



Full wwPDB X-ray Structure Validation Report ⓘ

Sep 14, 2023 – 05:42 AM EDT

PDB ID : 4V81
Title : The crystal structure of yeast CCT reveals intrinsic asymmetry of eukaryotic cytosolic chaperonins
Authors : Dekker, C.; Roe, S.M.; McCormack, E.A.; Beuron, F.; Pearl, L.H.; Willison, K.R.
Deposited on : 2010-10-17
Resolution : 3.80 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)
Xtrriage (Phenix) : 1.13
EDS : 2.35.1
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) : 2.35.1

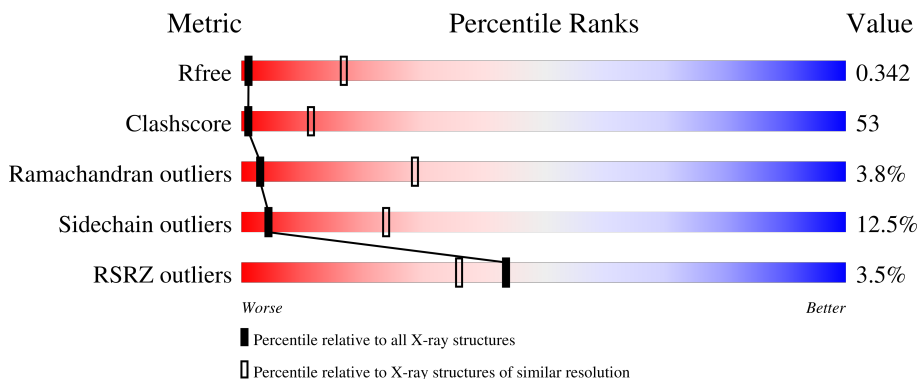
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION



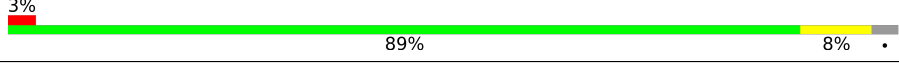
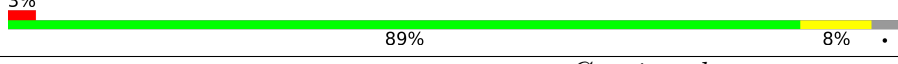
The reported resolution of this entry is 3.80 Å.

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	1212 (4.00-3.60)
Clashscore	141614	1288 (4.00-3.60)
Ramachandran outliers	138981	1243 (4.00-3.60)
Sidechain outliers	138945	1237 (4.00-3.60)
RSRZ outliers	127900	1121 (4.00-3.60)

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	559	 2% 52% 39% 6% •
1	I	559	 5% 53% 38% 6% •
1	a	559	 3% 89% 8% •
1	i	559	 3% 89% 8% •



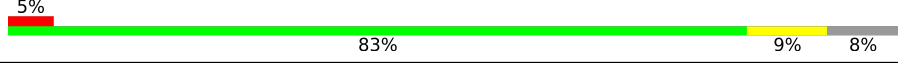
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Mol	Chain	Length	Quality of chain
2	B	527	36% 49% 11% .
2	J	527	34% 51% 12% .
2	b	527	82% 14% ..
2	j	527	82% 14% ..
3	C	590	45% 37% 5% 13%
3	K	590	46% 36% 5% 13%
3	c	590	79% 7% 13%
3	k	590	79% 8% 13%
4	D	528	50% 43% 6% .
4	L	528	50% 43% 5% .
4	d	528	91% 8% .
4	l	528	91% 8% .
5	E	562	48% 39% 6% 7%
5	M	562	48% 39% 6% 7%
5	e	562	84% 9% . 7%
5	m	562	84% 9% . 7%
6	F	546	35% 50% 12% ..
6	N	546	37% 49% 11% ..
6	f	546	83% 14% ..
6	n	546	84% 14% ..
7	G	550	43% 41% 8% 7%
7	O	550	45% 40% 8% 7%
7	g	550	83% 10% 7%
7	o	550	83% 10% 7%
8	H	568	46% 39% 7% 8%

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Mol	Chain	Length	Quality of chain
8	P	568	
8	h	568	
8	p	568	

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
10	BEF	C	1102	-	-	X	-
10	BEF	F	602	-	-	X	-
10	BEF	N	602	-	-	X	-
9	ADP	A	601	X	-	-	-
9	ADP	B	601	X	-	-	-
9	ADP	C	1101	X	-	-	-
9	ADP	D	601	X	-	-	-
9	ADP	E	601	X	-	-	-
9	ADP	G	601	X	-	-	-
9	ADP	H	601	X	-	-	-
9	ADP	J	601	X	-	-	-
9	ADP	M	601	X	-	-	-
9	ADP	N	601	X	-	-	-
9	ADP	P	601	X	-	-	-
9	ADP	a	1601	X	-	-	-
9	ADP	b	1601	X	-	-	-
9	ADP	e	1601	X	-	-	-
9	ADP	f	1601	X	-	-	-
9	ADP	g	1601	X	-	-	-
9	ADP	h	1601	X	-	-	-
9	ADP	k	2101	X	-	-	-
9	ADP	m	1601	X	-	-	-
9	ADP	n	1601	X	-	-	-
9	ADP	p	1601	X	-	-	-

2 Entry composition [i](#)

There are 12 unique types of molecules in this entry. The entry contains 111235 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 T-complex protein 1 subunit alpha.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	544	3492	2146	600	732	14	0	0	0
1	I	544	3492	2146	600	732	14	0	0	0
1	a	544	3492	2146	600	732	14	0	0	0
1	i	544	3492	2146	600	732	14	0	0	0

- Molecule 2 is a protein called T-complex protein 1 subunit beta.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	B	513	3459	2125	597	728	9	0	0	0
2	J	513	3459	2125	597	728	9	0	0	0
2	b	513	3460	2126	597	728	9	0	0	0
2	j	513	3457	2123	597	728	9	0	0	0

- Molecule 3 is a protein called T-complex protein 1 subunit gamma.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	C	514	3392	2104	590	685	13	0	0	0
3	K	514	3393	2104	590	685	14	0	0	0
3	c	514	3395	2106	590	685	14	0	0	0
3	k	514	3395	2106	590	685	14	0	0	0

There are 224 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C	1001	GLY	-	SEE REMARK 999	UNP P39077
C	1002	SER	-	SEE REMARK 999	UNP P39077
C	1003	GLY	-	SEE REMARK 999	UNP P39077
C	1004	SER	-	SEE REMARK 999	UNP P39077
C	1005	GLY	-	SEE REMARK 999	UNP P39077
C	1006	TRP	-	SEE REMARK 999	UNP P39077
C	1007	SER	-	SEE REMARK 999	UNP P39077
C	1008	HIS	-	SEE REMARK 999	UNP P39077
C	1009	PRO	-	SEE REMARK 999	UNP P39077
C	1010	GLN	-	SEE REMARK 999	UNP P39077
C	1011	PHE	-	SEE REMARK 999	UNP P39077
C	1012	GLU	-	SEE REMARK 999	UNP P39077
C	1013	LYS	-	SEE REMARK 999	UNP P39077
C	1014	GLY	-	SEE REMARK 999	UNP P39077
C	1015	SER	-	SEE REMARK 999	UNP P39077
C	1016	GLY	-	SEE REMARK 999	UNP P39077
C	1017	LYS	-	SEE REMARK 999	UNP P39077
C	1018	ARG	-	SEE REMARK 999	UNP P39077
C	1019	ARG	-	SEE REMARK 999	UNP P39077
C	1020	TRP	-	SEE REMARK 999	UNP P39077
C	1021	LYS	-	SEE REMARK 999	UNP P39077
C	1022	LYS	-	SEE REMARK 999	UNP P39077
C	1023	ASN	-	SEE REMARK 999	UNP P39077
C	1024	PHE	-	SEE REMARK 999	UNP P39077
C	1025	ILE	-	SEE REMARK 999	UNP P39077
C	1026	ALA	-	SEE REMARK 999	UNP P39077
C	1027	VAL	-	SEE REMARK 999	UNP P39077
C	1028	SER	-	SEE REMARK 999	UNP P39077
C	1029	ALA	-	SEE REMARK 999	UNP P39077
C	1030	ALA	-	SEE REMARK 999	UNP P39077
C	1031	ASN	-	SEE REMARK 999	UNP P39077
C	1032	ARG	-	SEE REMARK 999	UNP P39077
C	1033	PHE	-	SEE REMARK 999	UNP P39077
C	1034	LYS	-	SEE REMARK 999	UNP P39077
C	1035	LYS	-	SEE REMARK 999	UNP P39077
C	1036	ILE	-	SEE REMARK 999	UNP P39077
C	1037	SER	-	SEE REMARK 999	UNP P39077
C	1038	SER	-	SEE REMARK 999	UNP P39077
C	1039	SER	-	SEE REMARK 999	UNP P39077
C	1040	GLY	-	SEE REMARK 999	UNP P39077
C	1041	ALA	-	SEE REMARK 999	UNP P39077
C	1042	LEU	-	SEE REMARK 999	UNP P39077

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Chain	Residue	Modelled	Actual	Comment	Reference
C	1043	GLY	-	SEE REMARK 999	UNP P39077
C	1044	SER	-	SEE REMARK 999	UNP P39077
C	1045	GLY	-	SEE REMARK 999	UNP P39077
C	1046	HIS	-	SEE REMARK 999	UNP P39077
C	1047	HIS	-	SEE REMARK 999	UNP P39077
C	1048	HIS	-	SEE REMARK 999	UNP P39077
C	1049	HIS	-	SEE REMARK 999	UNP P39077
C	1050	HIS	-	SEE REMARK 999	UNP P39077
C	1051	HIS	-	SEE REMARK 999	UNP P39077
C	1052	HIS	-	SEE REMARK 999	UNP P39077
C	1053	HIS	-	SEE REMARK 999	UNP P39077
C	1054	GLY	-	SEE REMARK 999	UNP P39077
C	1055	SER	-	SEE REMARK 999	UNP P39077
C	1056	GLY	-	SEE REMARK 999	UNP P39077
K	1001	GLY	-	SEE REMARK 999	UNP P39077
K	1002	SER	-	SEE REMARK 999	UNP P39077
K	1003	GLY	-	SEE REMARK 999	UNP P39077
K	1004	SER	-	SEE REMARK 999	UNP P39077
K	1005	GLY	-	SEE REMARK 999	UNP P39077
K	1006	TRP	-	SEE REMARK 999	UNP P39077
K	1007	SER	-	SEE REMARK 999	UNP P39077
K	1008	HIS	-	SEE REMARK 999	UNP P39077
K	1009	PRO	-	SEE REMARK 999	UNP P39077
K	1010	GLN	-	SEE REMARK 999	UNP P39077
K	1011	PHE	-	SEE REMARK 999	UNP P39077
K	1012	GLU	-	SEE REMARK 999	UNP P39077
K	1013	LYS	-	SEE REMARK 999	UNP P39077
K	1014	GLY	-	SEE REMARK 999	UNP P39077
K	1015	SER	-	SEE REMARK 999	UNP P39077
K	1016	GLY	-	SEE REMARK 999	UNP P39077
K	1017	LYS	-	SEE REMARK 999	UNP P39077
K	1018	ARG	-	SEE REMARK 999	UNP P39077
K	1019	ARG	-	SEE REMARK 999	UNP P39077
K	1020	TRP	-	SEE REMARK 999	UNP P39077
K	1021	LYS	-	SEE REMARK 999	UNP P39077
K	1022	LYS	-	SEE REMARK 999	UNP P39077
K	1023	ASN	-	SEE REMARK 999	UNP P39077
K	1024	PHE	-	SEE REMARK 999	UNP P39077
K	1025	ILE	-	SEE REMARK 999	UNP P39077
K	1026	ALA	-	SEE REMARK 999	UNP P39077
K	1027	VAL	-	SEE REMARK 999	UNP P39077
K	1028	SER	-	SEE REMARK 999	UNP P39077

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Chain	Residue	Modelled	Actual	Comment	Reference
K	1029	ALA	-	SEE REMARK 999	UNP P39077
K	1030	ALA	-	SEE REMARK 999	UNP P39077
K	1031	ASN	-	SEE REMARK 999	UNP P39077
K	1032	ARG	-	SEE REMARK 999	UNP P39077
K	1033	PHE	-	SEE REMARK 999	UNP P39077
K	1034	LYS	-	SEE REMARK 999	UNP P39077
K	1035	LYS	-	SEE REMARK 999	UNP P39077
K	1036	ILE	-	SEE REMARK 999	UNP P39077
K	1037	SER	-	SEE REMARK 999	UNP P39077
K	1038	SER	-	SEE REMARK 999	UNP P39077
K	1039	SER	-	SEE REMARK 999	UNP P39077
K	1040	GLY	-	SEE REMARK 999	UNP P39077
K	1041	ALA	-	SEE REMARK 999	UNP P39077
K	1042	LEU	-	SEE REMARK 999	UNP P39077
K	1043	GLY	-	SEE REMARK 999	UNP P39077
K	1044	SER	-	SEE REMARK 999	UNP P39077
K	1045	GLY	-	SEE REMARK 999	UNP P39077
K	1046	HIS	-	SEE REMARK 999	UNP P39077
K	1047	HIS	-	SEE REMARK 999	UNP P39077
K	1048	HIS	-	SEE REMARK 999	UNP P39077
K	1049	HIS	-	SEE REMARK 999	UNP P39077
K	1050	HIS	-	SEE REMARK 999	UNP P39077
K	1051	HIS	-	SEE REMARK 999	UNP P39077
K	1052	HIS	-	SEE REMARK 999	UNP P39077
K	1053	HIS	-	SEE REMARK 999	UNP P39077
K	1054	GLY	-	SEE REMARK 999	UNP P39077
K	1055	SER	-	SEE REMARK 999	UNP P39077
K	1056	GLY	-	SEE REMARK 999	UNP P39077
c	2001	GLY	-	SEE REMARK 999	UNP P39077
c	2002	SER	-	SEE REMARK 999	UNP P39077
c	2003	GLY	-	SEE REMARK 999	UNP P39077
c	2004	SER	-	SEE REMARK 999	UNP P39077
c	2005	GLY	-	SEE REMARK 999	UNP P39077
c	2006	TRP	-	SEE REMARK 999	UNP P39077
c	2007	SER	-	SEE REMARK 999	UNP P39077
c	2008	HIS	-	SEE REMARK 999	UNP P39077
c	2009	PRO	-	SEE REMARK 999	UNP P39077
c	2010	GLN	-	SEE REMARK 999	UNP P39077
c	2011	PHE	-	SEE REMARK 999	UNP P39077
c	2012	GLU	-	SEE REMARK 999	UNP P39077
c	2013	LYS	-	SEE REMARK 999	UNP P39077
c	2014	GLY	-	SEE REMARK 999	UNP P39077

