

# Full wwPDB X-ray Structure Validation Report (i)

May 14, 2020 – 03:01 am BST

PDB ID : 6FZJ

Title : PPAR gamma mutant complex

Authors : Rochel, N. Deposited on : 2018-03-14

Resolution : 2.01 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 (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 : 2.11

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)

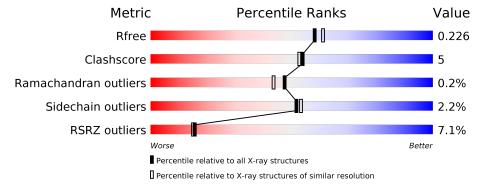
Validation Pipeline (wwPDB-VP) : 2.11

## 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 2.01 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	$\begin{array}{c} \text{Whole archive} \\ (\#\text{Entries}) \end{array}$	$\begin{array}{c} {\rm Similar \; resolution} \\ (\#{\rm Entries, \; resolution \; range(\AA)}) \end{array}$
$R_{free}$	130704	10434 (2.04-2.00)
Clashscore	141614	11643 (2.04-2.00)
Ramachandran outliers	138981	11493 (2.04-2.00)
Sidechain outliers	138945	11492 (2.04-2.00)
RSRZ outliers	127900	10220 (2.04-2.00)

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 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	A	275	6% 85%	11% •
1	В	275	7% 85%	12% •
2	С	14	14% 79% 7%	14%
2	D	14	79% 7%	14%



# 2 Entry composition (i)

There are 6 unique types of molecules in this entry. The entry contains 5123 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 Peroxisome proliferator-activated receptor gamma.

Mol	Chain	Residues	${f Atoms}$			ZeroOcc	AltConf	Trace		
1	A	267	Total 2249	C 1461	N 361	O 417	S 10	0	17	0
1	В	270	Total 2219	C 1443	N 357	O 409	S 10	0	9	0

There are 2 discrepancies between the modelled and reference sequences:

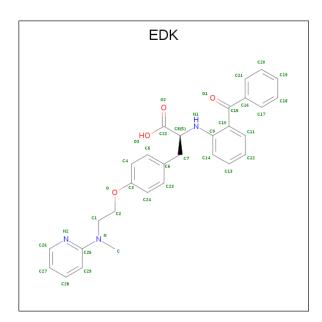
Chain	Residue	Modelled	Actual	Comment	Reference
Α	280	ILE	MET	engineered mutation	UNP P37231
В	280	ILE	MET	engineered mutation	UNP P37231

• Molecule 2 is a protein called Peroxisome proliferator-activated receptor gamma coactivator 1-alpha.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace		
9	C	12	Total	С	N	О	0	0	1
		12	84	58	14	12	0	U	
9	D	12	Total C N O   0	0	1				
2	ע	12	84	58	14	12	0	U	1

• Molecule 3 is (2 {S})-3-[4-[2-[methyl(pyridin-2-yl)amino]ethoxy]phenyl]-2-[[2-(phenylcarbon yl)phenyl]amino]propanoic acid (three-letter code: EDK) (formula: C<sub>30</sub>H<sub>29</sub>N<sub>3</sub>O<sub>4</sub>).





Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	
2	Λ	1	Total	С	N	О	0	0	
)	A	1	37	30	3	4	U	0	
2	D	1	Total	С	N	О	0	0	
)	Б	1	37	30	3	4	0	U	

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

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	В	1	Total I 1 1	0	0
4	A	1	Total I 1 1	0	0

• Molecule 5 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	В	1	Total Cl 1 1	0	0
5	A	3	Total Cl 3 3	0	1

 $\bullet\,$  Molecule 6 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	A	220	Total O 222 222	0	2



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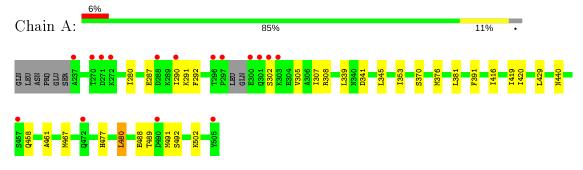
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	В	176	Total O 177 177	0	3
6	С	5	Total O 5 5	0	0
6	D	3	Total O 3 3	0	0



