



Full wwPDB X-ray Structure Validation Report ⓘ

Jan 25, 2024 – 06:08 PM JST

PDB ID : 8ITT
Title : Crystal structure of lysophosphatidylcholine in complex with human serum albumin and myristate
Authors : Wang, Y.; Jiang, L.G.; Huang, M.D.
Deposited on : 2023-03-22
Resolution : 3.03 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 ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.36
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36

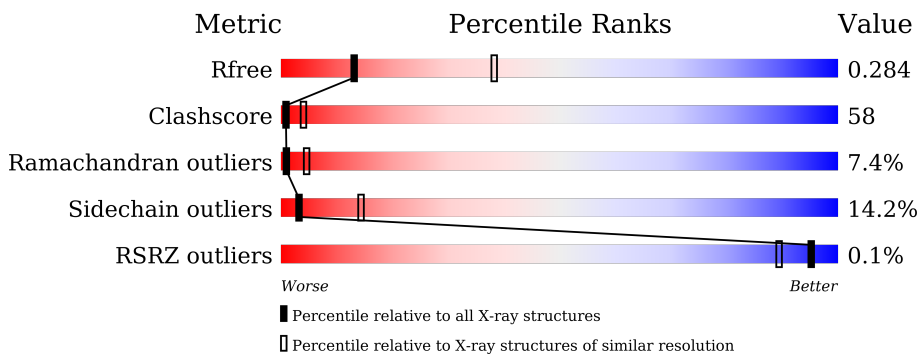
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.03 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}	130704	2752 (3.08-3.00)
Clashscore	141614	3096 (3.08-3.00)
Ramachandran outliers	138981	2986 (3.08-3.00)
Sidechain outliers	138945	2988 (3.08-3.00)
RSRZ outliers	127900	2636 (3.08-3.00)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	580	 37% 46% 14% .
1	B	580	 39% 47% 12% .

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	603	-	-	-	X
2	MYR	B	601	-	-	X	-
2	MYR	B	602	-	-	X	-
3	LPC	A	604	-	-	X	X
3	LPC	A	605	-	-	X	-
3	LPC	A	606	-	-	X	X
3	LPC	B	603	-	-	X	X
3	LPC	B	605	-	-	-	X

2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 9167 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.

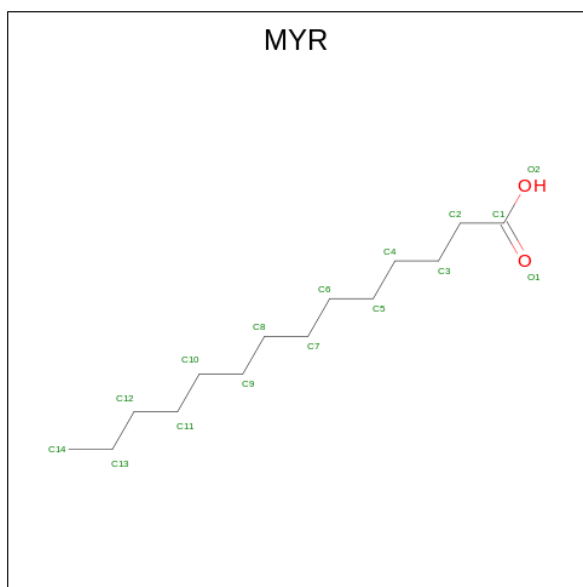
- Molecule 1 is a protein called Albumin.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	579	4443	2808	750	844	41	0	0	0
1	B	579	4442	2807	752	842	41	0	0	0

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	580	GLU	GLN	conflict	UNP P02768
B	580	GLU	GLN	conflict	UNP P02768

- Molecule 2 is MYRISTIC ACID (three-letter code: MYR) (formula: C₁₄H₂₈O₂) (labeled as "Ligand of Interest" by depositor).



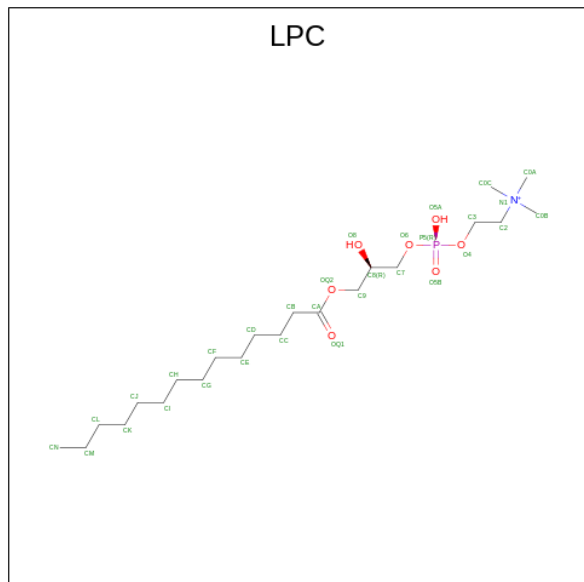
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
			Total	C	O		
2	A	1	16	14	2	0	0

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

- Molecule 3 is [1-MYRISTOYL-GLYCEROL-3-YL]PHOSPHONYLCHOLINE (three-letter code: LPC) (formula: C₂₂H₄₇NO₇P) (labeled as "Ligand of Interest" by depositor).



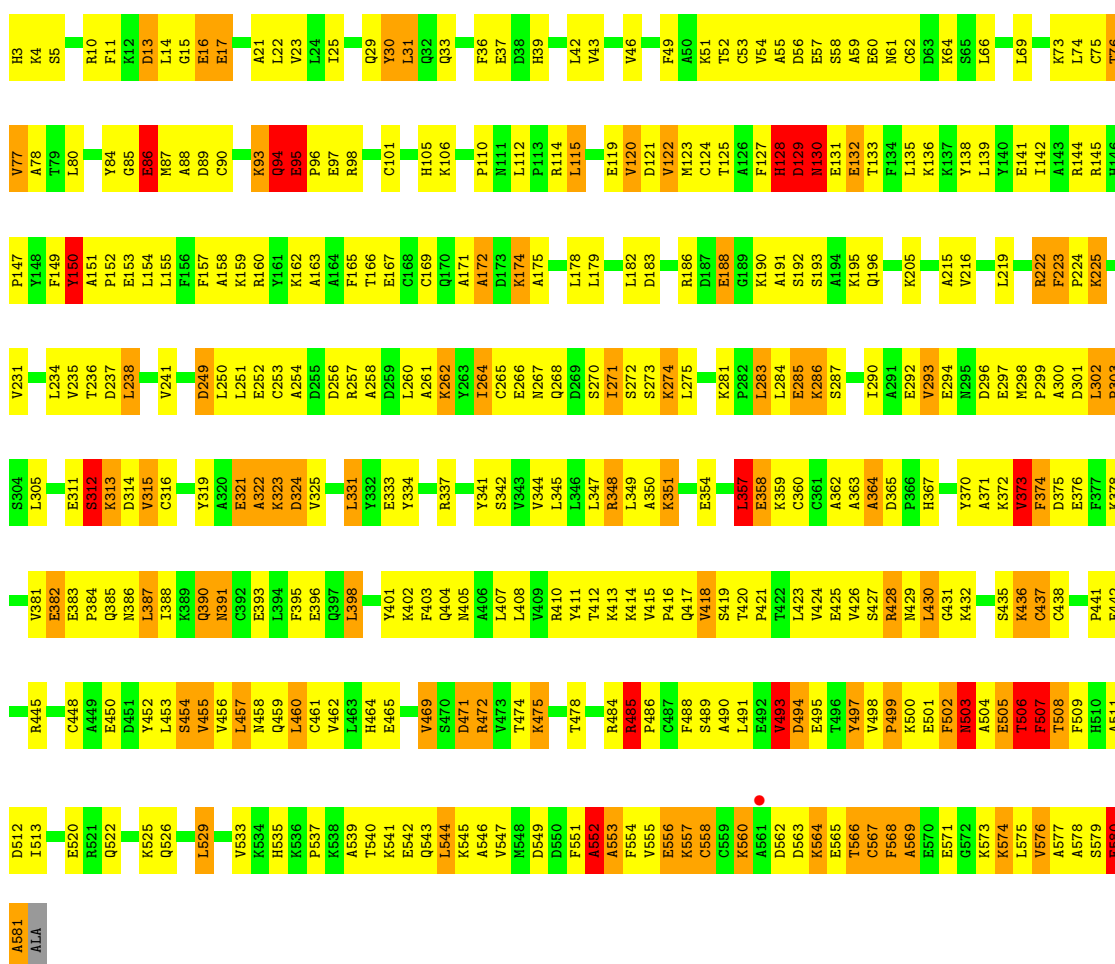
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	A	1	Total	C	N	O	P	0	0
			31	22	1	7	1		
3	A	1	Total	C	N	O	P	0	0
			31	22	1	7	1		
3	A	1	Total	C	N	O	P	0	0
			31	22	1	7	1		
3	B	1	Total	C	N	O	P	0	0
			31	22	1	7	1		
3	B	1	Total	C	N	O	P	0	0
			31	22	1	7	1		
3	B	1	Total	C	N	O	P	0	0
			31	22	1	7	1		

3 Residue-property plots

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

• Molecule 1: Albumin

Chain A: 



• Molecule 1: Albumin

Chain B: 



Q543	V469	K402	D324	G248	L80
L544	S470	F403	L327	D249	A158
K545	D471	Q404	L331	L250	K159
A546	R472	N405	L334	L251	R160
V547	V473	A406	Y334	E252	Y161
M548	T474	L407	A335	C253	K83
D549	K475	L408	R336	A254	Q94
D550		V409	R337	D255	Q95
F551	S480	R410	R337	E256	E95
A552	L481	Y411	R337	E167	P96
A553	V482	T412		C168	E97
F554	N483	K413	Y341	D173	Q104
V555	R484	K414	S342	K174	H105
E556	R485	V415	V343	A175	R106
K557	P486	Q416	V344	A176	K106
C558	P486	Q417	L345	C177	D107
C559	S489	V418	L346	L178	M109
K560	D494	S419	L347	P180	P110
F561	E495	T420	R348	K181	M111
F502	T496	T422	L349	L182	L112
N503	Y497	L423	A350	D183	P113
F507	V498	V424	K351	K186	R114
D512	P499	E425	E354	D187	L115
I513	K500	V426	F366	V187	V116
C514	E501	S427	H367	E188	R117
T515	F502	R428	E368	S193	P118
L516	N503	L430	C369	L198	E119
S517	F507	Q431	Y370	K199	V120
E518	D512	K432	A371	K286	D121
K519	I513	S435	K372	S287	V122
E520	C514	K436	V373	I290	M123
R521	C514	Q437	F374	A291	F127
Q522	T515	K437	D375	N295	E131
I523	L516	H440	K378	D296	E132
K524	L516	P441	P379	E297	T133
K525	S517	E442	L380	P299	F134
L529	E518	C448	V381	A300	L135
V530	K519	A449	E382	D301	K136
E531	E520	E450	P384	L302	K137
L532	R521	D451	Q385	P303	Y138
V533	Q522	Y452	N386	S304	L139
K534	I523	L453	L387	L305	Y140
H535	V530	V455	I388	A306	E141
K536	L532	L457	K389	A307	I142
P537	N456	N456	Q390	K230	A143
F537	K534	L460	N391	K233	R144
K538	V533	L463	C392	T236	R145
A539	K534	H464	E393	D237	H146
T540	H535	E465	L394	L238	P147
K541	K536	K466	F395	Y148	F149
E542	P537	E467	E396	V241	Y150
	K538	T467	Q397	H242	A151
	A539		L398	C245	P152
	T540		G399	E153	P152
	K541		E400	L154	E153
	E542		P468	L155	L155

4 Data and refinement statistics i

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	95.26Å 38.47Å 182.46Å 90.00° 104.78° 90.00°	Depositor
Resolution (Å)	47.63 – 3.03 47.63 – 2.74	Depositor EDS
% Data completeness (in resolution range)	86.0 (47.63-3.03) 82.1 (47.63-2.74)	Depositor EDS
R_{merge}	0.15	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.84 (at 2.73Å)	Xtrriage
Refinement program	CNS 1.3	Depositor
R, R_{free}	0.261 , 0.291 0.255 , 0.284	Depositor DCC
R_{free} test set	2383 reflections (7.51%)	wwPDB-VP
Wilson B-factor (Å ²)	48.6	Xtrriage
Anisotropy	0.431	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.30 , 46.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.51$, $\langle L^2 \rangle = 0.34$	Xtrriage
Estimated twinning fraction	0.000 for h,-k,-h-l	Xtrriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	9167	wwPDB-VP
Average B, all atoms (Å ²)	52.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 51.94 % of the origin peak, indicating pseudo-translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo-translational symmetry is equal to 5.2227e-05. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

¹Intensities estimated from amplitudes.

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.

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, LPC

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	0.70	4/4530 (0.1%)	1.00	22/6141 (0.4%)
1	B	0.72	5/4528 (0.1%)	0.99	18/6134 (0.3%)
All	All	0.71	9/9058 (0.1%)	0.99	40/12275 (0.3%)

All (9) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	30	TYR	CB-CG	-8.04	1.39	1.51
1	B	149	PHE	CB-CG	-6.16	1.40	1.51
1	B	150	TYR	CB-CG	-6.15	1.42	1.51
1	A	129	ASP	CB-CG	-5.78	1.39	1.51
1	B	149	PHE	CG-CD2	-5.74	1.30	1.38
1	B	86	GLU	CG-CD	-5.52	1.43	1.51
1	A	150	TYR	CB-CG	-5.43	1.43	1.51
1	A	493	VAL	CB-CG2	-5.40	1.41	1.52
1	A	223	PHE	CB-CG	-5.30	1.42	1.51

All (40) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	567	CYS	N-CA-C	-9.41	85.59	111.00
1	A	373	VAL	CB-CA-C	-9.10	94.12	111.40
1	B	567	CYS	CB-CA-C	8.61	127.61	110.40
1	B	571	GLU	N-CA-C	-8.60	87.77	111.00
1	B	567	CYS	CA-CB-SG	8.60	129.48	114.00
1	B	299	PRO	N-CA-C	8.29	133.67	112.10
1	B	149	PHE	CB-CG-CD2	-8.27	115.01	120.80
1	B	567	CYS	N-CA-C	-7.93	89.59	111.00
1	A	302	LEU	CB-CG-CD1	-7.74	97.85	111.00
1	A	94	GLN	N-CA-C	7.54	131.35	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	129	ASP	N-CA-C	7.42	131.02	111.00
1	B	302	LEU	CA-CB-CG	-7.35	98.39	115.30
1	A	497	TYR	N-CA-C	6.94	129.74	111.00
1	A	552	ALA	CA-C-N	-6.83	102.17	117.20
1	A	313	LYS	N-CA-C	-6.63	93.10	111.00
1	A	130	ASN	N-CA-C	-6.58	93.22	111.00
1	B	249	ASP	N-CA-C	-6.43	93.65	111.00
1	B	448	CYS	CA-CB-SG	6.41	125.53	114.00
1	B	250	LEU	CB-CG-CD1	-6.10	100.63	111.00
1	A	581	ALA	N-CA-C	-6.10	94.54	111.00
1	A	497	TYR	CA-C-N	-6.08	103.83	117.20
1	A	302	LEU	CB-CG-CD2	5.93	121.08	111.00
1	A	95	GLU	CA-CB-CG	-5.76	100.73	113.40
1	A	503	ASN	N-CA-C	-5.71	95.57	111.00
1	A	30	TYR	CB-CG-CD1	5.64	124.38	121.00
1	B	565	GLU	N-CA-C	-5.61	95.86	111.00
1	B	149	PHE	CB-CG-CD1	5.52	124.67	120.80
1	A	323	LYS	N-CA-C	5.39	125.55	111.00
1	B	313	LYS	N-CA-C	-5.36	96.52	111.00
1	B	108	ASP	C-N-CA	-5.36	108.30	121.70
1	A	30	TYR	CB-CG-CD2	-5.33	117.80	121.00
1	A	564	LYS	N-CA-C	-5.28	96.74	111.00
1	A	568	PHE	N-CA-C	-5.28	96.74	111.00
1	B	305	LEU	CA-CB-CG	-5.27	103.18	115.30
1	B	109	ASN	C-N-CD	-5.24	109.08	120.60
1	B	312	SER	N-CA-C	-5.13	97.14	111.00
1	A	357	LEU	CA-CB-CG	-5.11	103.54	115.30
1	A	31	LEU	CB-CG-CD2	-5.11	102.31	111.00
1	A	485	ARG	NE-CZ-NH1	5.09	122.84	120.30
1	B	559	CYS	CA-CB-SG	5.02	123.04	114.00

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	4443	0	4212	525	1
1	B	4442	0	4216	500	0
2	A	48	0	81	6	0
2	B	48	0	81	29	0
3	A	93	0	138	90	0
3	B	93	0	138	81	0
All	All	9167	0	8866	1042	1

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 58.