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Chain	Residue	Modelled	Actual	Comment	Reference
c	2015	SER	-	SEE REMARK 999	UNP P39077
c	2016	GLY	-	SEE REMARK 999	UNP P39077
c	2017	LYS	-	SEE REMARK 999	UNP P39077
c	2018	ARG	-	SEE REMARK 999	UNP P39077
c	2019	ARG	-	SEE REMARK 999	UNP P39077
c	2020	TRP	-	SEE REMARK 999	UNP P39077
c	2021	LYS	-	SEE REMARK 999	UNP P39077
c	2022	LYS	-	SEE REMARK 999	UNP P39077
c	2023	ASN	-	SEE REMARK 999	UNP P39077
c	2024	PHE	-	SEE REMARK 999	UNP P39077
c	2025	ILE	-	SEE REMARK 999	UNP P39077
c	2026	ALA	-	SEE REMARK 999	UNP P39077
c	2027	VAL	-	SEE REMARK 999	UNP P39077
c	2028	SER	-	SEE REMARK 999	UNP P39077
c	2029	ALA	-	SEE REMARK 999	UNP P39077
c	2030	ALA	-	SEE REMARK 999	UNP P39077
c	2031	ASN	-	SEE REMARK 999	UNP P39077
c	2032	ARG	-	SEE REMARK 999	UNP P39077
c	2033	PHE	-	SEE REMARK 999	UNP P39077
c	2034	LYS	-	SEE REMARK 999	UNP P39077
c	2035	LYS	-	SEE REMARK 999	UNP P39077
c	2036	ILE	-	SEE REMARK 999	UNP P39077
c	2037	SER	-	SEE REMARK 999	UNP P39077
c	2038	SER	-	SEE REMARK 999	UNP P39077
c	2039	SER	-	SEE REMARK 999	UNP P39077
c	2040	GLY	-	SEE REMARK 999	UNP P39077
c	2041	ALA	-	SEE REMARK 999	UNP P39077
c	2042	LEU	-	SEE REMARK 999	UNP P39077
c	2043	GLY	-	SEE REMARK 999	UNP P39077
c	2044	SER	-	SEE REMARK 999	UNP P39077
c	2045	GLY	-	SEE REMARK 999	UNP P39077
c	2046	HIS	-	SEE REMARK 999	UNP P39077
c	2047	HIS	-	SEE REMARK 999	UNP P39077
c	2048	HIS	-	SEE REMARK 999	UNP P39077
c	2049	HIS	-	SEE REMARK 999	UNP P39077
c	2050	HIS	-	SEE REMARK 999	UNP P39077
c	2051	HIS	-	SEE REMARK 999	UNP P39077
c	2052	HIS	-	SEE REMARK 999	UNP P39077
c	2053	HIS	-	SEE REMARK 999	UNP P39077
c	2054	GLY	-	SEE REMARK 999	UNP P39077
c	2055	SER	-	SEE REMARK 999	UNP P39077
c	2056	GLY	-	SEE REMARK 999	UNP P39077

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Chain	Residue	Modelled	Actual	Comment	Reference
k	2001	GLY	-	SEE REMARK 999	UNP P39077
k	2002	SER	-	SEE REMARK 999	UNP P39077
k	2003	GLY	-	SEE REMARK 999	UNP P39077
k	2004	SER	-	SEE REMARK 999	UNP P39077
k	2005	GLY	-	SEE REMARK 999	UNP P39077
k	2006	TRP	-	SEE REMARK 999	UNP P39077
k	2007	SER	-	SEE REMARK 999	UNP P39077
k	2008	HIS	-	SEE REMARK 999	UNP P39077
k	2009	PRO	-	SEE REMARK 999	UNP P39077
k	2010	GLN	-	SEE REMARK 999	UNP P39077
k	2011	PHE	-	SEE REMARK 999	UNP P39077
k	2012	GLU	-	SEE REMARK 999	UNP P39077
k	2013	LYS	-	SEE REMARK 999	UNP P39077
k	2014	GLY	-	SEE REMARK 999	UNP P39077
k	2015	SER	-	SEE REMARK 999	UNP P39077
k	2016	GLY	-	SEE REMARK 999	UNP P39077
k	2017	LYS	-	SEE REMARK 999	UNP P39077
k	2018	ARG	-	SEE REMARK 999	UNP P39077
k	2019	ARG	-	SEE REMARK 999	UNP P39077
k	2020	TRP	-	SEE REMARK 999	UNP P39077
k	2021	LYS	-	SEE REMARK 999	UNP P39077
k	2022	LYS	-	SEE REMARK 999	UNP P39077
k	2023	ASN	-	SEE REMARK 999	UNP P39077
k	2024	PHE	-	SEE REMARK 999	UNP P39077
k	2025	ILE	-	SEE REMARK 999	UNP P39077
k	2026	ALA	-	SEE REMARK 999	UNP P39077
k	2027	VAL	-	SEE REMARK 999	UNP P39077
k	2028	SER	-	SEE REMARK 999	UNP P39077
k	2029	ALA	-	SEE REMARK 999	UNP P39077
k	2030	ALA	-	SEE REMARK 999	UNP P39077
k	2031	ASN	-	SEE REMARK 999	UNP P39077
k	2032	ARG	-	SEE REMARK 999	UNP P39077
k	2033	PHE	-	SEE REMARK 999	UNP P39077
k	2034	LYS	-	SEE REMARK 999	UNP P39077
k	2035	LYS	-	SEE REMARK 999	UNP P39077
k	2036	ILE	-	SEE REMARK 999	UNP P39077
k	2037	SER	-	SEE REMARK 999	UNP P39077
k	2038	SER	-	SEE REMARK 999	UNP P39077
k	2039	SER	-	SEE REMARK 999	UNP P39077
k	2040	GLY	-	SEE REMARK 999	UNP P39077
k	2041	ALA	-	SEE REMARK 999	UNP P39077
k	2042	LEU	-	SEE REMARK 999	UNP P39077

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Chain	Residue	Modelled	Actual	Comment	Reference
k	2043	GLY	-	SEE REMARK 999	UNP P39077
k	2044	SER	-	SEE REMARK 999	UNP P39077
k	2045	GLY	-	SEE REMARK 999	UNP P39077
k	2046	HIS	-	SEE REMARK 999	UNP P39077
k	2047	HIS	-	SEE REMARK 999	UNP P39077
k	2048	HIS	-	SEE REMARK 999	UNP P39077
k	2049	HIS	-	SEE REMARK 999	UNP P39077
k	2050	HIS	-	SEE REMARK 999	UNP P39077
k	2051	HIS	-	SEE REMARK 999	UNP P39077
k	2052	HIS	-	SEE REMARK 999	UNP P39077
k	2053	HIS	-	SEE REMARK 999	UNP P39077
k	2054	GLY	-	SEE REMARK 999	UNP P39077
k	2055	SER	-	SEE REMARK 999	UNP P39077
k	2056	GLY	-	SEE REMARK 999	UNP P39077

- Molecule 4 is a protein called T-complex protein 1 subunit delta.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	522	Total	C	N	O	S	0	0	0
			3398	2092	609	686	11			
4	L	522	Total	C	N	O	S	0	0	0
			3398	2092	609	686	11			
4	d	522	Total	C	N	O	S	0	0	0
			3398	2092	609	686	11			
4	l	522	Total	C	N	O	S	0	0	0
			3398	2092	609	686	11			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
D	345	ASP	GLY	engineered mutation	UNP P39078
L	345	ASP	GLY	engineered mutation	UNP P39078
d	1345	ASP	GLY	engineered mutation	UNP P39078
l	1345	ASP	GLY	engineered mutation	UNP P39078

- Molecule 5 is a protein called T-complex protein 1 subunit epsilon.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	E	525	Total	C	N	O	S	0	0	0
			3437	2110	599	720	8			
5	M	525	Total	C	N	O	S	0	0	0
			3437	2110	599	720	8			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	e	525	Total	C	N	O	S	0	0	0
			3437	2110	599	720	8			
5	m	525	Total	C	N	O	S	0	0	0
			3437	2110	599	720	8			

- Molecule 6 is a protein called T-complex protein 1 subunit zeta.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	533	Total	C	N	O	S	0	0	0
			3631	2253	629	740	9			
6	N	533	Total	C	N	O	S	0	0	0
			3628	2250	629	740	9			
6	f	533	Total	C	N	O	S	0	0	0
			3633	2255	630	739	9			
6	n	533	Total	C	N	O	S	0	0	0
			3629	2252	629	739	9			

- Molecule 7 is a protein called T-complex protein 1 subunit eta.

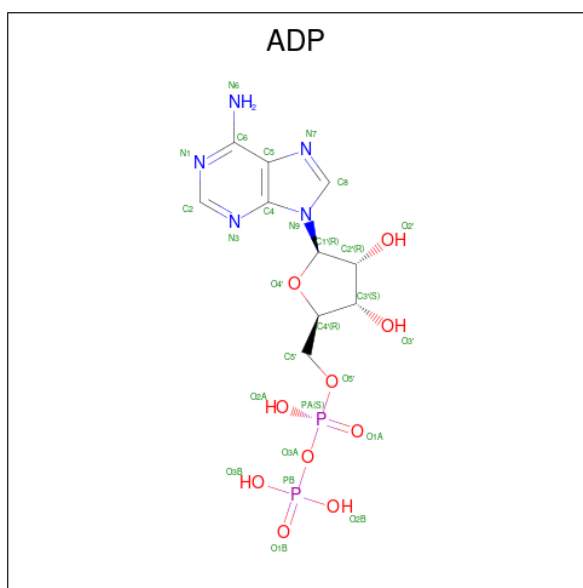
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	G	509	Total	C	N	O	S	0	0	0
			3317	2055	583	669	10			
7	O	509	Total	C	N	O	S	0	0	0
			3314	2052	583	669	10			
7	g	509	Total	C	N	O	S	0	0	0
			3314	2052	583	669	10			
7	o	509	Total	C	N	O	S	0	0	0
			3314	2052	583	669	10			

- Molecule 8 is a protein called T-complex protein 1 subunit theta.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	H	525	Total	C	N	O	S	0	0	0
			3487	2161	608	705	13			
8	P	525	Total	C	N	O	S	0	0	0
			3487	2161	608	705	13			
8	h	525	Total	C	N	O	S	0	0	0
			3485	2159	608	705	13			
8	p	525	Total	C	N	O	S	0	0	0
			3487	2161	608	705	13			

- Molecule 9 is ADENOSINE-5'-DIPHOSPHATE (three-letter code: ADP) (formula:

C₁₀H₁₅N₅O₁₀P₂).



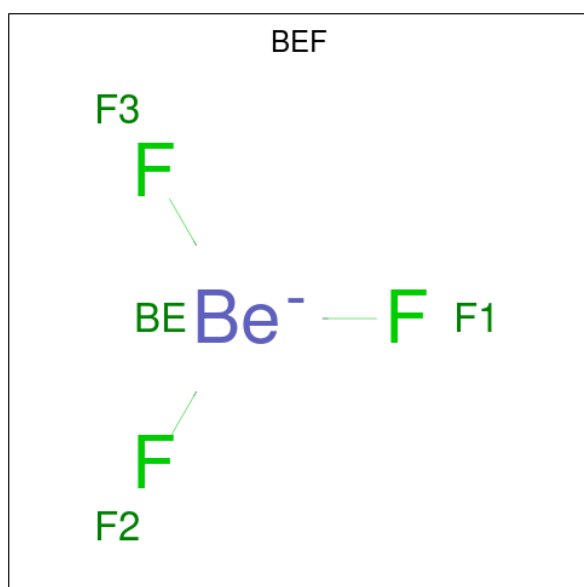
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
			Total	C	N	O	P		
9	A	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
9	B	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
9	C	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
9	D	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
9	E	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
9	F	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
9	G	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
9	H	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
9	J	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
9	L	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
9	M	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
9	N	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
9	P	1	Total	C	N	O	P	0	0
			27	10	5	10	2		

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
			Total	C	N	O	P		
9	a	1	Total 27	C 10	N 5	O 10	P 2	0	0
9	b	1	Total 27	C 10	N 5	O 10	P 2	0	0
9	e	1	Total 27	C 10	N 5	O 10	P 2	0	0
9	f	1	Total 27	C 10	N 5	O 10	P 2	0	0
9	g	1	Total 27	C 10	N 5	O 10	P 2	0	0
9	h	1	Total 27	C 10	N 5	O 10	P 2	0	0
9	k	1	Total 27	C 10	N 5	O 10	P 2	0	0
9	l	1	Total 27	C 10	N 5	O 10	P 2	0	0
9	m	1	Total 27	C 10	N 5	O 10	P 2	0	0
9	n	1	Total 27	C 10	N 5	O 10	P 2	0	0
9	p	1	Total 27	C 10	N 5	O 10	P 2	0	0

- Molecule 10 is BERYLLIUM TRIFLUORIDE ION (three-letter code: BEF) (formula: BeF₃).



