



# Full wwPDB X-ray Structure Validation Report ⓘ

Dec 15, 2024 – 01:14 PM EST

PDB ID : 3A73  
Title : Crystal Structure Analysis of Human serum albumin complexed with delta 12-prostaglandin J2  
Authors : Ito, S.  
Deposited on : 2009-09-11  
Resolution : 2.19 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](mailto: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>.

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

MolProbity : 4.02b-467  
Mogul : 2022.3.0, CSD as543be (2022)  
Xtrriage (Phenix) : 1.21  
EDS : 3.0  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
CCP4 : 9.0.004 (Gargrove)  
Density-Fitness : 1.0.11  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.40

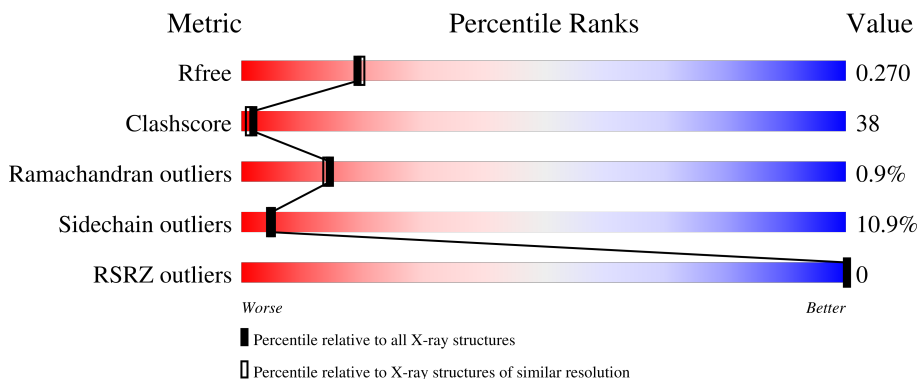
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.19 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	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	164625	5791 (2.20-2.20)
Clashscore	180529	6634 (2.20-2.20)
Ramachandran outliers	177936	6560 (2.20-2.20)
Sidechain outliers	177891	6561 (2.20-2.20)
RSRZ outliers	164620	5791 (2.20-2.20)

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  $\geq 3$ , 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  $\leq 5\%$ . 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	585	
1	B	585	

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
2	MYR	A	1004	-	-	X	-
2	MYR	B	1005	-	-	X	-
3	PJ2	A	1011	-	-	X	-
3	PJ2	A	1012	-	-	X	-
3	PJ2	B	1011	-	-	X	-

## 2 Entry composition [i](#)

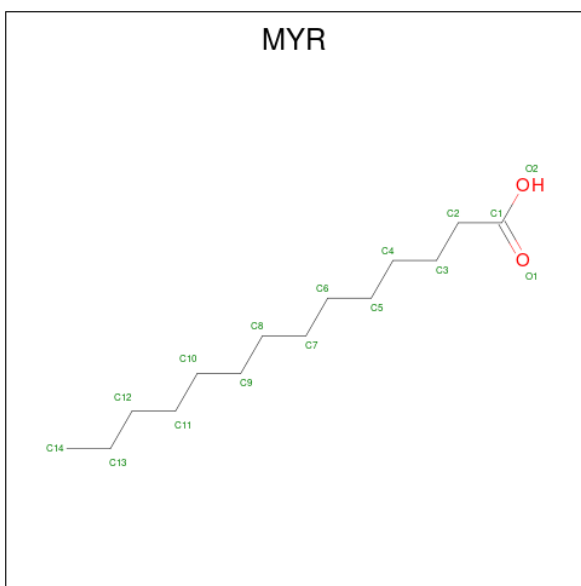
There are 4 unique types of molecules in this entry. The entry contains 9690 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 Serum albumin.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	576	Total 4580	C 2894	N 775	O 870	S 41	0	0	0
1	B	576	Total 4580	C 2894	N 775	O 870	S 41	0	0	0

- Molecule 2 is MYRISTIC ACID (three-letter code: MYR) (formula:  $C_{14}H_{28}O_2$ ).



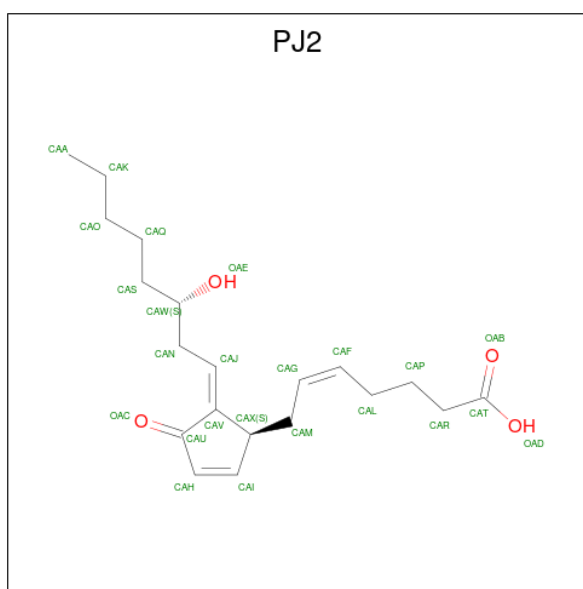
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
			Total	C	O		
2	A	1	Total 16	C 14	O 2	0	0
2	A	1	Total 16	C 14	O 2	0	0
2	A	1	Total 16	C 14	O 2	0	0
2	A	1	Total 16	C 14	O 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	A	1	Total C O 16 14 2	0	0
2	A	1	Total C 12 12	0	0
2	B	1	Total C O 16 14 2	0	0
2	B	1	Total C O 16 14 2	0	0
2	B	1	Total C O 16 14 2	0	0
2	B	1	Total C O 16 14 2	0	0
2	B	1	Total C O 16 14 2	0	0
2	B	1	Total C 12 12	0	0

- Molecule 3 is (5Z,12Z,15S)-15-hydroxy-11-oxoprosta-5,9,12-trien-1-oic acid (three-letter code: PJ2) (formula: C<sub>20</sub>H<sub>30</sub>O<sub>4</sub>).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	1	Total C O 24 20 4	0	0
3	A	1	Total C O 24 20 4	0	0
3	B	1	Total C O 24 20 4	0	0

- Molecule 4 is water.

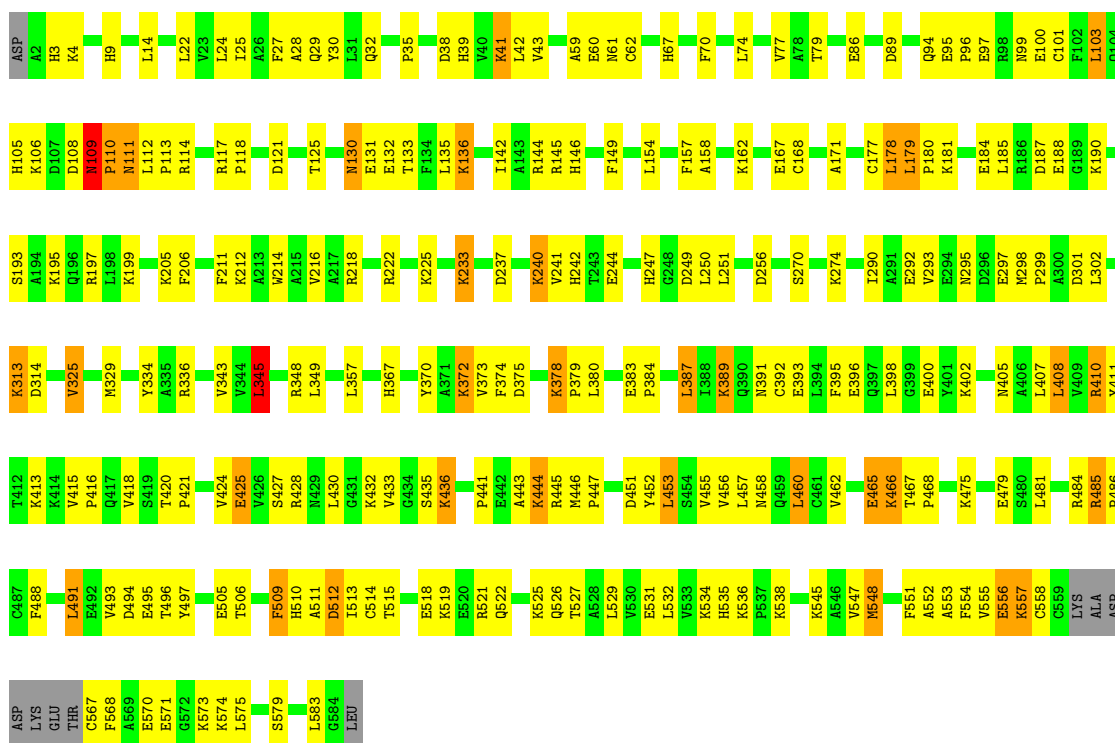
<b>Mol</b>	<b>Chain</b>	<b>Residues</b>	<b>Atoms</b>		<b>ZeroOcc</b>	<b>AltConf</b>
4	A	135	Total 135	O 135	0	0
4	B	139	Total 139	O 139	0	0

### 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.

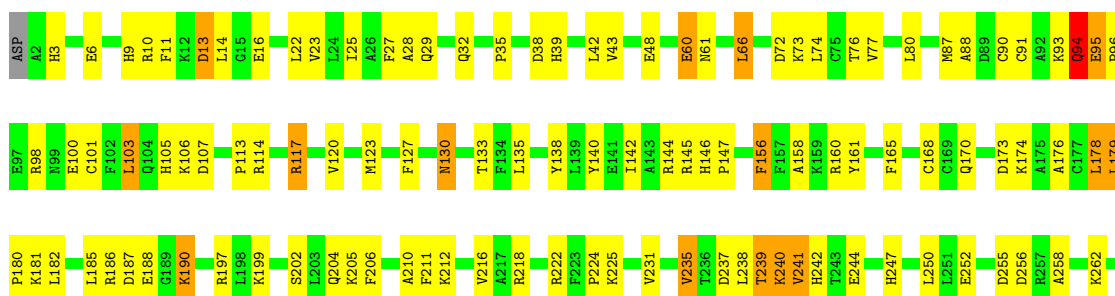
- Molecule 1: Serum albumin

Chain A: 



- Molecule 1: Serum albumin

Chain B: 



K274	L275	K276	E280	K281	P282	L283	L284	E285	K286	L290	A291	E294	N295	D296	E297	M298	P299	L302	S312	K313	D314	V315	Y334	R337	Y341	S342	L345	L346	L347	R348	K351	T352	Y353	T356	L357	A371	K372	V373	F374	D375	K378	P379	L380	V381	E382	E383							
P384	Q385	N386	L387	Q390	N391	L394	Q397	L398	Y401	R402	F403	Q404	N405	A406	L407	L408	V409	R410	K413	K414	V415	P416	Q417	V418	S419	T420	P421	T422	L423	V424	E425	V426	S427	R428	L430	V433	G434	S435	K439	H440	P441	K444	R445	M446	P447	C448	A449	E450	I451	Y452			
L453	S454	V455	V456	L457	N458	Q459	L460	C461	V462	K466	T467	P468	V469	R472	L481	V482	M483	R484	R485	P486	C487	F488	L491	E492	V493	T494	E495	T496	V497	P499	K500	E501	F502	E505	T506	F507	T508	F509	H510	A511	D512	I513	C514	T515	L516	S517	E518	K519	E520	R521	Q522	I523	K524
K525	Q526	E531	L532	V533	K534	H535	K536	P537	K538	K541	K545	A546	V547	R548	D549	B550	F551	A552	A553	F554	V555	E556	K557	C558	C559	LYS	ALA	ASP	ASP	LYS	GLU	THR	C567	F568	A569	E570	E571	G572	K573	K574	L575	V576	Q580	L583	G584	LEU							



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	38.06Å 92.05Å 94.66Å 74.80° 89.53° 80.21°	Depositor
Resolution (Å)	35.00 – 2.19 35.00 – 2.19	Depositor EDS
% Data completeness (in resolution range)	91.3 (35.00-2.19) 81.3 (35.00-2.19)	Depositor EDS
$R_{merge}$	0.07	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	6.55 (at 2.20Å)	Xtrriage
Refinement program	REFMAC 5.5.0066	Depositor
R, $R_{free}$	0.229 , 0.291 0.240 , 0.270	Depositor DCC
$R_{free}$ test set	2871 reflections (5.14%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	34.0	Xtrriage
Anisotropy	0.098	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.33 , 35.1	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.49$ , $\langle L^2 \rangle = 0.32$	Xtrriage
Estimated twinning fraction	0.095 for h,h-k,-l	Xtrriage
$F_o, F_c$ correlation	0.93	EDS
Total number of atoms	9690	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	30.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.06% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical 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.

## 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: MYR, PJ2

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	0.91	1/4669 (0.0%)	0.91	4/6297 (0.1%)
1	B	0.89	4/4669 (0.1%)	0.88	3/6297 (0.0%)
All	All	0.90	5/9338 (0.1%)	0.89	7/12594 (0.1%)

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	325	VAL	CB-CG2	5.47	1.64	1.52
1	B	371	ALA	CA-CB	5.46	1.64	1.52
1	B	348	ARG	C-N	-5.35	1.21	1.34
1	B	341	TYR	CD1-CE1	5.20	1.47	1.39
1	B	91	CYS	CB-SG	-5.18	1.73	1.81

All (7) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	171	ALA	N-CA-C	5.90	126.94	111.00
1	A	336	ARG	NE-CZ-NH2	-5.87	117.36	120.30
1	A	171	ALA	N-CA-CB	-5.80	101.98	110.10
1	B	42	LEU	CA-CB-CG	5.62	128.22	115.30
1	A	345	LEU	CB-CG-CD2	5.44	120.24	111.00
1	B	472	ARG	NE-CZ-NH2	-5.29	117.66	120.30
1	B	106	LYS	CB-CA-C	-5.25	99.90	110.40

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	4580	0	4504	330	0
1	B	4580	0	4503	354	0
2	A	92	0	155	30	0
2	B	92	0	155	40	0
3	A	48	0	58	40	0
3	B	24	0	28	26	0
4	A	135	0	0	10	0
4	B	139	0	0	15	0
All	All	9690	0	9403	707	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 38.