All (1042) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:149:PHE:CE2	3:B:603:LPC:H0A1	1.43	1.54
1:A:485:ARG:HH11	3:A:605:LPC:C0B	1.33	1.40
1:B:149:PHE:CE2	3:B:603:LPC:H0C3	1.58	1.37
1:B:158:ALA:HB1	3:B:603:LPC:CK	1.53	1.36
1:B:149:PHE:CZ	3:B:603:LPC:H0C3	1.61	1.34
1:B:218:ARG:CZ	2:B:601:MYR:H141	1.58	1.32
1:B:149:PHE:CD2	3:B:603:LPC:H0A1	1.67	1.29
1:B:537:PRO:O	1:B:538:LYS:CG	1.77	1.29
1:A:504:ALA:O	1:A:506:THR:N	1.61	1.28
1:B:149:PHE:CE2	3:B:603:LPC:C0A	2.17	1.28
1:A:575:LEU:CA	1:A:578:ALA:HB3	1.63	1.27
1:A:135:LEU:HB3	3:A:604:LPC:CK	1.69	1.22
1:B:60:GLU:O	1:B:62:CYS:N	1.71	1.22
1:B:149:PHE:CZ	3:B:603:LPC:C0C	2.25	1.19
1:A:413:LYS:C	1:A:493:VAL:HG22	1.61	1.18
1:B:149:PHE:CE2	3:B:603:LPC:C0C	2.27	1.17
1:A:94:GLN:O	1:A:98:ARG:N	1.77	1.16
1:B:537:PRO:O	1:B:538:LYS:HG3	1.02	1.16
1:B:383:GLU:OE1	1:B:485:ARG:NH1	1.77	1.15
1:A:575:LEU:HA	1:A:578:ALA:HB3	1.28	1.14
1:A:344:VAL:HG21	3:A:605:LPC:C0A	1.75	1.14
1:B:218:ARG:NE	2:B:601:MYR:H141	1.63	1.12
1:A:132:GLU:OE2	1:A:132:GLU:HA	1.48	1.10
1:A:344:VAL:CG2	3:A:605:LPC:H0A1	1.80	1.10
1:B:138:TYR:CD1	3:B:603:LPC:HD1	1.84	1.10
1:B:60:GLU:CG	1:B:61:ASN:H	1.62	1.09
1:B:60:GLU:HG2	1:B:61:ASN:N	1.66	1.09
1:A:506:THR:HG22	1:A:507:PHE:N	1.63	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:158:ALA:CB	3:B:603:LPC:HK2	1.84	1.08
1:B:518:GLU:OE1	1:B:521:ARG:NH1	1.85	1.08
1:A:222:ARG:NH1	1:A:293:VAL:O	1.87	1.07
1:A:290:ILE:O	1:A:293:VAL:HG12	1.52	1.07
1:B:483:ASN:O	1:B:486:PRO:HD2	1.55	1.07
1:A:413:LYS:O	1:A:493:VAL:HG22	1.55	1.06
1:B:570:GLU:HA	1:B:573:LYS:H	1.16	1.06
1:A:135:LEU:HB3	3:A:604:LPC:HK2	1.31	1.06
1:A:485:ARG:NH1	3:A:605:LPC:C0B	2.16	1.06
1:B:383:GLU:CD	1:B:485:ARG:HH12	1.57	1.06
1:A:485:ARG:HD3	3:A:605:LPC:H0B2	1.34	1.05
1:A:344:VAL:HG21	3:A:605:LPC:H0A1	1.35	1.05
1:B:60:GLU:HG2	1:B:61:ASN:OD1	1.53	1.05
1:B:218:ARG:NE	2:B:601:MYR:C14	2.20	1.04
1:B:485:ARG:HD2	3:B:604:LPC:O5B	1.58	1.02
1:B:291:ALA:HA	2:B:601:MYR:H112	1.39	1.01
1:A:485:ARG:HH11	3:A:605:LPC:H0B2	1.26	1.00
1:B:60:GLU:HG2	1:B:61:ASN:H	0.84	1.00
1:A:553:ALA:HB2	3:A:606:LPC:H0C1	1.42	0.99
1:B:344:VAL:CG2	3:B:604:LPC:H0A1	1.93	0.99
1:A:342:SER:OG	3:A:605:LPC:H0C3	1.61	0.99
1:A:529:LEU:HD22	3:A:606:LPC:HB1	1.45	0.98
1:B:138:TYR:CE1	3:B:603:LPC:HB2	1.99	0.98
1:A:357:LEU:O	1:A:360:CYS:N	1.94	0.98
1:A:344:VAL:CG2	3:A:605:LPC:C0A	2.38	0.97
1:B:139:LEU:HB2	3:B:603:LPC:HJ1	1.45	0.97
1:A:267:ASN:O	1:A:271:ILE:HG13	1.63	0.97
1:A:158:ALA:HB1	3:A:604:LPC:HJ1	1.45	0.97
1:B:224:PRO:HB3	1:B:336:ARG:HB2	1.42	0.96
1:B:23:VAL:HG22	2:B:602:MYR:C14	1.94	0.96
1:B:383:GLU:HB3	1:B:384:PRO:HD3	1.45	0.96
1:B:401:TYR:OH	1:B:525:LYS:HE2	1.64	0.96
1:A:149:PHE:CD2	3:A:604:LPC:H0A1	2.01	0.95
1:B:344:VAL:HG23	3:B:604:LPC:H0A1	1.48	0.95
1:B:158:ALA:CB	3:B:603:LPC:CK	2.43	0.95
1:B:158:ALA:HB1	3:B:603:LPC:HK2	0.95	0.94
1:A:95:GLU:HB3	1:A:96:PRO:HD3	1.45	0.94
1:B:41:LYS:O	1:B:45:GLU:HG3	1.67	0.94
1:A:485:ARG:HH11	3:A:605:LPC:H0B1	1.29	0.94
1:A:413:LYS:C	1:A:493:VAL:CG2	2.35	0.94
1:B:411:TYR:CE1	3:B:604:LPC:HL1	2.02	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:507:PHE:CE2	3:B:605:LPC:HL2	2.02	0.94
1:B:149:PHE:HE2	3:B:603:LPC:H0C3	1.26	0.93
1:A:313:LYS:O	1:A:314:ASP:HB2	1.67	0.93
1:B:56:ASP:O	1:B:58:SER:N	2.01	0.93
2:B:601:MYR:C5	2:B:601:MYR:H92	1.98	0.92
1:B:472:ARG:O	1:B:475:LYS:N	2.00	0.92
1:B:114:ARG:HH21	1:B:116:VAL:HA	1.34	0.92
1:A:390:GLN:HE21	1:A:391:ASN:N	1.67	0.91
1:B:23:VAL:HG22	2:B:602:MYR:H141	1.50	0.91
1:B:149:PHE:HZ	3:B:603:LPC:C0C	1.78	0.91
1:B:60:GLU:C	1:B:62:CYS:H	1.74	0.91
1:B:138:TYR:HE1	3:B:603:LPC:HB2	1.36	0.90
1:A:575:LEU:CA	1:A:578:ALA:CB	2.50	0.90
1:B:485:ARG:HD3	3:B:604:LPC:H22	1.54	0.90
1:A:149:PHE:CE2	3:A:604:LPC:H0C3	2.07	0.90
1:B:525:LYS:HE3	3:B:605:LPC:H72	1.53	0.90
1:B:149:PHE:HE2	3:B:603:LPC:C0C	1.78	0.89
1:B:237:ASP:HB3	1:B:260:LEU:HD13	1.52	0.89
1:B:540:THR:HB	1:B:543:GLN:HG3	1.54	0.89
2:B:601:MYR:H92	2:B:601:MYR:H52	1.52	0.89
1:B:287:SER:OG	2:B:602:MYR:O1	1.90	0.89
3:A:605:LPC:C8	3:A:605:LPC:HD2	2.03	0.89
1:B:344:VAL:HG23	3:B:604:LPC:C0A	2.03	0.88
1:A:135:LEU:CB	3:A:604:LPC:HK2	2.03	0.88
1:A:565:GLU:HA	1:A:565:GLU:OE2	1.73	0.88
1:B:120:VAL:HG21	1:B:175:ALA:HB2	1.56	0.88
1:A:93:LYS:O	1:A:94:GLN:HG3	1.74	0.88
1:A:553:ALA:N	3:A:606:LPC:H21	1.88	0.87
1:A:504:ALA:C	1:A:506:THR:H	1.75	0.87
1:A:362:ALA:O	1:A:363:ALA:HB2	1.74	0.87
1:A:552:ALA:O	1:A:555:VAL:N	2.06	0.87
1:A:575:LEU:HA	1:A:578:ALA:CB	2.05	0.87
1:B:311:GLU:O	1:B:312:SER:C	2.10	0.87
1:A:450:GLU:O	1:A:454:SER:HB3	1.76	0.86
1:B:158:ALA:HB1	3:B:603:LPC:HK1	1.54	0.86
1:B:570:GLU:C	1:B:572:GLY:N	2.16	0.86
1:B:299:PRO:O	1:B:300:ALA:HB3	1.74	0.86
1:B:485:ARG:O	1:B:485:ARG:HG2	1.74	0.86
1:A:552:ALA:HB1	3:A:606:LPC:H21	1.55	0.85
1:B:459:GLN:O	1:B:463:LEU:HG	1.76	0.85
1:A:387:LEU:O	1:A:391:ASN:HB2	1.75	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:552:ALA:O	1:A:555:VAL:HG12	1.75	0.85
1:B:411:TYR:OH	3:B:604:LPC:HJ1	1.77	0.85
1:B:540:THR:HB	1:B:543:GLN:CG	2.07	0.85
1:A:577:ALA:HA	1:A:580:GLU:OE1	1.76	0.85
1:B:344:VAL:CG2	3:B:604:LPC:C0A	2.54	0.85
1:A:321:GLU:O	1:A:322:ALA:CB	2.25	0.85
1:A:556:GLU:HG3	1:A:557:LYS:N	1.89	0.85
1:A:115:LEU:HD13	1:A:145:ARG:NH1	1.91	0.85
1:B:419:SER:O	1:B:423:LEU:HD12	1.76	0.85
1:B:472:ARG:O	1:B:474:THR:N	2.09	0.84
1:B:311:GLU:O	1:B:313:LYS:N	2.10	0.84
1:A:575:LEU:C	1:A:578:ALA:HB3	1.98	0.84
1:A:390:GLN:HE21	1:A:390:GLN:C	1.81	0.84
1:B:313:LYS:O	1:B:314:ASP:HB2	1.78	0.84
1:A:504:ALA:C	1:A:506:THR:N	2.29	0.83
1:B:183:ASP:HA	1:B:186:ARG:NH1	1.94	0.83
1:B:518:GLU:O	1:B:522:GLN:HG3	1.78	0.83
1:A:413:LYS:HB3	1:A:493:VAL:HG21	1.60	0.83
1:A:367:HIS:O	1:A:371:ALA:HB2	1.79	0.82
1:A:413:LYS:CB	1:A:493:VAL:HG21	2.09	0.82
1:A:566:THR:CA	1:A:568:PHE:O	2.26	0.82
3:A:605:LPC:HD2	3:A:605:LPC:O8	1.79	0.82
1:B:54:VAL:O	1:B:54:VAL:HG12	1.80	0.82
1:B:395:PHE:CE2	1:B:435:SER:HA	2.14	0.82
1:B:570:GLU:CA	1:B:573:LYS:H	1.92	0.82
1:A:193:SER:HB2	3:A:604:LPC:H0B3	1.62	0.82
1:B:312:SER:C	1:B:313:LYS:O	2.09	0.82
1:A:93:LYS:O	1:A:94:GLN:OE1	1.98	0.81
1:B:199:LYS:HE3	1:B:242:HIS:CE1	2.14	0.81
1:B:68:THR:OG1	1:B:95:GLU:OE1	1.97	0.81
1:B:417:GLN:HE22	1:B:494:ASP:CG	1.84	0.81
1:A:436:LYS:O	1:A:438:CYS:N	2.13	0.81
1:A:552:ALA:C	1:A:554:PHE:H	1.82	0.80
1:B:543:GLN:OE1	1:B:582:ALA:HB2	1.81	0.80
1:B:248:GLY:O	1:B:249:ASP:HB3	1.81	0.80
1:A:485:ARG:HD3	3:A:605:LPC:C0B	2.10	0.80
1:B:517:SER:O	1:B:521:ARG:HD3	1.80	0.80
1:A:254:ALA:HB1	2:A:602:MYR:H51	1.64	0.80
1:A:485:ARG:NH1	3:A:605:LPC:H0B1	1.91	0.80
1:A:563:ASP:OD1	1:A:564:LYS:O	2.00	0.79
1:A:138:TYR:CE1	3:A:604:LPC:HB2	2.17	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:193:SER:HB2	3:B:603:LPC:H0A2	1.63	0.79
1:B:557:LYS:O	1:B:567:CYS:SG	2.41	0.79
1:B:552:ALA:HB2	3:B:605:LPC:O8	1.82	0.79
1:A:321:GLU:O	1:A:322:ALA:HB2	1.83	0.79
1:A:506:THR:HG22	1:A:507:PHE:H	1.45	0.79
1:A:93:LYS:O	1:A:94:GLN:CG	2.31	0.78
1:B:485:ARG:CD	3:B:604:LPC:O5B	2.31	0.78
1:B:540:THR:O	1:B:541:LYS:C	2.21	0.78
1:B:149:PHE:CZ	3:B:603:LPC:H0C2	2.18	0.78
1:B:149:PHE:HE2	3:B:603:LPC:N1	1.80	0.78
1:A:151:ALA:HB3	1:A:152:PRO:HD3	1.65	0.78
1:B:257:ARG:NH2	1:B:287:SER:OG	2.16	0.78
1:B:507:PHE:HE2	3:B:605:LPC:HL2	1.46	0.78
1:B:149:PHE:CE2	3:B:603:LPC:N1	2.52	0.78
1:B:485:ARG:HE	3:B:604:LPC:H0B2	1.49	0.78
3:A:605:LPC:HD2	3:A:605:LPC:H8	1.64	0.77
1:A:319:TYR:CE2	1:A:323:LYS:HD3	2.19	0.77
1:B:401:TYR:OH	1:B:525:LYS:CE	2.33	0.77
1:A:553:ALA:HB2	3:A:606:LPC:C0C	2.14	0.77
1:A:132:GLU:HB3	1:A:133:THR:HG23	1.66	0.77
1:A:373:VAL:O	1:A:376:GLU:N	2.17	0.77
1:A:95:GLU:HB3	1:A:96:PRO:CD	2.07	0.77
1:A:262:LYS:HB3	1:A:286:LYS:NZ	2.00	0.76
1:B:186:ARG:HA	3:B:603:LPC:O5A	1.85	0.76
1:B:219:LEU:HD23	1:B:223:PHE:CE2	2.21	0.76
1:A:529:LEU:HD22	3:A:606:LPC:CB	2.15	0.76
1:A:56:ASP:O	1:A:58:SER:N	2.16	0.76
1:A:305:LEU:HD21	1:A:333:GLU:HB3	1.66	0.76
1:A:357:LEU:O	1:A:359:LYS:N	2.18	0.76
1:B:61:ASN:HB3	1:B:64:LYS:HG3	1.65	0.76
1:B:453:LEU:O	1:B:457:LEU:HD22	1.85	0.76
1:B:556:GLU:O	1:B:560:LYS:HB3	1.85	0.76
1:B:436:LYS:NZ	1:B:452:TYR:OH	2.19	0.76
1:B:60:GLU:CG	1:B:61:ASN:OD1	2.30	0.76
1:B:403:PHE:HE2	1:B:431:GLY:HA2	1.50	0.76
1:B:540:THR:O	1:B:543:GLN:N	2.19	0.76
1:B:286:LYS:O	1:B:290:ILE:HG13	1.86	0.76
1:B:436:LYS:NZ	1:B:452:TYR:CZ	2.54	0.75
3:A:605:LPC:CJ	3:A:605:LPC:HF1	2.14	0.75
1:B:219:LEU:HD23	1:B:223:PHE:HE2	1.51	0.75
1:A:286:LYS:O	1:A:290:ILE:HG13	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:250:LEU:HD23	1:B:250:LEU:O	1.87	0.74
1:A:135:LEU:HB3	3:A:604:LPC:HK1	1.67	0.74
1:B:563:ASP:OD2	1:B:566:THR:CB	2.36	0.74
1:A:577:ALA:CA	1:A:580:GLU:OE1	2.35	0.74
1:A:460:LEU:HD12	1:A:460:LEU:O	1.87	0.74
1:B:400:GLU:O	1:B:404:GLN:HG3	1.87	0.74
1:B:518:GLU:OE1	1:B:518:GLU:HA	1.87	0.74
1:A:529:LEU:O	1:A:533:VAL:HG23	1.88	0.74
1:B:387:LEU:HD12	1:B:485:ARG:NH2	2.02	0.74
1:A:565:GLU:OE2	1:A:565:GLU:CA	2.34	0.73
1:A:115:LEU:HD13	1:A:145:ARG:CZ	2.19	0.73
1:A:575:LEU:N	1:A:578:ALA:CB	2.52	0.73
1:B:24:LEU:HD23	1:B:139:LEU:HD23	1.71	0.73
1:A:268:GLN:O	1:A:272:SER:O	2.06	0.73
1:B:60:GLU:HG2	1:B:61:ASN:CG	2.09	0.73
1:B:344:VAL:HG21	3:B:604:LPC:H0A1	1.70	0.73
1:B:351:LYS:HD3	1:B:354:GLU:OE1	1.88	0.73
1:A:95:GLU:CB	1:A:96:PRO:HD3	2.16	0.73
1:A:258:ALA:O	1:A:262:LYS:HG3	1.89	0.72
1:B:60:GLU:OE2	1:B:61:ASN:ND2	2.21	0.72
1:A:539:ALA:HB1	1:A:544:LEU:HD13	1.68	0.72
1:B:564:LYS:C	1:B:566:THR:N	2.29	0.72
1:B:115:LEU:HD13	1:B:145:ARG:CZ	2.20	0.72
1:B:558:CYS:SG	1:B:568:PHE:N	2.63	0.72
1:B:140:TYR:CZ	1:B:144:ARG:HD2	2.25	0.72
1:A:231:VAL:O	1:A:235:VAL:HG23	1.89	0.72
1:B:60:GLU:C	1:B:62:CYS:N	2.35	0.72
1:A:388:ILE:CD1	3:A:605:LPC:H72	2.20	0.72
1:B:502:PHE:O	1:B:502:PHE:CD1	2.43	0.72
1:B:305:LEU:HD23	1:B:305:LEU:N	2.02	0.71
1:A:558:CYS:SG	1:A:568:PHE:N	2.63	0.71
1:B:149:PHE:HZ	3:B:603:LPC:H0C2	1.55	0.71
1:A:504:ALA:O	1:A:506:THR:CA	2.39	0.71
1:B:389:LYS:O	1:B:393:GLU:HG3	1.91	0.71
1:B:560:LYS:O	1:B:560:LYS:HG3	1.90	0.71
1:A:3:HIS:CG	1:A:4:LYS:H	2.09	0.70
1:A:506:THR:CG2	1:A:507:PHE:N	2.37	0.70
1:A:529:LEU:CD2	3:A:606:LPC:OQ1	2.40	0.70
1:B:114:ARG:NH2	1:B:116:VAL:HA	2.04	0.70
1:A:574:LYS:C	1:A:578:ALA:HB2	2.12	0.70
1:A:37:GLU:CD	1:A:37:GLU:H	1.95	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:258:ALA:O	1:B:262:LYS:HG2	1.91	0.70
1:A:566:THR:HA	1:A:568:PHE:O	1.92	0.70
1:B:23:VAL:HG22	2:B:602:MYR:C13	2.21	0.70
1:B:482:VAL:O	1:B:482:VAL:CG1	2.40	0.70
1:A:351:LYS:HE3	1:A:354:GLU:OE1	1.92	0.69
1:B:390:GLN:O	1:B:394:LEU:HD23	1.92	0.69
1:A:373:VAL:O	1:A:375:ASP:N	2.26	0.69
1:B:551:PHE:HD1	3:B:605:LPC:HO8	1.40	0.69
1:A:135:LEU:CB	3:A:604:LPC:CK	2.61	0.69
1:B:139:LEU:HB2	3:B:603:LPC:CJ	2.22	0.69
1:B:410:ARG:O	1:B:414:LYS:HG3	1.92	0.69
1:B:33:GLN:HG2	1:B:84:TYR:CE1	2.28	0.69
1:A:485:ARG:HB3	1:A:486:PRO:HD3	1.74	0.69
1:A:428:ARG:O	1:A:431:GLY:N	2.26	0.69
1:A:545:LYS:O	1:A:545:LYS:HD3	1.93	0.69
1:A:381:VAL:CG1	1:A:385:GLN:NE2	2.56	0.69
1:B:395:PHE:O	1:B:396:GLU:C	2.30	0.69
1:B:507:PHE:CE2	3:B:605:LPC:CL	2.75	0.69
1:A:535:HIS:C	1:A:537:PRO:HD3	2.13	0.69
1:B:107:ASP:OD2	1:B:110:PRO:HA	1.93	0.69
1:B:120:VAL:HG21	1:B:175:ALA:CB	2.22	0.69
1:B:115:LEU:HD13	1:B:145:ARG:NH1	2.07	0.68
1:A:135:LEU:HB3	3:A:604:LPC:CL	2.24	0.68
1:A:552:ALA:CB	3:A:606:LPC:H21	2.22	0.68
1:A:86:GLU:O	1:A:89:ASP:HB2	1.93	0.68
1:A:471:ASP:O	1:A:475:LYS:N	2.26	0.68
1:B:149:PHE:HE2	3:B:603:LPC:C2	2.06	0.68
1:A:129:ASP:O	1:A:130:ASN:HB2	1.93	0.68
1:A:344:VAL:CG2	3:A:605:LPC:H0A2	2.24	0.68
1:B:73:LYS:O	1:B:73:LYS:HG3	1.94	0.67
1:B:222:ARG:HD3	1:B:295:ASN:OD1	1.94	0.67
1:A:257:ARG:O	1:A:261:ALA:HB2	1.94	0.67
1:A:575:LEU:N	1:A:578:ALA:HB3	2.08	0.67
1:A:167:GLU:O	1:A:167:GLU:HG2	1.94	0.67
1:B:214:TRP:CD1	1:B:343:VAL:HG11	2.30	0.67
1:B:525:LYS:HE3	3:B:605:LPC:C7	2.24	0.67
1:A:132:GLU:OE2	1:A:132:GLU:CA	2.35	0.67
1:B:420:THR:OG1	1:B:534:LYS:HE3	1.95	0.67
1:A:555:VAL:HG13	1:A:556:GLU:N	2.10	0.67
1:B:60:GLU:OE2	1:B:61:ASN:OD1	2.12	0.67
1:B:149:PHE:HE2	3:B:603:LPC:C0A	1.89	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:574:LYS:C	1:A:578:ALA:CB	2.63	0.66
1:A:225:LYS:HD3	1:A:297:GLU:O	1.95	0.66
1:A:575:LEU:O	1:A:579:SER:N	2.28	0.66
1:B:312:SER:O	1:B:313:LYS:O	2.14	0.66
1:A:341:TYR:CD2	1:A:345:LEU:HD23	2.30	0.66
1:B:183:ASP:HA	1:B:186:ARG:HH12	1.59	0.66
1:A:115:LEU:HD13	1:A:145:ARG:HH12	1.59	0.66
1:A:388:ILE:HD13	3:A:605:LPC:H72	1.78	0.66
1:A:507:PHE:HB3	3:A:606:LPC:HI1	1.76	0.66
1:B:520:GLU:O	1:B:523:ILE:HB	1.95	0.66
1:A:262:LYS:HB3	1:A:286:LYS:HZ2	1.61	0.65
1:B:417:GLN:O	1:B:469:VAL:HG11	1.96	0.65
1:A:23:VAL:HG12	1:A:43:VAL:HG22	1.79	0.65
1:A:311:GLU:O	1:A:312:SER:O	2.14	0.65
1:A:414:LYS:N	1:A:493:VAL:CG2	2.59	0.65
1:B:391:ASN:O	1:B:394:LEU:HB2	1.96	0.65
1:B:570:GLU:HA	1:B:573:LYS:N	2.00	0.65
1:A:171:ALA:O	1:A:172:ALA:O	2.15	0.65
1:B:507:PHE:CD2	3:B:605:LPC:HL2	2.31	0.65
1:B:56:ASP:O	1:B:56:ASP:OD1	2.15	0.65
1:B:222:ARG:HH11	1:B:222:ARG:HG2	1.62	0.65
1:A:411:TYR:CD1	3:A:605:LPC:HL1	2.32	0.64
1:B:138:TYR:CG	3:B:603:LPC:HD1	2.31	0.64
1:B:480:SER:OG	1:B:483:ASN:HB2	1.98	0.64
1:A:290:ILE:O	1:A:293:VAL:CG1	2.39	0.64
1:A:420:THR:N	1:A:421:PRO:HD2	2.13	0.64
1:B:138:TYR:CE1	3:B:603:LPC:CB	2.79	0.64
1:B:249:ASP:OD1	1:B:249:ASP:C	2.35	0.64
1:A:552:ALA:HB1	3:A:606:LPC:C2	2.28	0.64
1:B:507:PHE:CE2	3:B:605:LPC:CM	2.80	0.64
1:A:112:LEU:HD12	1:A:145:ARG:HG2	1.78	0.64
1:A:553:ALA:HA	1:A:556:GLU:HB3	1.80	0.64
1:A:39:HIS:HA	1:A:42:LEU:HD12	1.80	0.64
1:B:33:GLN:HG2	1:B:84:TYR:HE1	1.62	0.64
1:A:22:LEU:HD22	1:A:151:ALA:HB1	1.80	0.64
1:B:407:LEU:HD13	1:B:430:LEU:HB3	1.80	0.64
1:B:543:GLN:O	1:B:547:VAL:HG23	1.98	0.64
1:A:260:LEU:O	1:A:264:ILE:HG13	1.97	0.64
1:B:517:SER:O	1:B:521:ARG:CD	2.45	0.64
1:A:411:TYR:CE1	3:A:605:LPC:HL1	2.33	0.63
3:A:605:LPC:CJ	3:A:605:LPC:CF	2.75	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:218:ARG:NE	2:B:601:MYR:H143	2.12	0.63
1:B:417:GLN:NE2	1:B:494:ASP:OD2	2.26	0.63
1:B:499:PRO:HB3	1:B:535:HIS:O	1.98	0.63
1:A:552:ALA:C	1:A:554:PHE:N	2.51	0.63
1:A:566:THR:C	1:A:568:PHE:O	2.36	0.63
1:B:344:VAL:HG21	3:B:604:LPC:C0A	2.26	0.63
1:A:390:GLN:C	1:A:390:GLN:NE2	2.51	0.63
1:A:485:ARG:HH11	3:A:605:LPC:H0B3	1.52	0.63
1:B:45:GLU:OE2	1:B:73:LYS:NZ	2.31	0.62
1:A:526:GLN:O	1:A:529:LEU:HB3	1.98	0.62
1:A:344:VAL:HG23	3:A:605:LPC:C0A	2.30	0.62
1:A:499:PRO:HB3	1:A:535:HIS:O	1.99	0.62
1:B:387:LEU:HD12	1:B:485:ARG:HH22	1.61	0.62
1:A:94:GLN:O	1:A:95:GLU:C	2.37	0.62
1:B:400:GLU:O	1:B:400:GLU:HG2	1.99	0.62
1:B:310:VAL:HG12	1:B:310:VAL:O	1.98	0.62
1:A:158:ALA:HB1	3:A:604:LPC:CJ	2.25	0.61
1:B:575:LEU:CA	1:B:578:ALA:HB3	2.29	0.61
1:B:387:LEU:O	1:B:391:ASN:HB2	1.99	0.61
1:B:424:VAL:O	1:B:428:ARG:HG3	1.99	0.61
1:A:56:ASP:O	1:A:56:ASP:CG	2.38	0.61
1:A:541:LYS:C	1:A:542:GLU:HG2	2.20	0.61
1:B:60:GLU:OE2	1:B:61:ASN:CG	2.38	0.61
1:B:351:LYS:HD2	1:B:351:LYS:O	2.01	0.61
1:A:222:ARG:C	1:A:224:PRO:HD3	2.21	0.61
1:B:56:ASP:O	1:B:56:ASP:CG	2.37	0.61
1:A:458:ASN:C	1:A:460:LEU:N	2.51	0.61
1:A:556:GLU:O	1:A:557:LYS:O	2.18	0.61
1:B:223:PHE:HB3	1:B:271:ILE:O	2.00	0.61
1:B:570:GLU:C	1:B:572:GLY:H	1.96	0.61