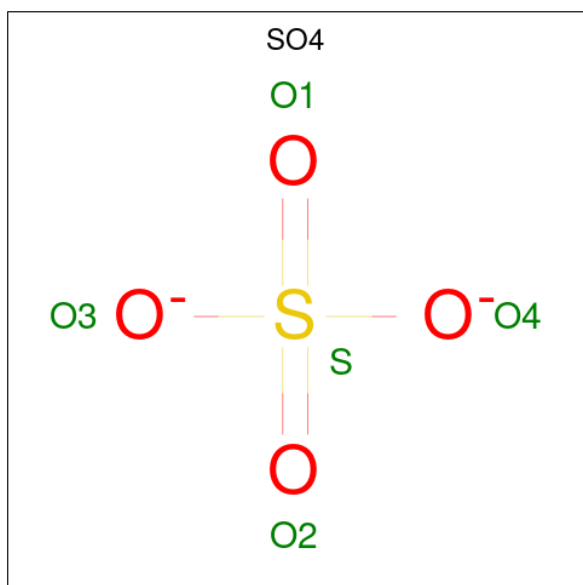
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
10	A	1	Total 4	Be 1	F 3	0	0
10	B	1	Total 4	Be 1	F 3	0	0
10	C	1	Total 4	Be 1	F 3	0	0
10	D	1	Total 4	Be 1	F 3	0	0
10	E	1	Total 4	Be 1	F 3	0	0
10	F	1	Total 4	Be 1	F 3	0	0
10	G	1	Total 4	Be 1	F 3	0	0
10	H	1	Total 4	Be 1	F 3	0	0
10	J	1	Total 4	Be 1	F 3	0	0
10	L	1	Total 4	Be 1	F 3	0	0
10	M	1	Total 4	Be 1	F 3	0	0
10	N	1	Total 4	Be 1	F 3	0	0
10	P	1	Total 4	Be 1	F 3	0	0
10	a	1	Total 4	Be 1	F 3	0	0
10	b	1	Total 4	Be 1	F 3	0	0
10	e	1	Total 4	Be 1	F 3	0	0
10	f	1	Total 4	Be 1	F 3	0	0
10	g	1	Total 4	Be 1	F 3	0	0
10	h	1	Total 4	Be 1	F 3	0	0
10	k	1	Total 4	Be 1	F 3	0	0
10	l	1	Total 4	Be 1	F 3	0	0
10	m	1	Total 4	Be 1	F 3	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
10	n	1	Total 4	Be 1	F 3	0	0
10	p	1	Total 4	Be 1	F 3	0	0

- Molecule 11 is SULFATE ION (three-letter code: SO4) (formula: O₄S).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
11	I	1	Total 5	O 4	S 1	0	0
11	K	1	Total 5	O 4	S 1	0	0
11	O	1	Total 5	O 4	S 1	0	0
11	c	1	Total 5	O 4	S 1	0	0
11	d	1	Total 5	O 4	S 1	0	0
11	i	1	Total 5	O 4	S 1	0	0
11	j	1	Total 5	O 4	S 1	0	0
11	o	1	Total 5	O 4	S 1	0	0

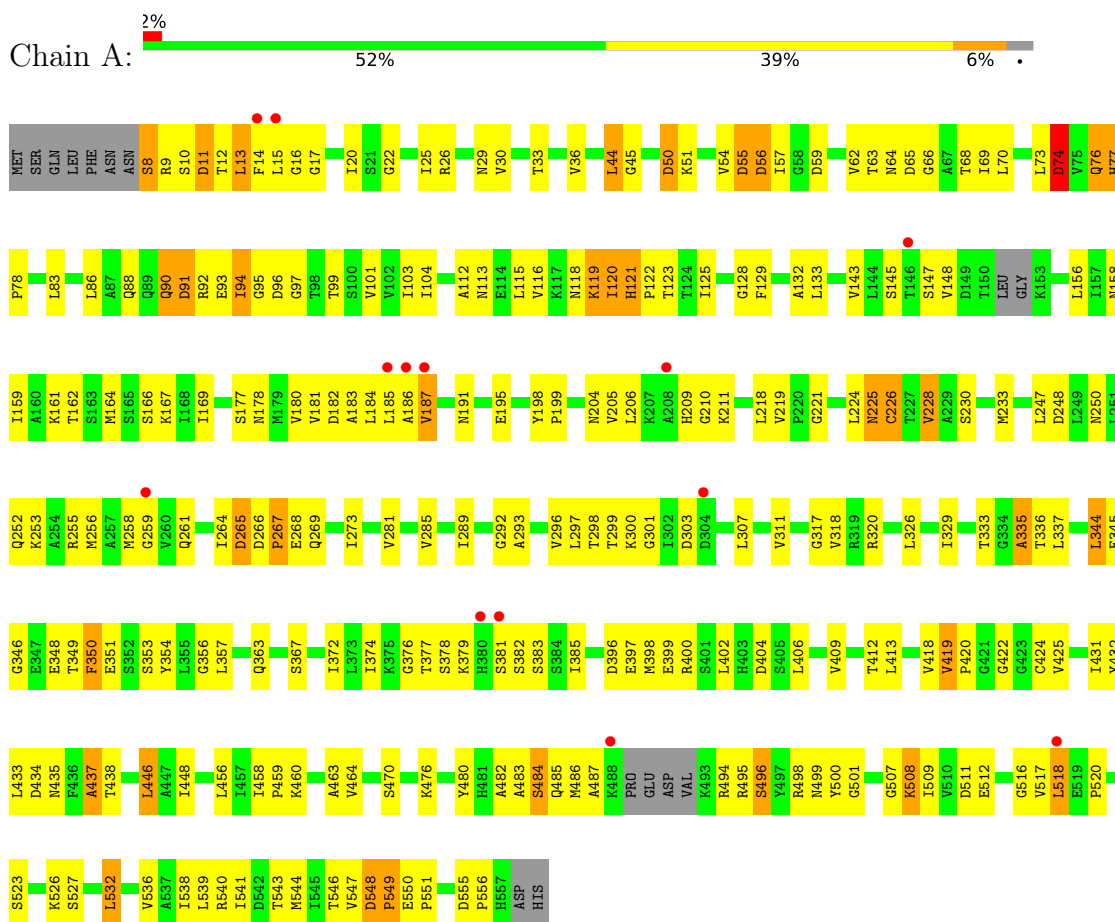
- Molecule 12 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
12	B	1	Total O 1 1	0	0
12	E	1	Total O 1 1	0	0
12	G	1	Total O 1 1	0	0
12	M	1	Total O 1 1	0	0
12	e	1	Total O 1 1	0	0
12	g	1	Total O 1 1	0	0
12	m	1	Total O 1 1	0	0

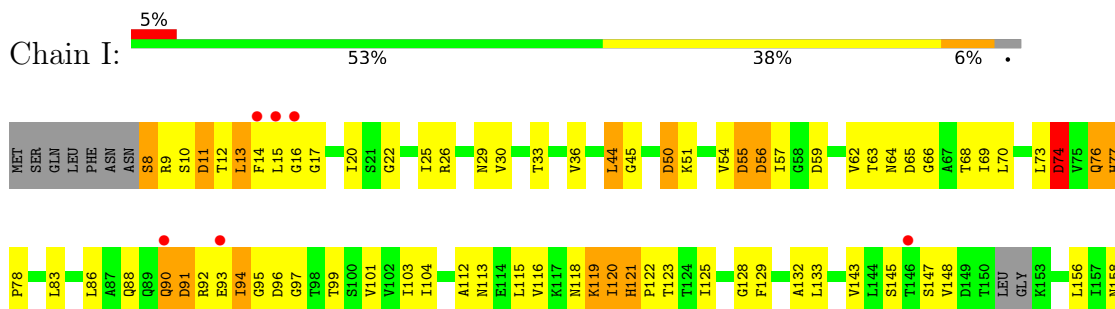
3 Residue-property plots i

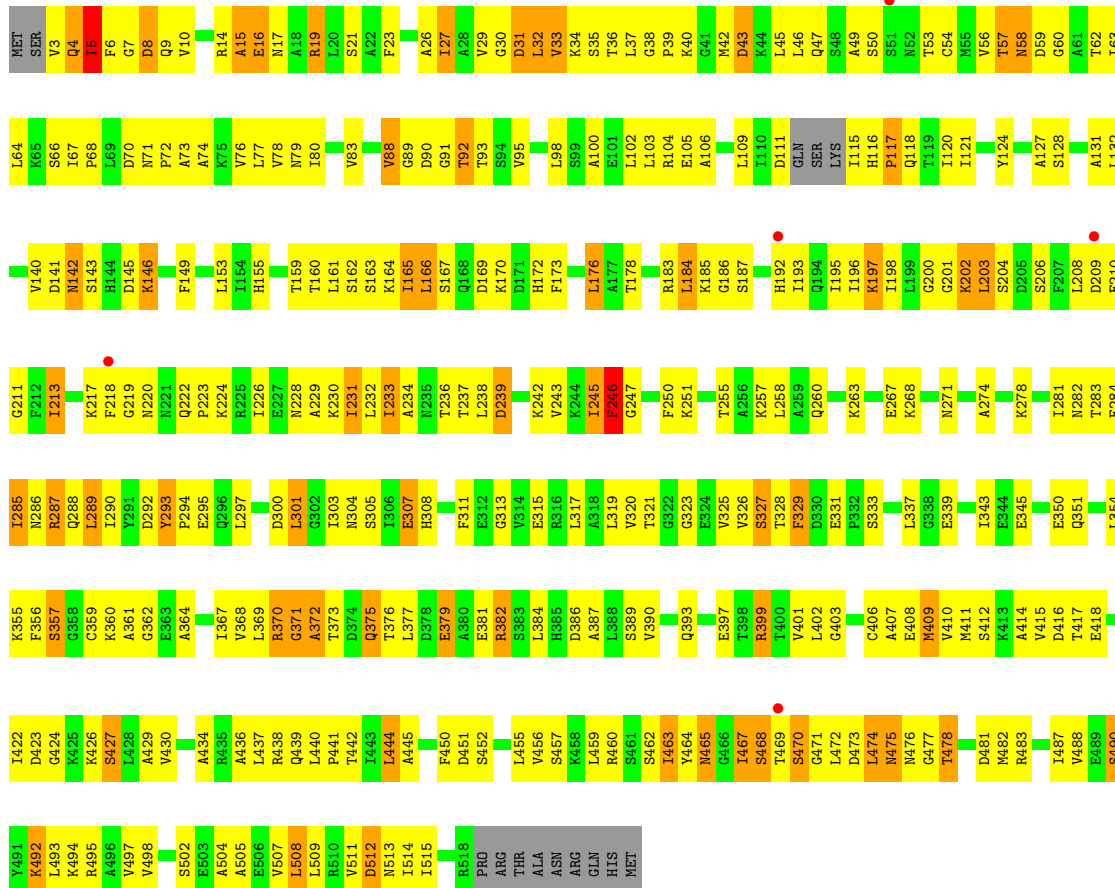
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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: T-complex protein 1 subunit alpha

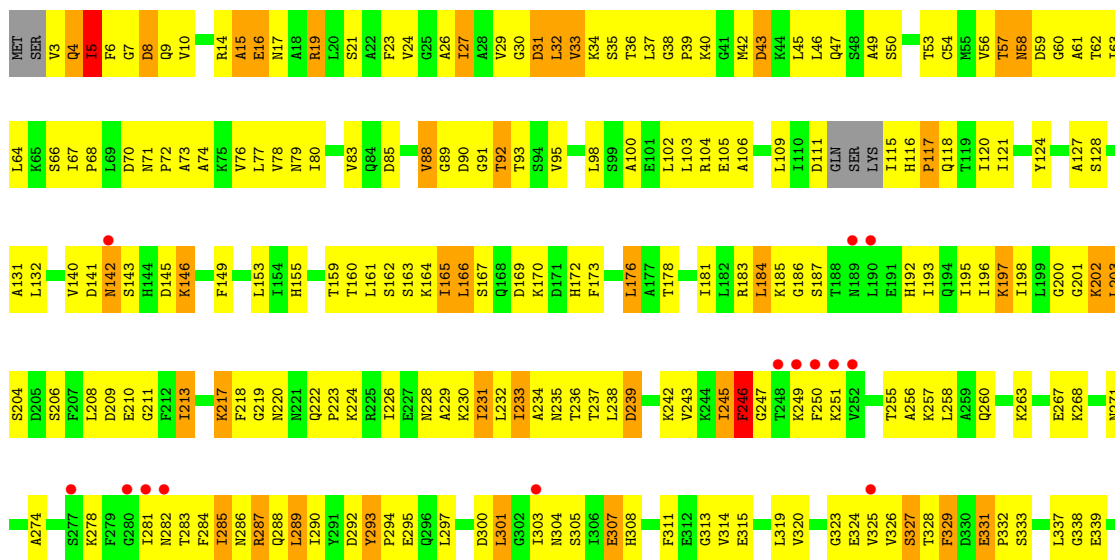


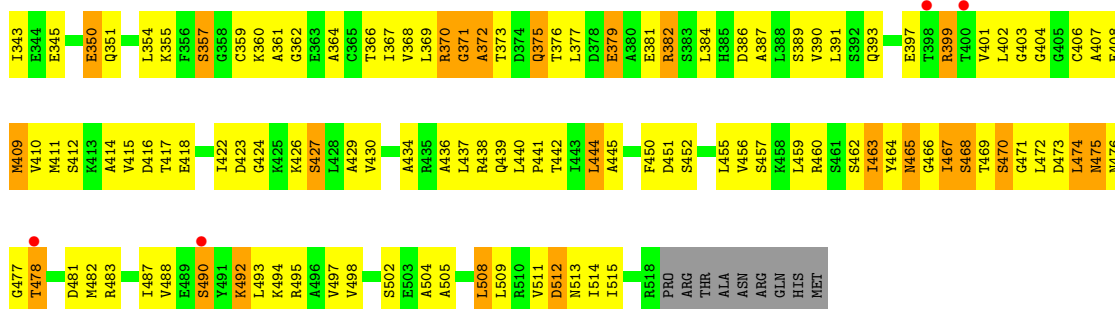
• Molecule 1: T-complex protein 1 subunit alpha