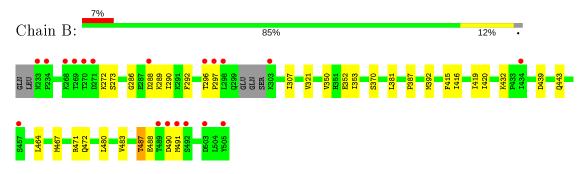
## 3 Residue-property plots (i)

These plots are drawn for all protein, RNA and DNA 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: Peroxisome proliferator-activated receptor gamma



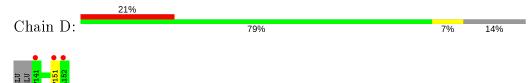
• Molecule 1: Peroxisome proliferator-activated receptor gamma



• Molecule 2: Peroxisome proliferator-activated receptor gamma coactivator 1-alpha



• Molecule 2: Peroxisome proliferator-activated receptor gamma coactivator 1-alpha





# 4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants	$52.27 ext{Å}$ $126.43 ext{Å}$ $54.72 ext{Å}$	Depositor
a, b, c, $\alpha$ , $\beta$ , $\gamma$	$90.00^{\circ}$ $94.91^{\circ}$ $90.00^{\circ}$	Depositor
Resolution (Å)	15.18 - 2.01	Depositor
Resolution (A)	15.18 - 2.01	EDS
% Data completeness	97.4 (15.18-2.01)	Depositor
(in resolution range)	97.4 (15.18-2.01)	EDS
$R_{merge}$	0.11	Depositor
$R_{sym}$	(Not available)	Depositor
$< I/\sigma(I) > 1$	1.18 (at 2.01Å)	Xtriage
Refinement program	PHENIX (1.13_2998: ???)	Depositor
P. P.	0.175 , $0.226$	Depositor
$R, R_{free}$	0.175 , $0.226$	DCC
$R_{free}$ test set	2282 reflections $(5.00\%)$	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	31.6	Xtriage
Anisotropy	0.498	Xtriage
Bulk solvent $k_{sol}(e/Å^3)$ , $B_{sol}(Å^2)$	0.36 , 55.8	EDS
L-test for twinning <sup>2</sup>	$< L >=0.50, < L^2>=0.33$	Xtriage
Estimated twinning fraction	0.032 for l,-k,h	Xtriage
$F_o, F_c$ correlation	0.96	EDS
Total number of atoms	5123	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	38.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 5.52% of the height of the origin peak. No significant pseudotranslation is detected.

<sup>&</sup>lt;sup>2</sup>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.



 $<sup>^{1} {\</sup>rm Intensities}$  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: EDK, IOD, CL

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).

Mal	Chain	Boı	nd lengths	Bond angles		
Mol   Chain		RMSZ	# Z  > 5	RMSZ	# Z >5	
1	A	0.44	$1/2325 \ (0.0\%)$	0.54	0/3127	
1	В	0.39	0/2278	0.51	0/3067	
2	С	0.29	0/85	0.39	0/114	
2	D	0.38	0/85	0.52	0/114	
All	All	0.41	$1/4773 \ (0.0\%)$	0.52	0/6422	

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	$\mathbf{Z}$	${f Observed(\AA)}$	$oxed{Ideal(A)}$
1	A	489	THR	C-N	-5.48	1.21	1.34

There are no bond angle outliers.

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	A	2249	0	2355	29	0
1	В	2219	0	2306	25	0
2	С	84	0	105	1	0
2	D	84	0	105	0	0
3	A	37	0	0	2	0
3	В	37	0	0	0	0



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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	A	1	0	0	0	0
4	В	1	0	0	0	0
5	A	3	0	0	0	0
5	В	1	0	0	0	0
6	A	222	0	0	1	0
6	В	177	0	0	2	0
6	С	5	0	0	0	0
6	D	3	0	0	0	0
All	All	5123	0	4871	51	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 5.