1:A:373:VAL:C	1:A:375:ASP:N	2.52	0.61
1:A:579:SER:O	1:A:580:GLU:CG	2.49	0.61
1:B:537:PRO:O	1:B:537:PRO:CG	2.46	0.61
1:B:395:PHE:HZ	1:B:435:SER:HB2	1.65	0.61
1:B:564:LYS:O	1:B:565:GLU:C	2.39	0.61
1:B:23:VAL:HG22	2:B:602:MYR:H132	1.83	0.61
1:A:78:ALA:C	1:A:80:LEU:H	2.04	0.61
1:B:420:THR:N	1:B:421:PRO:HD2	2.14	0.61
1:B:579:SER:O	1:B:581:ALA:N	2.34	0.61
1:B:507:PHE:CE2	3:B:605:LPC:HM2	2.36	0.60
1:A:535:HIS:O	1:A:537:PRO:HD3	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:566:THR:O	1:A:567:CYS:O	2.20	0.60
1:B:218:ARG:CZ	2:B:601:MYR:C14	2.52	0.60
1:B:140:TYR:CE1	1:B:144:ARG:HD2	2.36	0.60
1:B:387:LEU:CD1	1:B:485:ARG:NH2	2.64	0.60
1:A:94:GLN:O	1:A:95:GLU:O	2.20	0.60
1:A:249:ASP:OD1	1:A:249:ASP:O	2.18	0.60
1:A:388:ILE:CD1	3:A:605:LPC:C7	2.79	0.60
1:B:570:GLU:O	1:B:574:LYS:N	2.32	0.60
1:A:51:LYS:O	1:A:54:VAL:HG12	2.00	0.60
1:B:150:TYR:O	1:B:151:ALA:C	2.34	0.60
1:B:151:ALA:HB3	1:B:152:PRO:HD3	1.82	0.60
1:B:408:LEU:HD23	1:B:529:LEU:HD23	1.83	0.60
1:A:407:LEU:HD13	1:A:430:LEU:HB3	1.84	0.60
1:B:467:THR:HG22	1:B:467:THR:O	2.02	0.60
1:A:428:ARG:O	1:A:429:ASN:C	2.39	0.59
1:B:557:LYS:O	1:B:557:LYS:CG	2.50	0.59
1:A:93:LYS:O	1:A:94:GLN:CD	2.41	0.59
1:A:115:LEU:CD1	1:A:145:ARG:HH12	2.15	0.59
1:A:373:VAL:O	1:A:374:PHE:C	2.37	0.59
1:A:281:LYS:HD3	1:A:285:GLU:OE1	2.03	0.59
1:A:285:GLU:O	1:A:286:LYS:C	2.40	0.59
1:A:417:GLN:HB3	1:A:469:VAL:HG12	1.82	0.59
1:A:241:VAL:HG22	1:A:256:ASP:HB3	1.84	0.59
1:B:517:SER:OG	1:B:518:GLU:N	2.34	0.59
1:A:190:LYS:C	1:A:192:SER:H	2.05	0.59
1:B:19:PHE:O	1:B:23:VAL:HG23	2.03	0.59
1:B:437:CYS:HA	1:B:440:HIS:HD2	1.67	0.59
1:B:471:ASP:O	1:B:472:ARG:O	2.19	0.59
1:A:95:GLU:CB	1:A:96:PRO:CD	2.72	0.59
1:B:222:ARG:HG2	1:B:222:ARG:NH1	2.18	0.59
1:B:420:THR:H	1:B:421:PRO:HD2	1.67	0.59
3:A:605:LPC:HF1	3:A:605:LPC:HJ1	1.84	0.59
1:A:313:LYS:O	1:A:314:ASP:CB	2.44	0.59
1:A:489:SER:N	3:A:605:LPC:HH2	2.18	0.59
1:B:450:GLU:O	1:B:454:SER:HB3	2.02	0.59
1:A:522:GLN:O	1:A:526:GLN:HG3	2.03	0.58
1:B:212:LYS:HD3	2:B:606:MYR:H143	1.85	0.58
1:B:540:THR:H	1:B:543:GLN:HB2	1.66	0.58
1:A:488:PHE:C	1:A:490:ALA:H	2.06	0.58
1:B:198:LEU:HD12	1:B:198:LEU:O	2.04	0.58
1:B:395:PHE:HE2	1:B:435:SER:HA	1.64	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:95:GLU:OE2	1:A:95:GLU:CA	2.49	0.58
1:A:119:GLU:O	1:A:121:ASP:N	2.35	0.58
1:A:499:PRO:HG3	1:A:537:PRO:HG2	1.86	0.58
1:A:554:PHE:O	1:A:557:LYS:HB3	2.03	0.58
1:A:94:GLN:HA	1:A:98:ARG:HB2	1.86	0.58
1:B:94:GLN:C	1:B:96:PRO:HD2	2.23	0.58
1:A:149:PHE:HD2	1:A:154:LEU:CD1	2.17	0.58
1:B:502:PHE:HD2	1:B:535:HIS:NE2	2.01	0.58
1:A:485:ARG:HH21	1:A:489:SER:CB	2.17	0.58
1:A:552:ALA:O	1:A:554:PHE:N	2.35	0.58
1:B:426:VAL:HG21	1:B:460:LEU:HD13	1.84	0.58
1:A:30:TYR:CD1	1:A:106:LYS:HE3	2.39	0.58
1:A:456:VAL:C	1:A:458:ASN:H	2.07	0.58
1:B:507:PHE:HE2	3:B:605:LPC:CL	2.13	0.58
1:A:115:LEU:HD13	1:A:145:ARG:NH2	2.18	0.58
1:B:155:LEU:O	1:B:158:ALA:HB3	2.04	0.58
1:A:489:SER:CA	3:A:605:LPC:HH2	2.33	0.58
1:B:319:TYR:CE2	1:B:323:LYS:HD3	2.39	0.58
1:B:575:LEU:O	1:B:579:SER:N	2.37	0.58
1:A:293:VAL:HG22	1:A:294:GLU:N	2.19	0.57
1:B:218:ARG:NH1	2:B:601:MYR:H141	2.12	0.57
1:A:95:GLU:O	1:A:96:PRO:C	2.42	0.57
1:B:403:PHE:CE2	1:B:431:GLY:HA2	2.37	0.57
1:A:219:LEU:HD23	1:A:223:PHE:HE2	1.69	0.57
1:B:485:ARG:NE	3:B:604:LPC:H0B2	2.16	0.57
1:B:572:GLY:O	1:B:576:VAL:HG23	2.05	0.57
1:A:74:LEU:C	1:A:76:THR:H	2.05	0.57
1:A:417:GLN:NE2	1:A:494:ASP:OD2	2.36	0.57
1:B:10:ARG:O	1:B:14:LEU:HB2	2.04	0.57
1:B:138:TYR:CE1	3:B:603:LPC:HD1	2.38	0.57
1:A:413:LYS:CB	1:A:493:VAL:CG2	2.80	0.57
1:B:158:ALA:CB	3:B:603:LPC:HK1	2.19	0.57
1:B:466:LYS:C	1:B:467:THR:OG1	2.40	0.57
1:A:319:TYR:O	1:A:323:LYS:HG2	2.05	0.57
1:A:90:CYS:O	1:A:93:LYS:HB2	2.05	0.57
1:A:540:THR:O	1:A:544:LEU:HB2	2.04	0.57
1:A:331:LEU:HD11	1:A:347:LEU:HD23	1.86	0.57
1:B:350:ALA:CB	2:B:606:MYR:H52	2.35	0.57
1:A:284:LEU:O	1:A:284:LEU:HD23	2.05	0.57
1:A:577:ALA:C	1:A:580:GLU:OE1	2.44	0.57
1:B:537:PRO:O	1:B:538:LYS:CB	2.45	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:344:VAL:HG21	3:A:605:LPC:H0A2	1.80	0.56
1:B:247:HIS:CG	1:B:247:HIS:O	2.57	0.56
1:B:442:GLU:OE1	1:B:442:GLU:N	2.37	0.56
1:A:414:LYS:HA	1:A:493:VAL:HA	1.86	0.56
1:A:493:VAL:HG12	1:A:493:VAL:O	2.05	0.56
1:B:517:SER:O	1:B:521:ARG:HB2	2.04	0.56
1:B:540:THR:HB	1:B:543:GLN:HG2	1.86	0.56
1:A:138:TYR:CD1	3:A:604:LPC:HB2	2.40	0.56
1:A:388:ILE:HD11	3:A:605:LPC:H72	1.87	0.56
1:A:457:LEU:HD11	3:A:605:LPC:HK1	1.88	0.56
1:B:312:SER:O	1:B:313:LYS:C	2.44	0.56
1:B:482:VAL:O	1:B:482:VAL:HG13	2.06	0.56
1:B:564:LYS:O	1:B:566:THR:N	2.37	0.56
1:A:305:LEU:CD2	1:A:333:GLU:HB3	2.34	0.56
1:A:345:LEU:HD11	1:A:381:VAL:HA	1.88	0.56
1:A:556:GLU:CG	1:A:557:LYS:N	2.64	0.56
1:A:576:VAL:O	3:A:606:LPC:HN2	2.05	0.56
1:B:158:ALA:CA	3:B:603:LPC:HK1	2.35	0.56
1:A:160:ARG:NH2	1:A:188:GLU:OE2	2.38	0.56
1:B:448:CYS:O	1:B:449:ALA:C	2.44	0.56
1:B:94:GLN:HB3	1:B:96:PRO:HD2	1.88	0.56
1:B:274:LYS:HZ3	1:B:296:ASP:HA	1.71	0.56
1:B:543:GLN:OE1	1:B:582:ALA:CB	2.53	0.56
1:A:418:VAL:HG21	1:A:423:LEU:HD21	1.87	0.56
1:A:458:ASN:O	1:A:461:CYS:N	2.39	0.56
1:B:30:TYR:HB3	1:B:31:LEU:HD13	1.88	0.56
1:B:260:LEU:HD23	2:B:601:MYR:H72	1.88	0.55
1:B:219:LEU:CD2	1:B:223:PHE:HE2	2.19	0.55
1:B:299:PRO:O	1:B:300:ALA:CB	2.42	0.55
1:B:301:ASP:O	1:B:302:LEU:C	2.44	0.55
1:B:310:VAL:O	1:B:310:VAL:CG1	2.55	0.55
1:B:579:SER:C	1:B:581:ALA:N	2.60	0.55
1:A:80:LEU:O	1:A:84:TYR:HB2	2.07	0.55
1:A:555:VAL:CG1	1:A:556:GLU:N	2.69	0.55
1:B:56:ASP:O	1:B:57:GLU:C	2.44	0.55
1:B:539:ALA:HB3	1:B:544:LEU:HD11	1.88	0.55
1:A:249:ASP:O	1:A:251:LEU:N	2.39	0.55
1:A:266:GLU:C	1:A:267:ASN:OD1	2.45	0.55
1:B:36:PHE:HZ	1:B:136:LYS:HB2	1.72	0.55
1:B:561:ALA:O	1:B:563:ASP:O	2.25	0.55
1:A:370:TYR:C	1:A:372:LYS:N	2.58	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:381:VAL:HG12	1:A:385:GLN:NE2	2.21	0.55
1:B:127:PHE:O	1:B:131:GLU:HB2	2.07	0.55
1:B:485:ARG:HB3	1:B:486:PRO:HD3	1.88	0.55
1:A:529:LEU:HD22	3:A:606:LPC:OQ1	2.07	0.55
1:A:567:CYS:O	1:A:568:PHE:C	2.45	0.55
1:A:575:LEU:N	1:A:578:ALA:HB2	2.20	0.55
1:B:152:PRO:O	1:B:155:LEU:HB3	2.06	0.55
1:A:216:VAL:HG22	1:A:235:VAL:HG21	1.87	0.55
1:A:273:SER:O	1:A:275:LEU:N	2.40	0.55
1:A:424:VAL:O	1:A:428:ARG:HG3	2.06	0.55
1:A:503:ASN:C	1:A:503:ASN:OD1	2.43	0.55
1:B:146:HIS:CG	3:B:603:LPC:H0A3	2.42	0.55
1:B:411:TYR:CZ	3:B:604:LPC:HJ1	2.42	0.55
1:B:560:LYS:O	1:B:560:LYS:CG	2.55	0.55
1:B:578:ALA:C	1:B:580:GLU:H	2.09	0.55
1:B:532:LEU:C	1:B:532:LEU:HD23	2.27	0.54
1:A:53:CYS:C	1:A:55:ALA:H	2.10	0.54
1:B:199:LYS:HE3	1:B:242:HIS:HE1	1.68	0.54
1:B:219:LEU:HD11	1:B:238:LEU:HD22	1.90	0.54
1:B:370:TYR:O	1:B:372:LYS:N	2.40	0.54
1:B:544:LEU:O	1:B:546:ALA:N	2.39	0.54
1:B:49:PHE:O	1:B:52:THR:HB	2.07	0.54
1:B:257:ARG:NH2	2:B:602:MYR:O1	2.36	0.54
1:B:537:PRO:O	1:B:537:PRO:CD	2.54	0.54
1:A:274:LYS:HE3	1:A:296:ASP:HA	1.87	0.54
1:B:27:PHE:CE1	1:B:70:PHE:HE1	2.26	0.54
1:B:512:ASP:OD1	1:B:513:ILE:N	2.40	0.54
1:A:350:ALA:HB3	2:A:601:MYR:H71	1.89	0.54
1:B:472:ARG:O	1:B:473:VAL:C	2.46	0.54
1:A:390:GLN:HE21	1:A:391:ASN:CA	2.20	0.54
1:A:363:ALA:O	1:A:364:ALA:C	2.45	0.54
1:A:564:LYS:O	1:A:565:GLU:HB3	2.06	0.54
1:A:437:CYS:SG	1:A:448:CYS:C	2.87	0.54
1:A:573:LYS:C	1:A:575:LEU:H	2.11	0.54
1:A:580:GLU:O	1:A:581:ALA:HB2	2.07	0.54
1:A:135:LEU:HD11	1:A:162:LYS:HG3	1.89	0.54
1:A:357:LEU:N	1:A:357:LEU:HD23	2.21	0.54
1:A:362:ALA:O	1:A:363:ALA:CB	2.40	0.54
1:A:415:VAL:O	1:A:418:VAL:HG22	2.07	0.54
1:A:76:THR:C	1:A:77:VAL:O	2.45	0.53
1:A:579:SER:O	1:A:580:GLU:CB	2.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:149:PHE:CD2	1:B:154:LEU:HD13	2.43	0.53
1:A:324:ASP:OD1	1:A:324:ASP:N	2.40	0.53
1:B:173:ASP:O	1:B:174:LYS:C	2.47	0.53
1:B:351:LYS:CE	1:B:354:GLU:OE1	2.56	0.53
1:A:305:LEU:HD21	1:A:333:GLU:CB	2.38	0.53
1:B:95:GLU:N	1:B:96:PRO:HD2	2.23	0.53
1:B:412:THR:HA	1:B:423:LEU:HD22	1.90	0.53
1:B:466:LYS:O	1:B:467:THR:OG1	2.26	0.53
1:A:388:ILE:HD13	3:A:605:LPC:C7	2.37	0.53
1:A:494:ASP:O	1:A:494:ASP:OD1	2.26	0.53
1:B:68:THR:HG22	1:B:69:LEU:N	2.23	0.53
1:A:22:LEU:CD2	1:A:151:ALA:HB1	2.38	0.53
1:B:41:LYS:O	1:B:45:GLU:CG	2.50	0.53
1:B:114:ARG:O	1:B:114:ARG:HG3	2.09	0.53
1:A:95:GLU:C	1:A:95:GLU:OE2	2.46	0.53
1:A:149:PHE:CE1	1:A:196:GLN:OE1	2.62	0.53
1:A:484:ARG:O	1:A:488:PHE:HD2	1.92	0.53
1:B:575:LEU:HA	1:B:578:ALA:HB3	1.89	0.53
1:A:119:GLU:O	1:A:120:VAL:C	2.47	0.53
1:A:414:LYS:HG2	1:A:493:VAL:HG23	1.91	0.53
1:A:432:LYS:O	1:A:436:LYS:N	2.35	0.53
1:A:529:LEU:HD22	3:A:606:LPC:CA	2.38	0.53
1:B:571:GLU:HA	1:B:571:GLU:OE1	2.09	0.53
1:B:396:GLU:O	1:B:397:GLN:C	2.43	0.53
1:B:344:VAL:HG23	3:B:604:LPC:H0A2	1.90	0.53
1:B:452:TYR:O	1:B:454:SER:N	2.41	0.53
1:A:545:LYS:HD3	1:A:545:LYS:C	2.30	0.53
1:B:218:ARG:CD	2:B:601:MYR:C14	2.87	0.53
1:B:253:CYS:O	1:B:257:ARG:HG3	2.09	0.53
1:B:291:ALA:CA	2:B:601:MYR:H112	2.25	0.53
1:B:539:ALA:CB	1:B:544:LEU:CD1	2.87	0.53
1:A:96:PRO:HD2	1:A:97:GLU:H	1.74	0.52
1:B:429:ASN:O	1:B:432:LYS:HB2	2.09	0.52
1:B:485:ARG:NE	3:B:604:LPC:C0B	2.72	0.52
1:A:21:ALA:O	1:A:25:ILE:HG13	2.09	0.52
1:B:8:ALA:O	1:B:12:LYS:HB2	2.09	0.52
1:B:284:LEU:HA	2:B:602:MYR:H41	1.91	0.52
1:A:381:VAL:HG13	1:A:385:GLN:NE2	2.23	0.52
1:A:540:THR:HG22	1:A:541:LYS:N	2.24	0.52
1:A:566:THR:HA	1:A:569:ALA:HB3	1.91	0.52
1:B:37:GLU:CD	1:B:37:GLU:H	2.13	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:302:LEU:HB3	1:B:337:ARG:NH1	2.24	0.52
1:B:466:LYS:C	1:B:467:THR:HG1	2.11	0.52
1:A:15:GLY:O	1:A:17:GLU:N	2.43	0.52
1:A:383:GLU:HB3	1:A:384:PRO:CD	2.39	0.52
1:A:485:ARG:CD	3:A:605:LPC:H0B2	2.24	0.52
1:B:500:LYS:H	1:B:535:HIS:HA	1.75	0.52
1:A:149:PHE:HD2	1:A:154:LEU:HD13	1.74	0.52
1:B:551:PHE:CD1	1:B:551:PHE:C	2.82	0.52
1:A:299:PRO:O	1:A:301:ASP:N	2.38	0.52
1:A:413:LYS:HB3	1:A:493:VAL:CG2	2.33	0.52
1:A:453:LEU:O	1:A:457:LEU:HB2	2.09	0.52
1:A:94:GLN:O	1:A:97:GLU:N	2.43	0.52
1:B:135:LEU:HB3	3:B:603:LPC:HL1	1.92	0.52
1:B:261:ALA:HB2	1:B:287:SER:HB3	1.92	0.52
1:B:419:SER:O	1:B:423:LEU:CD1	2.54	0.52
1:B:515:THR:O	1:B:515:THR:OG1	2.20	0.52
1:A:342:SER:HG	3:A:605:LPC:H0C3	1.71	0.51
1:A:471:ASP:O	1:A:474:THR:N	2.43	0.51
1:B:250:LEU:O	1:B:250:LEU:CD2	2.57	0.51
1:B:273:SER:C	1:B:275:LEU:H	2.14	0.51
1:B:351:LYS:CD	1:B:354:GLU:OE1	2.57	0.51
1:B:387:LEU:CD1	1:B:485:ARG:HH22	2.23	0.51
1:B:552:ALA:HB1	3:B:605:LPC:O5A	2.10	0.51
1:A:95:GLU:OE2	1:A:95:GLU:HA	1.89	0.51
1:A:357:LEU:O	1:A:358:GLU:C	2.48	0.51
1:B:31:LEU:N	1:B:31:LEU:CD1	2.71	0.51
1:B:237:ASP:CB	1:B:260:LEU:HD13	2.34	0.51
1:A:51:LYS:HA	1:A:54:VAL:HG12	1.92	0.51
1:A:110:PRO:HG3	1:A:145:ARG:HA	1.91	0.51
1:A:464:HIS:CE1	1:A:474:THR:OG1	2.63	0.51
1:B:149:PHE:HZ	3:B:603:LPC:H0C3	1.36	0.51
1:B:341:TYR:CG	1:B:345:LEU:HD23	2.46	0.51
1:B:350:ALA:HB3	2:B:606:MYR:H52	1.92	0.51
1:A:464:HIS:HE1	1:A:474:THR:OG1	1.92	0.51
1:A:552:ALA:HB1	3:A:606:LPC:H0B1	1.92	0.51
1:A:78:ALA:C	1:A:80:LEU:N	2.64	0.51
1:A:413:LYS:HB2	1:A:493:VAL:HG21	1.89	0.51
1:B:299:PRO:HG2	1:B:302:LEU:HD21	1.93	0.51
1:B:389:LYS:O	1:B:393:GLU:CG	2.58	0.51
1:B:465:GLU:C	1:B:467:THR:H	2.14	0.51
1:A:3:HIS:CG	1:A:4:LYS:N	2.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:85:GLY:O	1:A:86:GLU:C	2.49	0.51
1:A:267:ASN:O	1:A:271:ILE:CG1	2.50	0.51
1:A:324:ASP:O	1:A:325:VAL:C	2.47	0.51
1:A:576:VAL:HA	3:A:606:LPC:HL1	1.92	0.51
1:B:230:GLU:OE1	1:B:230:GLU:HA	2.11	0.51
1:B:467:THR:N	1:B:468:PRO:HD3	2.25	0.51
1:B:578:ALA:C	1:B:580:GLU:N	2.64	0.51
1:A:539:ALA:HB1	1:A:544:LEU:CD1	2.37	0.51
1:B:160:ARG:NH1	1:B:188:GLU:OE1	2.44	0.51
1:A:112:LEU:CD1	1:A:145:ARG:HG2	2.41	0.51
1:A:258:ALA:O	1:A:262:LYS:CG	2.59	0.51
1:A:357:LEU:C	1:A:359:LYS:N	2.64	0.50
1:A:442:GLU:HA	1:A:445:ARG:HD2	1.93	0.50
1:A:457:LEU:HD12	1:A:460:LEU:HD23	1.92	0.50
1:B:33:GLN:HB2	1:B:84:TYR:CZ	2.46	0.50
1:A:90:CYS:HA	1:A:93:LYS:HD2	1.92	0.50
1:A:165:PHE:O	1:A:169:CYS:HB2	2.12	0.50
1:A:485:ARG:HH21	1:A:489:SER:HB2	1.76	0.50
1:A:555:VAL:O	1:A:556:GLU:C	2.46	0.50
1:B:138:TYR:CD1	3:B:603:LPC:CB	2.94	0.50
1:B:459:GLN:O	1:B:459:GLN:HG2	2.11	0.50
1:A:302:LEU:O	1:A:303:PRO:O	2.28	0.50
1:A:420:THR:H	1:A:421:PRO:HD2	1.77	0.50
1:A:552:ALA:C	3:A:606:LPC:H21	2.31	0.50
1:A:461:CYS:O	1:A:464:HIS:N	2.40	0.50
1:A:565:GLU:CG	1:A:565:GLU:O	2.59	0.50
1:B:383:GLU:HB3	1:B:384:PRO:CD	2.30	0.50
2:B:601:MYR:H92	2:B:601:MYR:H51	1.91	0.50
1:A:138:TYR:O	1:A:142:ILE:HG12	2.12	0.50
1:A:311:GLU:O	1:A:312:SER:C	2.49	0.50
1:A:401:TYR:CE1	1:A:522:GLN:HB3	2.47	0.50
1:A:418:VAL:CG2	1:A:423:LEU:HD21	2.42	0.50
1:A:15:GLY:O	1:A:16:GLU:C	2.50	0.50
1:A:436:LYS:CG	1:A:437:CYS:H	2.24	0.50
1:A:565:GLU:O	1:A:565:GLU:CD	2.50	0.50
1:A:507:PHE:HA	1:A:509:PHE:CZ	2.47	0.50
1:B:35:PRO:HG2	1:B:38:ASP:HB2	1.94	0.50
1:B:570:GLU:O	1:B:573:LYS:N	2.45	0.50
1:A:138:TYR:CG	3:A:604:LPC:HD1	2.47	0.49
1:A:529:LEU:HD23	3:A:606:LPC:OQ1	2.11	0.49
1:A:575:LEU:O	1:A:578:ALA:HB3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:579:SER:O	1:A:580:GLU:OE1	2.30	0.49
1:B:116:VAL:HG23	1:B:116:VAL:O	2.12	0.49
1:B:420:THR:O	1:B:422:THR:N	2.45	0.49
1:A:30:TYR:CE1	1:A:106:LYS:NZ	2.77	0.49
1:A:66:LEU:HA	1:A:69:LEU:HD12	1.94	0.49
1:B:540:THR:O	1:B:542:GLU:N	2.45	0.49
1:A:485:ARG:HD3	3:A:605:LPC:H22	1.93	0.49
1:A:504:ALA:O	1:A:505:GLU:C	2.41	0.49
1:B:96:PRO:HG2	1:B:97:GLU:HG2	1.93	0.49
1:A:135:LEU:HB3	3:A:604:LPC:HL1	1.94	0.49
1:A:404:GLN:NE2	1:A:428:ARG:HB3	2.27	0.49
1:A:485:ARG:NH1	3:A:605:LPC:H0B3	2.17	0.49
1:A:360:CYS:SG	1:A:370:TYR:HB3	2.52	0.49
1:A:258:ALA:O	1:A:261:ALA:HB3	2.13	0.49
1:A:370:TYR:C	1:A:370:TYR:CD1	2.86	0.49
1:B:111:ASN:ND2	1:B:111:ASN:N	2.60	0.49
1:A:93:LYS:C	1:A:94:GLN:OE1	2.51	0.49
1:A:135:LEU:CD1	1:A:162:LYS:HG3	2.42	0.49
1:A:414:LYS:N	1:A:493:VAL:HG23	2.27	0.49
1:B:24:LEU:CD2	1:B:139:LEU:HD23	2.41	0.49
1:B:114:ARG:HE	1:B:116:VAL:HG12	1.78	0.49
1:B:480:SER:O	1:B:483:ASN:N	2.37	0.49
1:A:509:PHE:HB3	1:A:513:ILE:HD13	1.94	0.49
1:A:3:HIS:CD2	1:A:4:LYS:H	2.30	0.49
1:A:127:PHE:C	1:A:129:ASP:N	2.66	0.49
1:A:150:TYR:OH	2:A:602:MYR:O2	2.29	0.48
1:A:381:VAL:CG1	1:A:385:GLN:HE22	2.26	0.48
1:A:407:LEU:HB3	1:A:411:TYR:HE2	1.78	0.48
1:A:407:LEU:O	1:A:411:TYR:CD2	2.66	0.48
1:A:458:ASN:C	1:A:460:LEU:H	2.16	0.48
1:B:178:LEU:O	1:B:181:LYS:HB3	2.13	0.48
1:A:381:VAL:HG13	1:A:385:GLN:HE21	1.77	0.48
1:A:456:VAL:O	1:A:458:ASN:N	2.42	0.48
1:B:417:GLN:O	1:B:469:VAL:CG1	2.60	0.48
1:A:49:PHE:O	1:A:52:THR:HB	2.13	0.48
1:A:266:GLU:O	1:A:267:ASN:OD1	2.31	0.48
1:A:319:TYR:CZ	1:A:323:LYS:HD3	2.48	0.48
1:A:436:LYS:CG	1:A:437:CYS:N	2.73	0.48
1:B:254:ALA:HB1	2:B:602:MYR:H52	1.93	0.48
1:B:384:PRO:O	1:B:388:ILE:HG12	2.14	0.48
1:B:581:ALA:O	1:B:582:ALA:C	2.50	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:495:GLU:OE1	1:A:495:GLU:HA	2.10	0.48
1:B:538:LYS:O	1:B:539:ALA:O	2.31	0.48
1:A:158:ALA:CB	3:A:604:LPC:HJ1	2.30	0.48
1:A:274:LYS:CE	1:A:296:ASP:HA	2.44	0.48
1:A:287:SER:OG	2:A:602:MYR:O1	2.15	0.48
1:A:435:SER:O	1:A:436:LYS:O	2.30	0.48
1:B:152:PRO:O	1:B:155:LEU:N	2.46	0.48
1:B:217:ALA:O	1:B:221:GLN:HG2	2.14	0.48
1:B:302:LEU:CD1	1:B:302:LEU:H	2.20	0.48
1:B:539:ALA:CB	1:B:544:LEU:HD11	2.43	0.48
