	Е	457	LYS	3.6
1	А	136	ARG	3.1
1	А	32	ASP	3.1
1	Е	31	TYR	2.9

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, 95^{th} 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.

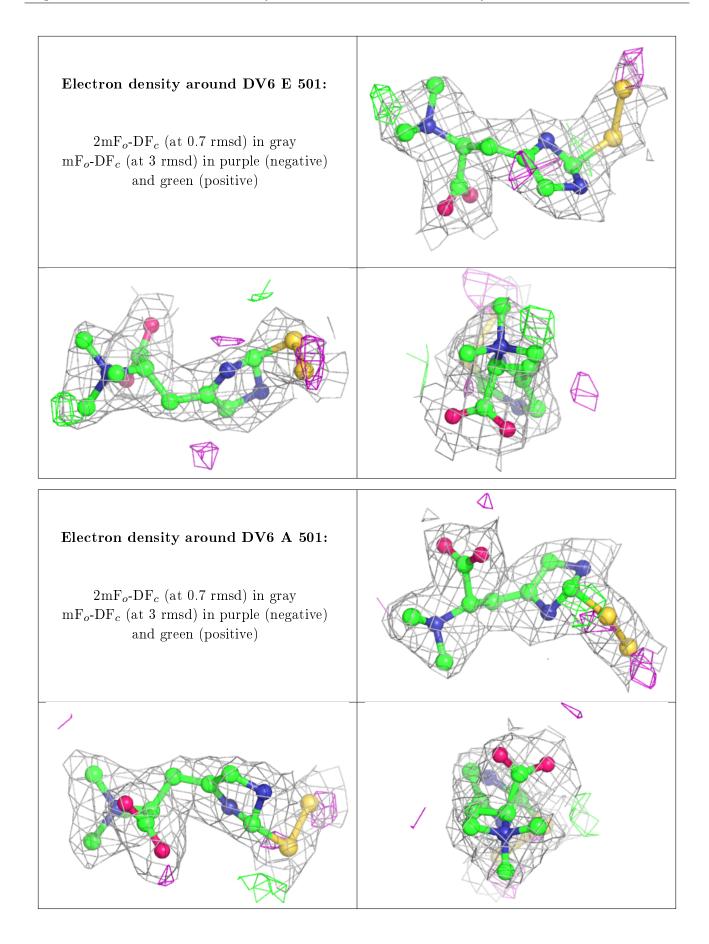


6KU2

Mol	Type	Chain	Res	Atoms	RSCC	RSR	$\mathbf{B} extsf{-factors}(\mathbf{A}^2)$	Q<0.9
5	GOL	А	504	6/6	0.81	0.23	$35,\!40,\!41,\!50$	6
10	EDO	Е	505	4/4	0.87	0.26	$29,\!30,\!33,\!33$	0
3	MG	А	502	1/1	0.87	0.07	27,27,27,27	0
6	IMD	А	505	5/5	0.87	0.13	$56,\!56,\!59,\!59$	0
10	EDO	Е	506	4/4	0.88	0.15	$37,\!38,\!42,\!43$	0
2	DV6	Е	501	16/16	0.90	0.19	$35,\!40,\!71,\!74$	0
3	MG	Е	503	1/1	0.90	0.06	$32,\!32,\!32,\!32$	0
9	PEG	А	508	7/7	0.92	0.18	$27,\!31,\!39,\!48$	7
2	DV6	А	501	16/16	0.93	0.15	$24,\!28,\!54,\!56$	0
6	IMD	Е	507	5/5	0.93	0.12	$65,\!67,\!68,\!69$	0
4	CL	Е	504	1/1	0.96	0.16	$41,\!41,\!41,\!41$	0
4	CL	Е	502	1/1	0.96	0.16	$50,\!50,\!50,\!50,\!50$	0
4	CL	А	503	1/1	0.97	0.09	34,34,34,34	0
7	ZN	А	506	1/1	0.98	0.04	$30,\!30,\!30,\!30$	1
8	BR	А	507	1/1	1.00	0.13	$13,\!13,\!13,\!13$	1
7	ZN	Е	508	1/1	1.00	0.07	34,34,34,34	1
8	BR	Е	509	1/1	1.00	0.06	$31,\!31,\!31,\!31$	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.







6.5 Other polymers (i)

There are no such residues in this entry.