All (707) 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:146:HIS:CE1	3:A:1012:PJ2:HAI	1.39	1.57
1:A:146:HIS:NE2	3:A:1012:PJ2:CAI	1.71	1.50
1:A:146:HIS:CE1	3:A:1012:PJ2:CAI	2.01	1.40
1:A:142:ILE:CD1	3:A:1011:PJ2:HAAA	1.53	1.35
1:B:117:ARG:HD2	3:B:1011:PJ2:CAH	1.59	1.32
1:B:117:ARG:CG	3:B:1011:PJ2:HAH	1.61	1.30
1:B:117:ARG:CD	3:B:1011:PJ2:HAH	1.60	1.29
3:A:1011:PJ2:CAP	3:A:1012:PJ2:OAC	1.80	1.26
3:A:1011:PJ2:HAP	3:A:1012:PJ2:OAC	1.07	1.20
1:A:142:ILE:HD13	3:A:1011:PJ2:CAA	1.73	1.19
3:A:1012:PJ2:HALA	3:A:1012:PJ2:OAD	1.44	1.15
1:B:117:ARG:CD	3:B:1011:PJ2:CAH	2.21	1.14
1:B:117:ARG:HG3	3:B:1011:PJ2:HAH	1.27	1.14
1:A:556:GLU:HB3	1:A:557:LYS:CE	1.79	1.12
1:B:505:GLU:O	1:B:508:THR:HG22	1.46	1.12
1:A:114:ARG:HD2	3:A:1012:PJ2:HAAB	1.31	1.12
1:B:460:LEU:HD21	2:B:1004:MYR:H131	1.20	1.11
1:B:298:MET:CE	1:B:337:ARG:HA	1.80	1.10
1:A:443:ALA:O	1:A:444:LYS:HE2	1.51	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:425:GLU:OE1	1:A:425:GLU:CA	1.99	1.08
1:B:430:LEU:O	1:B:433:VAL:HG12	1.51	1.08
1:B:210:ALA:HB1	2:B:1006:MYR:H121	1.13	1.07
1:A:485:ARG:HD2	2:A:1003:MYR:H32	1.35	1.06
1:B:274:LYS:HE3	1:B:294:GLU:OE2	1.56	1.06
1:A:556:GLU:HB3	1:A:557:LYS:HE3	1.11	1.05
1:A:458:ASN:HA	1:A:484:ARG:NH1	1.71	1.05
1:A:547:VAL:HG21	1:A:583:LEU:HD11	1.39	1.05
1:B:557:LYS:HD2	1:B:557:LYS:O	1.55	1.05
1:A:466:LYS:HE3	1:A:466:LYS:HA	1.31	1.04
1:B:13:ASP:C	1:B:13:ASP:OD2	1.96	1.04
1:B:117:ARG:HD2	3:B:1011:PJ2:HAH	1.19	1.04
1:A:481:LEU:HD12	1:A:481:LEU:O	1.56	1.03
1:B:35:PRO:HG2	1:B:38:ASP:OD1	1.58	1.03
1:B:348:ARG:HD3	4:B:710:HOH:O	1.56	1.03
1:B:394:LEU:O	1:B:394:LEU:HD23	1.56	1.03
1:B:567:CYS:HB2	1:B:571:GLU:CG	1.90	1.02
1:A:205:LYS:NZ	1:A:206:PHE:CE2	2.28	1.01
1:A:211:PHE:CE1	1:A:242:HIS:CD2	2.49	1.00
1:A:556:GLU:OE1	1:A:556:GLU:HA	1.58	1.00
1:B:394:LEU:HD21	1:B:398:LEU:HD22	1.42	1.00
3:A:1011:PJ2:HAP	3:A:1012:PJ2:CAU	1.91	1.00
1:A:108:ASP:C	1:A:110:PRO:CD	2.30	0.99
1:A:108:ASP:C	1:A:110:PRO:HD3	1.82	0.99
1:B:551:PHE:O	1:B:554:PHE:HB3	1.62	0.99
1:A:142:ILE:HD13	3:A:1011:PJ2:HAAA	0.99	0.98
1:A:556:GLU:CB	1:A:557:LYS:HE3	1.92	0.98
1:A:444:LYS:HE3	4:A:648:HOH:O	1.64	0.97
1:A:146:HIS:NE2	3:A:1012:PJ2:CAH	2.28	0.97
1:B:117:ARG:CG	3:B:1011:PJ2:CAH	2.44	0.96
3:B:1011:PJ2:HAOA	3:B:1011:PJ2:OAE	1.63	0.95
1:B:199:LYS:HG2	1:B:242:HIS:NE2	1.81	0.95
1:B:117:ARG:HH11	1:B:179:LEU:HG	1.30	0.95
1:A:110:PRO:O	1:A:111:ASN:HB2	1.66	0.95
1:B:298:MET:HE1	1:B:337:ARG:HA	1.48	0.95
1:A:218:ARG:NH1	1:A:222:ARG:HE	1.65	0.94
1:A:552:ALA:HA	1:A:555:VAL:CG2	1.97	0.94
1:B:173:ASP:HB3	1:B:176:ALA:CB	1.96	0.94
1:A:525:LYS:HE2	2:A:1005:MYR:O2	1.66	0.94
1:A:108:ASP:O	1:A:110:PRO:HD2	1.68	0.94
1:A:251:LEU:HD21	2:A:1002:MYR:H112	1.48	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:415:VAL:HG23	1:A:415:VAL:O	1.67	0.94
1:B:391:ASN:HD21	1:B:410:ARG:HH12	1.00	0.94
1:B:567:CYS:HB2	1:B:571:GLU:HG3	1.46	0.94
1:A:391:ASN:HD21	1:A:410:ARG:HH12	1.15	0.94
1:B:210:ALA:HB1	2:B:1006:MYR:C12	1.97	0.94
1:B:210:ALA:CB	2:B:1006:MYR:H121	1.98	0.93
1:A:298:MET:CE	1:A:302:LEU:HD12	1.99	0.93
1:B:298:MET:HE3	1:B:337:ARG:HA	1.52	0.92
1:B:466:LYS:C	1:B:468:PRO:HD3	1.88	0.92
1:B:428:ARG:HH21	1:B:526:GLN:HE22	1.16	0.92
1:B:173:ASP:HB3	1:B:176:ALA:HB3	1.51	0.91
1:A:142:ILE:HG12	3:A:1011:PJ2:HALA	1.51	0.91
1:A:167:GLU:HG2	1:A:181:LYS:HE3	1.49	0.91
1:B:117:ARG:CD	3:B:1011:PJ2:CAI	2.49	0.90
1:B:117:ARG:HD2	3:B:1011:PJ2:CAI	2.02	0.90
1:B:394:LEU:HD23	1:B:394:LEU:C	1.90	0.89
1:B:238:LEU:HD23	1:B:238:LEU:C	1.93	0.89
1:B:382:GLU:HG3	1:B:386:ASN:ND2	1.87	0.88
1:A:425:GLU:OE1	1:A:425:GLU:HA	1.04	0.88
3:A:1011:PJ2:CAR	3:A:1012:PJ2:OAC	2.21	0.88
1:B:95:GLU:HB3	1:B:96:PRO:HD3	1.56	0.88
1:B:460:LEU:HD21	2:B:1004:MYR:C13	2.02	0.88
1:B:511:ALA:HA	1:B:568:PHE:CE1	2.10	0.87
1:A:146:HIS:HE1	3:A:1012:PJ2:HAI	1.05	0.87
1:A:428:ARG:HH22	1:A:522:GLN:HE21	1.21	0.86
1:B:433:VAL:CG1	2:B:1003:MYR:H122	2.05	0.86
1:B:408:LEU:HD21	1:B:526:GLN:HB3	1.54	0.86
1:A:554:PHE:CD2	1:A:575:LEU:CD2	2.58	0.86
1:A:372:LYS:CG	1:A:375:ASP:OD2	2.24	0.85
1:A:142:ILE:HG12	3:A:1011:PJ2:CAL	2.07	0.85
1:B:500:LYS:HE3	1:B:501:GLU:H	1.39	0.85
1:B:551:PHE:CG	2:B:1005:MYR:H72	2.11	0.85
1:A:86:GLU:OE1	1:A:105:HIS:HE1	1.57	0.85
1:B:500:LYS:HE3	1:B:500:LYS:HA	1.58	0.85
1:A:458:ASN:CA	1:A:484:ARG:NH1	2.39	0.84
1:A:112:LEU:HD12	1:A:145:ARG:CG	2.07	0.84
1:B:356:THR:HG21	1:B:373:VAL:HG21	1.60	0.84
1:A:130:ASN:HD22	1:A:130:ASN:C	1.81	0.84
1:A:444:LYS:CE	4:A:648:H0H:O	2.21	0.84
1:A:142:ILE:CD1	3:A:1011:PJ2:CAA	2.44	0.84
1:A:415:VAL:HG21	2:A:1004:MYR:H121	1.59	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:392:CYS:O	1:A:396:GLU:HG3	1.78	0.83
1:B:378:LYS:HB2	1:B:379:PRO:HD3	1.60	0.83
1:A:211:PHE:CZ	1:A:242:HIS:CD2	2.65	0.83
1:A:467:THR:N	1:A:468:PRO:HD3	1.94	0.83
1:B:178:LEU:HD13	1:B:182:LEU:HD11	1.60	0.83
1:A:146:HIS:NE2	3:A:1012:PJ2:CAX	2.41	0.82
1:B:435:SER:O	1:B:439:LYS:HD3	1.79	0.82
1:A:131:GLU:OE1	1:A:162:LYS:HE3	1.80	0.82
1:A:222:ARG:NH2	2:A:1007:MYR:H92	1.95	0.81
1:B:391:ASN:ND2	1:B:410:ARG:HH12	1.78	0.81
1:B:178:LEU:CD1	1:B:182:LEU:HD11	2.10	0.81
1:A:241:VAL:HG22	1:A:256:ASP:HB3	1.63	0.81
1:A:552:ALA:HA	1:A:555:VAL:HG22	1.60	0.80
1:A:158:ALA:HB2	3:A:1011:PJ2:HAO	1.63	0.80
1:B:6:GLU:HG2	4:B:650:HOH:O	1.80	0.80
1:B:178:LEU:HD13	1:B:182:LEU:CD1	2.11	0.80
1:A:94:GLN:HE21	1:A:94:GLN:HA	1.45	0.80
1:A:95:GLU:OE1	1:A:99:ASN:HB2	1.82	0.80
1:B:117:ARG:HG3	3:B:1011:PJ2:CAH	2.07	0.79
3:B:1011:PJ2:OAE	3:B:1011:PJ2:CAO	2.29	0.79
1:B:291:ALA:HA	2:B:1007:MYR:H102	1.63	0.79
1:B:394:LEU:CD2	1:B:398:LEU:HD22	2.12	0.79
1:A:418:VAL:HG21	2:A:1004:MYR:H142	1.64	0.79
1:B:117:ARG:HD3	3:B:1011:PJ2:HAI	1.65	0.78
1:B:138:TYR:CD2	3:B:1011:PJ2:HAW	2.18	0.78
1:A:556:GLU:OE1	1:A:556:GLU:CA	2.30	0.78
1:A:205:LYS:NZ	1:A:206:PHE:CZ	2.50	0.78
1:B:502:PHE:HB2	1:B:535:HIS:CE1	2.18	0.78
1:A:400:GLU:OE2	1:A:435:SER:CB	2.32	0.78
1:B:567:CYS:HB2	1:B:571:GLU:HG2	1.65	0.78
1:B:500:LYS:HE3	1:B:501:GLU:N	1.97	0.78
1:A:389:LYS:O	1:A:393:GLU:HG3	1.83	0.77
1:B:298:MET:HE1	1:B:337:ARG:CA	2.14	0.77
1:B:466:LYS:O	1:B:468:PRO:HD3	1.82	0.77
1:A:112:LEU:HD12	1:A:145:ARG:HG3	1.66	0.77
1:A:432:LYS:O	1:A:436:LYS:HG2	1.85	0.77
1:B:244:GLU:HG3	1:B:256:ASP:OD1	1.84	0.77
1:A:554:PHE:CD2	1:A:575:LEU:HD22	2.18	0.77
1:B:391:ASN:HD21	1:B:410:ARG:NH1	1.81	0.77
1:A:222:ARG:HD3	1:A:295:ASN:ND2	2.00	0.76
1:A:428:ARG:HH21	1:A:526:GLN:HE22	1.33	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:356:THR:HG21	1:B:373:VAL:CG2	2.14	0.76
1:A:233:LYS:HE3	1:A:237:ASP:OD1	1.85	0.76
1:A:553:ALA:O	1:A:557:LYS:HD2	1.85	0.76
1:A:567:CYS:HB2	1:A:571:GLU:HG3	1.68	0.76
3:A:1011:PJ2:HARA	3:A:1012:PJ2:OAC	1.86	0.76
1:A:372:LYS:HG3	1:A:375:ASP:OD2	1.86	0.76
1:B:500:LYS:CE	1:B:501:GLU:N	2.49	0.76
1:A:453:LEU:O	1:A:457:LEU:HG	1.85	0.75
1:A:554:PHE:CG	1:A:575:LEU:HD22	2.21	0.75
1:A:86:GLU:CD	1:A:105:HIS:HE1	1.90	0.75
1:B:440:HIS:HB3	1:B:444:LYS:HB3	1.68	0.75
1:B:537:PRO:HG2	1:B:538:LYS:HD3	1.67	0.75
1:B:394:LEU:C	1:B:394:LEU:CD2	2.54	0.75
1:A:408:LEU:HD13	1:A:427:SER:OG	1.86	0.74
1:B:117:ARG:NH1	1:B:179:LEU:HG	2.02	0.74
3:A:1012:PJ2:OAD	3:A:1012:PJ2:CAL	2.30	0.74
1:B:500:LYS:CE	1:B:501:GLU:H	2.00	0.74
1:A:142:ILE:CG1	3:A:1011:PJ2:HALA	2.18	0.74
1:B:394:LEU:HD21	1:B:398:LEU:CD2	2.16	0.74
1:A:458:ASN:HA	1:A:484:ARG:HH12	1.53	0.74
1:A:552:ALA:O	1:A:556:GLU:HB2	1.87	0.74
1:B:95:GLU:CB	1:B:96:PRO:HD3	2.17	0.74
1:A:108:ASP:O	1:A:110:PRO:CD	2.31	0.73
1:B:74:LEU:O	1:B:77:VAL:HG22	1.88	0.73
1:A:485:ARG:HD3	2:A:1003:MYR:O1	1.88	0.73
1:A:372:LYS:HG2	1:A:375:ASP:OD2	1.88	0.73
1:A:109:ASN:O	1:A:111:ASN:N	2.22	0.73
1:A:35:PRO:HD2	1:A:38:ASP:OD1	1.88	0.73
1:B:518:GLU:O	1:B:522:GLN:HG2	1.87	0.72
1:B:428:ARG:HH21	1:B:526:GLN:NE2	1.86	0.72
1:B:94:GLN:HA	1:B:94:GLN:HE21	1.53	0.72
1:B:222:ARG:HD3	1:B:295:ASN:ND2	2.05	0.72
1:A:391:ASN:ND2	1:A:410:ARG:HH12	1.86	0.72
1:B:222:ARG:HD3	1:B:295:ASN:HD22	1.52	0.72
1:B:274:LYS:CE	1:B:294:GLU:OE2	2.36	0.72
1:A:112:LEU:HD12	1:A:145:ARG:HG2	1.72	0.72
1:B:518:GLU:HA	1:B:518:GLU:OE2	1.90	0.71
1:A:552:ALA:CA	1:A:555:VAL:HG22	2.20	0.71
1:B:488:PHE:HA	1:B:491:LEU:CD2	2.21	0.71
1:A:222:ARG:HD3	1:A:295:ASN:HD22	1.56	0.71
1:B:173:ASP:HB3	1:B:176:ALA:HB2	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:347:LEU:HD13	2:B:1006:MYR:H131	1.71	0.71
3:A:1012:PJ2:HAM	3:A:1012:PJ2:HANA	1.74	0.70
1:B:466:LYS:O	1:B:468:PRO:CD	2.40	0.70
1:A:108:ASP:C	1:A:110:PRO:HD2	2.06	0.70
1:A:400:GLU:OE2	1:A:435:SER:HB2	1.91	0.70
1:B:509:PHE:HD2	1:B:524:LYS:HZ1	1.39	0.70
1:A:488:PHE:HB3	2:A:1004:MYR:H72	1.74	0.69
1:A:513:ILE:HG12	1:A:521:ARG:HG3	1.73	0.69
1:B:174:LYS:HE2	4:B:701:HOH:O	1.91	0.69
1:B:77:VAL:CG2	1:B:80:LEU:HD13	2.22	0.69
1:A:112:LEU:CD1	1:A:145:ARG:HG3	2.21	0.69
1:B:238:LEU:HD23	1:B:238:LEU:O	1.92	0.69
1:A:430:LEU:O	1:A:433:VAL:CG1	2.41	0.69
1:A:481:LEU:O	1:A:481:LEU:CD1	2.40	0.69
1:A:485:ARG:CD	2:A:1003:MYR:H32	2.18	0.69
1:A:521:ARG:O	1:A:525:LYS:HG3	1.93	0.69
1:B:187:ASP:O	1:B:190:LYS:HB3	1.92	0.69
1:B:554:PHE:O	1:B:558:CYS:HB2	1.91	0.69
1:B:204:GLN:HB3	4:B:645:HOH:O	1.93	0.68
1:B:156:PHE:CZ	1:B:285:GLU:HG2	2.27	0.68
1:B:502:PHE:HB2	1:B:535:HIS:NE2	2.07	0.68
1:A:109:ASN:N	1:A:110:PRO:CD	2.54	0.68
1:A:458:ASN:CA	1:A:484:ARG:HH11	2.05	0.68
1:A:525:LYS:CE	2:A:1005:MYR:O2	2.39	0.68
1:A:430:LEU:HA	1:A:433:VAL:HG12	1.73	0.68
1:B:420:THR:HB	1:B:421:PRO:HD3	1.77	0.67
1:B:522:GLN:O	1:B:526:GLN:HG3	1.94	0.67
1:B:382:GLU:HG2	1:B:383:GLU:N	2.06	0.67
1:B:117:ARG:HH11	1:B:179:LEU:CG	2.06	0.67
1:B:408:LEU:HD13	1:B:427:SER:CB	2.25	0.67
1:B:433:VAL:CG1	2:B:1003:MYR:C12	2.72	0.67
1:B:532:LEU:HD11	1:B:583:LEU:HD11	1.76	0.67
1:A:233:LYS:HG2	4:A:599:HOH:O	1.95	0.67
1:A:510:HIS:O	1:A:568:PHE:CE1	2.47	0.67
1:A:86:GLU:CD	1:A:105:HIS:CE1	2.68	0.66
1:B:536:LYS:HD2	1:B:583:LEU:HB3	1.77	0.66
1:A:130:ASN:ND2	1:A:133:THR:H	1.93	0.66
1:A:240:LYS:NZ	1:A:244:GLU:CD	2.49	0.66
1:A:488:PHE:HA	1:A:491:LEU:HD22	1.78	0.66
1:A:551:PHE:O	1:A:555:VAL:HG22	1.94	0.66
1:B:419:SER:HB2	1:B:421:PRO:HD2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:206:PHE:HA	4:A:636:HOH:O	1.96	0.66
1:B:23:VAL:HG22	2:B:1002:MYR:H121	1.78	0.66
1:B:237:ASP:O	1:B:241:VAL:HG13	1.94	0.66
1:B:500:LYS:HE3	1:B:500:LYS:CA	2.26	0.66
1:B:199:LYS:CG	1:B:242:HIS:NE2	2.58	0.66
1:B:13:ASP:OD2	1:B:14:LEU:N	2.29	0.66
1:B:235:VAL:O	1:B:239:THR:HG23	1.94	0.65
1:A:108:ASP:O	1:A:108:ASP:OD1	2.13	0.65
1:B:142:ILE:HD12	3:B:1011:PJ2:HAR	1.77	0.65
1:A:511:ALA:HA	1:A:568:PHE:CZ	2.30	0.65