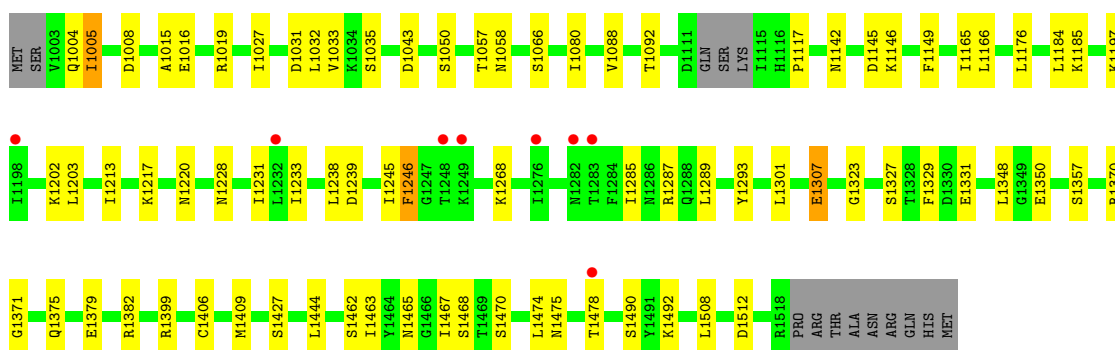
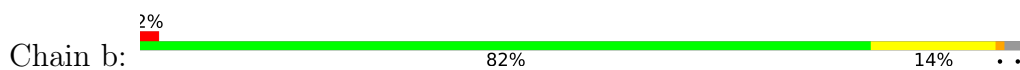


• Molecule 2: T-complex protein 1 subunit beta

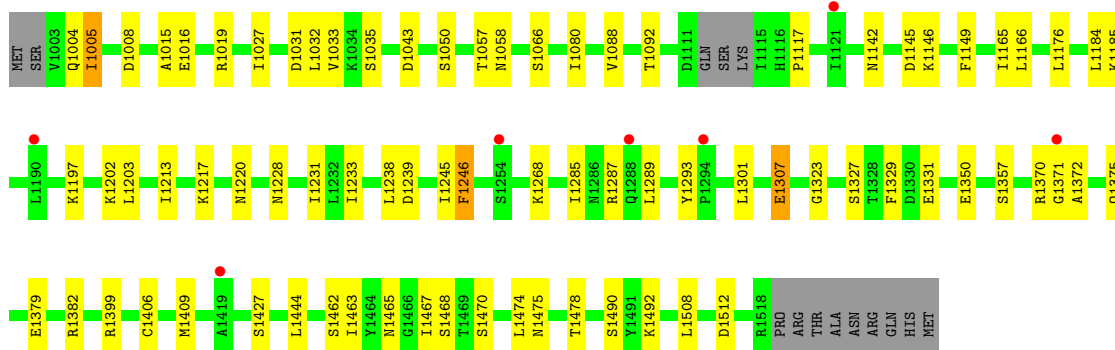
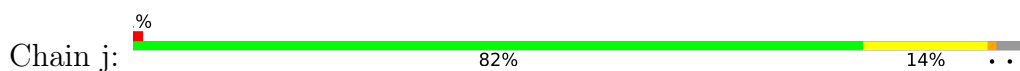




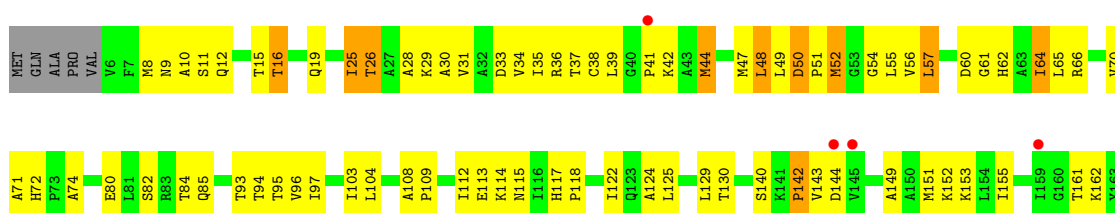
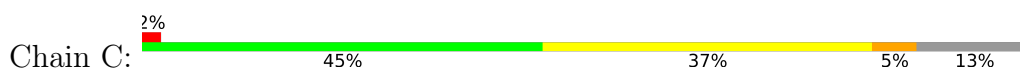
• Molecule 2: T-complex protein 1 subunit beta

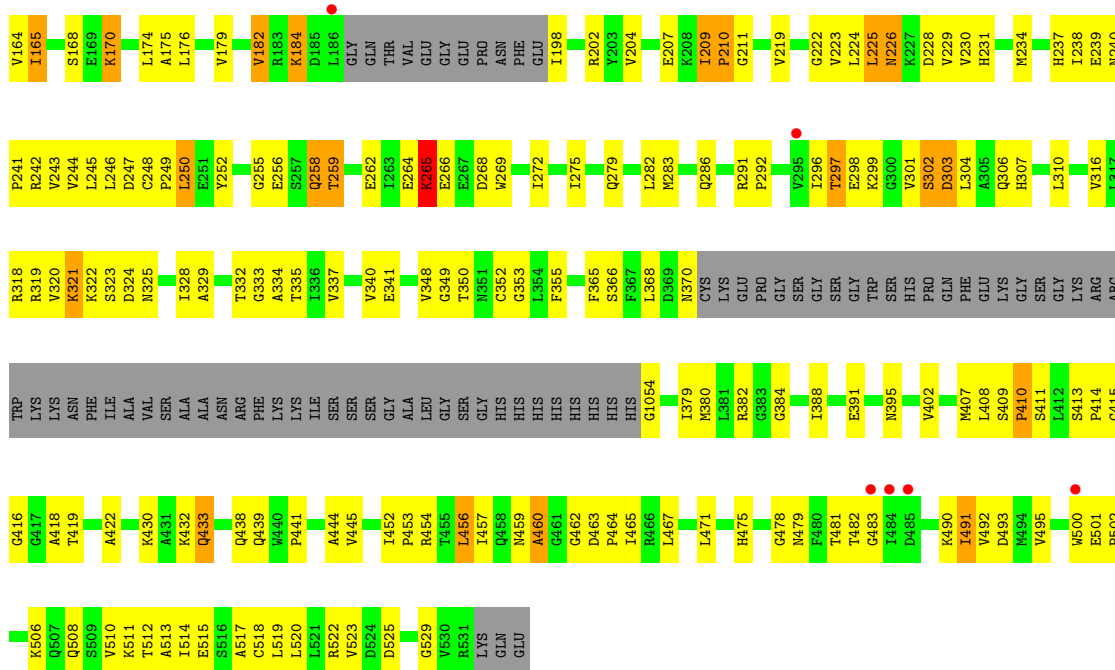


• Molecule 2: T-complex protein 1 subunit beta

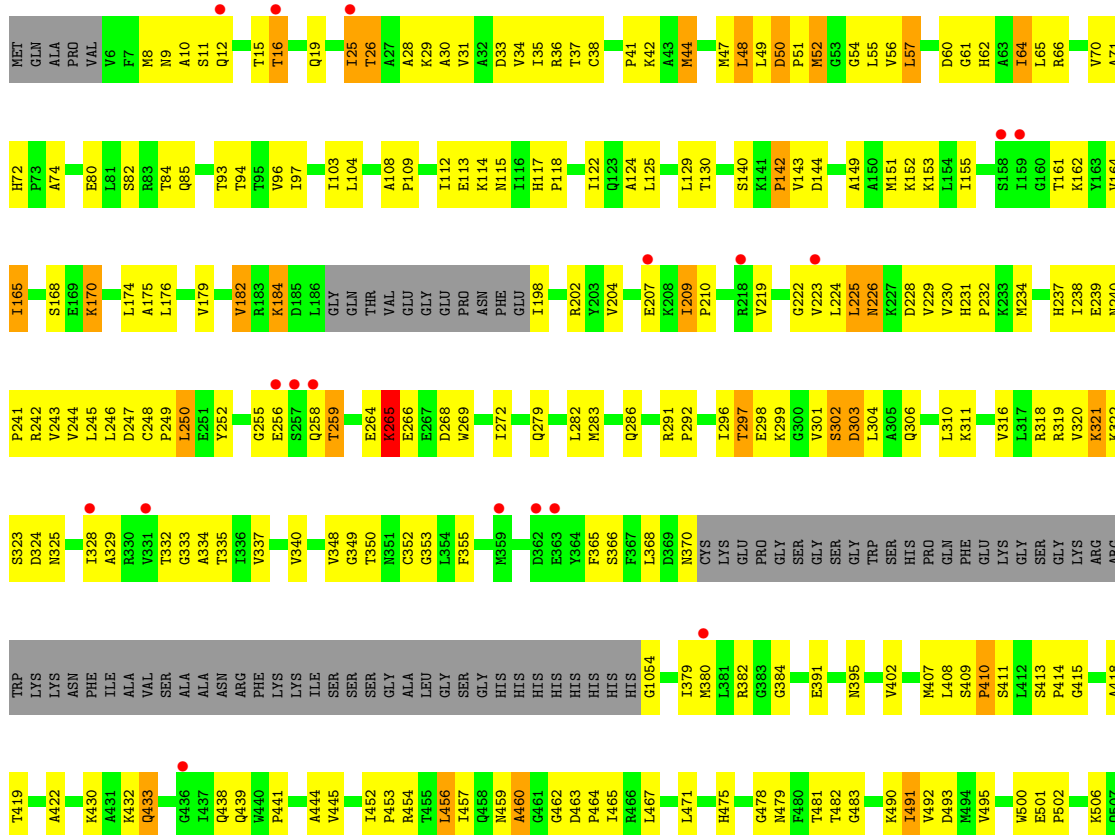


• Molecule 3: T-complex protein 1 subunit gamma



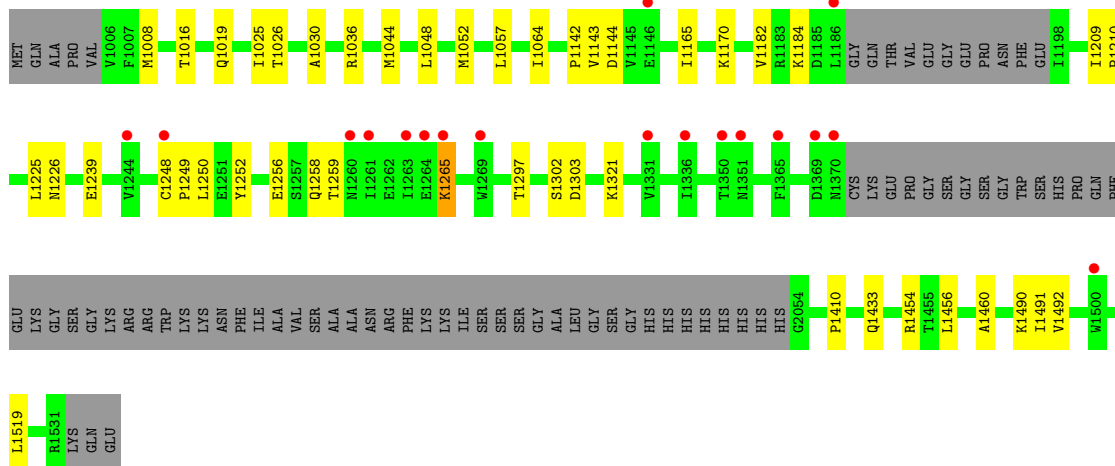
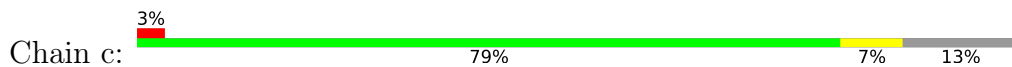


• Molecule 3: T-complex protein 1 subunit gamma

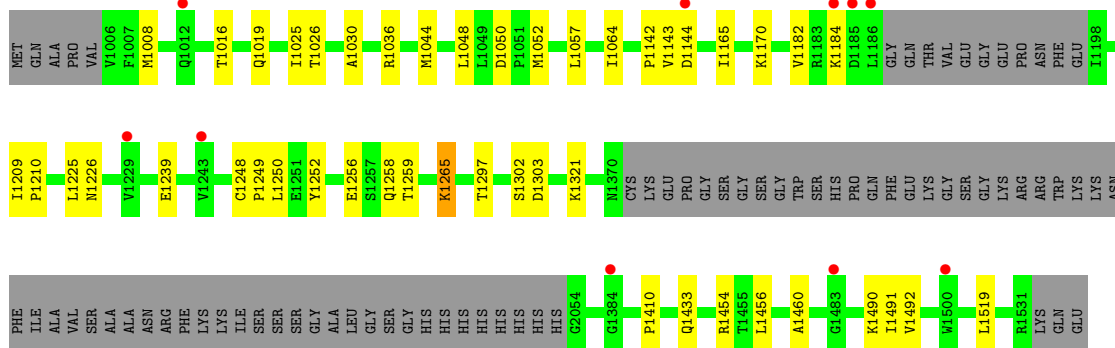
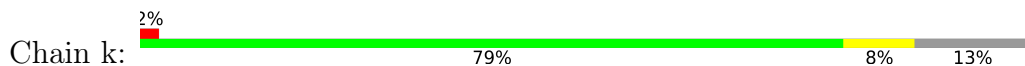




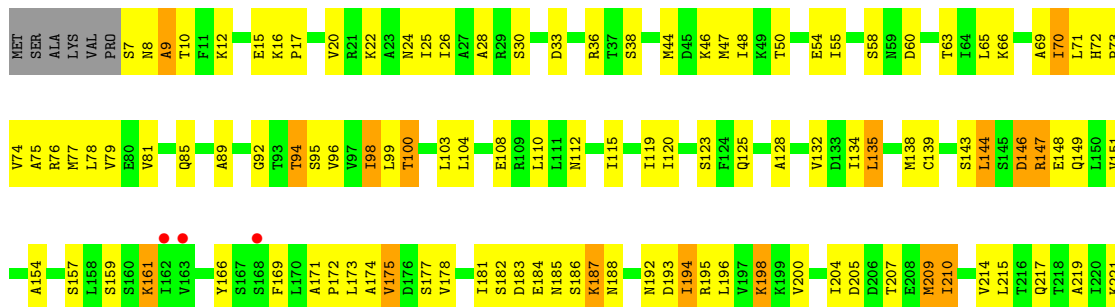
• Molecule 3: T-complex protein 1 subunit gamma