1:A:157:PHE:O	1:A:160:ARG:HB2	2.14	0.48
1:A:458:ASN:C	1:A:458:ASN:OD1	2.51	0.48
1:A:485:ARG:O	1:A:486:PRO:C	2.50	0.48
1:A:485:ARG:CB	1:A:486:PRO:HD3	2.42	0.48
1:A:552:ALA:HB3	1:A:553:ALA:H	1.12	0.48
1:B:483:ASN:O	1:B:486:PRO:CD	2.44	0.48
1:A:59:ALA:O	1:A:60:GLU:C	2.51	0.48
1:A:414:LYS:CA	1:A:493:VAL:HG23	2.44	0.48
1:A:414:LYS:O	1:A:415:VAL:HG13	2.13	0.48
1:A:540:THR:C	1:A:542:GLU:H	2.17	0.48
1:B:13:ASP:OD1	1:B:13:ASP:C	2.52	0.48
1:B:513:ILE:HA	1:B:516:LEU:HD12	1.95	0.48
1:A:275:LEU:HD21	1:A:290:ILE:HG23	1.96	0.48
1:B:302:LEU:CB	1:B:337:ARG:NH1	2.77	0.48
1:A:370:TYR:C	1:A:372:LYS:H	2.17	0.48
1:A:404:GLN:HG2	1:A:428:ARG:HA	1.95	0.48
1:B:114:ARG:HH21	1:B:116:VAL:CA	2.17	0.48
1:B:247:HIS:O	1:B:247:HIS:ND1	2.47	0.48
1:A:29:GLN:HG2	1:A:147:PRO:HA	1.95	0.48
1:A:345:LEU:O	1:A:349:LEU:HG	2.14	0.48
1:B:225:LYS:HE3	1:B:297:GLU:O	2.14	0.48
1:B:53:CYS:O	1:B:57:GLU:N	2.47	0.47
1:B:112:LEU:N	1:B:112:LEU:HD12	2.29	0.47
1:A:76:THR:O	1:A:77:VAL:O	2.32	0.47
1:A:219:LEU:HD23	1:A:223:PHE:CE2	2.48	0.47
1:A:485:ARG:HB3	1:A:486:PRO:CD	2.38	0.47
1:B:15:GLY:O	1:B:16:GLU:C	2.53	0.47
1:B:257:ARG:HH21	1:B:287:SER:HG	1.57	0.47
1:A:114:ARG:HG3	1:A:114:ARG:O	2.13	0.47
1:B:33:GLN:HB2	1:B:84:TYR:OH	2.13	0.47
1:B:407:LEU:HD22	1:B:411:TYR:HE2	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:416:PRO:HG2	1:B:497:TYR:CD2	2.49	0.47
1:B:564:LYS:O	1:B:566:THR:CB	2.62	0.47
1:A:152:PRO:O	1:A:155:LEU:HB3	2.15	0.47
1:B:23:VAL:CG2	2:B:602:MYR:H132	2.44	0.47
1:B:30:TYR:CD1	1:B:30:TYR:N	2.79	0.47
1:B:218:ARG:HA	1:B:221:GLN:OE1	2.14	0.47
1:B:483:ASN:O	1:B:485:ARG:N	2.47	0.47
1:A:149:PHE:CE2	3:A:604:LPC:C0C	2.90	0.47
1:B:150:TYR:CE2	1:B:152:PRO:HB2	2.49	0.47
1:B:513:ILE:HA	1:B:516:LEU:CD1	2.45	0.47
1:A:345:LEU:HD13	1:A:384:PRO:HG3	1.96	0.47
1:A:499:PRO:HG3	1:A:537:PRO:CD	2.45	0.47
1:A:52:THR:HG22	1:A:59:ALA:CB	2.44	0.47
1:A:150:TYR:H	1:A:196:GLN:HE22	1.62	0.47
1:A:441:PRO:O	1:A:442:GLU:C	2.53	0.47
1:A:551:PHE:O	1:A:551:PHE:CD1	2.67	0.47
1:B:324:ASP:OD1	1:B:324:ASP:N	2.48	0.47
1:B:411:TYR:CD1	3:B:604:LPC:HL1	2.49	0.47
1:A:10:ARG:NH1	2:A:602:MYR:H62	2.29	0.47
1:A:344:VAL:HG23	3:A:605:LPC:H0A2	1.92	0.47
1:A:553:ALA:CB	3:A:606:LPC:C0C	2.91	0.47
1:B:395:PHE:O	1:B:397:GLN:N	2.48	0.47
1:B:544:LEU:C	1:B:546:ALA:N	2.67	0.47
1:A:222:ARG:HD3	2:A:603:MYR:H141	1.96	0.47
1:A:577:ALA:O	1:A:580:GLU:OE1	2.33	0.47
1:A:315:VAL:HG13	1:A:316:CYS:H	1.79	0.47
1:A:488:PHE:C	1:A:490:ALA:N	2.68	0.47
1:A:506:THR:CG2	1:A:507:PHE:H	2.16	0.47
1:B:53:CYS:C	1:B:55:ALA:H	2.18	0.47
1:B:250:LEU:HA	1:B:253:CYS:HB3	1.97	0.47
1:B:579:SER:C	1:B:581:ALA:H	2.17	0.47
1:A:273:SER:C	1:A:275:LEU:H	2.17	0.46
1:A:398:LEU:HB3	1:A:402:LYS:CB	2.44	0.46
3:B:604:LPC:H0C1	3:B:604:LPC:H31	1.49	0.46
1:A:183:ASP:O	1:A:186:ARG:HB3	2.15	0.46
1:A:485:ARG:NH1	3:A:605:LPC:H0B2	2.08	0.46
1:A:493:VAL:O	1:A:493:VAL:CG1	2.61	0.46
1:B:404:GLN:NE2	1:B:428:ARG:HA	2.30	0.46
1:B:299:PRO:HB2	1:B:302:LEU:HD11	1.97	0.46
1:B:250:LEU:O	1:B:250:LEU:CG	2.63	0.46
1:A:61:ASN:O	1:A:64:LYS:HG2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:131:GLU:O	1:A:132:GLU:C	2.53	0.46
1:A:138:TYR:CD1	3:A:604:LPC:HD1	2.50	0.46
1:A:178:LEU:CD1	1:A:182:LEU:HG	2.45	0.46
1:A:378:LYS:HG2	1:A:382:GLU:OE2	2.14	0.46
1:B:142:ILE:HD11	3:B:603:LPC:H8	1.98	0.46
1:B:272:SER:OG	1:B:273:SER:N	2.49	0.46
1:A:298:MET:CE	1:A:337:ARG:HA	2.46	0.46
3:A:606:LPC:H32	3:A:606:LPC:H0B2	1.64	0.46
1:B:31:LEU:HD13	1:B:31:LEU:N	2.30	0.46
1:B:109:ASN:HA	1:B:110:PRO:HD2	1.34	0.46
1:B:548:MET:C	1:B:550:ASP:N	2.68	0.46
1:A:59:ALA:HB3	1:A:62:CYS:SG	2.55	0.46
1:B:58:SER:C	1:B:59:ALA:O	2.54	0.46
1:B:390:GLN:HE21	1:B:390:GLN:HA	1.81	0.46
1:B:551:PHE:CZ	1:B:555:VAL:HG21	2.50	0.46
1:A:56:ASP:OD1	1:A:56:ASP:C	2.54	0.46
1:A:115:LEU:HD12	1:A:115:LEU:HA	1.66	0.46
1:A:293:VAL:CG2	1:A:294:GLU:N	2.79	0.46
1:B:345:LEU:O	1:B:349:LEU:HG	2.16	0.46
1:B:551:PHE:CD1	1:B:552:ALA:N	2.84	0.46
1:A:414:LYS:HA	1:A:493:VAL:HG23	1.97	0.46
1:A:452:TYR:O	1:A:455:VAL:HG23	2.16	0.46
1:B:104:GLN:C	1:B:105:HIS:CD2	2.89	0.46
1:A:525:LYS:NZ	3:A:606:LPC:O5A	2.28	0.46
1:B:45:GLU:HB2	1:B:73:LYS:HZ2	1.81	0.46
1:B:218:ARG:HE	2:B:601:MYR:H143	1.81	0.46
1:B:273:SER:C	1:B:275:LEU:N	2.69	0.46
1:B:539:ALA:HB3	1:B:544:LEU:CD1	2.46	0.45
1:A:412:THR:O	1:A:416:PRO:HG3	2.16	0.45
1:B:80:LEU:HD12	1:B:80:LEU:HA	1.76	0.45
1:B:137:LYS:O	1:B:141:GLU:HG2	2.16	0.45
1:B:149:PHE:HE2	3:B:603:LPC:H21	1.79	0.45
1:A:13:ASP:OD2	1:A:283:LEU:HD23	2.15	0.45
1:B:14:LEU:HD21	2:B:602:MYR:H91	1.99	0.45
1:B:173:ASP:HB2	1:B:176:ALA:HB3	1.98	0.45
1:B:319:TYR:HE1	1:B:327:LEU:HD11	1.81	0.45
1:A:139:LEU:HD13	3:A:604:LPC:HJ2	1.97	0.45
1:A:153:GLU:HG2	1:A:157:PHE:HE2	1.82	0.45
1:B:60:GLU:CD	1:B:61:ASN:OD1	2.55	0.45
1:B:104:GLN:C	1:B:105:HIS:HD2	2.20	0.45
1:B:513:ILE:HD12	1:B:514:CYS:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:87:MET:C	1:A:89:ASP:N	2.69	0.45
1:B:291:ALA:HB2	2:B:601:MYR:H51	1.99	0.45
1:B:367:HIS:O	1:B:371:ALA:HB2	2.15	0.45
1:B:401:TYR:CD2	3:B:605:LPC:H0B3	2.52	0.45
1:A:127:PHE:O	1:A:129:ASP:N	2.50	0.45
1:A:290:ILE:C	1:A:292:GLU:N	2.68	0.45
1:A:398:LEU:HB3	1:A:402:LYS:HB3	1.99	0.45
1:B:60:GLU:O	1:B:62:CYS:CB	2.64	0.45
1:B:68:THR:CB	1:B:95:GLU:OE1	2.64	0.45
1:B:11:PHE:CZ	1:B:51:LYS:HE3	2.52	0.45
1:B:426:VAL:O	1:B:430:LEU:HB2	2.17	0.45
1:A:509:PHE:CD1	1:A:509:PHE:N	2.84	0.45
1:B:334:TYR:O	1:B:337:ARG:HB3	2.16	0.45
1:B:390:GLN:HE21	1:B:390:GLN:CA	2.30	0.45
1:A:42:LEU:O	1:A:46:VAL:HG23	2.17	0.45
1:A:149:PHE:HE1	1:A:196:GLN:OE1	1.99	0.45
1:B:142:ILE:CD1	3:B:603:LPC:H8	2.47	0.45
1:B:396:GLU:O	1:B:397:GLN:O	2.34	0.45
1:B:523:ILE:HG22	1:B:524:LYS:N	2.32	0.45
1:A:373:VAL:C	1:A:375:ASP:H	2.19	0.45
1:A:543:GLN:O	1:A:547:VAL:HG23	2.17	0.45
1:B:105:HIS:CD2	1:B:105:HIS:N	2.85	0.45
1:B:175:ALA:O	1:B:179:LEU:HB2	2.16	0.45
1:B:344:VAL:HG12	1:B:482:VAL:HG22	1.98	0.45
1:B:420:THR:HB	1:B:421:PRO:CD	2.47	0.45
1:A:262:LYS:HE3	1:A:262:LYS:HB2	1.37	0.44
1:A:395:PHE:O	1:A:395:PHE:CG	2.70	0.44
1:A:410:ARG:O	1:A:414:LYS:HG3	2.17	0.44
1:A:472:ARG:HB3	1:A:491:LEU:HD21	1.99	0.44
3:A:605:LPC:CF	3:A:605:LPC:HJ2	2.46	0.44
1:B:390:GLN:O	1:B:394:LEU:CD2	2.61	0.44
1:A:36:PHE:HB3	1:A:37:GLU:OE2	2.18	0.44
1:A:132:GLU:O	1:A:136:LYS:HG2	2.17	0.44
1:A:190:LYS:C	1:A:192:SER:N	2.70	0.44
1:A:370:TYR:O	1:A:372:LYS:N	2.50	0.44
1:B:77:VAL:O	1:B:80:LEU:HB2	2.17	0.44
1:A:556:GLU:O	1:A:560:LYS:CB	2.66	0.44
1:B:217:ALA:O	1:B:221:GLN:CG	2.65	0.44
1:B:381:VAL:O	1:B:384:PRO:HD2	2.16	0.44
1:A:257:ARG:HE	1:A:257:ARG:HB3	1.50	0.44
1:A:284:LEU:HD23	1:A:284:LEU:C	2.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:426:VAL:HG21	1:A:460:LEU:HB2	1.99	0.44
1:B:554:PHE:CE1	1:B:568:PHE:HA	2.52	0.44
1:B:579:SER:O	1:B:580:GLU:C	2.54	0.44
1:A:135:LEU:C	3:A:604:LPC:HK1	2.37	0.44
1:A:149:PHE:CG	3:A:604:LPC:H0A1	2.49	0.44
1:A:499:PRO:HG3	1:A:537:PRO:HD2	1.99	0.44
1:B:61:ASN:HB3	1:B:64:LYS:CG	2.44	0.44
1:B:464:HIS:ND1	1:B:464:HIS:C	2.71	0.44
1:A:10:ARG:O	1:A:14:LEU:HB2	2.18	0.44
1:A:504:ALA:O	1:A:506:THR:HB	2.17	0.44
1:A:506:THR:HG22	1:A:507:PHE:CG	2.52	0.44
1:B:302:LEU:HA	1:B:303:PRO:HD3	1.51	0.44
1:B:456:VAL:O	1:B:457:LEU:C	2.55	0.44
1:A:333:GLU:HA	1:A:333:GLU:OE1	2.18	0.44
1:B:322:ALA:O	1:B:323:LYS:C	2.56	0.44
1:B:465:GLU:C	1:B:467:THR:N	2.71	0.44
1:B:552:ALA:CB	3:B:605:LPC:O8	2.61	0.44
1:B:564:LYS:C	1:B:566:THR:H	2.13	0.44
1:A:135:LEU:HD22	3:A:604:LPC:HK2	1.99	0.44
1:A:238:LEU:O	1:A:241:VAL:N	2.51	0.44
1:A:414:LYS:N	1:A:493:VAL:HG22	2.20	0.44
1:B:386:ASN:O	1:B:390:GLN:HB2	2.17	0.44
1:A:30:TYR:CD1	1:A:106:LYS:CE	3.01	0.44
1:A:456:VAL:C	1:A:458:ASN:N	2.72	0.44
1:A:457:LEU:CD1	3:A:605:LPC:HK1	2.48	0.44
1:A:501:GLU:O	1:A:502:PHE:C	2.56	0.44
1:B:179:LEU:HD12	1:B:179:LEU:HA	1.76	0.44
1:B:302:LEU:H	1:B:302:LEU:HD12	1.82	0.44
1:B:342:SER:OG	3:B:604:LPC:H0C3	2.18	0.44
1:A:408:LEU:HD13	1:A:427:SER:OG	2.17	0.43
1:A:579:SER:O	1:A:580:GLU:HG3	2.18	0.43
1:B:537:PRO:O	1:B:537:PRO:HG2	2.18	0.43
3:B:605:LPC:H0C1	3:B:605:LPC:O5B	2.18	0.43
1:A:155:LEU:HD23	1:A:284:LEU:HD11	1.99	0.43
1:B:420:THR:HG23	1:B:530:VAL:HG11	1.99	0.43
1:B:467:THR:O	1:B:469:VAL:HG23	2.19	0.43
1:B:519:LYS:O	1:B:523:ILE:HD13	2.18	0.43
1:A:418:VAL:HG23	1:A:423:LEU:CG	2.48	0.43
3:A:606:LPC:HG1	3:A:606:LPC:HJ1	1.29	0.43
1:B:403:PHE:O	1:B:406:ALA:HB3	2.17	0.43
1:A:95:GLU:O	1:A:95:GLU:OE2	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:150:TYR:O	1:A:151:ALA:C	2.55	0.43
1:A:357:LEU:HB2	1:A:358:GLU:H	1.39	0.43
1:A:387:LEU:HD11	1:A:489:SER:OG	2.18	0.43
1:A:404:GLN:O	1:A:407:LEU:N	2.52	0.43
1:B:199:LYS:CE	1:B:242:HIS:CE1	2.94	0.43
1:A:420:THR:N	1:A:421:PRO:CD	2.80	0.43
1:B:31:LEU:HA	1:B:31:LEU:HD12	1.71	0.43
1:B:275:LEU:HD11	1:B:290:ILE:HG23	2.01	0.43
1:B:347:LEU:HB3	1:B:482:VAL:HG21	2.01	0.43
3:B:605:LPC:O5B	3:B:605:LPC:C0C	2.66	0.43
1:A:125:THR:O	1:A:129:ASP:HB2	2.19	0.43
1:B:107:ASP:O	1:B:147:PRO:HG3	2.18	0.43
1:B:233:LYS:HD3	1:B:233:LYS:C	2.39	0.43
1:B:519:LYS:O	1:B:523:ILE:N	2.44	0.43
1:A:499:PRO:HG3	1:A:537:PRO:CG	2.48	0.43
1:B:150:TYR:O	1:B:151:ALA:O	2.37	0.43
1:B:268:GLN:C	1:B:270:SER:H	2.22	0.43
1:B:430:LEU:HD12	1:B:430:LEU:HA	1.79	0.43
1:A:386:ASN:O	1:A:390:GLN:HG3	2.19	0.43
1:A:506:THR:O	1:A:508:THR:N	2.52	0.43
1:A:33:GLN:HB2	1:A:84:TYR:CZ	2.53	0.43
1:B:430:LEU:HD11	1:B:453:LEU:CD1	2.49	0.43
1:A:25:ILE:HD11	1:A:139:LEU:HD21	2.01	0.43
1:A:127:PHE:C	1:A:129:ASP:H	2.20	0.43
1:A:237:ASP:O	1:A:238:LEU:C	2.57	0.43
1:A:253:CYS:O	1:A:257:ARG:HG3	2.19	0.43
1:A:321:GLU:O	1:A:322:ALA:HB3	2.14	0.43
1:B:570:GLU:C	1:B:573:LYS:N	2.72	0.43
1:A:30:TYR:HE1	1:A:106:LYS:HZ2	1.58	0.42
1:A:74:LEU:C	1:A:76:THR:N	2.70	0.42
1:A:101:CYS:O	1:A:105:HIS:HD2	2.02	0.42
1:A:115:LEU:HD21	1:A:141:GLU:HB3	2.01	0.42
1:A:163:ALA:O	1:A:166:THR:HB	2.19	0.42
1:A:234:LEU:HD11	1:A:271:ILE:HD13	2.01	0.42
1:A:398:LEU:H	1:A:398:LEU:HG	1.63	0.42
1:B:14:LEU:HD11	1:B:284:LEU:HD12	2.00	0.42
1:B:119:GLU:HB2	1:B:122:VAL:HG13	2.00	0.42
1:B:161:TYR:O	1:B:165:PHE:CD2	2.72	0.42
1:A:128:HIS:ND1	1:A:128:HIS:C	2.72	0.42
1:A:341:TYR:CG	1:A:345:LEU:HD23	2.53	0.42
1:A:408:LEU:HD21	1:A:526:GLN:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:30:TYR:O	1:B:32:GLN:N	2.52	0.42
1:B:123:MET:HE1	1:B:182:LEU:HD11	1.99	0.42
1:B:251:LEU:HD22	1:B:251:LEU:HA	1.79	0.42
1:B:351:LYS:HE2	1:B:354:GLU:OE1	2.19	0.42
1:B:570:GLU:C	1:B:573:LYS:H	2.22	0.42
1:A:182:LEU:HD23	1:A:182:LEU:HA	1.91	0.42
1:A:408:LEU:HD13	1:A:427:SER:CB	2.49	0.42
1:A:414:LYS:O	1:A:472:ARG:NH2	2.51	0.42
1:A:462:VAL:HA	1:A:465:GLU:HB3	2.01	0.42
1:A:575:LEU:O	1:A:576:VAL:C	2.56	0.42
1:B:120:VAL:HG11	1:B:175:ALA:N	2.34	0.42
1:B:150:TYR:CG	1:B:152:PRO:HD2	2.54	0.42
1:A:174:LYS:O	1:A:175:ALA:C	2.57	0.42
1:A:452:TYR:O	1:A:453:LEU:C	2.56	0.42
1:B:214:TRP:O	1:B:217:ALA:HB3	2.19	0.42
1:B:366:PRO:O	1:B:369:CYS:N	2.52	0.42
1:B:570:GLU:CA	1:B:572:GLY:N	2.80	0.42
1:A:119:GLU:O	1:A:122:VAL:N	2.53	0.42
1:A:414:LYS:HA	1:A:493:VAL:CG2	2.49	0.42
1:B:533:VAL:O	1:B:537:PRO:HB3	2.19	0.42
1:B:557:LYS:C	1:B:567:CYS:SG	2.97	0.42
1:A:76:THR:O	1:A:77:VAL:C	2.58	0.42
1:A:251:LEU:HD23	1:A:251:LEU:HA	1.71	0.42
1:B:73:LYS:O	1:B:73:LYS:CG	2.66	0.42
1:B:151:ALA:O	1:B:152:PRO:C	2.58	0.42
1:B:347:LEU:HD23	1:B:347:LEU:HA	1.93	0.42
1:B:378:LYS:HB3	1:B:379:PRO:CD	2.49	0.42
1:A:319:TYR:CD2	1:A:323:LYS:HD3	2.55	0.42
1:A:412:THR:OG1	1:A:423:LEU:HD13	2.20	0.42
1:B:305:LEU:O	1:B:309:PHE:HB2	2.18	0.42
1:A:195:LYS:HE3	1:A:195:LYS:HB2	1.86	0.42
1:A:205:LYS:HB2	1:A:205:LYS:HE3	1.81	0.42
1:A:262:LYS:HG3	1:A:262:LYS:H	1.59	0.42
1:B:138:TYR:CD1	3:B:603:LPC:CD	2.77	0.42
1:A:292:GLU:C	1:A:293:VAL:O	2.58	0.42
1:A:388:ILE:HD11	3:A:605:LPC:C7	2.49	0.42
1:A:403:PHE:O	1:A:404:GLN:C	2.58	0.42
1:B:262:LYS:HB2	1:B:262:LYS:HE2	1.69	0.42
1:A:135:LEU:HD13	3:A:604:LPC:HL1	2.02	0.41
1:A:290:ILE:C	1:A:292:GLU:H	2.23	0.41
1:B:237:ASP:HB3	1:B:260:LEU:CD1	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:525:LYS:HZ1	3:B:605:LPC:H0B1	1.85	0.41
3:B:603:LPC:H0B1	3:B:603:LPC:O4	2.20	0.41
1:A:529:LEU:O	1:A:529:LEU:HD12	2.19	0.41
1:A:149:PHE:HE2	3:A:604:LPC:H0C3	1.75	0.41
1:A:234:LEU:HD11	1:A:271:ILE:HG23	2.03	0.41
1:A:407:LEU:HB3	1:A:411:TYR:CE2	2.54	0.41
1:B:141:GLU:OE1	1:B:144:ARG:NH1	2.53	0.41
1:A:149:PHE:HD2	1:A:154:LEU:HD12	1.85	0.41
1:A:485:ARG:CD	3:A:605:LPC:O5B	2.68	0.41
1:B:282:PRO:O	1:B:283:LEU:C	2.58	0.41
1:A:215:ALA:O	1:A:219:LEU:HB2	2.21	0.41
1:A:223:PHE:N	1:A:224:PRO:HD3	2.34	0.41
1:A:293:VAL:HG22	1:A:294:GLU:H	1.86	0.41
1:A:348:ARG:O	1:A:349:LEU:C	2.58	0.41
1:B:570:GLU:CA	1:B:572:GLY:H	2.33	0.41
1:A:178:LEU:O	1:A:179:LEU:C	2.58	0.41
1:A:238:LEU:O	1:A:241:VAL:HB	2.20	0.41
1:A:292:GLU:O	1:A:293:VAL:O	2.39	0.41
1:A:418:VAL:HG23	1:A:423:LEU:HD11	2.03	0.41
1:B:37:GLU:CD	1:B:37:GLU:N	2.74	0.41
1:B:241:VAL:HG22	1:B:256:ASP:HB3	2.03	0.41
1:B:458:ASN:HB2	1:B:484:ARG:HH12	1.85	0.41
1:B:464:HIS:O	1:B:464:HIS:CG	2.72	0.41
1:A:11:PHE:CZ	1:A:51:LYS:HE3	2.55	0.41
1:A:215:ALA:HB3	1:A:235:VAL:HG13	2.01	0.41
1:A:305:LEU:CD2	1:A:333:GLU:CB	2.98	0.41
1:B:23:VAL:CG2	2:B:602:MYR:H141	2.34	0.41
1:B:117:ARG:NH2	1:B:186:ARG:NH1	2.69	0.41
1:B:401:TYR:CE2	3:B:605:LPC:H0B3	2.55	0.41
1:B:420:THR:N	1:B:421:PRO:CD	2.84	0.41
1:B:529:LEU:O	1:B:532:LEU:HB3	2.21	0.41
1:B:118:PRO:HG2	1:B:123:MET:HG3	2.03	0.41
1:B:343:VAL:N	1:B:450:GLU:OE1	2.49	0.41
1:B:520:GLU:O	1:B:523:ILE:CB	2.66	0.41
1:A:53:CYS:C	1:A:55:ALA:N	2.71	0.41
1:A:96:PRO:CD	1:A:97:GLU:H	2.31	0.41
1:A:127:PHE:O	1:A:131:GLU:HG3	2.20	0.41
1:A:262:LYS:HA	1:A:265:CYS:HB2	2.03	0.41
1:A:452:TYR:O	1:A:455:VAL:CG2	2.69	0.41
1:A:546:ALA:O	1:A:549:ASP:N	2.54	0.41
1:B:131:GLU:O	1:B:134:PHE:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:154:LEU:HA	1:B:154:LEU:HD12	1.87	0.41
1:B:449:ALA:O	1:B:453:LEU:N	2.53	0.41
1:A:155:LEU:O	1:A:159:LYS:HG2	2.21	0.41
1:A:520:GLU:H	1:A:520:GLU:HG2	1.63	0.41
1:B:512:ASP:OD1	1:B:513:ILE:HG23	2.21	0.41
3:B:605:LPC:HB2	3:B:605:LPC:H92	1.64	0.41
1:A:85:GLY:O	1:A:88:ALA:N	2.54	0.40
1:A:138:TYR:HE1	3:A:604:LPC:HB2	1.81	0.40
1:A:566:THR:C	1:A:567:CYS:O	2.56	0.40
1:B:319:TYR:HE1	1:B:327:LEU:CD1	2.33	0.40
1:A:488:PHE:HB3	3:A:605:LPC:HI1	2.03	0.40
1:A:502:PHE:HD1	1:A:503:ASN:N	2.19	0.40
1:B:60:GLU:CG	1:B:61:ASN:CG	2.84	0.40
1:B:118:PRO:HB2	1:B:122:VAL:HG21	2.02	0.40
1:B:168:CYS:SG	1:B:178:LEU:N	2.94	0.40
1:B:532:LEU:O	1:B:536:LYS:CG	2.69	0.40
1:A:42:LEU:HD23	1:A:73:LYS:HD3	2.02	0.40
1:A:555:VAL:CG1	1:A:556:GLU:H	2.33	0.40
1:B:151:ALA:H	1:B:250:LEU:HD11	1.86	0.40
1:B:245:CYS:HA	1:B:253:CYS:HB2	2.03	0.40
1:B:373:VAL:HG13	1:B:374:PHE:N	2.37	0.40
1:B:25:ILE:O	1:B:26:ALA:C	2.58	0.40
1:B:372:LYS:O	1:B:375:ASP:HB2	2.22	0.40
1:B:485:ARG:O	1:B:489:SER:HB2	2.21	0.40
1:A:124:CYS:O	1:A:127:PHE:HB3	2.22	0.40
1:A:249:ASP:OD1	1:A:252:GLU:N	2.44	0.40
1:A:315:VAL:HG11	1:A:370:TYR:OH	2.22	0.40
1:A:391:ASN:HB3	3:A:605:LPC:H91	2.03	0.40
1:B:530:VAL:O	1:B:531:GLU:C	2.58	0.40
1:B:532:LEU:HD12	3:B:605:LPC:HH2	2.03	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:396:GLU:O	1:A:497:TYR:OH[1_565]	1.93	0.27