All (51) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	$\begin{array}{c} {\rm Interatomic} \\ {\rm distance} \ ({\rm \AA}) \end{array}$	Clash overlap (Å)
1:B:290:ILE:HG23	1:B:370:SER:HB2	1.41	0.98
1:A:290:ILE:HG21	1:A:292:PHE:CE2	2.09	0.87
1:A:290:ILE:HG23	1:A:370:SER:HB2	1.58	0.86
1:B:290:ILE:HG21	1:B:292:PHE:CE2	2.12	0.84
1:B:290:ILE:HG23	1:B:370:SER:CB	2.19	0.70
1:A:353[A]:ILE:HD13	1:A:416:ILE:HB	1.75	0.68
1:A:280:ILE:HD13	1:A:305:VAL:HB	1.79	0.64
1:A:291:LYS:NZ	6:A:603:HOH:O	2.31	0.64
1:A:290:ILE:CG2	1:A:292:PHE:CE2	2.81	0.63
1:B:487:THR:HG22	1:B:488:GLU:HG2	1.80	0.63
1:B:353[B]:ILE:HD12	1:B:416:ILE:HB	1.80	0.62
1:A:353[A]:ILE:HD11	1:A:420:ILE:HG13	1.81	0.61
1:A:458[B]:GLN:HE22	1:B:443:GLN:HG3	1.68	0.59
1:B:296:THR:N	1:B:297:PRO:HD2	2.18	0.58
1:A:290:ILE:HG23	1:A:370:SER:CB	2.33	0.57
1:B:321:VAL:HG22	1:B:350[B]:VAL:HG21	1.88	0.55
1:B:290:ILE:CG2	1:B:292:PHE:CE2	2.87	0.55
1:A:353[B]:ILE:HD11	1:A:419:ILE:HB	1.89	0.54
1:B:483:VAL:O	1:B:487:THR:HB	2.08	0.53
1:A:290:ILE:HG21	1:A:292:PHE:HE2	1.68	0.53
1:A:488:GLU:HB3	1:A:491:MET:HG3	1.92	0.51
1:B:290:ILE:CG2	1:B:370:SER:HB2	2.29	0.51
1:A:307:ILE:HD12	1:A:491:MET:SD	2.50	0.51
1:A:458[B]:GLN:NE2	1:B:443:GLN:HG3	2.26	0.50
1:A:290:ILE:CG2	1:A:292:PHE:CD2	2.95	0.49



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Atom-1	Atom-2	Interatomic	Clash
	Atom-2	${f distance} \; ({f \AA})$	overlap(Å)
1:B:353[A]:ILE:HD11	1:B:420:ILE:CG1	2.44	0.47
1:A:488:GLU:CB	1:A:491:MET:HG3	2.45	0.47
1:A:353[B]:ILE:HD12	1:A:416:ILE:HB	1.95	0.46
1:A:339:LEU:HD21	2:C:145:LYS:HG2	1.98	0.46
1:A:290:ILE:HG22	1:A:292:PHE:CD2	2.51	0.46
1:A:477:HIS:NE2	3:A:550:EDK:O3	2.46	0.46
1:B:353[B]:ILE:HD11	1:B:419:ILE:HB	1.97	0.46
1:A:502[A]:LYS:HE2	1:A:502[A]:LYS:HB3	1.64	0.45
1:B:387:PRO:HG3	1:B:483:VAL:HG12	1.99	0.45
1:A:391:PHE:CZ	1:A:480:LEU:HB3	2.52	0.45
1:A:461:ALA:HA	1:B:464:LEU:HD13	1.99	0.44
1:B:286:GLY:O	1:B:290:ILE:HG12	2.17	0.44
1:A:287:GLU:OE2	1:A:308:ARG:NH1	2.51	0.43
1:B:289:LYS:HG2	6:B:664:HOH:O	2.17	0.43
1:A:419:ILE:HG12	1:A:467[B]:MET:HE2	2.00	0.43
1:B:307:ILE:HG12	1:B:491:MET:HE1	2.01	0.42
1:B:352:GLU:OE2	1:B:471:ARG:HG2	2.20	0.41
1:A:341:ASP:O	1:A:345:LEU:HG	2.21	0.41
1:B:416:ILE:O	1:B:420:ILE:HG13	2.21	0.41
1:B:432:LYS:NZ	6:B:612:HOH:O	2.52	0.41
1:A:376:MET:SD	1:A:381:LEU:HD21	2.61	0.41
1:A:458[B]:GLN:HG3	1:B:439:ASP:HA	2.02	0.41
1:A:302:SER:OG	1:A:308:ARG:NH2	2.54	0.41
1:B:415:PHE:CE1	1:B:467[A]:MET:HG3	2.57	0.40
3:A:550:EDK:O1	3:A:550:EDK:N1	2.54	0.40
1:B:381:LEU:HD13	1:B:392:MET:HG3	2.04	0.40