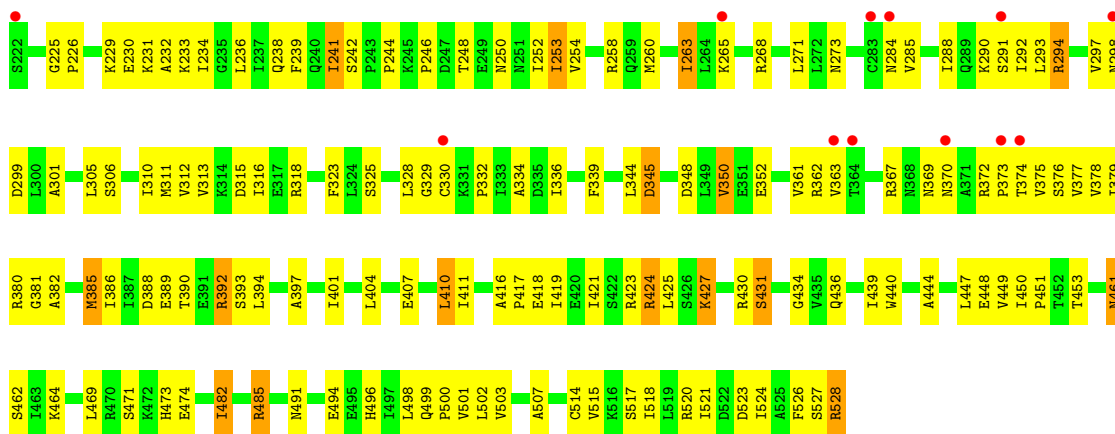


• Molecule 3: T-complex protein 1 subunit gamma

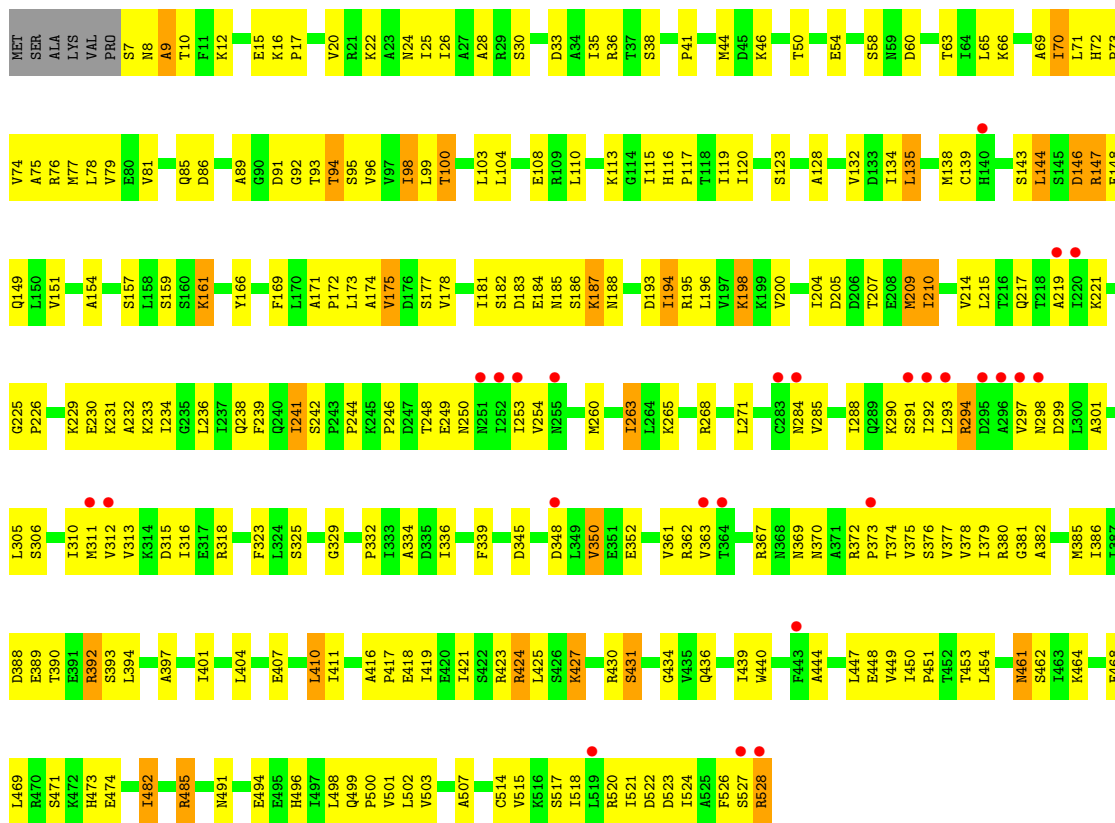


• Molecule 4: T-complex protein 1 subunit delta



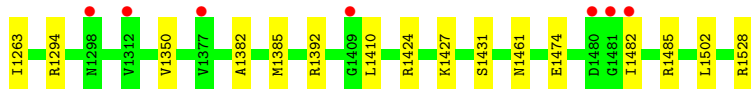


• Molecule 4: T-complex protein 1 subunit delta

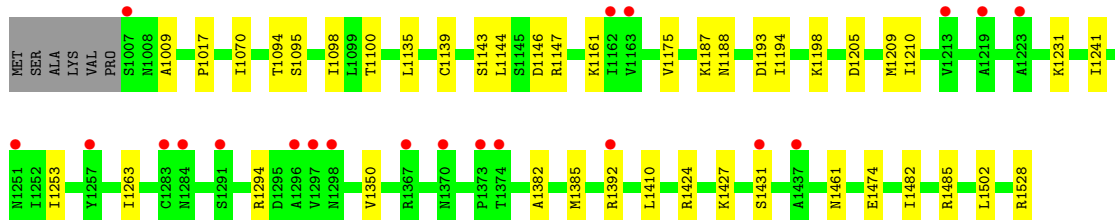
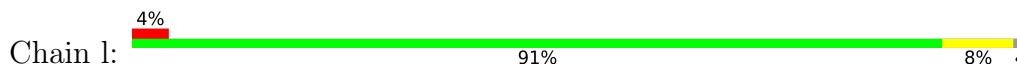


• Molecule 4: T-complex protein 1 subunit delta

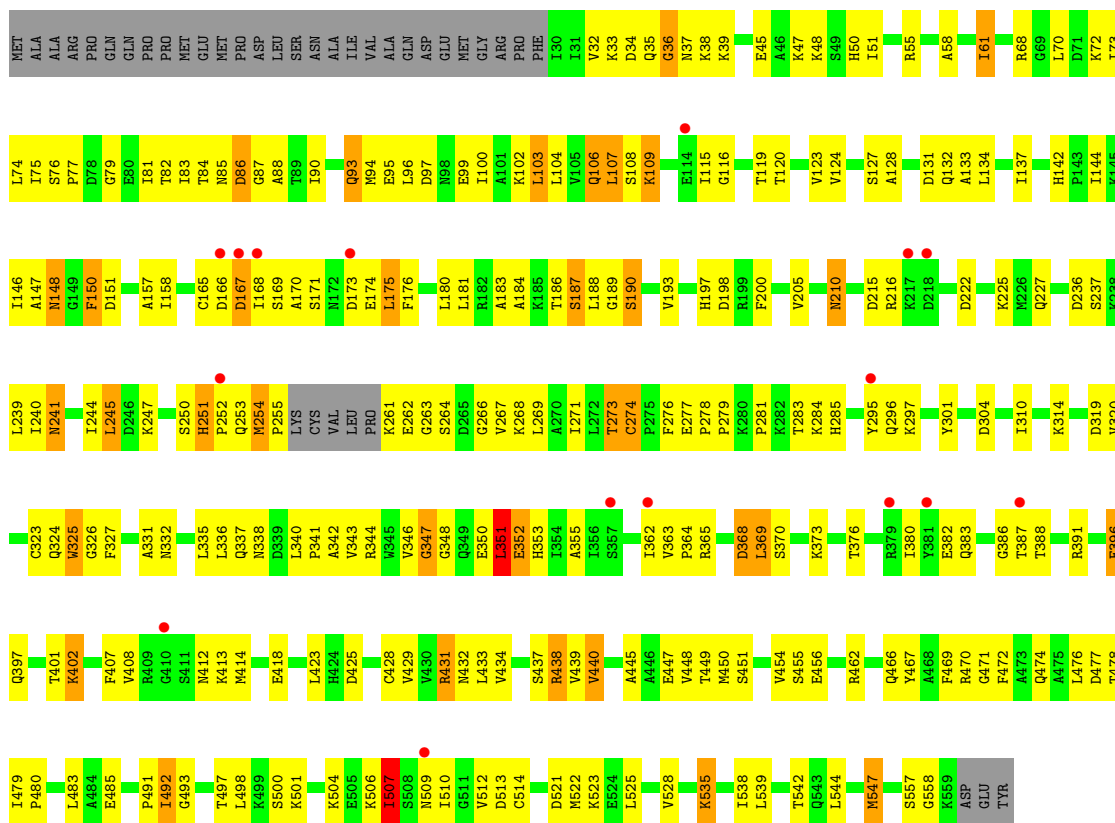




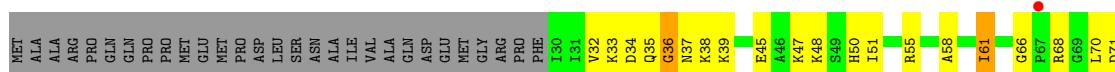
• Molecule 4: T-complex protein 1 subunit delta

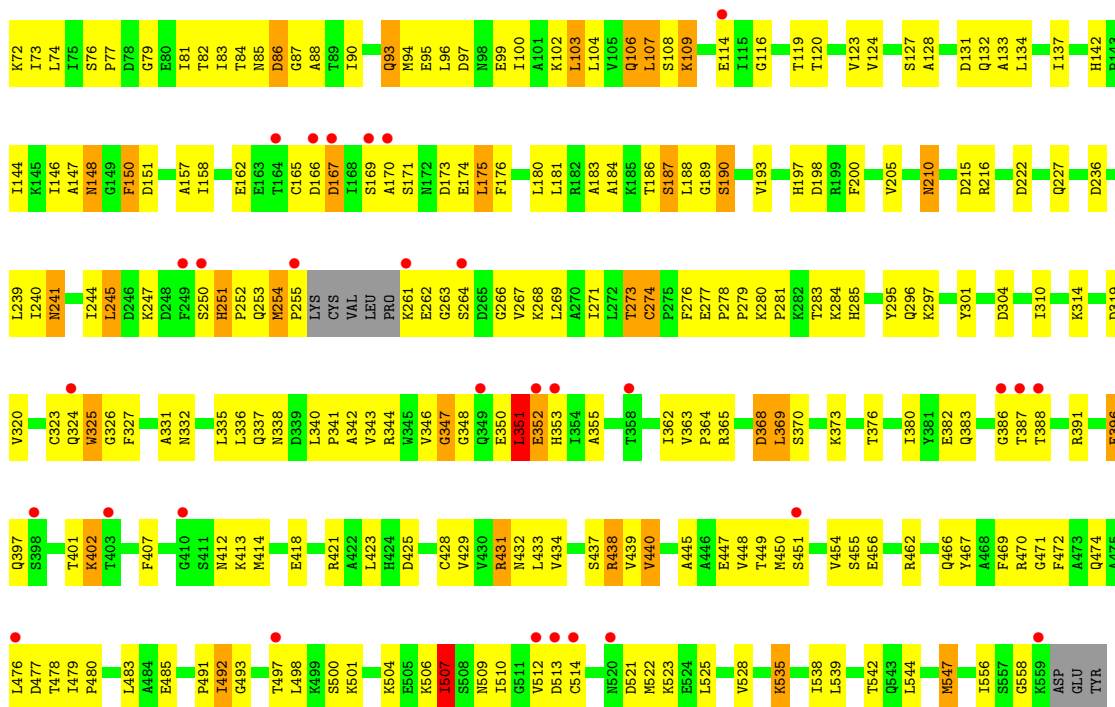


• Molecule 5: T-complex protein 1 subunit epsilon

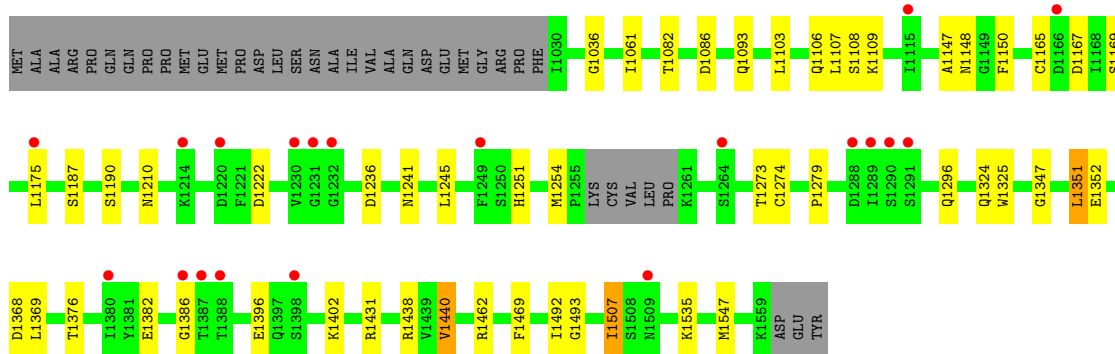
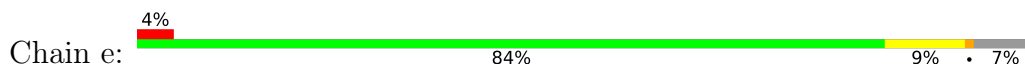