5.3 Torsion angles

5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	577/580 (100%)	432 (75%)	97 (17%)	48 (8%)	1	3
1	B	575/580 (99%)	443 (77%)	95 (16%)	37 (6%)	1	6
All	All	1152/1160 (99%)	875 (76%)	192 (17%)	85 (7%)	1	4

All (85) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	16	GLU
1	A	57	GLU
1	A	95	GLU
1	A	120	VAL
1	A	130	ASN
1	A	172	ALA
1	A	250	LEU
1	A	274	LYS
1	A	303	PRO
1	A	312	SER
1	A	322	ALA
1	A	358	GLU
1	A	436	LYS
1	A	437	CYS
1	A	494	ASP
1	A	505	GLU
1	A	552	ALA
1	A	553	ALA
1	A	557	LYS
1	A	569	ALA
1	A	580	GLU
1	B	57	GLU
1	B	61	ASN
1	B	174	LYS
1	B	303	PRO

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Mol	Chain	Res	Type
1	B	313	LYS
1	B	395	PHE
1	B	472	ARG
1	B	473	VAL
1	B	484	ARG
1	B	538	LYS
1	B	539	ALA
1	B	576	VAL
1	A	293	VAL
1	A	364	ALA
1	A	374	PHE
1	A	457	LEU
1	B	59	ALA
1	B	453	LEU
1	B	517	SER
1	B	541	LYS
1	B	545	LYS
1	A	128	HIS
1	A	174	LYS
1	A	506	THR
1	A	558	CYS
1	A	566	THR
1	B	312	SER
1	B	371	ALA
1	B	397	GLN
1	B	451	ASP
1	B	494	ASP
1	B	499	PRO
1	B	503	ASN
1	A	75	CYS
1	A	150	TYR
1	A	191	ALA
1	A	286	LYS
1	A	300	ALA
1	A	405	ASN
1	A	511	ALA
1	A	562	ASP
1	B	56	ASP
1	B	307	ALA
1	B	441	PRO
1	B	580	GLU
1	A	17	GLU

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Mol	Chain	Res	Type
1	A	86	GLU
1	A	321	GLU
1	A	357	LEU
1	A	507	PHE
1	A	560	LYS
1	B	366	PRO
1	B	566	THR
1	B	578	ALA
1	B	152	PRO
1	B	396	GLU
1	B	442	GLU
1	B	568	PHE
1	A	77	VAL
1	A	576	VAL
1	B	378	LYS
1	B	421	PRO
1	A	469	VAL
1	A	499	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	Percentiles
1	A	462/508 (91%)	391 (85%)	71 (15%)	2 12
1	B	461/508 (91%)	401 (87%)	60 (13%)	4 17
All	All	923/1016 (91%)	792 (86%)	131 (14%)	3 14

All (131) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	5	SER
1	A	13	ASP
1	A	31	LEU
1	A	76	THR
1	A	86	GLU

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Mol	Chain	Res	Type
1	A	93	LYS
1	A	94	GLN
1	A	95	GLU
1	A	115	LEU
1	A	122	VAL
1	A	123	MET
1	A	128	HIS
1	A	129	ASP
1	A	132	GLU
1	A	144	ARG
1	A	188	GLU
1	A	222	ARG
1	A	225	LYS
1	A	236	THR
1	A	238	LEU
1	A	249	ASP
1	A	262	LYS
1	A	264	ILE
1	A	270	SER
1	A	271	ILE
1	A	283	LEU
1	A	285	GLU
1	A	312	SER
1	A	315	VAL
1	A	324	ASP
1	A	331	LEU
1	A	334	TYR
1	A	348	ARG
1	A	351	LYS
1	A	365	ASP
1	A	373	VAL
1	A	382	GLU
1	A	387	LEU
1	A	390	GLN
1	A	391	ASN
1	A	393	GLU
1	A	398	LEU
1	A	418	VAL
1	A	419	SER
1	A	425	GLU
1	A	428	ARG
1	A	430	LEU

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Mol	Chain	Res	Type
1	A	454	SER
1	A	455	VAL
1	A	459	GLN
1	A	460	LEU
1	A	471	ASP
1	A	472	ARG
1	A	475	LYS
1	A	478	THR
1	A	485	ARG
1	A	493	VAL
1	A	498	VAL
1	A	500	LYS
1	A	502	PHE
1	A	503	ASN
1	A	506	THR
1	A	507	PHE
1	A	508	THR
1	A	512	ASP
1	A	529	LEU
1	A	544	LEU
1	A	556	GLU
1	A	571	GLU
1	A	574	LYS
1	A	580	GLU
1	B	3	HIS
1	B	12	LYS
1	B	31	LEU
1	B	57	GLU
1	B	58	SER
1	B	68	THR
1	B	72	ASP
1	B	86	GLU
1	B	93	LYS
1	B	97	GLU
1	B	104	GLN
1	B	111	ASN
1	B	114	ARG
1	B	121	ASP
1	B	122	VAL
1	B	132	GLU
1	B	149	PHE
1	B	166	THR