1:B:509:PHE:HD2	1:B:524:LYS:NZ	1.94	0.65
1:B:567:CYS:CB	1:B:571:GLU:HG2	2.26	0.65
1:A:41:LYS:HE3	1:A:42:LEU:HD23	1.79	0.64
1:B:130:ASN:ND2	1:B:133:THR:H	1.94	0.64
1:B:168:CYS:SG	1:B:181:LYS:HE2	2.37	0.64
1:A:375:ASP:O	1:A:378:LYS:HB2	1.97	0.64
1:B:120:VAL:HG11	1:B:174:LYS:HB3	1.80	0.64
1:A:465:GLU:O	1:A:466:LYS:HB2	1.98	0.64
1:B:174:LYS:CE	4:B:701:HOH:O	2.46	0.64
1:A:552:ALA:HA	1:A:555:VAL:HG21	1.80	0.64
1:A:430:LEU:O	1:A:433:VAL:HG12	1.98	0.64
1:B:513:ILE:HA	1:B:516:LEU:CD2	2.27	0.64
1:B:394:LEU:HD22	1:B:403:PHE:CD1	2.33	0.64
1:B:382:GLU:HG3	1:B:386:ASN:HD21	1.63	0.63
1:B:298:MET:CE	1:B:337:ARG:CA	2.68	0.63
1:B:408:LEU:HD13	1:B:427:SER:HB3	1.80	0.63
1:A:30:TYR:CZ	1:A:106:LYS:HE3	2.33	0.63
1:A:466:LYS:HE3	1:A:466:LYS:CA	2.20	0.63
1:B:27:PHE:C	1:B:39:HIS:HE1	2.01	0.63
1:B:433:VAL:HG13	2:B:1003:MYR:H122	1.78	0.63
1:A:244:GLU:HG3	1:A:256:ASP:OD1	1.99	0.63
1:B:212:LYS:HG2	1:B:239:THR:HG21	1.80	0.63
1:B:117:ARG:HD3	3:B:1011:PJ2:CAI	2.23	0.63
1:A:467:THR:N	1:A:468:PRO:CD	2.62	0.62
1:B:27:PHE:O	1:B:39:HIS:HE1	1.82	0.62
1:B:415:VAL:HG23	1:B:415:VAL:O	1.97	0.62
1:B:348:ARG:CD	4:B:710:HOH:O	2.28	0.62
1:A:556:GLU:CB	1:A:557:LYS:CE	2.65	0.62
1:B:342:SER:OG	1:B:345:LEU:HB2	1.99	0.62
1:B:570:GLU:HA	1:B:573:LYS:HG3	1.81	0.62
1:A:94:GLN:HA	1:A:94:GLN:NE2	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:488:PHE:HA	1:B:491:LEU:HD22	1.82	0.62
1:B:576:VAL:O	1:B:580:GLN:HG3	1.99	0.62
1:B:484:ARG:CB	1:B:484:ARG:HH21	2.12	0.62
1:A:408:LEU:HD13	1:A:427:SER:CB	2.30	0.62
1:B:510:HIS:HB2	1:B:512:ASP:OD1	1.99	0.62
1:A:510:HIS:HB2	1:A:512:ASP:OD2	1.99	0.62
1:B:433:VAL:HG11	2:B:1003:MYR:C12	2.30	0.62
1:A:177:CYS:O	1:A:181:LYS:HG3	2.00	0.61
1:A:216:VAL:HG21	2:A:1006:MYR:O1	2.00	0.61
1:A:509:PHE:CD1	1:A:509:PHE:N	2.66	0.61
1:A:95:GLU:O	1:A:96:PRO:C	2.38	0.61
1:B:77:VAL:HG21	1:B:80:LEU:HD13	1.81	0.61
1:B:556:GLU:CD	1:B:557:LYS:N	2.54	0.61
1:B:13:ASP:OD2	1:B:13:ASP:O	2.18	0.61
1:B:66:LEU:CD1	2:B:1002:MYR:H143	2.30	0.61
1:B:485:ARG:HB3	1:B:486:PRO:HD3	1.82	0.61
1:A:131:GLU:O	1:A:135:LEU:HD22	2.01	0.61
1:B:484:ARG:HH21	1:B:484:ARG:CG	2.13	0.61
1:A:535:HIS:O	1:A:536:LYS:HD3	2.01	0.61
1:A:218:ARG:HH22	1:A:295:ASN:HD21	1.49	0.61
1:A:554:PHE:O	1:A:558:CYS:HB2	2.00	0.61
1:B:95:GLU:CB	1:B:96:PRO:CD	2.79	0.61
1:B:497:TYR:O	1:B:499:PRO:HD3	2.01	0.61
1:B:281:LYS:HB3	1:B:282:PRO:HD2	1.83	0.60
1:B:394:LEU:HD22	1:B:403:PHE:HD1	1.66	0.60
1:A:430:LEU:HA	1:A:433:VAL:CG1	2.31	0.60
1:B:218:ARG:CZ	1:B:222:ARG:HE	2.14	0.60
1:B:218:ARG:HH22	1:B:295:ASN:HD21	1.49	0.60
1:B:238:LEU:C	1:B:238:LEU:CD2	2.70	0.60
1:A:466:LYS:HA	1:A:466:LYS:CE	2.18	0.59
1:A:14:LEU:HD11	2:A:1002:MYR:H72	1.84	0.59
1:B:509:PHE:CD2	1:B:524:LYS:NZ	2.70	0.59
1:A:556:GLU:CG	1:A:557:LYS:HE3	2.32	0.59
1:B:199:LYS:HG2	1:B:242:HIS:CE1	2.36	0.59
1:B:500:LYS:HE2	1:B:501:GLU:N	2.17	0.59
1:A:428:ARG:HH22	1:A:522:GLN:NE2	1.95	0.59
1:B:22:LEU:HD13	2:B:1002:MYR:H72	1.84	0.59
1:B:484:ARG:HH21	1:B:484:ARG:HB2	1.68	0.59
2:A:1004:MYR:C2	2:A:1004:MYR:H61	2.20	0.59
1:B:283:LEU:O	1:B:283:LEU:HD23	2.02	0.59
1:B:459:GLN:O	1:B:459:GLN:HG2	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:353:TYR:O	1:B:356:THR:HG22	2.02	0.59
1:B:66:LEU:HD11	2:B:1002:MYR:H143	1.85	0.59
1:A:372:LYS:HG2	1:A:375:ASP:HB2	1.85	0.59
1:A:458:ASN:CB	1:A:484:ARG:NH1	2.66	0.58
1:A:553:ALA:HA	1:A:557:LYS:NZ	2.18	0.58
1:B:513:ILE:HA	1:B:516:LEU:HD21	1.84	0.58
1:A:481:LEU:HD12	1:A:481:LEU:C	2.17	0.58
1:B:536:LYS:HD2	1:B:583:LEU:O	2.03	0.58
1:B:95:GLU:HB3	1:B:96:PRO:CD	2.30	0.58
1:A:108:ASP:CA	1:A:110:PRO:HD3	2.34	0.58
1:B:127:PHE:CE1	1:B:165:PHE:HB3	2.39	0.58
1:B:387:LEU:HD12	1:B:390:GLN:NE2	2.18	0.58
1:B:378:LYS:CB	1:B:379:PRO:HD3	2.33	0.57
2:A:1004:MYR:H61	2:A:1004:MYR:H22	1.85	0.57
1:A:130:ASN:HD21	1:A:133:THR:H	1.52	0.57
1:A:462:VAL:O	1:A:465:GLU:HG3	2.04	0.57
1:A:485:ARG:HD2	2:A:1003:MYR:C3	2.24	0.57
1:B:204:GLN:OE1	1:B:204:GLN:HA	2.04	0.57
1:A:109:ASN:O	1:A:110:PRO:C	2.41	0.57
1:A:167:GLU:CG	1:A:177:CYS:SG	2.92	0.57
1:A:211:PHE:CE1	1:A:242:HIS:NE2	2.71	0.57
1:A:519:LYS:O	1:A:522:GLN:HB2	2.05	0.57
1:B:160:ARG:NH1	1:B:188:GLU:OE1	2.38	0.57
1:B:179:LEU:CB	1:B:180:PRO:HD3	2.34	0.57
1:A:430:LEU:O	1:A:433:VAL:HG13	2.04	0.57
1:B:235:VAL:O	1:B:239:THR:CG2	2.53	0.57
1:B:567:CYS:CB	1:B:571:GLU:CG	2.75	0.57
1:A:553:ALA:HA	1:A:557:LYS:HZ2	1.70	0.57
1:A:30:TYR:CE2	1:A:106:LYS:HE3	2.40	0.56
1:A:131:GLU:O	1:A:135:LEU:CD2	2.53	0.56
1:A:372:LYS:HG2	1:A:375:ASP:CG	2.26	0.56
1:A:416:PRO:O	1:A:534:LYS:HE2	2.06	0.56
1:B:557:LYS:O	1:B:557:LYS:CD	2.43	0.56
1:A:298:MET:HE1	1:A:302:LEU:HD12	1.82	0.56
1:A:465:GLU:OE2	1:A:466:LYS:HG2	2.06	0.56
1:B:101:CYS:O	1:B:105:HIS:HD2	1.89	0.56
1:A:552:ALA:CA	1:A:555:VAL:CG2	2.76	0.56
1:B:516:LEU:HB3	1:B:520:GLU:HB2	1.87	0.56
1:A:131:GLU:HG2	1:A:135:LEU:CD2	2.35	0.56
1:A:460:LEU:HD11	2:A:1004:MYR:H141	1.88	0.56
1:B:142:ILE:CD1	3:B:1011:PJ2:HAR	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:291:ALA:HA	2:B:1007:MYR:H82	1.88	0.56
1:A:225:LYS:HG2	1:A:299:PRO:HG3	1.88	0.56
1:B:286:LYS:O	1:B:290:ILE:HG13	2.06	0.56
1:A:391:ASN:HD21	1:A:410:ARG:NH1	1.94	0.55
1:B:258:ALA:CB	1:B:283:LEU:HD21	2.36	0.55
1:A:28:ALA:HA	1:A:39:HIS:CE1	2.42	0.55
1:B:10:ARG:NH2	1:B:255:ASP:OD1	2.32	0.55
1:A:199:LYS:HB3	1:A:242:HIS:HE1	1.70	0.55
1:B:433:VAL:HG11	2:B:1003:MYR:H122	1.86	0.55
1:A:167:GLU:HG3	1:A:177:CYS:SG	2.47	0.55
1:B:130:ASN:C	1:B:130:ASN:HD22	2.11	0.55
1:B:557:LYS:HD2	1:B:557:LYS:C	2.25	0.55
1:A:86:GLU:OE1	1:A:105:HIS:CE1	2.50	0.55
3:A:1012:PJ2:HANA	3:A:1012:PJ2:CAM	2.37	0.54
1:B:420:THR:N	1:B:421:PRO:CD	2.70	0.54
1:B:532:LEU:HD13	2:B:1005:MYR:H121	1.87	0.54
1:B:113:PRO:O	1:B:145:ARG:NH1	2.32	0.54
1:A:548:MET:HG2	2:A:1005:MYR:H51	1.88	0.54
3:B:1011:PJ2:OAC	3:B:1011:PJ2:CAN	2.55	0.54
1:A:512:ASP:O	1:A:515:THR:N	2.33	0.54
1:A:557:LYS:HD2	1:A:557:LYS:H	1.72	0.54
1:B:77:VAL:HG23	1:B:80:LEU:HB2	1.88	0.54
1:B:90:CYS:O	1:B:98:ARG:HG3	2.07	0.54
1:B:387:LEU:HD12	1:B:390:GLN:HE21	1.71	0.54
1:B:510:HIS:O	1:B:513:ILE:HG22	2.08	0.54
1:A:400:GLU:OE2	1:A:435:SER:HB3	2.08	0.54
1:B:179:LEU:CB	1:B:180:PRO:CD	2.85	0.54
1:B:383:GLU:OE1	1:B:485:ARG:NH1	2.36	0.54
1:B:179:LEU:HB3	1:B:180:PRO:HD3	1.88	0.54
1:B:511:ALA:CA	1:B:568:PHE:CE1	2.89	0.54
1:B:556:GLU:OE1	1:B:557:LYS:HA	2.08	0.54
1:A:142:ILE:CD1	3:A:1011:PJ2:HALA	2.38	0.54
1:A:60:GLU:O	1:A:61:ASN:HB2	2.08	0.53
1:A:250:LEU:HD23	2:A:1002:MYR:H121	1.89	0.53
1:A:430:LEU:CA	1:A:433:VAL:HG12	2.38	0.53
1:B:101:CYS:O	1:B:105:HIS:CD2	2.61	0.53
1:B:383:GLU:HB3	1:B:384:PRO:HD3	1.89	0.53
1:A:79:THR:HG22	1:B:515:THR:HB	1.89	0.53
1:B:231:VAL:O	1:B:235:VAL:HG13	2.08	0.53
1:B:291:ALA:CA	2:B:1007:MYR:H102	2.37	0.53
1:A:240:LYS:HZ1	1:A:244:GLU:CD	2.10	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:94:GLN:HE21	1:B:94:GLN:CA	2.16	0.53
1:A:157:PHE:CE1	1:A:188:GLU:OE2	2.62	0.53
1:A:458:ASN:N	1:A:484:ARG:HH11	2.06	0.53
1:A:579:SER:O	1:A:583:LEU:HD12	2.09	0.53
1:B:35:PRO:CG	1:B:38:ASP:OD1	2.44	0.53
1:A:177:CYS:SG	1:A:181:LYS:HE2	2.49	0.53
1:A:199:LYS:HB3	1:A:242:HIS:CE1	2.44	0.53
1:A:457:LEU:O	1:A:460:LEU:HB3	2.08	0.53
1:B:173:ASP:O	1:B:176:ALA:N	2.41	0.53
1:B:460:LEU:CD2	2:B:1004:MYR:C14	2.87	0.53
1:A:117:ARG:NH2	1:A:179:LEU:HD12	2.23	0.52
1:B:547:VAL:HA	4:B:622:HOH:O	2.09	0.52
1:A:110:PRO:O	1:A:111:ASN:CB	2.46	0.52
1:A:420:THR:HB	1:A:421:PRO:HD3	1.90	0.52
1:A:131:GLU:OE1	1:A:162:LYS:CE	2.53	0.52
1:B:433:VAL:HG13	2:B:1003:MYR:C12	2.39	0.52
1:A:460:LEU:HD11	2:A:1004:MYR:C14	2.40	0.52
1:A:511:ALA:O	1:A:514:CYS:SG	2.68	0.52
1:A:378:LYS:CB	1:A:379:PRO:HD3	2.40	0.52
1:A:571:GLU:O	1:A:575:LEU:N	2.43	0.52
1:A:553:ALA:O	1:A:557:LYS:CD	2.56	0.52
1:A:380:LEU:O	1:A:384:PRO:HD2	2.11	0.52
1:B:27:PHE:C	1:B:39:HIS:CE1	2.82	0.52
1:A:114:ARG:HD2	3:A:1012:PJ2:CAA	2.21	0.51
1:A:551:PHE:CE2	1:A:555:VAL:HG11	2.45	0.51
1:A:552:ALA:O	1:A:555:VAL:HG23	2.10	0.51
1:B:222:ARG:HA	1:B:295:ASN:HD22	1.75	0.51
1:B:240:LYS:HD2	4:B:661:HOH:O	2.09	0.51
1:A:22:LEU:HD13	2:A:1002:MYR:H71	1.92	0.51
1:A:117:ARG:HG2	1:A:118:PRO:O	2.10	0.51
1:A:551:PHE:CG	2:A:1005:MYR:H72	2.45	0.51
1:B:218:ARG:CZ	1:B:222:ARG:NE	2.73	0.51
1:A:383:GLU:OE1	1:A:387:LEU:HD22	2.10	0.51
1:B:507:PHE:CG	2:B:1005:MYR:H132	2.46	0.51
1:B:114:ARG:HD2	1:B:114:ARG:N	2.25	0.51
1:A:298:MET:HE2	1:A:302:LEU:HD12	1.86	0.51
1:A:458:ASN:CB	1:A:484:ARG:HH12	2.24	0.51
1:B:173:ASP:O	1:B:174:LYS:C	2.49	0.51
1:B:11:PHE:CZ	1:B:16:GLU:HB2	2.45	0.51
1:B:178:LEU:HD13	1:B:182:LEU:HD12	1.89	0.51
1:A:67:HIS:HE1	1:A:249:ASP:OD1	1.94	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:554:PHE:CD2	1:A:575:LEU:HD23	2.43	0.51
1:B:383:GLU:HB3	1:B:384:PRO:CD	2.40	0.51
1:B:485:ARG:HD3	2:B:1003:MYR:O1	2.11	0.51
1:A:372:LYS:HE2	1:A:375:ASP:HB2	1.92	0.51
1:A:413:LYS:HB3	1:A:493:VAL:HG22	1.92	0.51
1:A:420:THR:HG21	1:A:527:THR:HG23	1.92	0.51
1:B:424:VAL:O	1:B:428:ARG:HG3	2.11	0.51
1:A:95:GLU:OE1	1:A:95:GLU:O	2.29	0.50
1:A:571:GLU:O	1:A:574:LYS:N	2.44	0.50
1:B:536:LYS:HG3	1:B:583:LEU:HD13	1.93	0.50
1:A:240:LYS:NZ	1:A:244:GLU:OE1	2.45	0.50
1:B:173:ASP:CB	1:B:176:ALA:HB2	2.40	0.50
1:A:86:GLU:HG3	1:A:105:HIS:CE1	2.46	0.50
1:B:250:LEU:HD12	1:B:250:LEU:O	2.12	0.50
1:B:418:VAL:HG21	2:B:1004:MYR:H121	1.93	0.50
1:B:484:ARG:NH2	4:B:626:HOH:O	2.37	0.50
1:A:222:ARG:NH2	1:A:222:ARG:HG3	2.27	0.50
1:B:28:ALA:HA	1:B:39:HIS:CE1	2.47	0.50
1:B:558:CYS:SG	1:B:567:CYS:O	2.69	0.50
1:A:411:TYR:HB3	2:A:1004:MYR:H112	1.94	0.50
1:B:60:GLU:O	1:B:61:ASN:HB2	2.12	0.50
1:B:553:ALA:O	1:B:557:LYS:HB3	2.11	0.50
1:A:205:LYS:NZ	1:A:205:LYS:HB3	2.26	0.50
1:B:449:ALA:O	1:B:453:LEU:HB2	2.11	0.50
1:B:509:PHE:CE1	1:B:551:PHE:HE1	2.30	0.50
1:B:555:VAL:HG23	1:B:556:GLU:N	2.26	0.50
1:A:372:LYS:HG2	1:A:375:ASP:CB	2.42	0.49
1:A:444:LYS:HE2	4:A:648:HOH:O	2.00	0.49
1:A:466:LYS:C	1:A:468:PRO:HD3	2.32	0.49
1:A:554:PHE:CB	1:A:575:LEU:HD22	2.42	0.49
1:B:250:LEU:HD12	1:B:250:LEU:C	2.31	0.49
1:A:373:VAL:HG13	1:A:374:PHE:HD1	1.78	0.49
1:B:123:MET:SD	3:B:1011:PJ2:OAC	2.69	0.49
1:A:416:PRO:HB2	1:A:497:TYR:CE2	2.47	0.49
1:B:433:VAL:HG13	1:B:434:GLY:N	2.27	0.49
1:A:548:MET:HG2	2:A:1005:MYR:C5	2.42	0.49
1:A:556:GLU:HB3	1:A:557:LYS:CD	2.41	0.49
1:B:258:ALA:HB1	1:B:283:LEU:HD21	1.94	0.49
1:B:281:LYS:HB3	1:B:282:PRO:CD	2.43	0.49
1:B:500:LYS:CE	1:B:500:LYS:CA	2.91	0.49
1:B:298:MET:HE1	1:B:337:ARG:CB	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:86:GLU:O	1:A:89:ASP:HB2	2.13	0.49
1:A:142:ILE:HD11	3:A:1011:PJ2:HAAA	1.77	0.48