• Molecule 5: T-complex protein 1 subunit epsilon

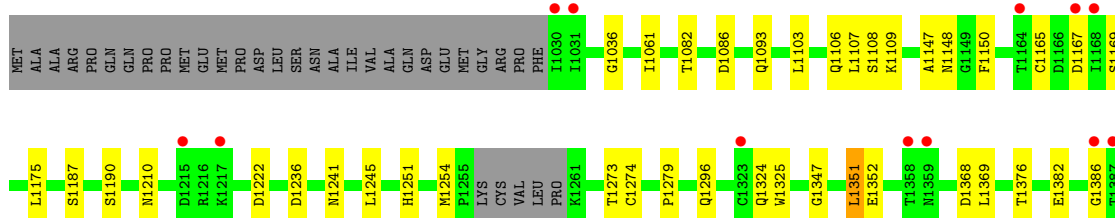
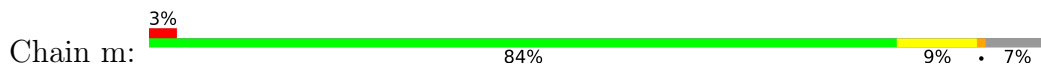


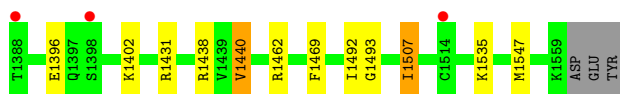


• Molecule 5: T-complex protein 1 subunit epsilon

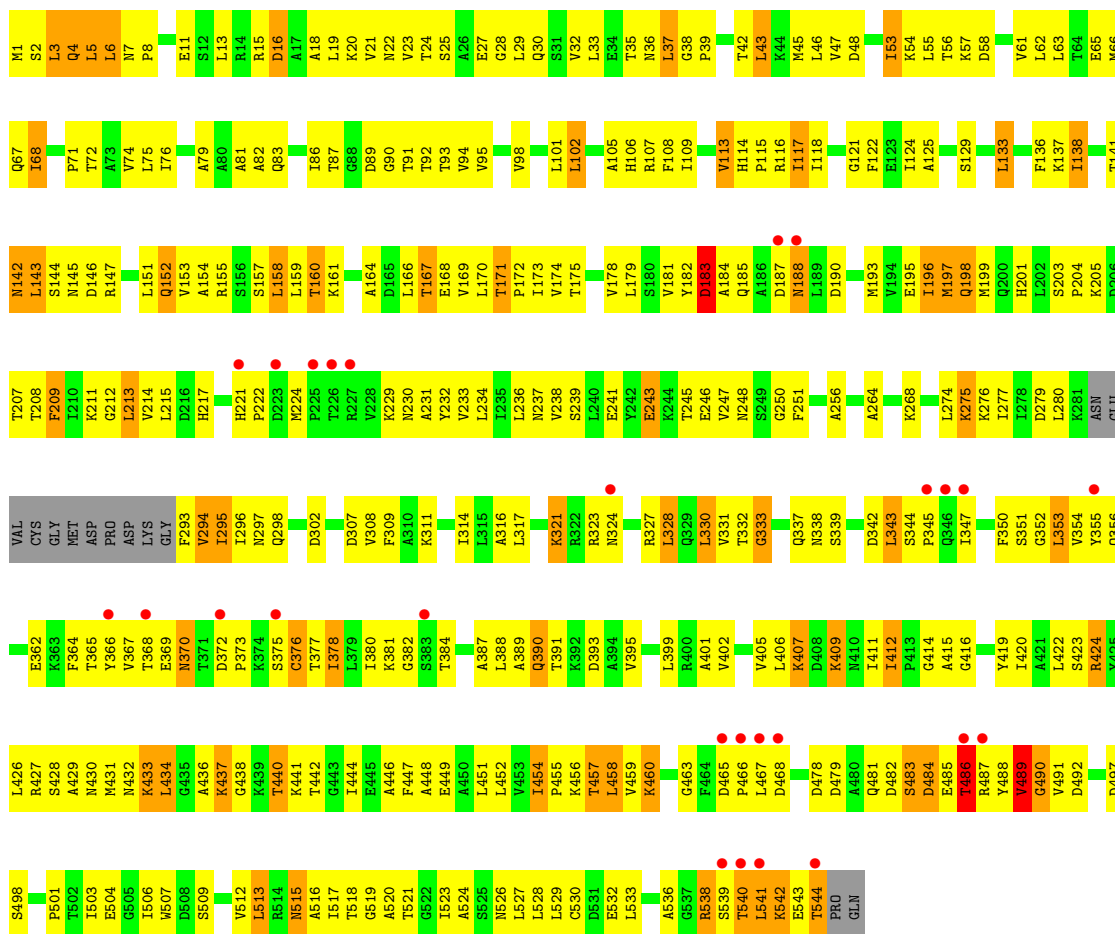
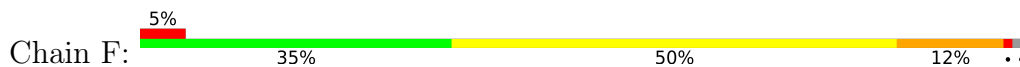


• Molecule 5: T-complex protein 1 subunit epsilon

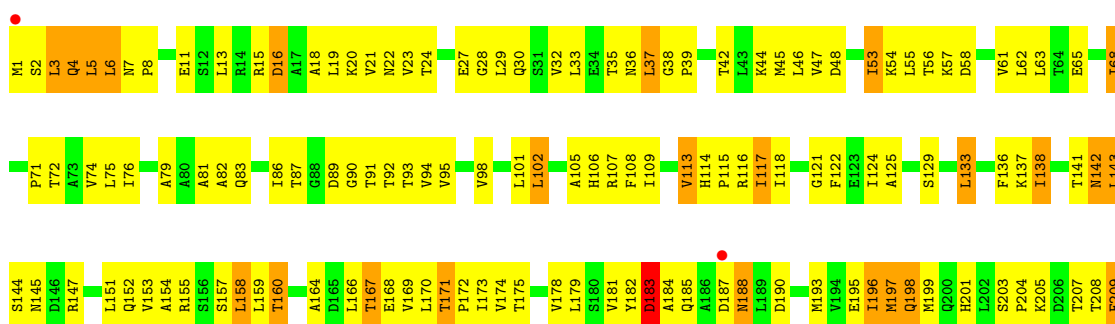


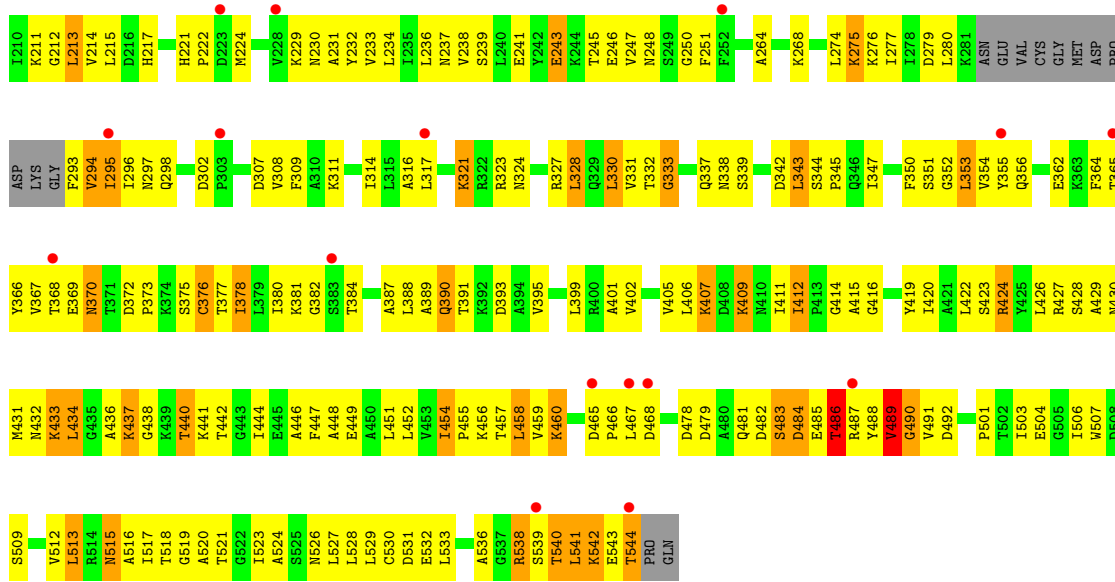


• Molecule 6: T-complex protein 1 subunit zeta

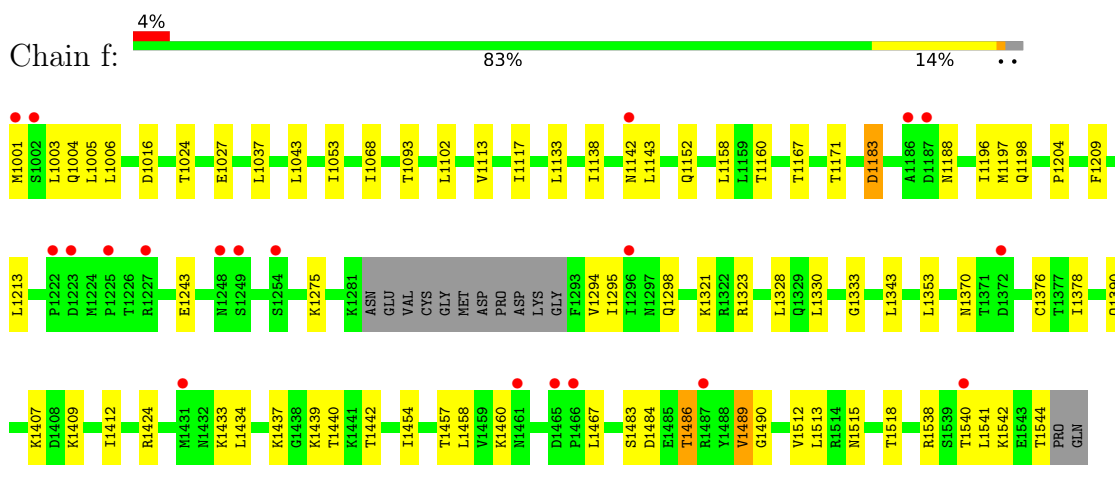


• Molecule 6: T-complex protein 1 subunit zeta

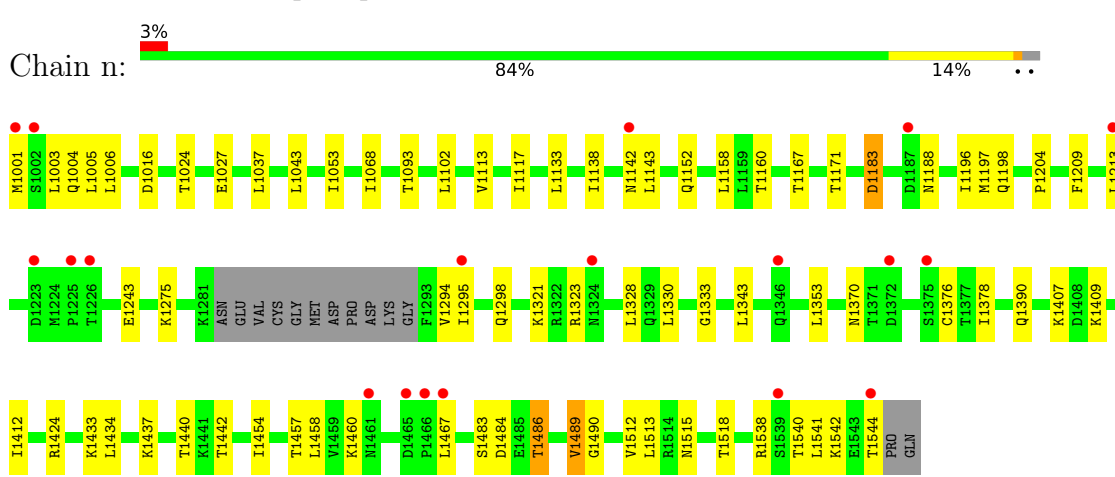




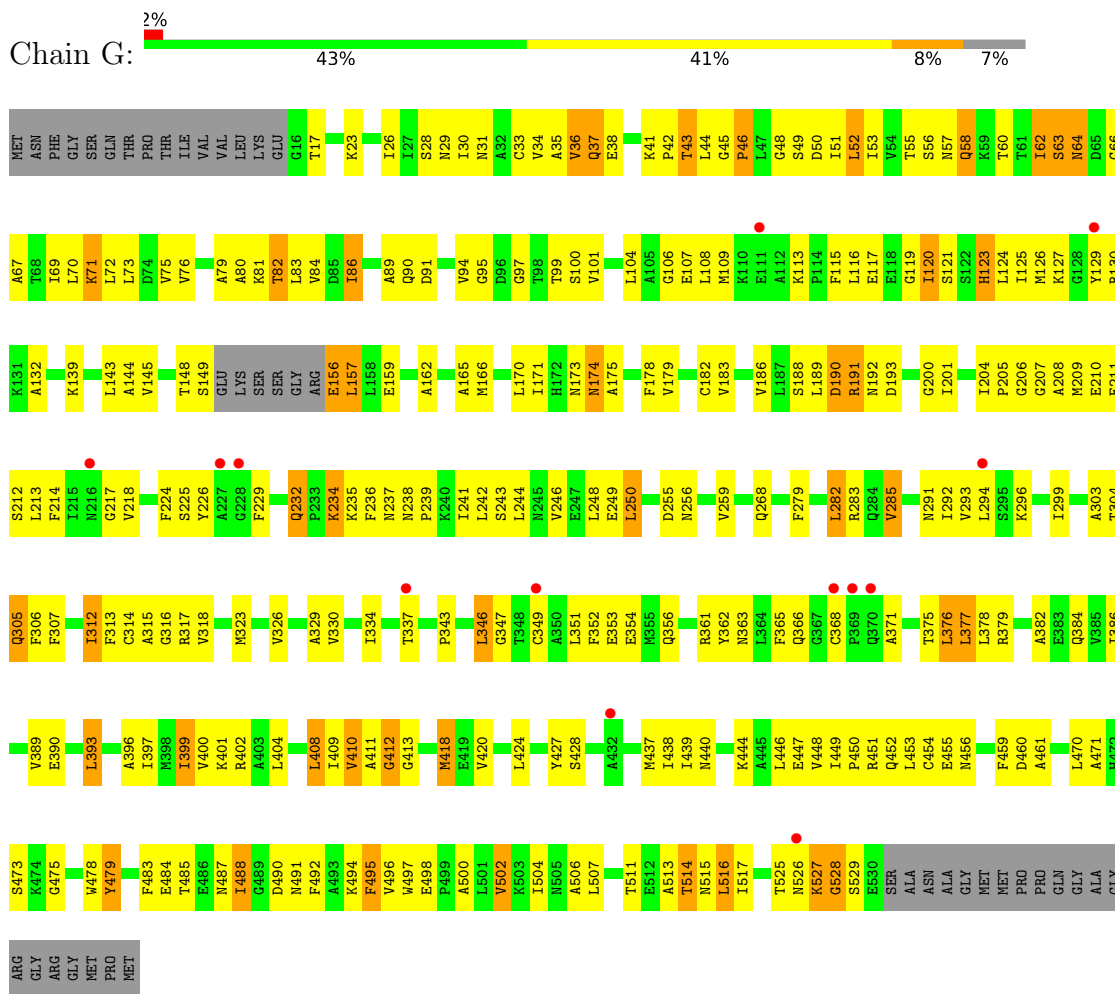
• Molecule 6: T-complex protein 1 subunit zeta