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	A	$280/275 \; (102\%)$	274 (98%)	6 (2%)	0	100	100
1	В	$274/275 \ (100\%)$	266 (97%)	8 (3%)	0	100	100
2	С	10/14~(71%)	10 (100%)	0	0	100	100
2	D	10/14 (71%)	9 (90%)	0	1 (10%)	0	0
All	All	574/578 (99%)	559 (97%)	14 (2%)	1 (0%)	47	43

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	D	151	PRO

#### 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	Outliers	Perce	$\mathbf{ntiles}$
1	A	257/248 (104%)	253 (98%)	4 (2%)	62	66
1	В	250/248 (101%)	243 (97%)	7 (3%)	43	43
2	С	10/12 (83%)	10 (100%)	0	100	100
2	D	10/12 (83%)	10 (100%)	0	100	100
All	All	527/520 (101%)	516 (98%)	11 (2%)	52	55

All (11) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	429	LEU
1	A	440	ASN
1	A	480	LEU
1	A	492	SER
1	В	272	LYS
1	В	273	SER
1	В	288	ASP
1	В	472	GLN
1	В	480	LEU
1	В	487	THR



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Mol	Chain	Res	Type
1	В	490	ASP

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

#### 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 carbohydrates in this entry.

## 5.6 Ligand geometry (i)

Of 8 ligands modelled in this entry, 6 are monoatomic - leaving 2 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	Chain	Chain	Chain	Chain	Chain	Chain	Chain	Chain	Chain	Chain	Chain	Chain	Chain	Chain	Chain	Chain	Chain	Res	Link	Bo	nd leng	${ m ths}$	В	ond ang	les
MIOI	Type	Chain	res	LIIIK	Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2																	
3	EDK	В	550	-	37,40,40	0.55	1 (2%)	46,53,53	0.84	4 (8%)																	
3	EDK	A	550	-	37,40,40	0.71	1 (2%)	46,53,53	0.72	2 (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
3	EDK	В	550	-	-	4/26/30/30	0/4/4/4
3	EDK	A	550	-	-	4/26/30/30	0/4/4/4

#### All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	$\mathbf{Observed}(\mathbf{\mathring{A}})$	$Ideal(\AA)$
3	A	550	EDK	C25-N	3.80	1.47	1.37
3	В	550	EDK	C25-N	3.09	1.45	1.37

#### All (6) bond angle outliers are listed below:

Mol	Chain	$\operatorname{Res}$	Type	Atoms	$\mathbf{Z}$	$\mathbf{Observed}(^o)$	$\operatorname{Ideal}({}^o)$
3	В	550	EDK	C29-C25-N	-3.01	117.04	121.97
3	A	550	EDK	C-N-C25	-2.79	114.83	119.96
3	В	550	EDK	C-N-C1	2.56	122.39	115.42
3	В	550	EDK	C-N-C25	-2.39	115.58	119.96
3	В	550	EDK	N2-C25-N	2.26	119.25	116.39
3	A	550	EDK	C29-C25-N	-2.12	118.50	121.97

There are no chirality outliers.