1:B:551:PHE:CD2	2:B:1005:MYR:H72	2.48	0.48
3:B:1011:PJ2:OAC	3:B:1011:PJ2:HAN	2.14	0.48
1:B:458:ASN:O	1:B:462:VAL:HG23	2.13	0.48
1:B:555:VAL:CG2	1:B:556:GLU:N	2.77	0.48
1:B:130:ASN:HD22	1:B:133:THR:H	1.59	0.48
1:B:453:LEU:O	1:B:457:LEU:HG	2.14	0.48
1:A:452:TYR:O	1:A:456:VAL:HG23	2.13	0.48
1:A:167:GLU:HG2	1:A:177:CYS:SG	2.53	0.48
1:A:411:TYR:O	1:A:415:VAL:HG22	2.13	0.48
1:A:415:VAL:CG2	2:A:1004:MYR:H121	2.39	0.48
1:B:312:SER:O	1:B:315:VAL:HG23	2.14	0.48
1:B:446:MET:N	1:B:447:PRO:CD	2.77	0.48
1:B:467:THR:N	1:B:468:PRO:HD3	2.25	0.48
1:A:132:GLU:O	1:A:136:LYS:HB2	2.13	0.48
1:B:205:LYS:HG2	1:B:206:PHE:CE2	2.49	0.48
1:B:481:LEU:HD23	2:B:1006:MYR:H143	1.95	0.48
1:A:552:ALA:C	1:A:555:VAL:HG22	2.35	0.48
1:B:405:ASN:N	1:B:405:ASN:HD22	2.11	0.48
1:B:460:LEU:HD21	2:B:1004:MYR:C14	2.43	0.48
1:A:408:LEU:HD11	1:A:424:VAL:HA	1.96	0.47
1:B:356:THR:HG21	1:B:373:VAL:HG23	1.95	0.47
3:A:1012:PJ2:HAM	3:A:1012:PJ2:HAS	1.95	0.47
1:A:117:ARG:NH2	1:A:179:LEU:CD1	2.77	0.47
1:B:353:TYR:O	1:B:356:THR:CG2	2.62	0.47
1:A:130:ASN:C	1:A:130:ASN:ND2	2.55	0.47
1:A:218:ARG:NH1	1:A:222:ARG:NE	2.47	0.47
1:B:212:LYS:O	1:B:216:VAL:HG23	2.13	0.47
1:B:294:GLU:HB2	4:B:700:HOH:O	2.14	0.47
1:B:380:LEU:O	1:B:384:PRO:HD2	2.13	0.47
1:B:146:HIS:N	1:B:147:PRO:CD	2.78	0.47
1:B:378:LYS:CB	1:B:379:PRO:CD	2.93	0.47
1:B:433:VAL:HG11	2:B:1003:MYR:H121	1.94	0.47
1:B:536:LYS:HE2	4:B:687:HOH:O	2.14	0.47
1:A:405:ASN:ND2	1:A:526:GLN:HG2	2.30	0.47
1:A:485:ARG:HB3	1:A:486:PRO:HD3	1.96	0.47
1:B:117:ARG:CD	3:B:1011:PJ2:HAI	2.24	0.47
1:B:423:LEU:O	1:B:427:SER:HB2	2.13	0.47
1:B:546:ALA:HA	1:B:549:ASP:HB2	1.97	0.47
1:A:177:CYS:SG	1:A:181:LYS:CE	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:142:ILE:HG23	3:A:1011:PJ2:HAPA	1.97	0.47
1:A:222:ARG:HG3	1:A:222:ARG:HH21	1.80	0.47
1:A:372:LYS:HG2	1:A:372:LYS:O	2.15	0.47
1:B:100:GLU:OE2	1:B:247:HIS:HE1	1.97	0.47
1:B:485:ARG:N	1:B:486:PRO:HD2	2.30	0.47
1:A:86:GLU:CG	1:A:105:HIS:CE1	2.98	0.47
1:A:142:ILE:HG12	3:A:1011:PJ2:CAP	2.45	0.47
1:A:494:ASP:OD1	1:A:496:THR:N	2.44	0.47
1:B:224:PRO:HD2	1:B:296:ASP:HB3	1.96	0.47
1:B:513:ILE:O	1:B:516:LEU:HD22	2.15	0.47
1:A:103:LEU:HD12	1:A:103:LEU:HA	1.67	0.46
1:B:6:GLU:HG3	1:B:66:LEU:HD23	1.96	0.46
1:B:161:TYR:OH	3:B:1011:PJ2:HAP	2.16	0.46
1:B:382:GLU:CG	1:B:386:ASN:ND2	2.70	0.46
1:B:426:VAL:HG23	1:B:427:SER:N	2.30	0.46
1:B:485:ARG:N	1:B:486:PRO:CD	2.77	0.46
1:A:458:ASN:CA	1:A:484:ARG:HH12	2.19	0.46
3:A:1011:PJ2:HAK	3:A:1011:PJ2:HAS	1.11	0.46
1:A:545:LYS:HE3	1:A:545:LYS:HB2	1.63	0.46
1:B:73:LYS:HD2	1:B:73:LYS:HA	1.77	0.46
1:A:168:CYS:SG	1:A:181:LYS:CE	3.03	0.46
1:A:218:ARG:HH12	1:A:222:ARG:HE	1.56	0.46
1:B:488:PHE:HB3	2:B:1004:MYR:H51	1.97	0.46
1:B:525:LYS:HE2	2:B:1005:MYR:O2	2.15	0.46
1:A:325:VAL:O	1:A:329:MET:HG3	2.15	0.46
1:B:551:PHE:CD1	2:B:1005:MYR:H72	2.49	0.46
1:B:211:PHE:HE2	1:B:238:LEU:CD2	2.29	0.46
1:B:484:ARG:O	1:B:484:ARG:HG2	2.15	0.46
1:A:158:ALA:HA	3:A:1011:PJ2:HASA	1.97	0.46
1:B:94:GLN:CA	1:B:94:GLN:NE2	2.78	0.46
1:B:401:TYR:OH	1:B:525:LYS:HD3	2.16	0.46
1:A:136:LYS:HD2	1:A:136:LYS:HA	1.67	0.45
1:A:557:LYS:HD2	1:A:557:LYS:N	2.30	0.45
1:B:156:PHE:CE2	1:B:285:GLU:HG2	2.52	0.45
1:A:121:ASP:O	1:A:125:THR:OG1	2.20	0.45
1:A:556:GLU:CB	1:A:557:LYS:HZ2	2.29	0.45
3:A:1012:PJ2:HAKA	3:A:1012:PJ2:HASA	1.81	0.45
1:A:131:GLU:HG2	1:A:135:LEU:HD23	1.97	0.45
1:B:3:HIS:CE1	1:B:9:HIS:CE1	3.05	0.45
2:A:1004:MYR:H22	2:A:1004:MYR:C6	2.43	0.45
1:B:186:ARG:O	1:B:190:LYS:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:551:PHE:CG	2:B:1005:MYR:C7	2.94	0.45
1:A:146:HIS:NE2	3:A:1012:PJ2:HAX	2.29	0.45
2:A:1004:MYR:H61	2:A:1004:MYR:H31	1.24	0.45
1:B:178:LEU:HD11	1:B:182:LEU:HD11	1.92	0.45
1:B:95:GLU:HG3	1:B:96:PRO:HD3	1.98	0.45
1:B:505:GLU:OE2	1:B:508:THR:HG21	2.17	0.45
1:B:484:ARG:NH2	1:B:484:ARG:HG3	2.32	0.45
1:A:446:MET:HB3	1:A:447:PRO:HD3	1.99	0.45
1:B:218:ARG:NH2	1:B:222:ARG:HE	2.15	0.45
1:B:416:PRO:HD2	1:B:417:GLN:HE22	1.82	0.45
1:B:179:LEU:HD12	1:B:179:LEU:HA	1.73	0.45
1:A:484:ARG:CZ	4:A:679:HOH:O	2.64	0.44
1:A:505:GLU:OE2	1:A:505:GLU:N	2.50	0.44
1:A:513:ILE:CG1	1:A:521:ARG:HG3	2.44	0.44
2:A:1004:MYR:H111	2:A:1004:MYR:H81	1.43	0.44
1:A:74:LEU:O	1:A:77:VAL:HG13	2.17	0.44
1:A:556:GLU:HG3	1:A:557:LYS:HE3	1.98	0.44
1:B:94:GLN:HA	1:B:94:GLN:NE2	2.27	0.44
1:B:178:LEU:HD22	1:B:182:LEU:HG	1.99	0.44
1:A:222:ARG:HH22	2:A:1007:MYR:H92	1.80	0.44
1:B:95:GLU:CG	1:B:96:PRO:HD3	2.47	0.44
1:B:416:PRO:O	1:B:534:LYS:HE2	2.17	0.44
1:A:130:ASN:ND2	1:A:130:ASN:O	2.49	0.44
1:A:149:PHE:CE2	1:A:193:SER:HB2	2.53	0.44
1:B:466:LYS:O	1:B:468:PRO:HD2	2.16	0.44
1:A:179:LEU:HD13	1:A:179:LEU:HA	1.47	0.44
1:A:432:LYS:O	1:A:436:LYS:CG	2.62	0.44
1:B:66:LEU:HD12	2:B:1002:MYR:H143	1.98	0.44
1:B:428:ARG:NH2	1:B:526:GLN:HE22	1.99	0.44
1:A:177:CYS:O	1:A:181:LYS:HE2	2.18	0.44
1:B:460:LEU:CD2	2:B:1004:MYR:C13	2.87	0.44
1:A:214:TRP:CD1	1:A:343:VAL:HG11	2.53	0.43
1:A:348:ARG:NE	4:A:607:HOH:O	2.43	0.43
1:B:298:MET:HE2	1:B:302:LEU:HD12	1.99	0.43
1:B:525:LYS:HB3	2:B:1005:MYR:C4	2.47	0.43
1:B:555:VAL:O	1:B:559:CYS:SG	2.76	0.43
1:B:158:ALA:HA	3:B:1011:PJ2:HAK	1.99	0.43
1:B:378:LYS:HB2	1:B:379:PRO:CD	2.38	0.43
1:A:441:PRO:O	1:A:445:ARG:HG3	2.18	0.43
1:A:100:GLU:OE1	1:A:247:HIS:HE1	2.01	0.43
1:A:67:HIS:CE1	1:A:249:ASP:OD2	2.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:112:LEU:CD1	1:A:145:ARG:CG	2.84	0.43
1:B:295:ASN:N	4:B:700:HOH:O	2.32	0.43
1:B:484:ARG:CG	1:B:484:ARG:NH2	2.76	0.43
1:A:94:GLN:NE2	1:A:94:GLN:CA	2.79	0.43
1:A:506:THR:CG2	1:A:531:GLU:HG3	2.49	0.43
1:A:521:ARG:HG2	1:A:525:LYS:HD2	2.00	0.43
1:B:23:VAL:HG12	1:B:43:VAL:HG22	2.01	0.43
1:B:401:TYR:OH	2:B:1005:MYR:H32	2.19	0.43
1:A:24:LEU:HB2	1:A:43:VAL:HG21	1.99	0.43
1:A:168:CYS:HB3	1:A:177:CYS:HB3	1.93	0.43
1:A:372:LYS:CE	1:A:375:ASP:HB2	2.48	0.43
2:A:1007:MYR:H102	2:A:1007:MYR:H71	1.38	0.43
1:B:394:LEU:HA	1:B:397:GLN:HG2	2.01	0.43
1:B:484:ARG:HH21	1:B:484:ARG:HG3	1.82	0.43
1:B:506:THR:HG21	1:B:531:GLU:HB3	2.01	0.43
1:A:95:GLU:OE1	1:A:99:ASN:CB	2.60	0.43
1:A:96:PRO:HD2	1:A:97:GLU:OE2	2.19	0.43
1:A:408:LEU:CD1	1:A:427:SER:OG	2.62	0.43
1:B:80:LEU:HD11	1:B:87:MET:CE	2.48	0.43
1:B:455:VAL:O	1:B:456:VAL:C	2.56	0.43
1:A:395:PHE:CD2	1:A:395:PHE:C	2.92	0.43
1:B:138:TYR:HB3	3:B:1011:PJ2:HAQA	2.01	0.43
1:A:112:LEU:HD11	1:A:144:ARG:HG3	2.01	0.43
1:B:76:THR:O	1:B:77:VAL:C	2.58	0.43
1:B:127:PHE:CE1	1:B:165:PHE:CB	3.02	0.43
1:B:117:ARG:HH11	1:B:179:LEU:CD1	2.32	0.42
1:B:258:ALA:HB2	1:B:283:LEU:HD21	2.00	0.42
1:A:178:LEU:C	1:A:180:PRO:HD2	2.40	0.42
1:A:506:THR:HG21	1:A:531:GLU:HB3	2.01	0.42
1:A:538:LYS:N	4:A:649:HOH:O	2.37	0.42
1:B:95:GLU:CD	1:B:95:GLU:C	2.78	0.42
1:B:297:GLU:CD	4:B:639:HOH:O	2.58	0.42
1:B:574:LYS:O	1:B:575:LEU:C	2.57	0.42
1:B:274:LYS:HE2	1:B:295:ASN:O	2.19	0.42
1:B:551:PHE:CD1	2:B:1005:MYR:H92	2.55	0.42
1:A:94:GLN:HE21	1:A:94:GLN:CA	2.14	0.42
1:A:114:ARG:HH21	3:A:1012:PJ2:HAO	1.84	0.42
1:A:187:ASP:OD2	1:A:432:LYS:HE2	2.19	0.42
1:A:345:LEU:HD22	1:A:349:LEU:HG	2.02	0.42
1:A:432:LYS:O	1:A:436:LYS:HD3	2.19	0.42
1:B:557:LYS:HB3	1:B:557:LYS:HE3	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1004:MYR:H52	2:B:1004:MYR:H21	1.12	0.42
1:B:130:ASN:ND2	1:B:133:THR:HB	2.35	0.42
1:A:100:GLU:OE1	1:A:247:HIS:CE1	2.73	0.42
1:A:158:ALA:CB	3:A:1011:PJ2:HAQ	2.49	0.42
3:A:1012:PJ2:CAM	3:A:1012:PJ2:HAS	2.50	0.42
1:B:174:LYS:NZ	4:B:701:HOH:O	2.27	0.42
1:A:32:GLN:O	1:A:144:ARG:HD2	2.20	0.42
1:B:130:ASN:ND2	1:B:133:THR:CB	2.83	0.42
1:B:187:ASP:O	1:B:188:GLU:C	2.58	0.42
1:B:375:ASP:O	1:B:378:LYS:HB2	2.19	0.42
1:B:420:THR:OG1	1:B:531:GLU:OE1	2.32	0.42
1:B:32:GLN:O	1:B:144:ARG:HD2	2.20	0.42
1:B:138:TYR:CB	3:B:1011:PJ2:HAQA	2.50	0.42
1:B:441:PRO:O	1:B:445:ARG:HG3	2.20	0.42
1:A:142:ILE:HD12	3:A:1011:PJ2:HAAA	1.80	0.41
1:A:240:LYS:HG2	4:A:661:HOH:O	2.20	0.41
1:A:430:LEU:C	1:A:433:VAL:HG12	2.40	0.41
1:B:3:HIS:CD2	1:B:9:HIS:CD2	3.08	0.41
1:B:72:ASP:O	1:B:76:THR:HG23	2.20	0.41
1:A:27:PHE:CZ	1:A:70:PHE:CD1	3.08	0.41
1:A:101:CYS:O	1:A:105:HIS:HD2	2.02	0.41
1:A:405:ASN:HD21	1:A:526:GLN:HG2	1.85	0.41
1:B:313:LYS:HB2	1:B:313:LYS:HE3	1.54	0.41
1:A:3:HIS:CD2	1:A:9:HIS:CD2	3.08	0.41
1:A:212:LYS:O	1:A:216:VAL:HG23	2.21	0.41
1:A:274:LYS:NZ	1:A:297:GLU:OE1	2.36	0.41
1:A:383:GLU:HB3	1:A:384:PRO:CD	2.51	0.41
1:B:556:GLU:C	1:B:558:CYS:H	2.23	0.41
1:B:572:GLY:O	1:B:573:LYS:C	2.59	0.41
1:A:114:ARG:CD	3:A:1012:PJ2:HAAB	2.23	0.41
1:A:178:LEU:HD23	1:A:178:LEU:HA	1.87	0.41
1:A:420:THR:O	1:A:424:VAL:HG23	2.20	0.41
1:B:433:VAL:CG1	1:B:434:GLY:N	2.84	0.41
1:A:551:PHE:CD2	1:A:551:PHE:C	2.94	0.41
1:B:211:PHE:CE1	1:B:242:HIS:ND1	2.89	0.41
1:B:403:PHE:O	1:B:407:LEU:HG	2.21	0.41
1:B:525:LYS:HB3	2:B:1005:MYR:H41	2.03	0.41
1:A:27:PHE:C	1:A:39:HIS:HE1	2.23	0.41
1:B:66:LEU:HA	1:B:66:LEU:HD13	1.33	0.41
1:B:94:GLN:HB2	1:B:95:GLU:H	1.63	0.41
1:A:35:PRO:HA	4:A:587:HOH:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:290:ILE:O	1:A:293:VAL:HG12	2.20	0.41
1:A:506:THR:HG23	1:A:531:GLU:HG3	2.02	0.41
1:B:25:ILE:O	1:B:29:GLN:HG3	2.21	0.41
1:A:59:ALA:O	1:A:62:CYS:HB2	2.20	0.41
1:A:211:PHE:CD1	1:A:242:HIS:CD2	3.04	0.41
1:A:402:LYS:HE2	1:A:402:LYS:HB3	1.95	0.41
1:A:525:LYS:NZ	2:A:1005:MYR:O2	2.54	0.41
1:B:3:HIS:NE2	1:B:9:HIS:NE2	2.69	0.41
1:B:103:LEU:HD12	4:B:718:HOH:O	2.21	0.41
1:B:114:ARG:N	1:B:114:ARG:CD	2.84	0.41
1:B:430:LEU:HA	1:B:430:LEU:HD23	1.77	0.41
1:B:570:GLU:C	1:B:572:GLY:N	2.73	0.41
1:A:313:LYS:HG2	1:A:314:ASP:N	2.36	0.41
1:A:415:VAL:O	1:A:415:VAL:CG2	2.42	0.41
1:A:458:ASN:CG	1:A:484:ARG:HH12	2.24	0.41
1:A:512:ASP:O	1:A:513:ILE:C	2.59	0.40
1:A:529:LEU:O	1:A:532:LEU:HB3	2.21	0.40
1:B:537:PRO:HG2	1:B:538:LYS:CD	2.45	0.40
1:A:408:LEU:HD21	1:A:526:GLN:HB3	2.03	0.40
1:B:80:LEU:HD23	1:B:88:ALA:HA	2.04	0.40
1:B:93:LYS:O	1:B:94:GLN:O	2.39	0.40
1:B:138:TYR:CD2	3:B:1011:PJ2:CAW	2.98	0.40
1:B:225:LYS:HG2	1:B:299:PRO:HG3	2.03	0.40
1:B:298:MET:CE	1:B:337:ARG:CG	3.00	0.40
1:A:142:ILE:HD13	3:A:1011:PJ2:HAAB	1.87	0.40
1:A:25:ILE:O	1:A:29:GLN:HG3	2.21	0.40
1:A:179:LEU:N	1:A:180:PRO:HD2	2.36	0.40
1:A:367:HIS:HA	1:A:370:TYR:CE1	2.56	0.40
1:B:127:PHE:CD1	1:B:165:PHE:HB3	2.57	0.40
1:A:113:PRO:O	1:A:114:ARG:C	2.59	0.40
1:A:251:LEU:HD23	1:A:251:LEU:HA	1.77	0.40
1:B:413:LYS:HB3	1:B:493:VAL:HG22	2.03	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	Percentiles	
1	A	572/585 (98%)	532 (93%)	35 (6%)	5 (1%)	14	14
1	B	572/585 (98%)	532 (93%)	35 (6%)	5 (1%)	14	14
All	All	1144/1170 (98%)	1064 (93%)	70 (6%)	10 (1%)	14	14