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Mol	Chain	Res	Type
1	B	179	LEU
1	B	199	LYS
1	B	221	GLN
1	B	236	THR
1	B	237	ASP
1	B	249	ASP
1	B	251	LEU
1	B	257	ARG
1	B	259	ASP
1	B	262	LYS
1	B	274	LYS
1	B	275	LEU
1	B	283	LEU
1	B	285	GLU
1	B	302	LEU
1	B	305	LEU
1	B	312	SER
1	B	324	ASP
1	B	331	LEU
1	B	334	TYR
1	B	351	LYS
1	B	390	GLN
1	B	395	PHE
1	B	398	LEU
1	B	430	LEU
1	B	451	ASP
1	B	457	LEU
1	B	464	HIS
1	B	465	GLU
1	B	483	ASN
1	B	486	PRO
1	B	489	SER
1	B	496	THR
1	B	500	LYS
1	B	515	THR
1	B	517	SER
1	B	518	GLU
1	B	520	GLU
1	B	521	ARG
1	B	551	PHE
1	B	567	CYS
1	B	571	GLU

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

Mol	Chain	Res	Type
1	A	3	HIS
1	A	18	ASN
1	A	105	HIS
1	A	196	GLN
1	A	318	ASN
1	A	385	GLN
1	A	390	GLN
1	A	440	HIS
1	A	459	GLN
1	A	464	HIS
1	B	39	HIS
1	B	99	ASN
1	B	104	GLN
1	B	105	HIS
1	B	111	ASN
1	B	128	HIS
1	B	242	HIS
1	B	318	ASN
1	B	390	GLN
1	B	417	GLN
1	B	440	HIS

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](#)

12 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	B	602	-	15,15,15	0.91	1 (6%)	15,15,15	1.63	2 (13%)
2	MYR	A	602	-	15,15,15	0.66	0	15,15,15	2.01	5 (33%)
3	LPC	A	605	-	30,30,30	0.98	1 (3%)	35,37,37	0.91	2 (5%)
2	MYR	B	601	-	15,15,15	0.65	0	15,15,15	0.90	0
3	LPC	A	606	-	30,30,30	1.01	1 (3%)	35,37,37	0.95	1 (2%)
3	LPC	B	605	-	30,30,30	1.02	2 (6%)	35,37,37	2.51	13 (37%)
3	LPC	B	604	-	30,30,30	1.11	2 (6%)	35,37,37	0.95	2 (5%)
3	LPC	B	603	-	30,30,30	1.21	1 (3%)	35,37,37	0.93	2 (5%)
3	LPC	A	604	-	30,30,30	0.94	4 (13%)	35,37,37	1.23	3 (8%)
2	MYR	A	603	-	15,15,15	0.54	0	15,15,15	0.97	1 (6%)
2	MYR	A	601	-	15,15,15	0.54	0	15,15,15	1.09	1 (6%)
2	MYR	B	606	-	15,15,15	0.52	0	15,15,15	1.22	2 (13%)

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	B	602	-	-	10/13/13/13	-
2	MYR	A	602	-	-	2/13/13/13	-
3	LPC	A	605	-	-	24/32/32/32	-
2	MYR	B	601	-	-	6/13/13/13	-
3	LPC	A	606	-	-	21/32/32/32	-
3	LPC	B	605	-	-	18/32/32/32	-
3	LPC	B	604	-	-	23/32/32/32	-
3	LPC	B	603	-	-	17/32/32/32	-
3	LPC	A	604	-	-	17/32/32/32	-
2	MYR	A	603	-	-	8/13/13/13	-
2	MYR	A	601	-	-	7/13/13/13	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	MYR	B	606	-	-	6/13/13/13	-

All (12) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	B	603	LPC	OQ2-CA	5.69	1.50	1.33
3	B	604	LPC	OQ2-CA	4.92	1.47	1.33
3	A	605	LPC	OQ2-CA	4.48	1.46	1.33
3	A	606	LPC	OQ2-CA	4.42	1.46	1.33
2	B	602	MYR	O1-C1	3.09	1.32	1.22
3	A	604	LPC	OQ2-CA	3.07	1.42	1.33
3	B	605	LPC	C2-C3	2.14	1.58	1.51
3	B	604	LPC	OQ2-C9	-2.13	1.40	1.45
3	A	604	LPC	P5-O5B	2.09	1.58	1.50
3	B	605	LPC	P5-O4	2.02	1.67	1.59
3	A	604	LPC	P5-O4	2.02	1.67	1.59
3	A	604	LPC	OQ2-C9	-2.01	1.40	1.45

All (34) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	B	605	LPC	C0C-N1-C2	-5.11	89.00	109.92
3	B	605	LPC	C0B-N1-C2	-4.95	89.67	109.92
3	B	605	LPC	C0C-N1-C0B	4.95	121.69	108.97
3	B	605	LPC	C0A-N1-C2	-4.82	90.21	109.92
3	B	605	LPC	CG-CF-CE	-4.80	90.08	114.42
2	B	602	MYR	C3-C2-C1	-4.64	102.77	114.47
3	B	605	LPC	C0C-N1-C0A	4.25	119.89	108.97
3	B	605	LPC	C0B-N1-C0A	3.67	118.40	108.97
3	B	605	LPC	CC-CB-CA	-3.63	100.41	113.62
2	A	602	MYR	C5-C4-C3	-3.53	96.52	114.42
2	A	602	MYR	C3-C2-C1	-3.15	106.52	114.47
3	B	605	LPC	C3-C2-N1	3.07	126.02	115.78
3	A	604	LPC	CH-CG-CF	-3.02	99.08	114.42
3	B	604	LPC	OQ2-CA-CB	2.96	121.21	111.91
2	A	602	MYR	C8-C7-C6	-2.95	99.46	114.42
2	A	601	MYR	C3-C2-C1	-2.86	107.25	114.47
3	A	604	LPC	CD-CC-CB	2.71	122.92	113.19
3	B	605	LPC	CE-CD-CC	-2.67	100.89	114.42
3	B	605	LPC	CI-CH-CG	-2.66	100.91	114.42
3	A	605	LPC	OQ2-CA-CB	2.63	120.15	111.91
3	B	605	LPC	C9-OQ2-CA	-2.62	107.42	117.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	602	MYR	C11-C10-C9	-2.61	101.19	114.42
2	A	602	MYR	O2-C1-C2	2.59	122.35	114.03
3	B	605	LPC	OQ2-C9-C8	2.56	118.14	105.77
3	B	603	LPC	OQ2-CA-CB	2.53	119.83	111.91
2	B	606	MYR	C3-C2-C1	-2.52	108.12	114.47
2	A	602	MYR	C10-C9-C8	-2.48	101.85	114.42
3	B	604	LPC	C3-C2-N1	-2.43	107.65	115.78
3	A	606	LPC	OQ2-CA-CB	2.40	119.45	111.91
3	B	603	LPC	C9-C8-C7	-2.26	106.15	112.79
2	B	606	MYR	O1-C1-C2	-2.16	116.14	123.08
2	A	603	MYR	C3-C2-C1	-2.14	109.08	114.47
3	A	604	LPC	CF-CE-CD	-2.13	103.62	114.42
3	A	605	LPC	C3-C2-N1	-2.06	108.90	115.78

There are no chirality outliers.

All (159) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	604	LPC	C3-O4-P5-O5B
3	A	605	LPC	N1-C2-C3-O4
3	A	605	LPC	C7-O6-P5-O5A
3	A	605	LPC	C7-O6-P5-O5B
3	A	606	LPC	N1-C2-C3-O4
3	A	606	LPC	C3-O4-P5-O5B
3	A	606	LPC	C7-O6-P5-O5A
3	A	606	LPC	OQ1-CA-OQ2-C9
3	A	606	LPC	CB-CA-OQ2-C9
3	B	604	LPC	N1-C2-C3-O4
3	B	604	LPC	C3-O4-P5-O5B
3	B	604	LPC	C3-O4-P5-O6
3	B	604	LPC	C7-O6-P5-O4
3	B	604	LPC	C7-O6-P5-O5A
3	B	604	LPC	C7-O6-P5-O5B
3	B	604	LPC	OQ1-CA-OQ2-C9
3	B	605	LPC	C3-O4-P5-O5B
3	B	605	LPC	OQ1-CA-OQ2-C9
3	B	605	LPC	CB-CA-OQ2-C9
3	B	604	LPC	CB-CA-OQ2-C9
3	A	605	LPC	CB-CA-OQ2-C9
3	A	606	LPC	CG-CH-CI-CJ
3	A	605	LPC	OQ1-CA-OQ2-C9
3	B	604	LPC	C3-C2-N1-C0C

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Mol	Chain	Res	Type	Atoms
3	A	604	LPC	C7-C8-C9-OQ2
3	B	605	LPC	C7-C8-C9-OQ2
3	A	606	LPC	O6-C7-C8-O8
3	B	604	LPC	CF-CG-CH-CI
2	B	602	MYR	C1-C2-C3-C4
2	B	606	MYR	C1-C2-C3-C4
2	A	603	MYR	C1-C2-C3-C4
2	B	601	MYR	C1-C2-C3-C4
3	A	604	LPC	C3-C2-N1-C0C
3	B	605	LPC	O6-C7-C8-O8
3	A	604	LPC	O8-C8-C9-OQ2
3	A	605	LPC	O8-C8-C9-OQ2
3	B	604	LPC	O8-C8-C9-OQ2
3	B	605	LPC	O8-C8-C9-OQ2
3	A	604	LPC	C3-O4-P5-O6
3	A	604	LPC	C7-O6-P5-O4
3	A	605	LPC	C7-O6-P5-O4
3	A	606	LPC	C3-O4-P5-O6
3	B	603	LPC	C7-O6-P5-O4
3	B	605	LPC	C3-O4-P5-O6
3	B	605	LPC	C7-O6-P5-O4
3	B	605	LPC	O6-C7-C8-C9
3	A	604	LPC	C3-C2-N1-C0B
3	B	604	LPC	C3-C2-N1-C0B
2	A	603	MYR	C2-C3-C4-C5
2	B	602	MYR	C3-C4-C5-C6
3	A	605	LPC	CI-CJ-CK-CL
3	B	604	LPC	CB-CC-CD-CE
3	B	604	LPC	CG-CH-CI-CJ
3	B	605	LPC	CI-CJ-CK-CL
3	A	605	LPC	C7-C8-C9-OQ2
3	B	604	LPC	C7-C8-C9-OQ2
3	A	605	LPC	CF-CG-CH-CI
3	B	604	LPC	CH-CI-CJ-CK
3	B	605	LPC	C8-C7-O6-P5
3	A	606	LPC	CA-CB-CC-CD
3	A	606	LPC	CH-CI-CJ-CK
2	B	602	MYR	C2-C3-C4-C5
3	A	605	LPC	CH-CI-CJ-CK
3	B	605	LPC	CB-CC-CD-CE
3	B	605	LPC	CA-CB-CC-CD
2	A	603	MYR	C3-C4-C5-C6

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Mol	Chain	Res	Type	Atoms
2	B	602	MYR	C6-C7-C8-C9
3	A	605	LPC	CC-CD-CE-CF
3	B	604	LPC	CE-CF-CG-CH
2	A	601	MYR	C7-C8-C9-C10
3	A	604	LPC	CF-CG-CH-CI
3	B	603	LPC	CF-CG-CH-CI
3	B	605	LPC	CF-CG-CH-CI
2	B	602	MYR	C5-C6-C7-C8
2	A	603	MYR	C4-C5-C6-C7
2	B	601	MYR	C4-C5-C6-C7
3	A	605	LPC	CD-CE-CF-CG
2	B	601	MYR	C7-C8-C9-C10
2	B	601	MYR	C10-C11-C12-C13
2	B	601	MYR	C9-C10-C11-C12
3	B	604	LPC	C3-C2-N1-C0A
3	A	605	LPC	CA-CB-CC-CD
3	B	604	LPC	CI-CJ-CK-CL
2	B	606	MYR	C3-C4-C5-C6
3	B	603	LPC	CB-CA-OQ2-C9
3	A	604	LPC	C3-C2-N1-C0A
3	B	603	LPC	CI-CJ-CK-CL
2	B	601	MYR	C2-C3-C4-C5
2	A	603	MYR	C11-C10-C9-C8
3	A	606	LPC	C7-O6-P5-O4
2	B	602	MYR	C11-C10-C9-C8
3	B	603	LPC	CB-CC-CD-CE
3	B	603	LPC	CJ-CK-CL-CM
3	B	603	LPC	CK-CL-CM-CN
3	A	606	LPC	CF-CG-CH-CI
2	B	606	MYR	C10-C11-C12-C13
3	B	603	LPC	OQ1-CA-OQ2-C9
3	A	604	LPC	CB-CA-OQ2-C9
2	A	601	MYR	C2-C3-C4-C5
2	A	601	MYR	C11-C10-C9-C8
2	B	602	MYR	C10-C11-C12-C13
3	A	606	LPC	CE-CF-CG-CH
3	B	605	LPC	CJ-CK-CL-CM
2	A	603	MYR	C6-C7-C8-C9
3	A	606	LPC	CD-CE-CF-CG
2	B	606	MYR	C6-C7-C8-C9
3	A	604	LPC	OQ1-CA-OQ2-C9
3	B	603	LPC	O8-C8-C9-OQ2

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Mol	Chain	Res	Type	Atoms
3	B	604	LPC	CK-CL-CM-CN
2	B	602	MYR	C9-C10-C11-C12
3	A	606	LPC	C8-C7-O6-P5
3	B	605	LPC	CK-CL-CM-CN
3	A	604	LPC	C7-O6-P5-O5B
3	A	605	LPC	C3-O4-P5-O5B
3	A	606	LPC	C3-O4-P5-O5A
3	A	606	LPC	C7-O6-P5-O5B
3	B	603	LPC	C7-O6-P5-O5B
3	B	605	LPC	C7-O6-P5-O5B
3	B	604	LPC	CD-CE-CF-CG
3	B	603	LPC	C3-C2-N1-C0C
2	B	606	MYR	C5-C6-C7-C8
3	B	605	LPC	CG-CH-CI-CJ
3	B	603	LPC	CC-CD-CE-CF
3	B	603	LPC	O6-C7-C8-C9
2	A	601	MYR	C6-C7-C8-C9
3	B	603	LPC	C3-C2-N1-C0A
2	B	602	MYR	C4-C5-C6-C7
3	A	605	LPC	C3-O4-P5-O6
3	A	606	LPC	CJ-CK-CL-CM
2	A	601	MYR	C5-C6-C7-C8
3	B	603	LPC	C7-C8-C9-OQ2
3	A	605	LPC	C3-C2-N1-C0C
3	B	603	LPC	C3-C2-N1-C0B
3	B	603	LPC	CE-CF-CG-CH
3	A	605	LPC	CK-CL-CM-CN
3	A	604	LPC	CG-CH-CI-CJ
2	A	603	MYR	C5-C6-C7-C8
3	A	605	LPC	OQ2-CA-CB-CC
3	A	604	LPC	OQ2-CA-CB-CC
3	A	604	LPC	CI-CJ-CK-CL
3	B	604	LPC	OQ2-CA-CB-CC
3	A	605	LPC	C3-C2-N1-C0B
2	A	602	MYR	O2-C1-C2-C3
3	A	605	LPC	CG-CH-CI-CJ
3	A	605	LPC	OQ1-CA-CB-CC
2	B	602	MYR	C7-C8-C9-C10
3	A	604	LPC	OQ1-CA-CB-CC
3	A	604	LPC	C3-O4-P5-O5A
3	A	606	LPC	OQ2-CA-CB-CC
2	A	601	MYR	O2-C1-C2-C3

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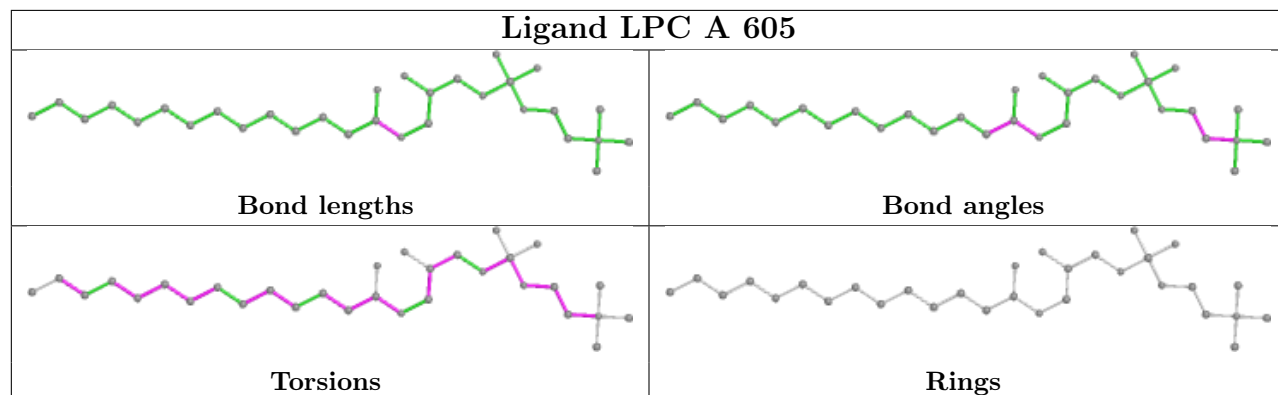
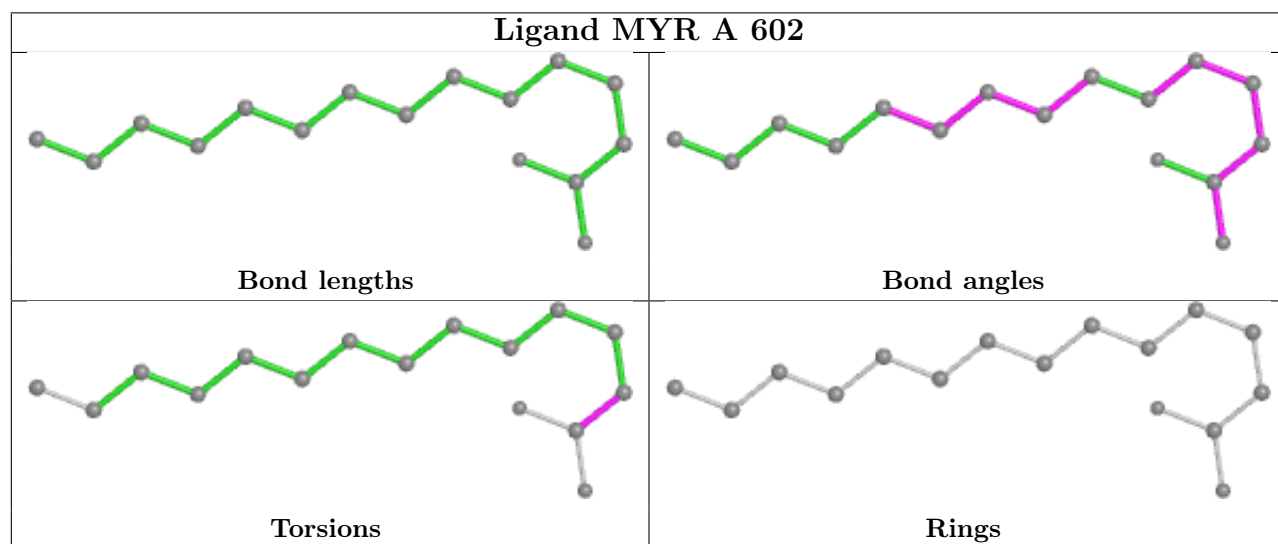
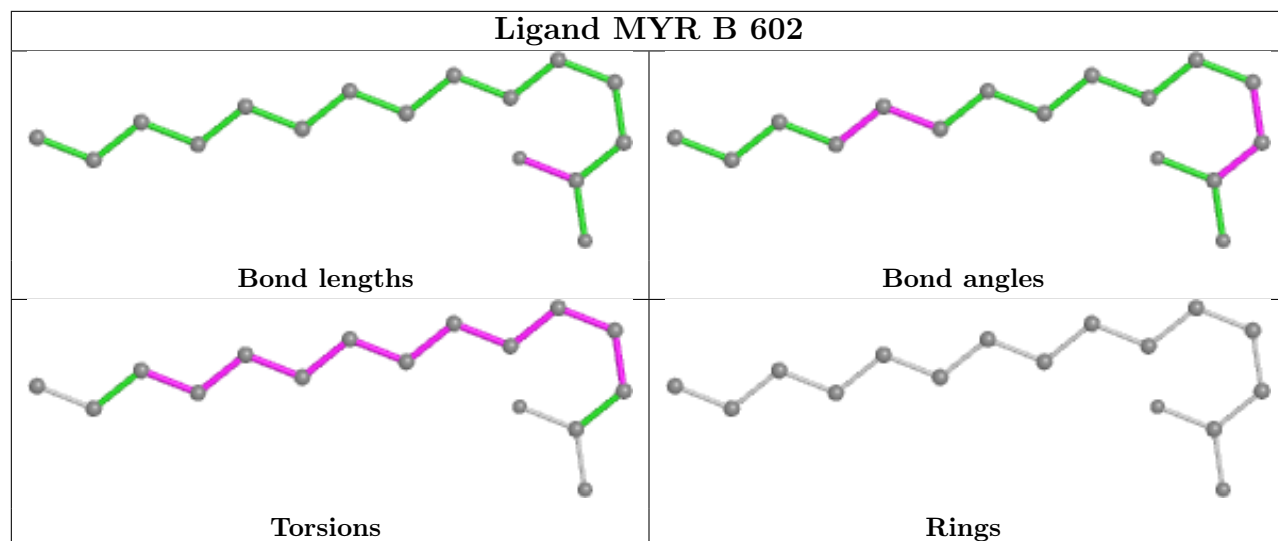
Mol	Chain	Res	Type	Atoms
2	A	603	MYR	O2-C1-C2-C3
3	A	605	LPC	C2-C3-O4-P5
2	B	606	MYR	O2-C1-C2-C3
3	A	605	LPC	O6-C7-C8-C9
2	A	601	MYR	O1-C1-C2-C3
2	A	602	MYR	O1-C1-C2-C3
3	A	606	LPC	OQ1-CA-CB-CC
3	A	606	LPC	CB-CC-CD-CE
3	B	604	LPC	OQ1-CA-CB-CC