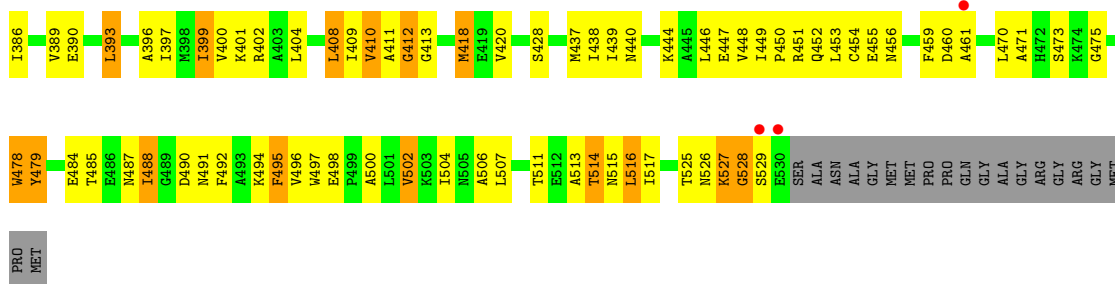


• Molecule 6: T-complex protein 1 subunit zeta

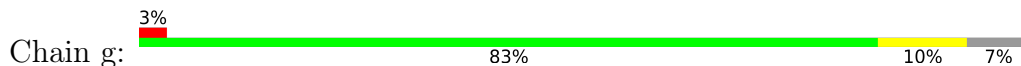


• Molecule 7: T-complex protein 1 subunit eta

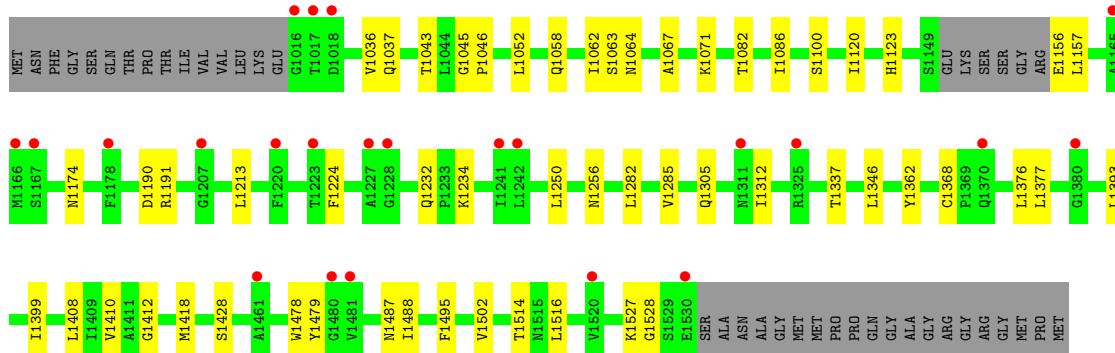
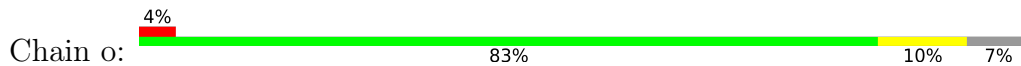




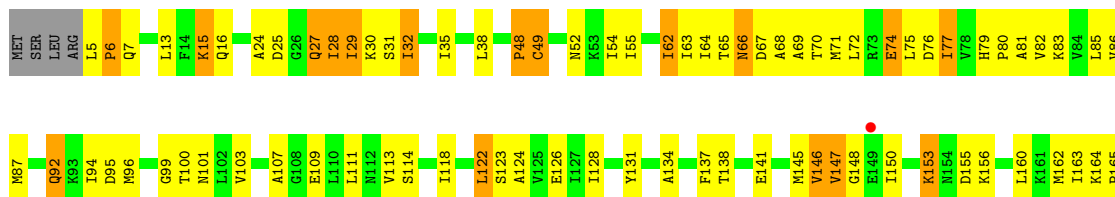
• Molecule 7: T-complex protein 1 subunit eta



• Molecule 7: T-complex protein 1 subunit eta



• Molecule 8: T-complex protein 1 subunit theta



4 Data and refinement statistics i

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, α , β , γ	159.10Å 162.54Å 268.10Å 85.23° 81.15° 61.17°	Depositor
Resolution (Å)	89.95 – 3.80 89.95 – 3.80	Depositor EDS
% Data completeness (in resolution range)	91.6 (89.95-3.80) 91.6 (89.95-3.80)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.08	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.18 (at 3.78Å)	Xtrriage
Refinement program	PHENIX (phenix.refine)	Depositor
R, R_{free}	0.307 , 0.344 0.310 , 0.342	Depositor DCC
R_{free} test set	10483 reflections (5.00%)	wwPDB-VP
Wilson B-factor (Å ²)	112.3	Xtrriage
Anisotropy	0.288	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.28 , 192.9	EDS
L-test for twinning ²	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.28$	Xtrriage
Estimated twinning fraction	0.024 for -h,-h+k,-l	Xtrriage
F_o, F_c correlation	0.86	EDS
Total number of atoms	111235	wwPDB-VP
Average B, all atoms (Å ²)	141.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.01% of the height of the origin peak. No significant pseudotranslation is detected.*

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: BEF, SO4, ADP

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	0.23	0/3515	0.47	1/4835 (0.0%)
1	I	0.23	0/3515	0.47	1/4835 (0.0%)
1	a	0.23	0/3515	0.47	1/4835 (0.0%)
1	i	0.23	0/3515	0.47	1/4835 (0.0%)
2	B	0.26	0/3480	0.49	0/4754
2	J	0.26	0/3480	0.49	0/4754
2	b	0.26	0/3481	0.49	0/4755
2	j	0.26	0/3478	0.49	0/4751
3	C	0.23	0/3421	0.46	0/4689
3	K	0.23	0/3422	0.46	0/4690
3	c	0.23	0/3424	0.46	0/4693
3	k	0.23	0/3424	0.46	0/4693
4	D	0.23	0/3421	0.46	2/4683 (0.0%)
4	L	0.23	0/3421	0.45	1/4683 (0.0%)
4	d	0.23	0/3421	0.45	1/4683 (0.0%)
4	l	0.23	0/3421	0.45	1/4683 (0.0%)
5	E	0.23	0/3466	0.46	0/4739
5	M	0.23	0/3466	0.46	0/4739
5	e	0.23	0/3466	0.46	0/4739
5	m	0.23	0/3466	0.46	0/4739
6	F	0.26	0/3663	0.52	1/5008 (0.0%)
6	N	0.26	0/3660	0.52	1/5004 (0.0%)
6	f	0.26	0/3665	0.52	1/5009 (0.0%)
6	n	0.26	0/3661	0.52	1/5005 (0.0%)
7	G	0.23	0/3342	0.46	0/4578
7	O	0.23	0/3339	0.45	0/4574
7	g	0.23	0/3339	0.45	0/4574
7	o	0.23	0/3339	0.45	0/4574
8	H	0.22	0/3522	0.42	0/4825
8	P	0.22	0/3522	0.42	0/4825
8	h	0.22	0/3519	0.42	0/4820
8	p	0.22	0/3522	0.42	0/4825

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
All	All	0.24	0/111311	0.47	13/152428 (0.0%)

There are no bond length outliers.

All (13) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed($^{\circ}$)	Ideal($^{\circ}$)
1	I	437	ALA	CB-CA-C	8.54	122.92	110.10
1	i	1437	ALA	CB-CA-C	8.53	122.89	110.10
1	A	437	ALA	CB-CA-C	8.53	122.89	110.10
1	a	1437	ALA	CB-CA-C	8.52	122.88	110.10
4	L	350	VAL	N-CA-C	-6.53	93.36	111.00
4	d	1350	VAL	N-CA-C	-6.53	93.37	111.00
4	l	1350	VAL	N-CA-C	-6.53	93.37	111.00
4	D	350	VAL	N-CA-C	-6.52	93.41	111.00
6	F	275	LYS	O-C-N	-5.79	113.43	122.70
6	n	1275	LYS	O-C-N	-5.77	113.47	122.70
6	f	1275	LYS	O-C-N	-5.77	113.47	122.70
6	N	275	LYS	O-C-N	-5.76	113.49	122.70
4	D	345	ASP	CB-CG-OD2	5.18	122.96	118.30

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [\(i\)](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3492	0	3026	298	0
1	I	3492	0	3026	291	0
1	a	3492	0	3026	0	0
1	i	3492	0	3026	0	0
2	B	3459	0	3146	476	0
2	J	3459	0	3146	479	0
2	b	3460	0	3148	0	0
2	j	3457	0	3139	0	0
3	C	3392	0	3019	295	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	K	3393	0	3022	272	0
3	c	3395	0	3029	0	0
3	k	3395	0	3029	0	0
4	D	3398	0	3010	337	0
4	L	3398	0	3010	315	0
4	d	3398	0	3010	0	0
4	l	3398	0	3010	0	0
5	E	3437	0	2943	285	0
5	M	3437	0	2943	289	0
5	e	3437	0	2943	0	0
5	m	3437	0	2943	0	0
6	F	3631	0	3330	640	0
6	N	3628	0	3321	629	0
6	f	3633	0	3333	0	0
6	n	3629	0	3322	0	0
7	G	3317	0	2920	382	0
7	O	3314	0	2911	375	0
7	g	3314	0	2911	0	0
7	o	3314	0	2911	0	0
8	H	3487	0	3109	296	0
8	P	3487	0	3109	273	0
8	h	3485	0	3103	0	0
8	p	3487	0	3109	0	0
9	A	27	0	11	3	0
9	B	27	0	11	8	0
9	C	27	0	12	7	0
9	D	27	0	11	8	0
9	E	27	0	11	2	0
9	F	27	0	11	6	0
9	G	27	0	11	5	0
9	H	27	0	12	3	0
9	J	27	0	11	5	0
9	L	27	0	11	7	0
9	M	27	0	11	6	0
9	N	27	0	11	6	0
9	P	27	0	12	5	0
9	a	27	0	11	0	0
9	b	27	0	11	0	0
9	e	27	0	12	0	0
9	f	27	0	11	0	0
9	g	27	0	11	0	0
9	h	27	0	12	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
9	k	27	0	11	0	0
9	l	27	0	11	0	0
9	m	27	0	11	0	0
9	n	27	0	11	0	0
9	p	27	0	12	0	0
10	A	4	0	0	0	0
10	B	4	0	0	0	0
10	C	4	0	0	3	0
10	D	4	0	0	0	0
10	E	4	0	0	0	0
10	F	4	0	0	2	0
10	G	4	0	0	0	0
10	H	4	0	0	0	0
10	J	4	0	0	0	0
10	L	4	0	0	1	0
10	M	4	0	0	0	0
10	N	4	0	0	3	0
10	P	4	0	0	0	0
10	a	4	0	0	0	0
10	b	4	0	0	0	0
10	e	4	0	0	0	0
10	f	4	0	0	0	0
10	g	4	0	0	0	0
10	h	4	0	0	0	0
10	k	4	0	0	0	0
10	l	4	0	0	0	0
10	m	4	0	0	0	0
10	n	4	0	0	0	0
10	p	4	0	0	0	0
11	I	5	0	0	0	0
11	K	5	0	0	0	0
11	O	5	0	0	0	0
11	c	5	0	0	0	0
11	d	5	0	0	0	0
11	i	5	0	0	0	0
11	j	5	0	0	0	0
11	o	5	0	0	0	0
12	B	1	0	0	0	0
12	E	1	0	0	0	0
12	G	1	0	0	0	0
12	M	1	0	0	0	0
12	e	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
12	g	1	0	0	0	0
12	m	1	0	0	0	0
All	All	111235	0	98253	5533	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 53.