All (10) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	110	PRO
1	B	94	GLN
1	A	111	ASN
1	B	95	GLU
1	A	479	GLU
1	A	109	ASN
1	A	378	LYS
1	B	378	LYS
1	B	467	THR
1	B	469	VAL

### 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	Percentiles	
1	A	503/511 (98%)	452 (90%)	51 (10%)	6	6
1	B	503/511 (98%)	444 (88%)	59 (12%)	4	4
All	All	1006/1022 (98%)	896 (89%)	110 (11%)	5	5

All (110) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	4	LYS
1	A	41	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	103	LEU
1	A	109	ASN
1	A	130	ASN
1	A	136	LYS
1	A	154	LEU
1	A	178	LEU
1	A	179	LEU
1	A	184	GLU
1	A	185	LEU
1	A	190	LYS
1	A	195	LYS
1	A	197	ARG
1	A	233	LYS
1	A	240	LYS
1	A	270	SER
1	A	292	GLU
1	A	301	ASP
1	A	313	LYS
1	A	334	TYR
1	A	345	LEU
1	A	357	LEU
1	A	372	LYS
1	A	387	LEU
1	A	389	LYS
1	A	398	LEU
1	A	407	LEU
1	A	408	LEU
1	A	410	ARG
1	A	425	GLU
1	A	436	LYS
1	A	444	LYS
1	A	451	ASP
1	A	453	LEU
1	A	455	VAL
1	A	460	LEU
1	A	465	GLU
1	A	466	LYS
1	A	475	LYS
1	A	485	ARG
1	A	491	LEU
1	A	495	GLU
1	A	509	PHE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	512	ASP
1	A	518	GLU
1	A	548	MET
1	A	556	GLU
1	A	557	LYS
1	A	570	GLU
1	A	573	LYS
1	B	13	ASP
1	B	48	GLU
1	B	60	GLU
1	B	66	LEU
1	B	94	GLN
1	B	103	LEU
1	B	107	ASP
1	B	117	ARG
1	B	130	ASN
1	B	135	LEU
1	B	140	TYR
1	B	156	PHE
1	B	170	GLN
1	B	178	LEU
1	B	179	LEU
1	B	185	LEU
1	B	190	LYS
1	B	197	ARG
1	B	202	SER
1	B	235	VAL
1	B	239	THR
1	B	240	LYS
1	B	241	VAL
1	B	252	GLU
1	B	262	LYS
1	B	276	LYS
1	B	280	GLU
1	B	313	LYS
1	B	334	TYR
1	B	345	LEU
1	B	351	LYS
1	B	357	LEU
1	B	382	GLU
1	B	387	LEU
1	B	394	LEU