All (8) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	В	550	EDK	C10-C15-C16-C21
3	В	550	EDK	O1-C15-C16-C21
3	В	550	EDK	C10-C15-C16-C17
3	В	550	EDK	O1-C15-C16-C17
3	A	550	EDK	O1-C15-C16-C21
3	A	550	EDK	C10-C15-C16-C21
3	A	550	EDK	C10-C15-C16-C17
3	A	550	EDK	O1-C15-C16-C17

There are no ring outliers.

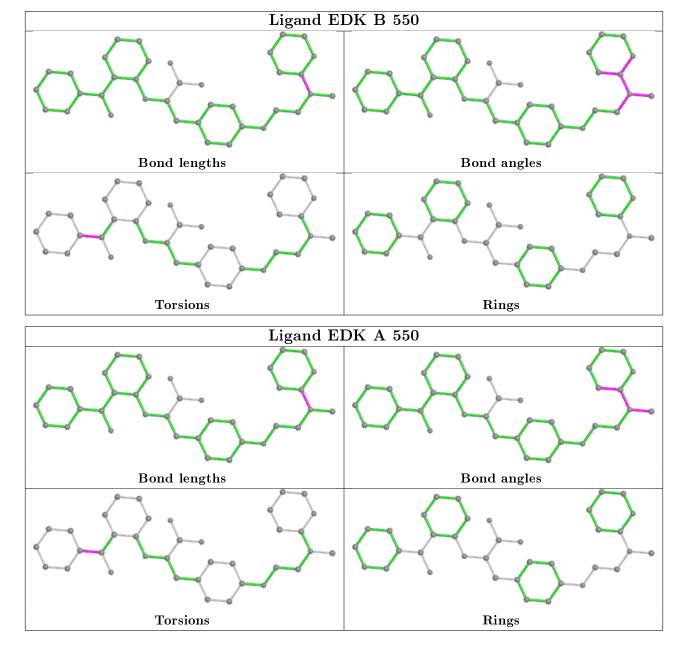
1 monomer is involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	A	550	EDK	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	$oxed{RSRZ} > oxed{RSRZ} > 2$		$OWAB(A^2)$	Q<0.9
1	A	267/275 (97%)	0.02	16 (5%) 21 21	19, 30, 63, 114	0
1	В	270/275 (98%)	0.06	19 (7%) 16 15	19, 35, 71, 115	0
2	С	12/14~(85%)	0.83	2 (16%) 1 1	29, 41, 79, 80	0
2	D	12/14 (85%)	1.18	3 (25%) 0 0	32, 41, 75, 78	0
All	All	561/578 (97%)	0.08	40 (7%) 16 15	19, 33, 72, 115	0

All (40) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	237	ALA	8.6
1	A	270	THR	7.8
2	С	141	PRO	6.5
2	D	141	PRO	6.2
2	D	152	ALA	6.2
1	A	505	TYR	5.8
1	В	489	THR	5.2
1	В	490	ASP	5.1
1	A	301	GLN	4.7
1	В	234	PRO	4.4
2	D	151	PRO	4.3
2	С	151	PRO	4.1
1	A	302	SER	4.0
1	В	270	THR	3.6
1	A	300	GLU	3.5
1	A	297	PRO	3.2
1	В	297	PRO	3.2
1	В	268	LYS	3.0
1	A	271	ASP	3.0
1	В	505[A]	TYR	2.8
1	В	492	SER	2.8



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Mol	Chain	Res	Type	RSRZ
1	В	298	LEU	2.6
1	A	296	THR	2.6
1	A	290	ILE	2.5
1	В	296	THR	2.4
1	В	288	ASP	2.4
1	A	272	LYS	2.4
1	В	271	ASP	2.4
1	В	457	SER	2.3
1	В	503	ASP	2.2
1	A	472[A]	GLN	2.2
1	В	303	LYS	2.1
1	В	491	MET	2.1
1	В	233	ASN	2.1
1	A	288	ASP	2.1
1	A	490	ASP	2.1
1	A	303	LYS	2.1
1	В	434	ILE	2.0
1	A	457[A]	SER	2.0
1	В	269	THR	2.0

## 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 carbohydrates 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.