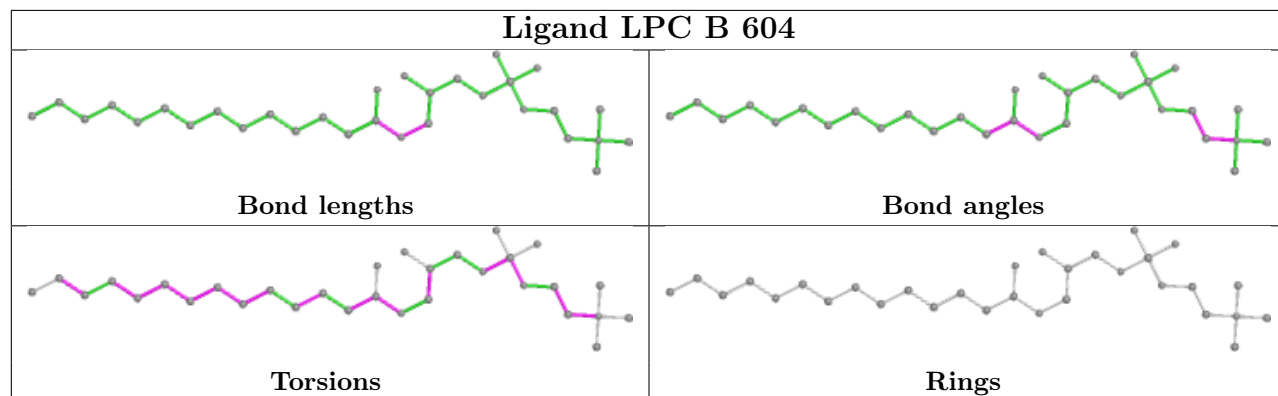
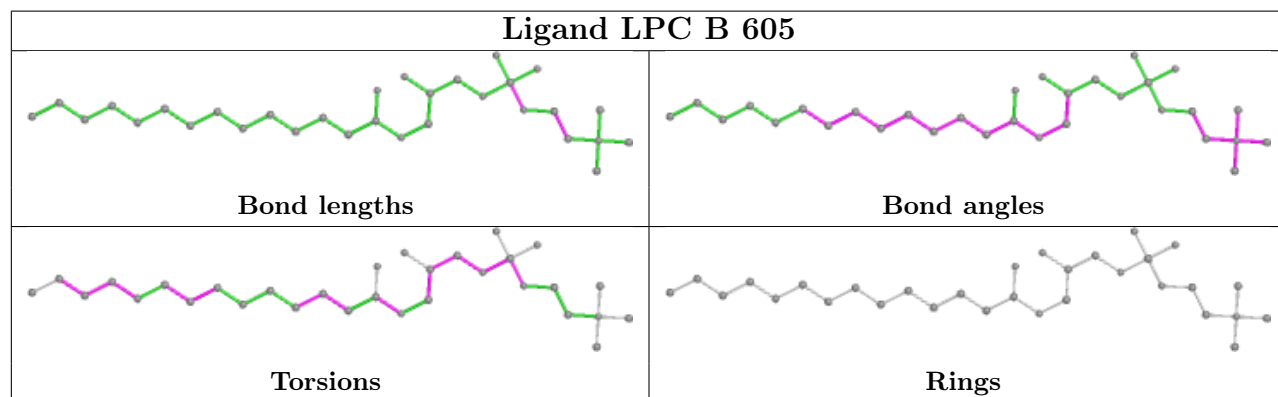
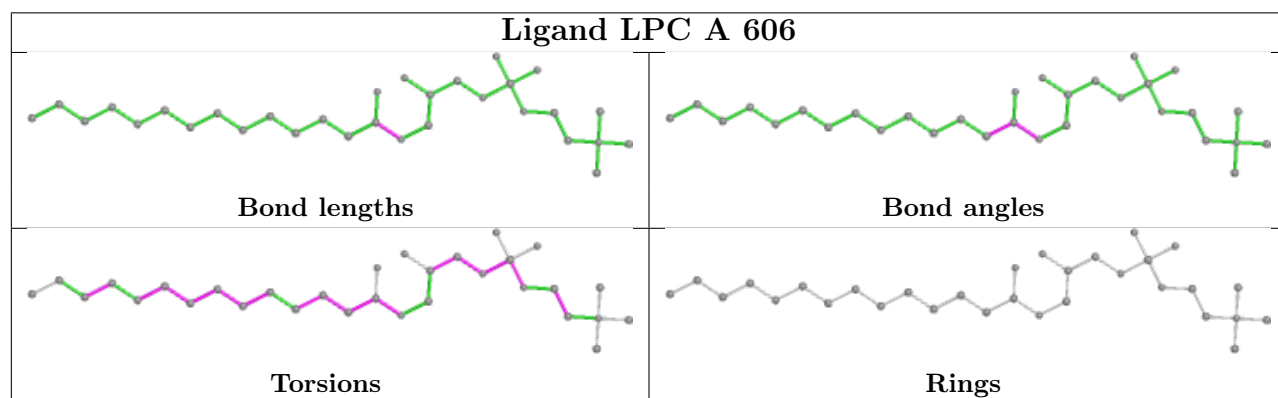
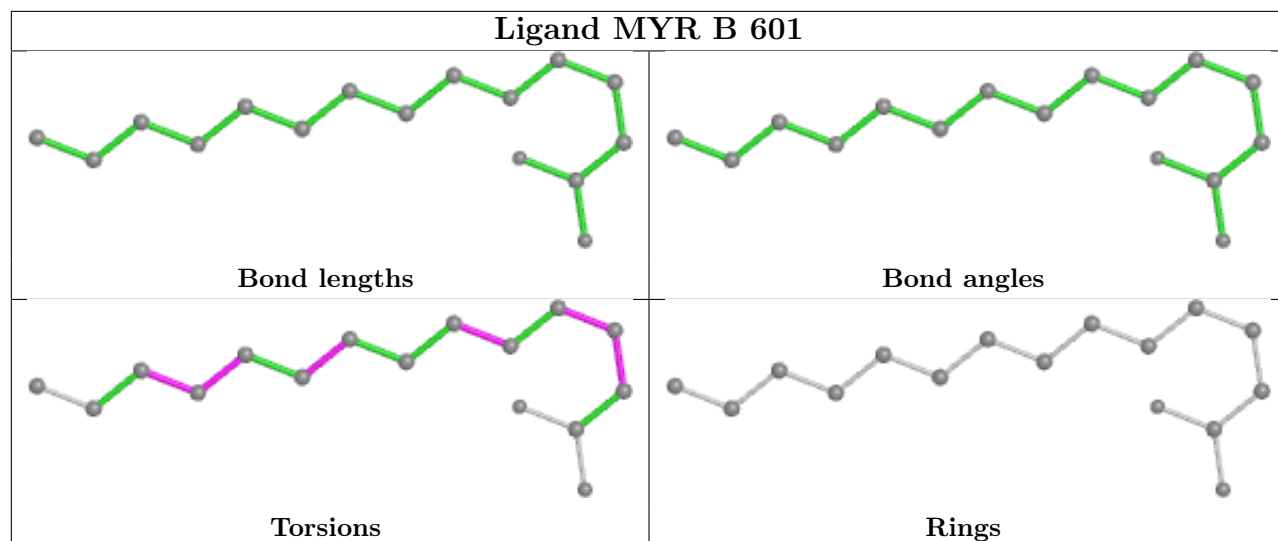
There are no ring outliers.

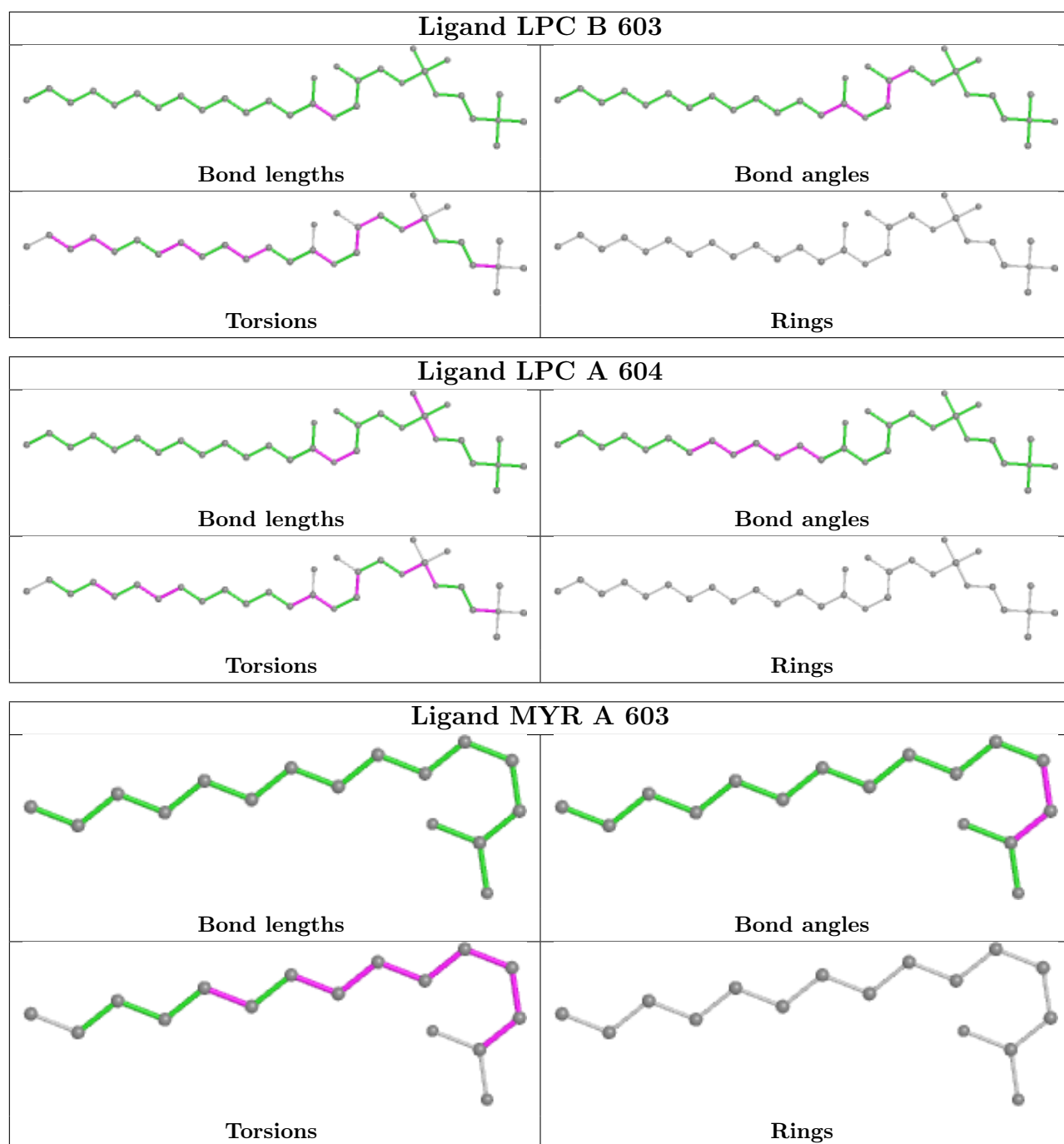
12 monomers are involved in 206 short contacts:

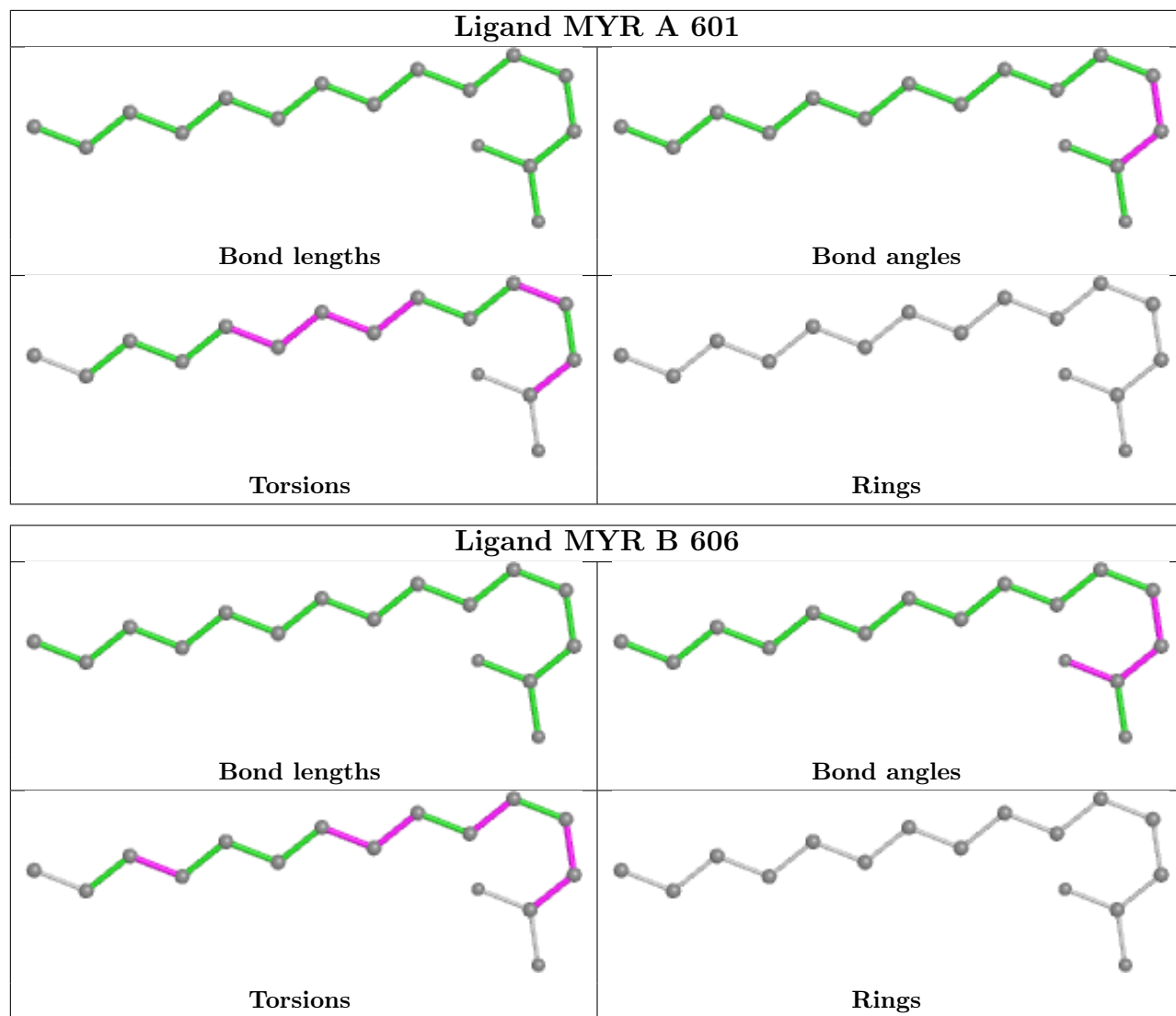
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	B	602	MYR	11	0
2	A	602	MYR	4	0
3	A	605	LPC	44	0
2	B	601	MYR	15	0
3	A	606	LPC	21	0
3	B	605	LPC	20	0
3	B	604	LPC	19	0
3	B	603	LPC	42	0
3	A	604	LPC	25	0
2	A	603	MYR	1	0
2	A	601	MYR	1	0
2	B	606	MYR	3	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less 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, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q < 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	579/580 (99%)	-0.59	1 (0%) 95 87	25, 50, 83, 154	0
1	B	579/580 (99%)	-0.60	0 100 100	21, 49, 83, 124	0
All	All	1158/1160 (99%)	-0.59	1 (0%) 95 89	21, 50, 83, 154	0

All (1) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	561	ALA	3.7

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, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q < 0.9' lists the number of atoms with occupancy less than 0.9.

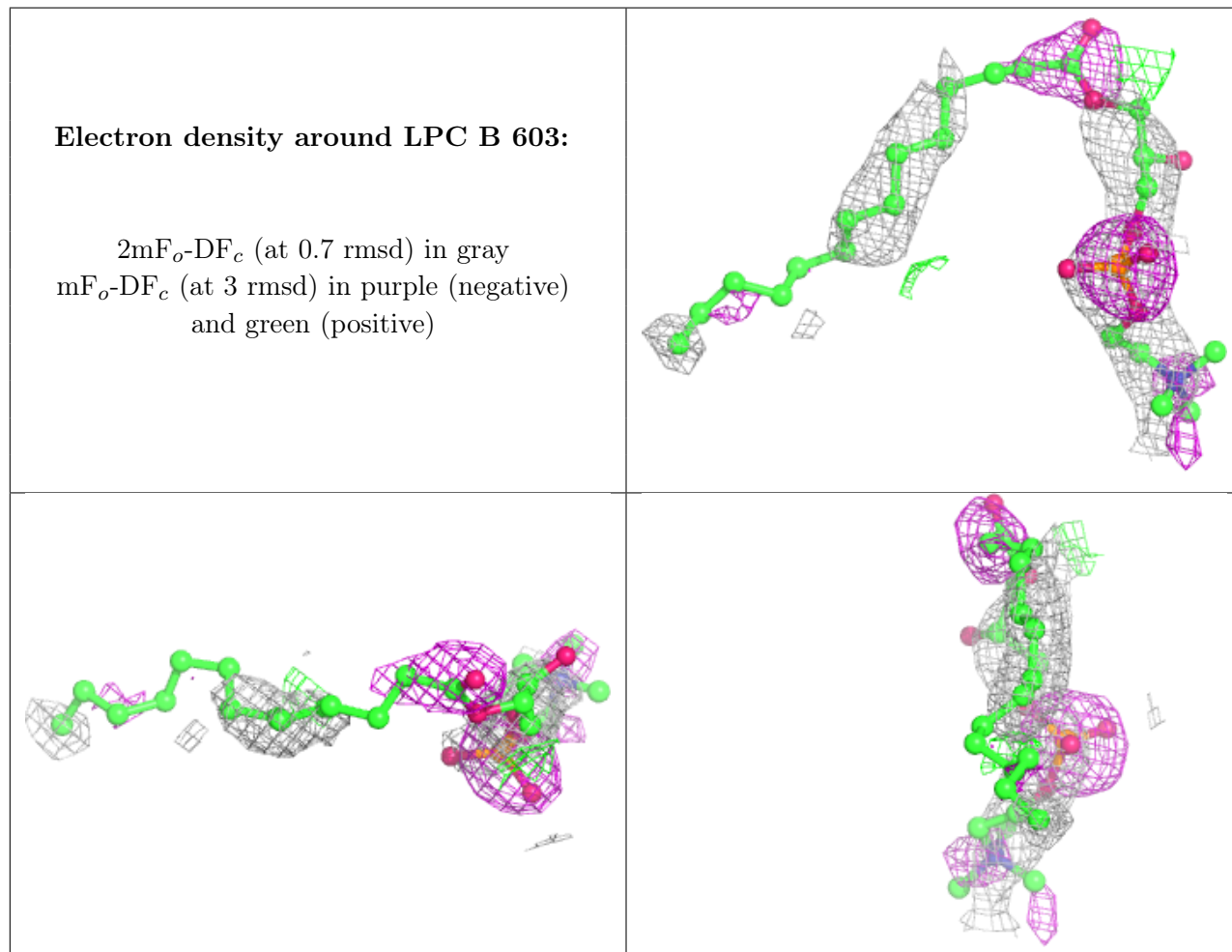
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
3	LPC	B	603	31/31	0.67	0.66	44,53,65,66	0
3	LPC	A	606	31/31	0.68	0.67	49,58,66,70	0
2	MYR	B	601	16/16	0.71	0.37	54,63,72,78	0

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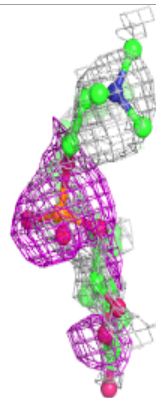
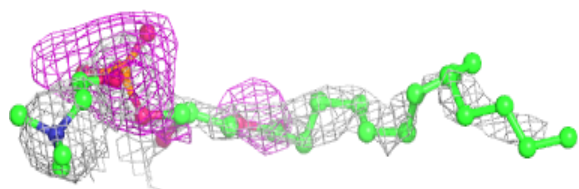
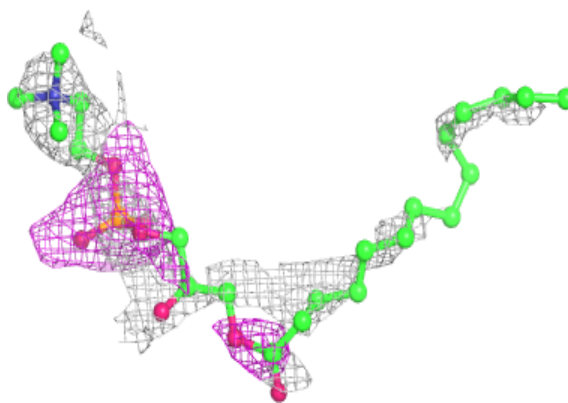
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
2	MYR	B	602	16/16	0.73	0.38	40,48,60,61	0
3	LPC	A	604	31/31	0.73	0.51	43,49,57,59	0
2	MYR	A	603	16/16	0.74	0.44	39,42,61,63	0
3	LPC	B	605	31/31	0.74	0.71	48,56,63,65	0
3	LPC	B	604	31/31	0.80	0.39	42,49,58,60	0
3	LPC	A	605	31/31	0.81	0.41	43,48,55,63	0
2	MYR	A	601	16/16	0.84	0.21	40,48,67,68	0
2	MYR	A	602	16/16	0.85	0.32	47,50,56,56	0
2	MYR	B	606	16/16	0.88	0.30	38,43,50,52	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.