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Mol	Chain	Res	Type
1	B	398	LEU
1	B	408	LEU
1	B	410	ARG
1	B	413	LYS
1	B	417	GLN
1	B	419	SER
1	B	439	LYS
1	B	451	ASP
1	B	453	LEU
1	B	467	THR
1	B	482	VAL
1	B	484	ARG
1	B	485	ARG
1	B	491	LEU
1	B	495	GLU
1	B	500	LYS
1	B	516	LEU
1	B	518	GLU
1	B	522	GLN
1	B	538	LYS
1	B	541	LYS
1	B	545	LYS
1	B	556	GLU
1	B	557	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (39) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	9	HIS
1	A	39	HIS
1	A	44	ASN
1	A	67	HIS
1	A	94	GLN
1	A	105	HIS
1	A	109	ASN
1	A	128	HIS
1	A	130	ASN
1	A	242	HIS
1	A	247	HIS
1	A	295	ASN
1	A	367	HIS
1	A	385	GLN

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Mol	Chain	Res	Type
1	A	391	ASN
1	A	405	ASN
1	A	417	GLN
1	A	429	ASN
1	A	440	HIS
1	A	522	GLN
1	A	526	GLN
1	A	580	GLN
1	B	39	HIS
1	B	44	ASN
1	B	67	HIS
1	B	94	GLN
1	B	99	ASN
1	B	105	HIS
1	B	128	HIS
1	B	130	ASN
1	B	295	ASN
1	B	385	GLN
1	B	386	ASN
1	B	390	GLN
1	B	391	ASN
1	B	405	ASN
1	B	417	GLN
1	B	429	ASN
1	B	526	GLN

### 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 oligosaccharides in this entry.

## 5.6 Ligand geometry

15 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
2	MYR	A	1005	-	15,15,15	0.51	0	15,15,15	1.55	2 (13%)
2	MYR	A	1007	-	11,11,15	0.35	0	10,10,15	0.73	0
3	PJ2	B	1011	-	21,24,24	2.37	6 (28%)	19,29,29	2.01	7 (36%)
3	PJ2	A	1012	-	21,24,24	2.24	7 (33%)	19,29,29	1.12	2 (10%)
2	MYR	B	1005	-	15,15,15	0.79	0	15,15,15	0.98	1 (6%)
2	MYR	A	1003	-	15,15,15	1.07	1 (6%)	15,15,15	1.55	4 (26%)
2	MYR	B	1006	-	15,15,15	0.85	0	15,15,15	1.07	1 (6%)
2	MYR	B	1002	-	15,15,15	0.62	0	15,15,15	0.82	0
2	MYR	A	1006	-	15,15,15	0.55	0	15,15,15	1.58	4 (26%)
2	MYR	B	1007	-	11,11,15	0.28	0	10,10,15	0.76	0
3	PJ2	A	1011	-	21,24,24	2.64	6 (28%)	19,29,29	2.04	6 (31%)
2	MYR	A	1002	-	15,15,15	0.70	0	15,15,15	0.88	0
2	MYR	B	1003	-	15,15,15	0.84	0	15,15,15	0.92	1 (6%)
2	MYR	A	1004	-	15,15,15	0.75	0	15,15,15	1.83	5 (33%)
2	MYR	B	1004	-	15,15,15	0.45	0	15,15,15	1.89	4 (26%)

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	MYR	A	1005	-	-	5/13/13/13	-
2	MYR	A	1007	-	-	6/9/9/13	-
3	PJ2	B	1011	-	-	8/19/32/32	0/1/1/1
3	PJ2	A	1012	-	-	11/19/32/32	0/1/1/1
2	MYR	B	1005	-	-	7/13/13/13	-
2	MYR	A	1003	-	-	10/13/13/13	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	MYR	B	1006	-	-	4/13/13/13	-
2	MYR	B	1002	-	-	7/13/13/13	-
2	MYR	A	1006	-	-	7/13/13/13	-
2	MYR	B	1007	-	-	6/9/9/13	-
3	PJ2	A	1011	-	-	9/19/32/32	0/1/1/1
2	MYR	A	1002	-	-	8/13/13/13	-
2	MYR	B	1003	-	-	9/13/13/13	-
2	MYR	A	1004	-	-	9/13/13/13	-
2	MYR	B	1004	-	-	7/13/13/13	-

All (20) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	1011	PJ2	CAJ-CAV	6.81	1.41	1.33
3	A	1011	PJ2	CAN-CAJ	-6.16	1.38	1.50
3	A	1012	PJ2	CAN-CAJ	-5.84	1.39	1.50
3	B	1011	PJ2	CAM-CAG	-5.44	1.34	1.50
3	A	1011	PJ2	CAH-CAU	-4.94	1.32	1.46
3	B	1011	PJ2	CAN-CAJ	-4.85	1.41	1.50
3	B	1011	PJ2	CAJ-CAV	4.64	1.39	1.33
3	A	1012	PJ2	CAH-CAU	-4.41	1.33	1.46
3	B	1011	PJ2	CAH-CAU	-4.36	1.33	1.46
3	A	1012	PJ2	CAM-CAG	-4.23	1.37	1.50
3	A	1012	PJ2	CAJ-CAV	3.81	1.38	1.33
3	A	1011	PJ2	CAM-CAG	-3.69	1.39	1.50
2	A	1003	MYR	O2-C1	-2.47	1.22	1.30
3	A	1012	PJ2	CAX-CAV	-2.45	1.49	1.54
3	B	1011	PJ2	OAE-CAW	-2.32	1.36	1.43
3	A	1012	PJ2	CAL-CAF	-2.24	1.37	1.50
3	A	1011	PJ2	CAL-CAF	-2.20	1.38	1.50
3	B	1011	PJ2	CAX-CAV	-2.16	1.50	1.54
3	A	1012	PJ2	OAD-CAT	-2.11	1.23	1.30
3	A	1011	PJ2	CAX-CAV	2.07	1.58	1.54

All (37) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	1011	PJ2	CAN-CAJ-CAV	-5.92	119.12	126.45
3	B	1011	PJ2	CAP-CAR-CAT	-4.93	101.64	114.51
2	B	1004	MYR	O2-C1-C2	4.21	127.29	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	1005	MYR	O2-C1-C2	3.78	125.94	114.00
2	A	1004	MYR	C5-C4-C3	-3.46	96.89	114.37
2	B	1004	MYR	C4-C3-C2	-3.43	100.53	113.13
2	A	1003	MYR	O2-C1-O1	-3.34	114.75	123.33
2	B	1004	MYR	O1-C1-C2	-3.33	112.53	123.09
2	A	1006	MYR	C4-C3-C2	-3.28	101.08	113.13
2	B	1006	MYR	O2-C1-O1	-3.23	115.03	123.33
2	A	1003	MYR	C4-C3-C2	3.20	124.87	113.13
2	A	1004	MYR	C3-C2-C1	-3.17	106.23	114.51
2	A	1004	MYR	C6-C5-C4	-3.05	98.97	114.37
3	A	1011	PJ2	CAI-CAH-CAU	3.04	112.67	109.90
3	B	1011	PJ2	OAB-CAT-CAR	-2.80	114.22	123.09
2	A	1006	MYR	C3-C2-C1	-2.71	107.43	114.51
2	B	1004	MYR	C5-C4-C3	-2.59	101.28	114.37
3	B	1011	PJ2	CAI-CAH-CAU	2.57	112.24	109.90
2	A	1004	MYR	O2-C1-C2	2.56	122.09	114.00
2	A	1004	MYR	O2-C1-O1	-2.47	116.98	123.33
2	A	1006	MYR	O2-C1-C2	2.46	121.76	114.00
2	B	1003	MYR	O2-C1-O1	-2.41	117.13	123.33
3	B	1011	PJ2	CAM-CAG-CAF	-2.40	117.37	126.21
3	B	1011	PJ2	OAE-CAW-CAS	-2.40	102.96	109.35
3	B	1011	PJ2	CAW-CAN-CAJ	-2.37	109.23	113.02
2	A	1005	MYR	O2-C1-O1	-2.36	117.26	123.33
2	A	1003	MYR	C3-C2-C1	-2.31	108.47	114.51
2	B	1005	MYR	O2-C1-O1	-2.27	117.48	123.33
3	A	1011	PJ2	CAO-CAQ-CAS	-2.26	105.11	113.62
3	A	1011	PJ2	CAW-CAN-CAJ	2.26	116.63	113.02
3	A	1011	PJ2	OAC-CAU-CAH	-2.23	123.31	126.74
3	A	1012	PJ2	CAP-CAR-CAT	-2.19	108.79	114.51
3	B	1011	PJ2	CAS-CAW-CAN	2.13	119.90	113.05
2	A	1003	MYR	C6-C5-C4	2.08	124.86	114.37
2	A	1006	MYR	O1-C1-C2	-2.07	116.53	123.09
3	A	1011	PJ2	OAB-CAT-CAR	-2.05	116.60	123.09
3	A	1012	PJ2	OAC-CAU-CAH	-2.01	123.65	126.74

There are no chirality outliers.