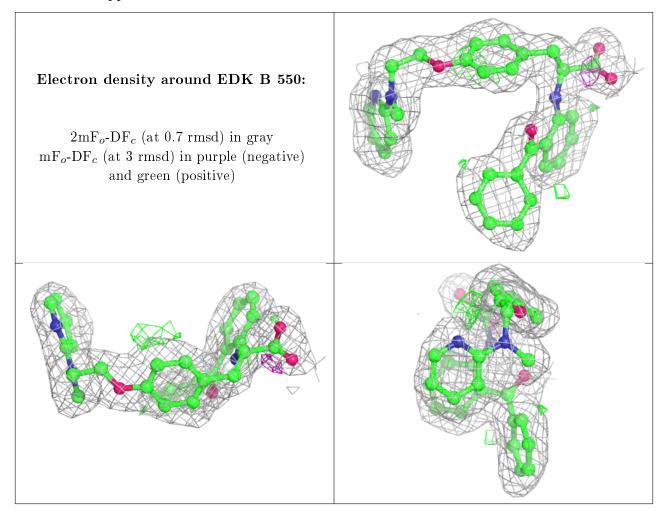
Mol	Type	Chain	$\operatorname{Res}$	Atoms	RSCC	RSR	${f B\text{-factors}}({f A}^2)$	Q<0.9
5	CL	A	553	1/1	0.93	0.09	68,68,68,68	0
5	CL	A	552	1/1	0.94	0.09	55,55,55,55	0
3	EDK	В	550	37/37	0.94	0.09	21,27,37,43	11
3	EDK	A	550	37/37	0.94	0.09	18,29,37,42	0



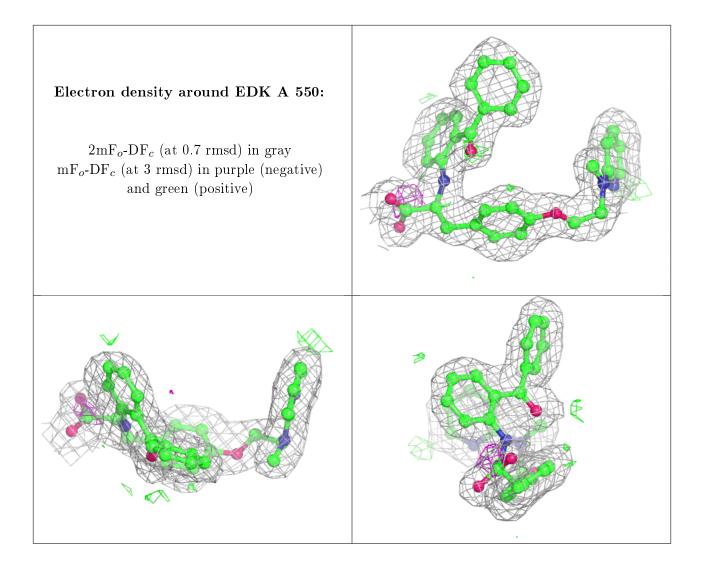
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Mol	Type	Chain	$\operatorname{Res}$	Atoms	RSCC	RSR	${f B\text{-factors}}({f A}^2)$	Q<0.9
5	CL	В	552	1/1	0.99	0.09	45,45,45,45	0
5	CL	A	554[B]	1/1	0.99	0.06	30,30,30,30	1
4	IOD	A	551	1/1	0.99	0.07	34,34,34,34	1
4	IOD	В	551	1/1	1.00	0.07	30,30,30,30	1

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.