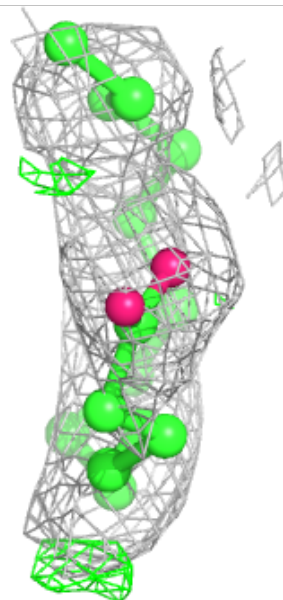
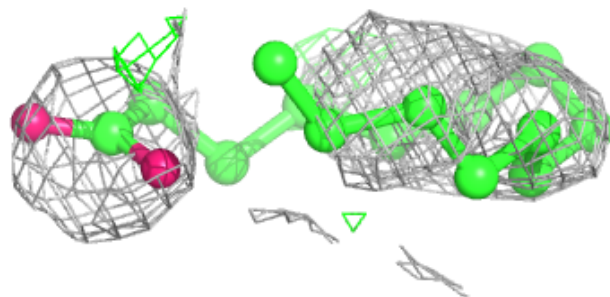
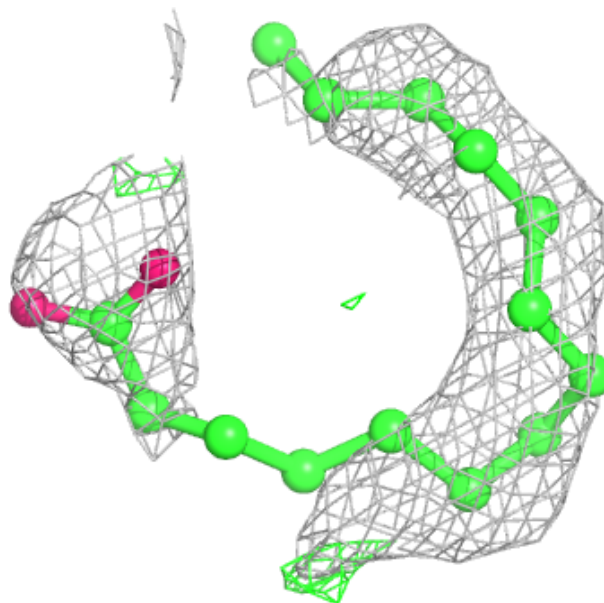
Electron density around LPC A 606:

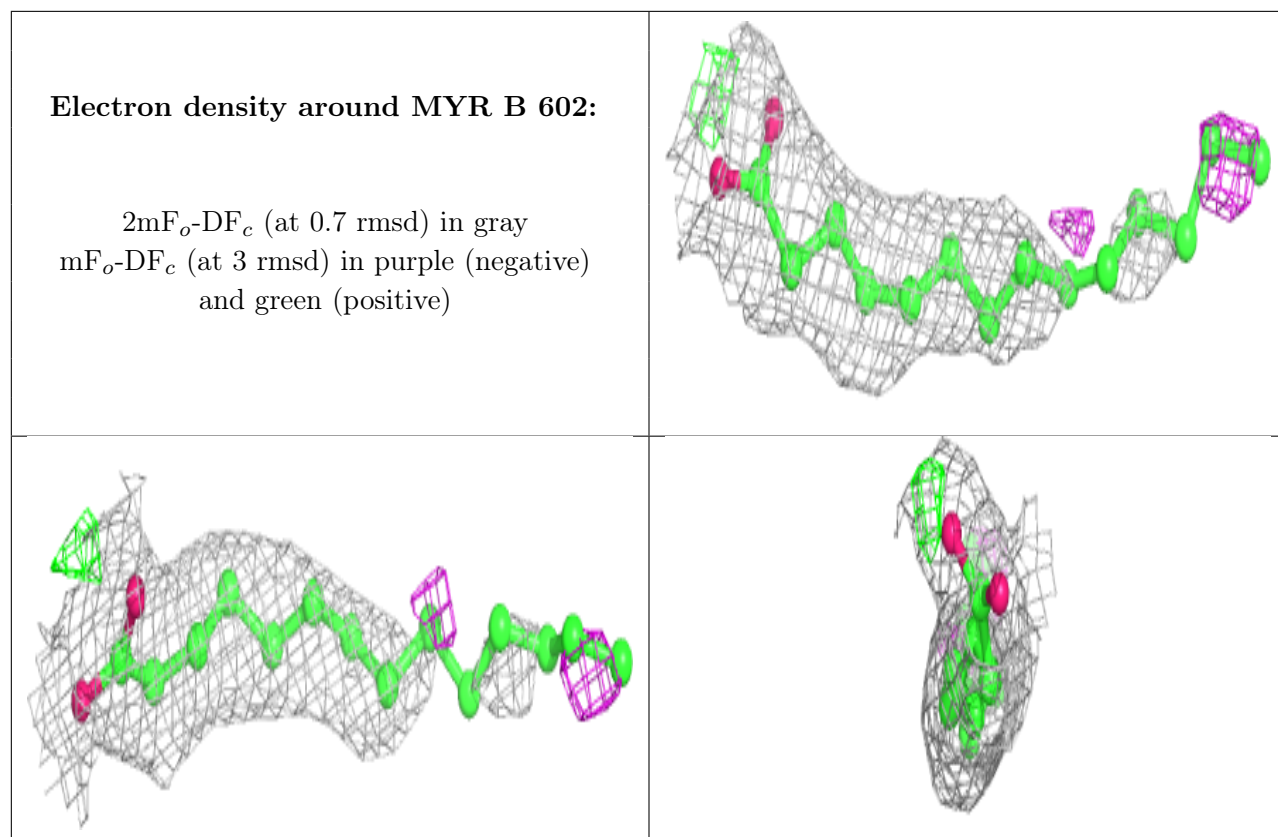
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around MYR B 601:

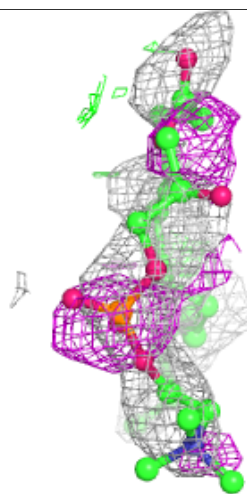
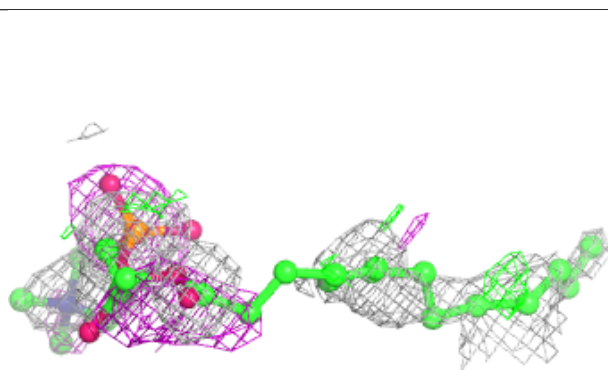
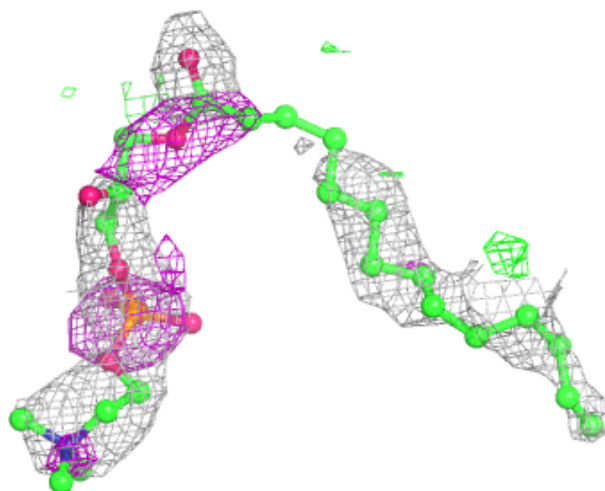
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





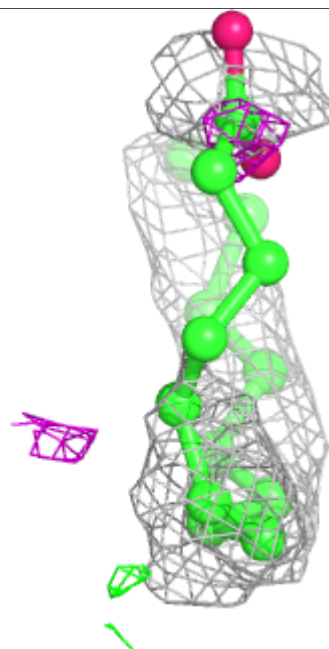
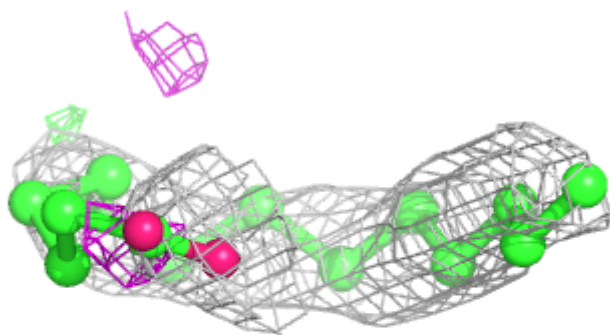
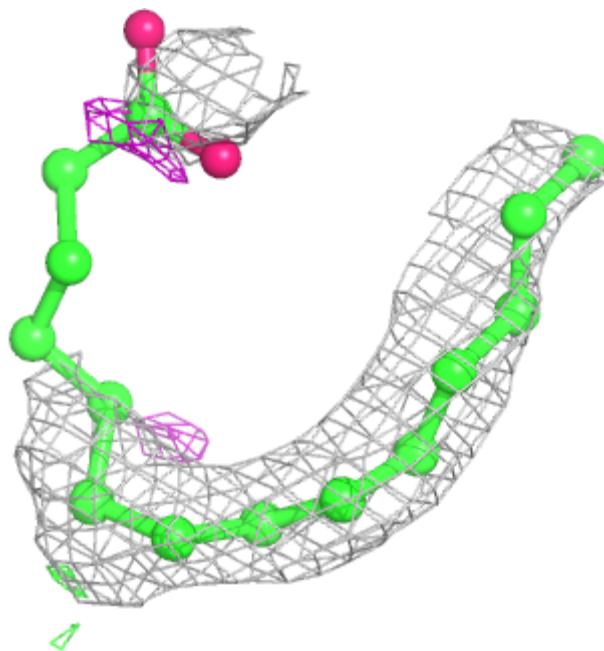
Electron density around LPC A 604:

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



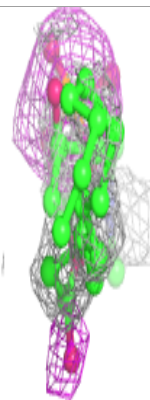
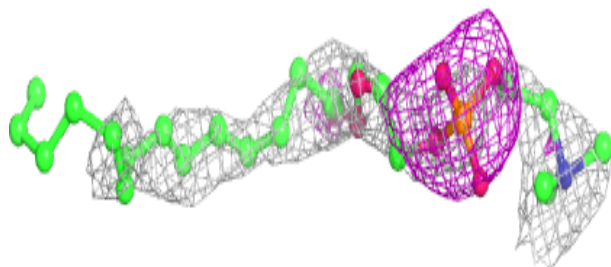
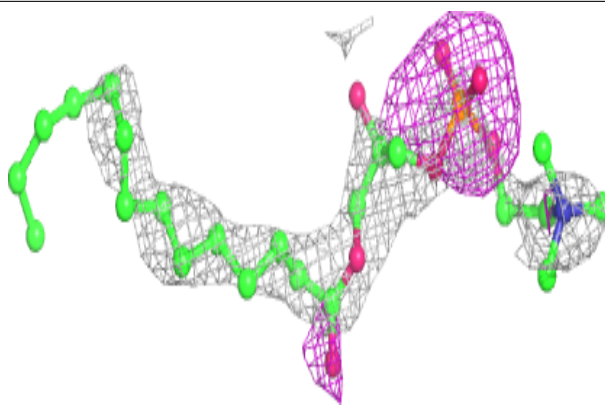
Electron density around MYR A 603:

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

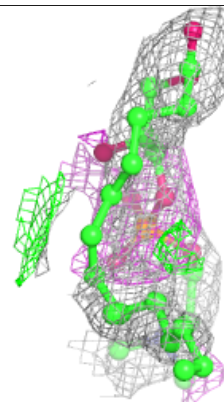
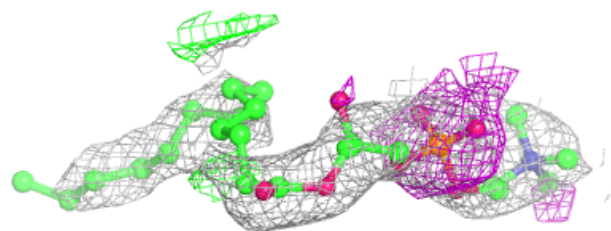
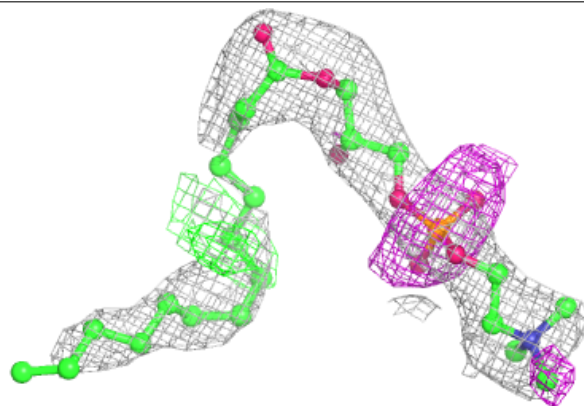


Electron density around LPC B 605:

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

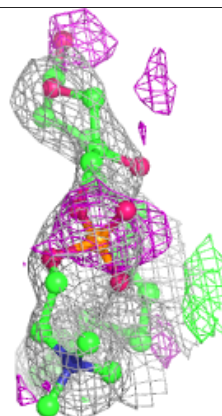
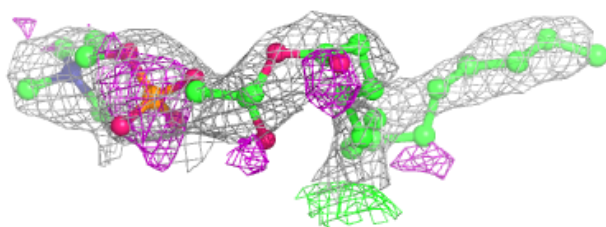
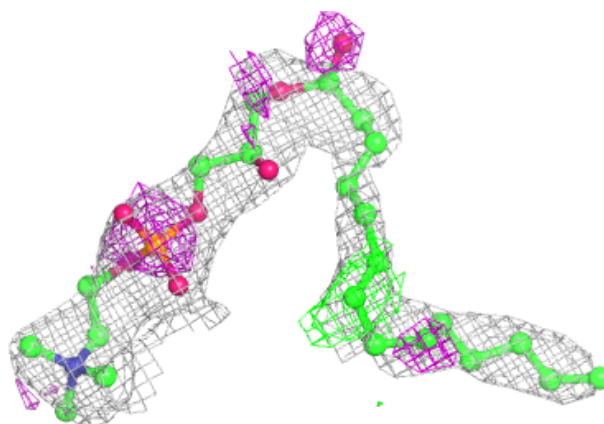
**Electron density around LPC B 604:**

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and green (positive)

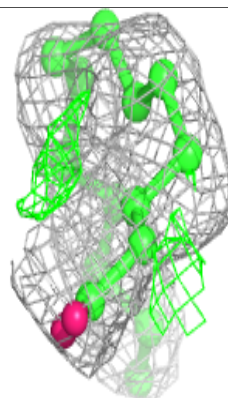
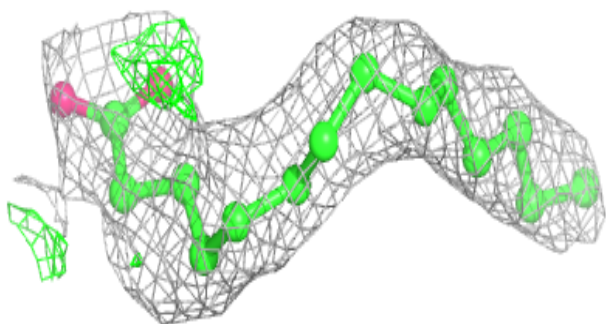
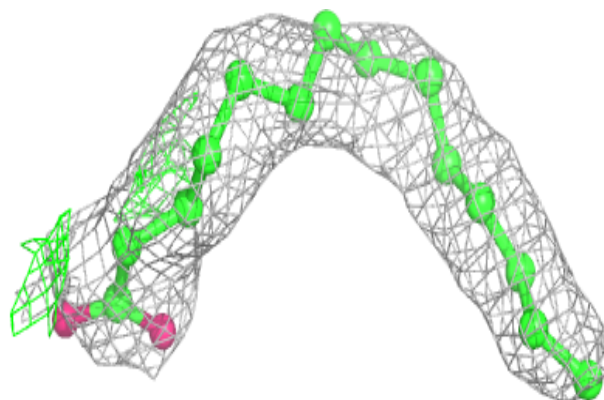


Electron density around LPC A 605:

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 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

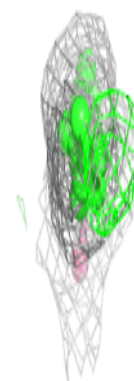
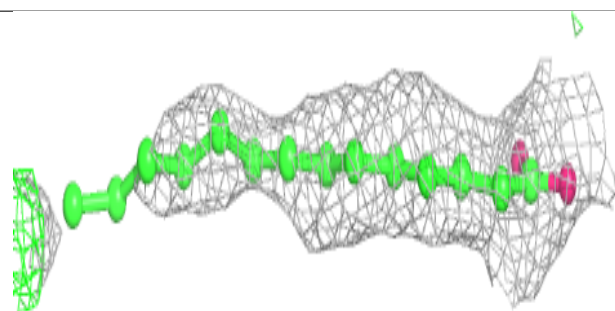
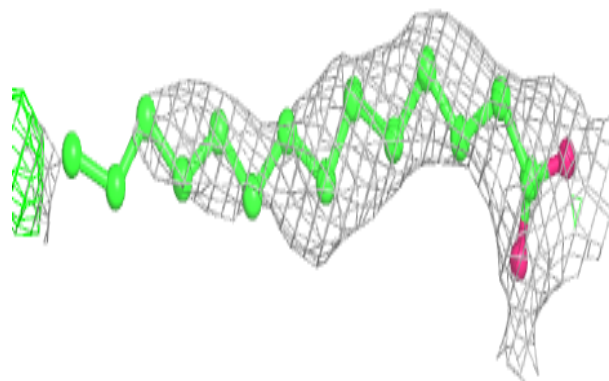
**Electron density around MYR A 601:**

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 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

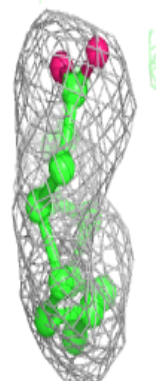
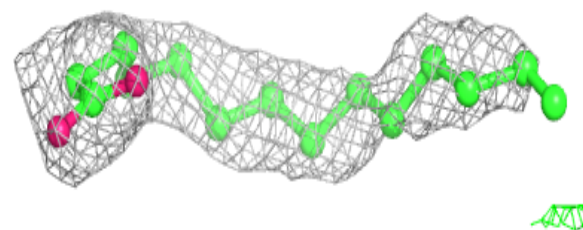
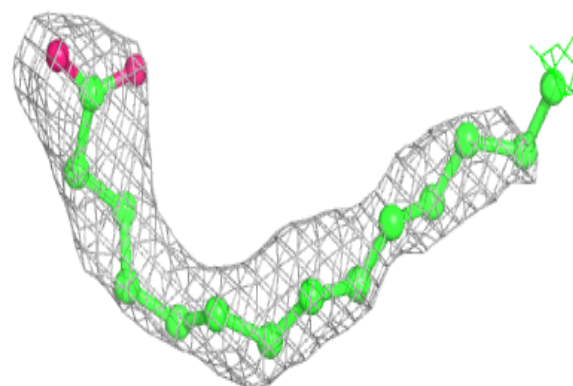


Electron density around MYR A 602:

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 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

**Electron density around MYR B 606:**

$2mF_o-DF_c$ (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.