All (113) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	1011	PJ2	CAQ-CAS-CAW-CAN
3	A	1012	PJ2	CAJ-CAN-CAW-OAE
3	A	1012	PJ2	CAQ-CAS-CAW-CAN

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Mol	Chain	Res	Type	Atoms
3	B	1011	PJ2	CAG-CAM-CAX-CAI
3	B	1011	PJ2	CAJ-CAN-CAW-OAE
2	A	1004	MYR	C11-C10-C9-C8
3	A	1011	PJ2	CAK-CAO-CAQ-CAS
2	B	1004	MYR	C2-C3-C4-C5
2	A	1007	MYR	C7-C8-C9-C10
3	A	1011	PJ2	CAF-CAL-CAP-CAR
3	B	1011	PJ2	CAL-CAP-CAR-CAT
2	A	1006	MYR	C1-C2-C3-C4
3	A	1011	PJ2	CAL-CAP-CAR-CAT
2	B	1005	MYR	C2-C3-C4-C5
3	A	1012	PJ2	CAL-CAP-CAR-CAT
2	A	1003	MYR	C1-C2-C3-C4
2	B	1005	MYR	C1-C2-C3-C4
3	A	1011	PJ2	CAQ-CAS-CAW-OAE
3	A	1012	PJ2	CAQ-CAS-CAW-OAE
2	A	1005	MYR	C2-C3-C4-C5
2	A	1007	MYR	C2-C3-C4-C5
2	A	1003	MYR	C9-C10-C11-C12
2	A	1005	MYR	C9-C10-C11-C12
2	B	1003	MYR	C7-C8-C9-C10
2	B	1006	MYR	C4-C5-C6-C7
2	B	1007	MYR	C11-C10-C9-C8
2	A	1007	MYR	C11-C10-C9-C8
2	B	1007	MYR	C7-C8-C9-C10
2	B	1003	MYR	C3-C4-C5-C6
2	A	1006	MYR	C6-C7-C8-C9
2	B	1002	MYR	C11-C10-C9-C8
2	B	1002	MYR	C2-C3-C4-C5
2	B	1007	MYR	C4-C5-C6-C7
2	A	1002	MYR	C6-C7-C8-C9
2	A	1002	MYR	C3-C4-C5-C6
2	B	1006	MYR	C5-C6-C7-C8
2	B	1005	MYR	C10-C11-C12-C13
2	A	1007	MYR	C4-C5-C6-C7
2	A	1006	MYR	C2-C3-C4-C5
3	B	1011	PJ2	CAF-CAG-CAM-CAX
2	A	1004	MYR	C1-C2-C3-C4
3	B	1011	PJ2	CAF-CAL-CAP-CAR
2	B	1004	MYR	C5-C6-C7-C8
3	A	1012	PJ2	CAF-CAL-CAP-CAR
2	A	1006	MYR	C9-C10-C11-C12

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Mol	Chain	Res	Type	Atoms
2	B	1006	MYR	C9-C10-C11-C12
2	A	1002	MYR	C9-C10-C11-C12
3	B	1011	PJ2	CAK-CAO-CAQ-CAS
2	B	1003	MYR	C10-C11-C12-C13
3	A	1012	PJ2	CAK-CAO-CAQ-CAS
3	B	1011	PJ2	CAO-CAQ-CAS-CAW
2	A	1002	MYR	C4-C5-C6-C7
2	A	1002	MYR	C10-C11-C12-C13
2	B	1004	MYR	C11-C12-C13-C14
2	B	1003	MYR	C11-C12-C13-C14
3	A	1011	PJ2	CAA-CAK-CAO-CAQ
2	B	1007	MYR	C9-C10-C11-C12
2	B	1005	MYR	C4-C5-C6-C7
2	B	1005	MYR	C9-C10-C11-C12
2	B	1004	MYR	C10-C11-C12-C13
2	A	1005	MYR	C4-C5-C6-C7
2	B	1002	MYR	C6-C7-C8-C9
2	B	1003	MYR	C6-C7-C8-C9
2	A	1006	MYR	C11-C12-C13-C14
2	A	1007	MYR	C6-C7-C8-C9
2	A	1004	MYR	C9-C10-C11-C12
2	B	1007	MYR	C3-C4-C5-C6
2	A	1003	MYR	C11-C12-C13-C14
2	A	1002	MYR	C11-C10-C9-C8
2	A	1005	MYR	C11-C10-C9-C8
2	B	1004	MYR	C6-C7-C8-C9
2	A	1003	MYR	C4-C5-C6-C7
2	B	1004	MYR	C11-C10-C9-C8
2	A	1004	MYR	C11-C12-C13-C14
2	A	1005	MYR	C3-C4-C5-C6
3	A	1012	PJ2	CAJ-CAN-CAW-CAS
3	B	1011	PJ2	CAJ-CAN-CAW-CAS
3	A	1012	PJ2	CAO-CAQ-CAS-CAW
3	A	1011	PJ2	CAF-CAG-CAM-CAX
2	A	1004	MYR	C10-C11-C12-C13
2	A	1003	MYR	C7-C8-C9-C10
2	A	1003	MYR	C10-C11-C12-C13
2	A	1004	MYR	C3-C4-C5-C6
2	A	1002	MYR	C11-C12-C13-C14
2	A	1003	MYR	C3-C4-C5-C6
2	B	1002	MYR	C9-C10-C11-C12
2	B	1003	MYR	C4-C5-C6-C7

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Mol	Chain	Res	Type	Atoms
2	A	1006	MYR	O1-C1-C2-C3
2	A	1002	MYR	C7-C8-C9-C10
3	A	1012	PJ2	CAP-CAR-CAT-OAB
3	A	1011	PJ2	CAP-CAR-CAT-OAD
2	A	1006	MYR	O2-C1-C2-C3
2	B	1002	MYR	O2-C1-C2-C3
3	A	1011	PJ2	CAP-CAR-CAT-OAB
2	B	1007	MYR	C5-C6-C7-C8
3	A	1012	PJ2	CAP-CAR-CAT-OAD
2	A	1004	MYR	O2-C1-C2-C3
2	B	1006	MYR	C10-C11-C12-C13
2	B	1002	MYR	O1-C1-C2-C3
3	A	1012	PJ2	CAG-CAF-CAL-CAP
2	B	1003	MYR	C9-C10-C11-C12
2	B	1004	MYR	C3-C4-C5-C6
2	B	1002	MYR	C11-C12-C13-C14
2	A	1004	MYR	O1-C1-C2-C3
2	B	1003	MYR	O2-C1-C2-C3
2	B	1003	MYR	O1-C1-C2-C3
2	A	1003	MYR	O2-C1-C2-C3
2	A	1004	MYR	C2-C3-C4-C5
2	A	1007	MYR	C3-C4-C5-C6
2	A	1003	MYR	C11-C10-C9-C8
2	A	1003	MYR	C6-C7-C8-C9
2	B	1005	MYR	O1-C1-C2-C3
2	B	1005	MYR	O2-C1-C2-C3

There are no ring outliers.

15 monomers are involved in 136 short contacts:

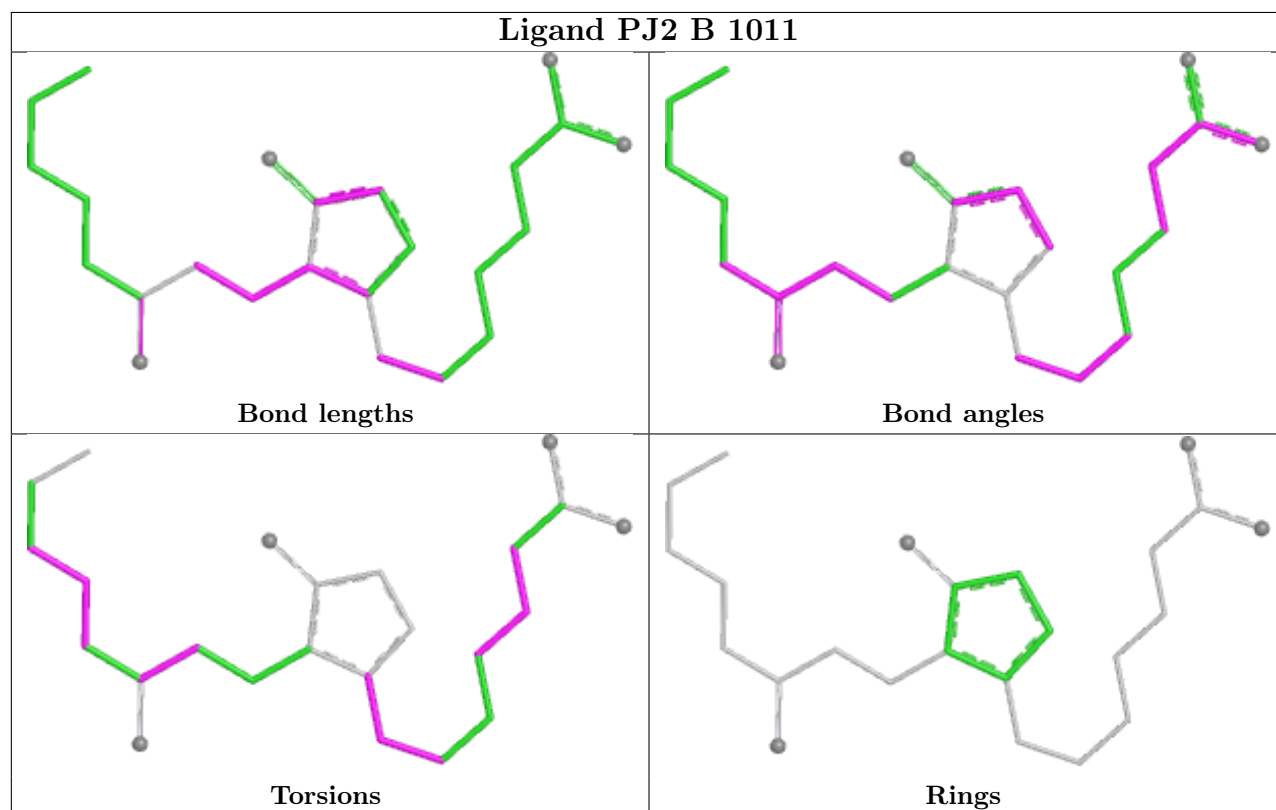
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	1005	MYR	6	0
2	A	1007	MYR	3	0
3	B	1011	PJ2	26	0
3	A	1012	PJ2	23	0
2	B	1005	MYR	11	0
2	A	1003	MYR	4	0
2	B	1006	MYR	5	0
2	B	1002	MYR	5	0
2	A	1006	MYR	1	0
2	B	1007	MYR	3	0
3	A	1011	PJ2	22	0

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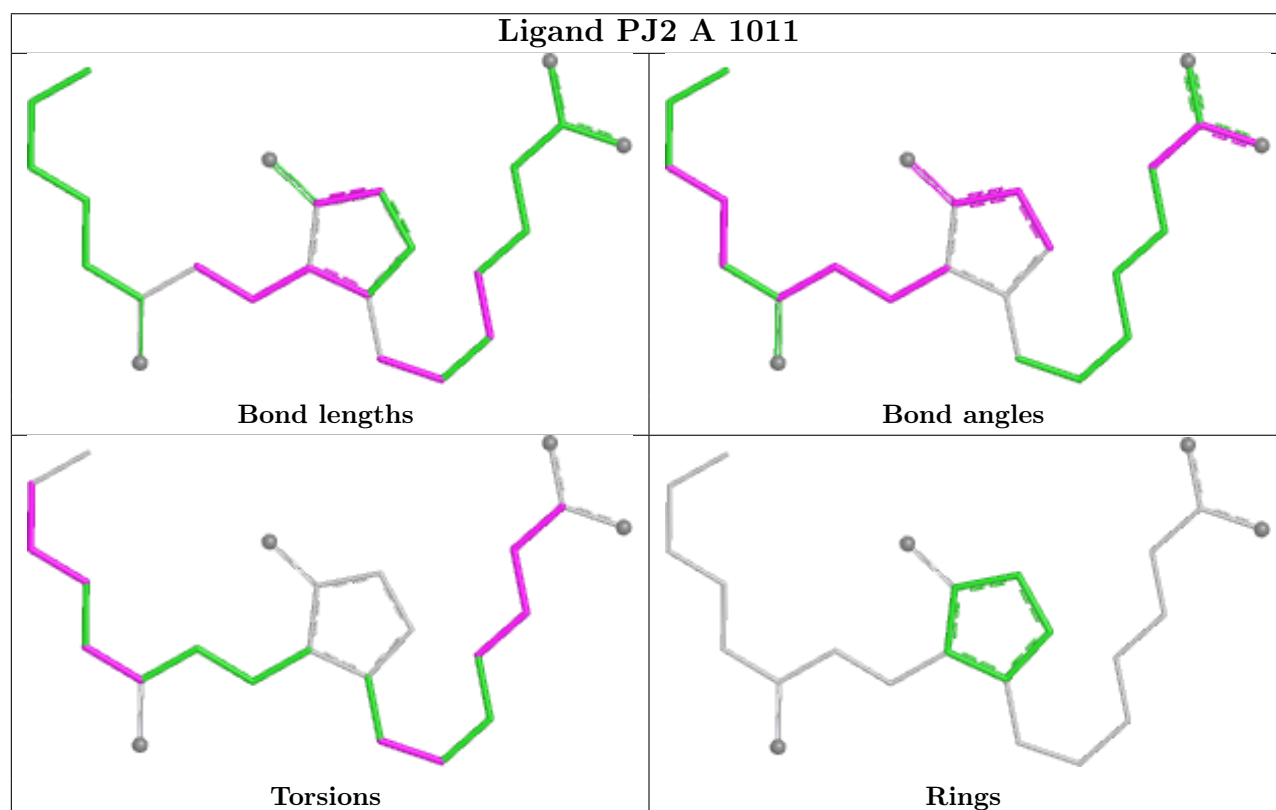
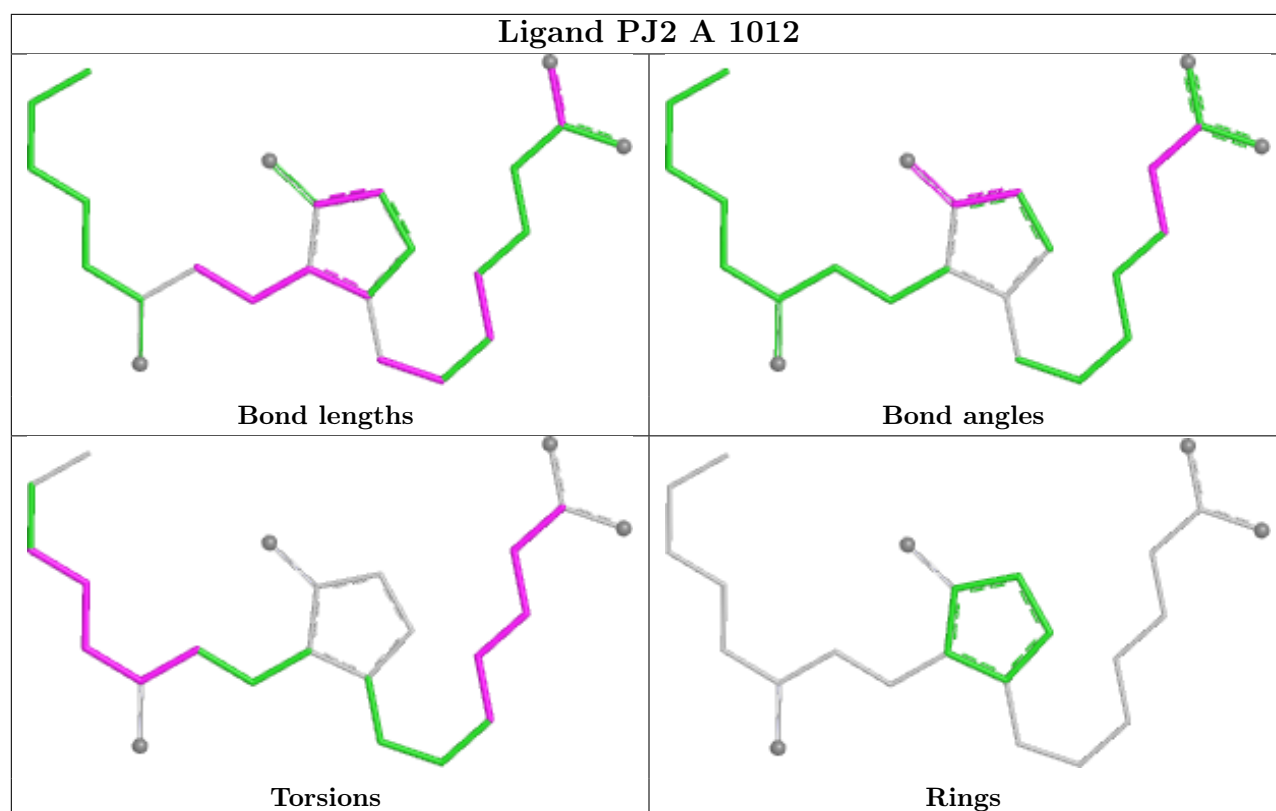
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Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	1002	MYR	4	0
2	B	1003	MYR	8	0
2	A	1004	MYR	12	0
2	B	1004	MYR	8	0

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 than 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<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	A	576/585 (98%)	-0.82	0 100 100	19, 29, 37, 44	0
1	B	576/585 (98%)	-0.85	0 100 100	19, 30, 38, 44	0
All	All	1152/1170 (98%)	-0.84	0 100 100	19, 29, 37, 44	0

There are no RSRZ outliers to report.

### 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<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
2	MYR	A	1007	12/16	0.96	0.07	52,53,55,55	0
2	MYR	B	1005	16/16	0.96	0.07	52,56,56,57	0
3	PJ2	A	1012	24/24	0.96	0.08	65,74,78,79	0
3	PJ2	B	1011	24/24	0.96	0.07	46,61,65,65	0
2	MYR	A	1002	16/16	0.97	0.06	37,48,62,62	0
2	MYR	B	1002	16/16	0.97	0.06	40,49,56,56	0
2	MYR	B	1003	16/16	0.97	0.06	33,40,47,48	0

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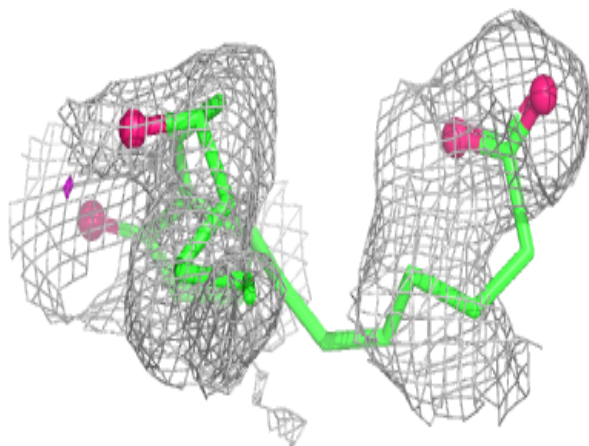
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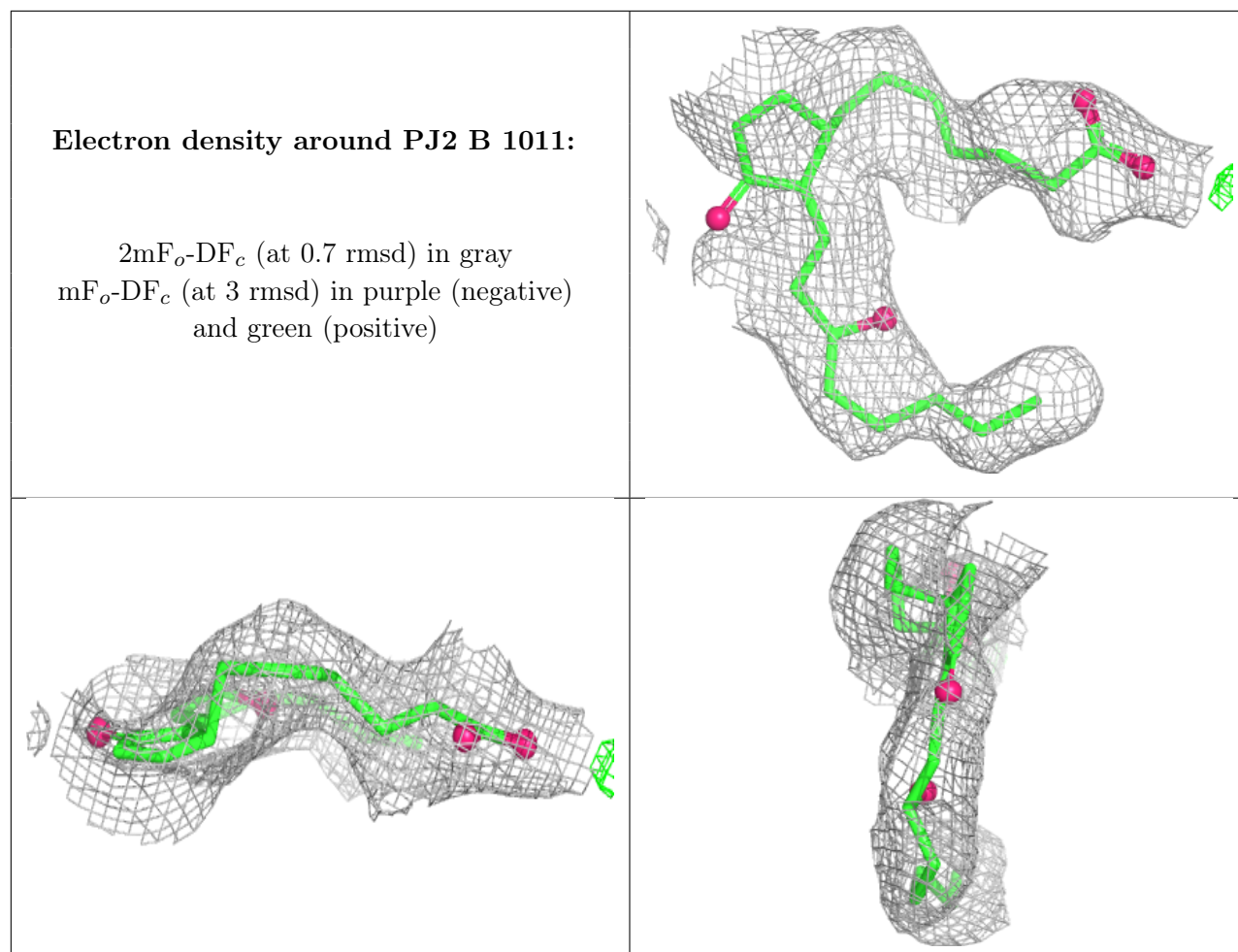
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
2	MYR	B	1004	16/16	0.97	0.07	45,49,53,55	0
2	MYR	A	1003	16/16	0.97	0.07	37,50,58,59	0
2	MYR	B	1006	16/16	0.97	0.07	46,54,57,58	0
2	MYR	B	1007	12/16	0.97	0.06	49,55,59,60	0
3	PJ2	A	1011	24/24	0.97	0.07	50,65,71,72	0
2	MYR	A	1004	16/16	0.97	0.06	43,49,57,58	0
2	MYR	A	1006	16/16	0.97	0.08	44,53,59,60	0
2	MYR	A	1005	16/16	0.98	0.05	43,48,57,59	0

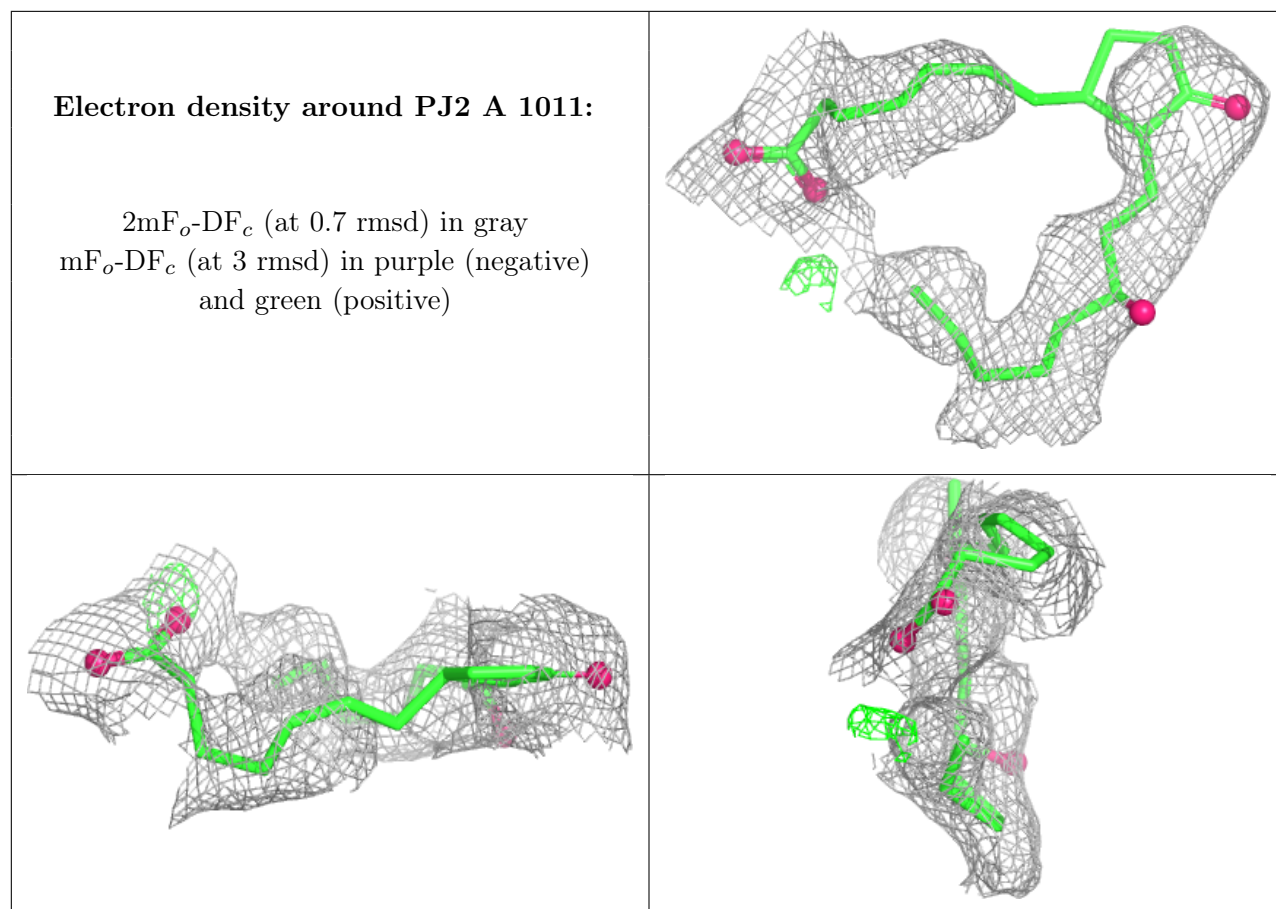
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

**Electron density around PJ2 A 1012:**

$2mF_o-DF_c$  (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.