All (5533) 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)
2:B:4:GLN:HA	2:B:5:ILE:CG1	1.37	1.53
2:J:4:GLN:HA	2:J:5:ILE:CG1	1.37	1.48
6:N:36:ASN:HB3	6:N:57:LYS:NZ	1.28	1.46
6:F:151:LEU:CD1	6:F:175:THR:CG2	1.90	1.46
6:N:151:LEU:CD1	6:N:175:THR:CG2	1.90	1.46
6:N:434:LEU:HD22	6:N:441:LYS:CB	1.45	1.46
8:H:6:PRO:HG3	4:L:71:LEU:CB	1.43	1.45
6:F:541:LEU:CB	6:F:542:LYS:HA	1.31	1.44
6:F:434:LEU:HD22	6:F:441:LYS:CB	1.45	1.43
6:F:151:LEU:HD13	6:F:175:THR:CG2	0.95	1.43
6:F:36:ASN:HB3	6:F:57:LYS:NZ	1.28	1.43
7:G:189:LEU:HA	7:G:190:ASP:CB	1.23	1.41
6:N:151:LEU:HD13	6:N:175:THR:CG2	0.95	1.41
6:N:541:LEU:CB	6:N:542:LYS:HA	1.30	1.41
6:F:352:GLY:CA	6:F:369:GLU:O	1.70	1.39
6:N:352:GLY:CA	6:N:369:GLU:O	1.70	1.39
7:O:189:LEU:HA	7:O:190:ASP:CB	1.23	1.39
4:D:71:LEU:CB	8:P:6:PRO:HG3	1.51	1.38
6:F:541:LEU:HB2	6:F:542:LYS:CA	1.51	1.37
6:F:117:ILE:CD1	5:M:34:ASP:HA	1.51	1.35
2:J:4:GLN:CA	2:J:5:ILE:HG12	1.59	1.33
2:B:4:GLN:CA	2:B:5:ILE:HG12	1.59	1.32
6:N:541:LEU:HB2	6:N:542:LYS:CA	1.51	1.31
6:N:151:LEU:CD1	6:N:175:THR:HG21	1.54	1.30
6:F:151:LEU:CD1	6:F:175:THR:HG21	1.54	1.29
8:H:6:PRO:CG	4:L:71:LEU:CB	2.10	1.29
7:O:516:LEU:HD22	7:O:516:LEU:C	1.54	1.28
1:A:184:LEU:HD21	1:A:198:TYR:CD2	1.67	1.27
1:I:184:LEU:HD21	1:I:198:TYR:CD2	1.67	1.27
1:I:250:ASN:HB2	1:I:300:LYS:CB	1.62	1.27
2:J:361:ALA:N	2:J:362:GLY:HA2	1.31	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:250:ASN:HB2	1:A:300:LYS:CB	1.62	1.26
6:F:36:ASN:CB	6:F:57:LYS:HZ3	1.48	1.26
6:F:352:GLY:HA3	6:F:369:GLU:C	1.54	1.25
7:O:235:LYS:HA	7:O:352:PHE:O	1.35	1.25
2:B:361:ALA:N	2:B:362:GLY:HA2	1.31	1.25
7:G:235:LYS:HA	7:G:352:PHE:O	1.35	1.25
6:N:352:GLY:HA3	6:N:369:GLU:C	1.54	1.25
6:N:352:GLY:O	6:N:367:VAL:CG1	1.85	1.25
2:B:463:ILE:O	2:B:467:ILE:CG1	1.85	1.24
6:N:94:VAL:O	6:N:98:VAL:CG2	1.85	1.24
4:D:521:ILE:HA	7:G:50:ASP:O	1.37	1.24
6:F:352:GLY:O	6:F:367:VAL:CG1	1.85	1.23
6:F:151:LEU:CD1	6:F:175:THR:HG23	1.60	1.23
6:F:94:VAL:O	6:F:98:VAL:CG2	1.85	1.23
2:J:463:ILE:O	2:J:467:ILE:CG1	1.85	1.23
7:O:189:LEU:CA	7:O:190:ASP:CB	2.14	1.23
2:J:463:ILE:O	2:J:467:ILE:HG12	1.05	1.22
2:B:463:ILE:O	2:B:467:ILE:HG12	1.06	1.22
6:F:90:GLY:O	6:F:94:VAL:HG23	1.40	1.22
7:G:516:LEU:HD22	7:G:516:LEU:C	1.54	1.22
1:I:184:LEU:HD21	1:I:198:TYR:CG	1.75	1.21
7:G:189:LEU:CA	7:G:190:ASP:CB	2.14	1.21
4:L:521:ILE:HA	7:O:50:ASP:O	1.37	1.21
1:A:184:LEU:HD21	1:A:198:TYR:CG	1.75	1.20
6:F:478:ASP:O	6:F:482:ASP:CB	1.90	1.20
6:N:478:ASP:O	6:N:482:ASP:CB	1.90	1.19
4:D:71:LEU:CB	8:P:6:PRO:CG	2.20	1.19
4:D:521:ILE:HD11	7:G:62:ILE:HD11	1.20	1.19
7:G:189:LEU:CA	7:G:190:ASP:HB3	1.71	1.19
6:N:90:GLY:O	6:N:94:VAL:HG23	1.40	1.18
6:N:151:LEU:CD1	6:N:175:THR:HG23	1.60	1.18
7:O:189:LEU:CA	7:O:190:ASP:HB3	1.71	1.18
4:L:524:ILE:HA	7:O:52:LEU:O	1.41	1.17
4:L:524:ILE:HG12	7:O:52:LEU:CB	1.72	1.17
3:C:457:ILE:HD13	3:C:467:LEU:HD13	1.26	1.17
2:J:4:GLN:HA	2:J:5:ILE:CB	1.73	1.16
6:N:36:ASN:CB	6:N:57:LYS:HZ3	1.59	1.16
8:H:54:ILE:HG13	8:H:64:ILE:HG12	1.21	1.15
2:B:4:GLN:HA	2:B:5:ILE:CB	1.73	1.15
5:E:273:THR:HG22	5:E:364:PRO:HA	1.29	1.15
6:F:94:VAL:O	6:F:98:VAL:HG23	0.98	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:228:VAL:HG22	1:I:363:GLN:HE22	1.03	1.14
4:D:524:ILE:HG12	7:G:52:LEU:CB	1.77	1.14
4:L:524:ILE:CG1	7:O:52:LEU:HB3	1.77	1.14
7:O:191:ARG:HA	7:O:191:ARG:HE	1.12	1.14
6:F:434:LEU:CD2	6:F:441:LYS:CB	2.26	1.13
6:N:94:VAL:O	6:N:98:VAL:HG23	0.98	1.13
6:N:501:PRO:HB3	6:N:506:ILE:HB	1.27	1.13
3:C:230:VAL:HG11	3:C:302:SER:OG	1.49	1.13
3:K:230:VAL:HG11	3:K:302:SER:OG	1.49	1.13
5:E:34:ASP:HA	6:N:117:ILE:CD1	1.78	1.12
6:N:434:LEU:CD2	6:N:441:LYS:CB	2.27	1.12
7:G:94:VAL:HG21	7:G:502:VAL:HG22	1.17	1.12
1:A:228:VAL:HG22	1:A:363:GLN:HE22	1.03	1.12
4:D:520:ARG:O	7:G:49:SER:HB3	1.47	1.12
2:B:200:GLY:HA3	2:B:369:LEU:HD23	1.30	1.12
6:F:166:LEU:O	6:F:167:THR:HG23	1.48	1.12
6:N:478:ASP:O	6:N:482:ASP:HB2	1.47	1.12
7:O:94:VAL:HG21	7:O:502:VAL:HG22	1.17	1.11
6:N:166:LEU:O	6:N:167:THR:HG23	1.48	1.11
8:P:206:SER:HB2	8:P:381:THR:HG22	1.32	1.11
5:M:273:THR:HG22	5:M:364:PRO:HA	1.29	1.11
6:N:434:LEU:HD23	6:N:434:LEU:H	0.98	1.11
4:D:521:ILE:CD1	7:G:62:ILE:HD11	1.79	1.11
6:F:434:LEU:HD23	6:F:434:LEU:H	0.98	1.11
2:J:357:SER:HB3	2:J:360:LYS:CB	1.79	1.11
4:L:521:ILE:HD11	7:O:62:ILE:HD11	1.28	1.11
8:P:54:ILE:HG13	8:P:64:ILE:HG12	1.21	1.11
6:F:274:LEU:HD21	6:F:308:VAL:HG11	1.31	1.11
6:N:274:LEU:HD21	6:N:308:VAL:HG11	1.31	1.11
6:F:53:ILE:HD12	6:F:53:ILE:O	1.49	1.10
2:B:357:SER:HB3	2:B:360:LYS:CB	1.79	1.10
2:B:422:ILE:HB	2:B:427:SER:HB2	1.28	1.10
6:F:478:ASP:O	6:F:482:ASP:HB2	1.47	1.10
2:J:200:GLY:HA3	2:J:369:LEU:HD23	1.30	1.10
1:A:494:ARG:CB	1:A:495:ARG:CA	2.29	1.10
6:N:143:LEU:HD13	6:N:145:ASN:H	0.94	1.10
2:J:29:VAL:O	2:J:33:VAL:HG22	1.50	1.10
2:B:29:VAL:O	2:B:33:VAL:HG22	1.50	1.09
1:I:494:ARG:CB	1:I:495:ARG:CA	2.30	1.09
6:N:53:ILE:HD12	6:N:53:ILE:O	1.49	1.09
1:A:9:ARG:CB	1:A:10:SER:CA	2.30	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:83:GLN:HG3	6:F:94:VAL:HG21	1.32	1.09
6:N:3:LEU:N	6:N:4:GLN:HB2	1.68	1.09
1:I:9:ARG:CB	1:I:10:SER:CA	2.30	1.09
7:G:191:ARG:HA	7:G:191:ARG:HE	1.12	1.09
3:K:457:ILE:HD13	3:K:467:LEU:HD13	1.26	1.09
2:J:422:ILE:HB	2:J:427:SER:HB2	1.28	1.09
5:M:273:THR:CG2	5:M:364:PRO:HA	1.81	1.09
7:O:189:LEU:HA	7:O:190:ASP:HB2	1.26	1.08
5:E:186:THR:HG21	5:E:528:VAL:O	1.51	1.08
6:F:3:LEU:N	6:F:4:GLN:HB2	1.68	1.08
4:L:521:ILE:HD11	7:O:62:ILE:CD1	1.82	1.08
4:L:521:ILE:CD1	7:O:62:ILE:HD11	1.82	1.08
5:E:273:THR:CG2	5:E:364:PRO:HA	1.81	1.08
3:C:264:GLU:O	3:C:265:LYS:HG3	1.54	1.08
5:M:186:THR:HG21	5:M:528:VAL:O	1.51	1.08
6:N:352:GLY:HA3	6:N:369:GLU:O	0.90	1.08
1:A:90:GLN:HG3	1:A:101:VAL:HG21	1.27	1.08
4:D:521:ILE:HD11	7:G:62:ILE:CD1	1.82	1.08
8:H:206:SER:HB2	8:H:381:THR:HG22	1.32	1.08
1:I:90:GLN:HG3	1:I:101:VAL:HG21	1.27	1.08
4:D:524:ILE:CG1	7:G:52:LEU:HB3	1.84	1.07
5:E:34:ASP:HA	6:N:117:ILE:HD11	1.11	1.07
4:L:250:ASN:HA	7:O:259:VAL:HG12	1.35	1.07
6:F:143:LEU:HD13	6:F:145:ASN:H	0.93	1.07
6:F:352:GLY:HA3	6:F:369:GLU:O	0.90	1.07
6:F:539:SER:HB3	6:F:542:LYS:HD2	1.37	1.07
8:H:237:LYS:HB3	8:H:314:ASN:CB	1.84	1.07
2:J:242:LYS:NZ	2:J:247:GLY:O	1.86	1.07
4:D:72:HIS:HB2	4:D:75:ALA:HB3	1.35	1.07
6:F:501:PRO:HB3	6:F:506:ILE:HB	1.27	1.07
7:G:189:LEU:HA	7:G:190:ASP:HB2	1.26	1.07
6:N:539:SER:HB3	6:N:542:LYS:HD2	1.37	1.07
8:P:237:LYS:HB3	8:P:314:ASN:CB	1.85	1.07
1:A:93:GLU:CB	1:A:94:ILE:HD12	1.86	1.06
2:B:5:ILE:O	3:C:71:ALA:N	1.87	1.06
7:G:188:SER:O	7:G:190:ASP:HB2	1.54	1.06
8:H:482:HIS:O	8:H:484:VAL:N	1.89	1.06
2:B:242:LYS:NZ	2:B:247:GLY:O	1.86	1.06
6:F:489:VAL:O	6:F:490:GLY:O	1.72	1.06
6:N:83:GLN:HG3	6:N:94:VAL:HG21	1.32	1.06
1:I:93:GLU:CB	1:I:94:ILE:HD12	1.85	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:513:ASN:O	2:B:514:ILE:HD13	1.56	1.05
6:N:489:VAL:O	6:N:490:GLY:O	1.72	1.05
1:A:9:ARG:CB	1:A:10:SER:HA	1.84	1.05
6:N:430:ASN:HA	6:N:433:LYS:HG2	1.05	1.05
7:O:188:SER:O	7:O:190:ASP:HB2	1.54	1.05
8:P:482:HIS:O	8:P:484:VAL:N	1.89	1.05
1:A:517:VAL:O	1:A:518:LEU:HG	1.56	1.05
6:F:133:LEU:HD12	6:F:422:LEU:HD21	1.37	1.05
6:F:430:ASN:HA	6:F:433:LYS:HG2	1.05	1.05
1:I:9:ARG:CB	1:I:10:SER:HA	1.83	1.05
6:F:434:LEU:HD23	6:F:434:LEU:N	1.62	1.04
8:H:243:LYS:O	8:H:244:LYS:HG2	1.57	1.04
1:I:494:ARG:CB	1:I:495:ARG:HA	1.87	1.04
6:F:430:ASN:HA	6:F:433:LYS:CG	1.86	1.04
8:P:237:LYS:HB3	8:P:314:ASN:HB2	1.39	1.04
7:G:226:TYR:CD1	7:G:229:PHE:O	2.10	1.04
1:I:517:VAL:O	1:I:518:LEU:HG	1.56	1.04
2:J:513:ASN:O	2:J:514:ILE:HD13	1.56	1.04
3:K:264:GLU:O	3:K:265:LYS:HG3	1.54	1.04
4:L:520:ARG:O	7:O:49:SER:HB3	1.57	1.04
8:H:237:LYS:HB3	8:H:314:ASN:HB2	1.39	1.04
6:N:430:ASN:HA	6:N:433:LYS:CG	1.86	1.04
5:M:401:THR:O	5:M:402:LYS:HE2	1.58	1.04
6:N:5:LEU:HA	6:N:6:LEU:CB	1.86	1.03
6:N:430:ASN:O	6:N:433:LYS:HB2	1.55	1.03
8:P:243:LYS:O	8:P:244:LYS:HG2	1.57	1.03
6:F:5:LEU:HA	6:F:6:LEU:CB	1.86	1.03
3:K:302:SER:O	3:K:303:ASP:HB2	1.59	1.03
5:M:184:ALA:O	5:M:188:LEU:N	1.91	1.03
1:A:494:ARG:CB	1:A:495:ARG:HA	1.86	1.03
4:D:524:ILE:HA	7:G:52:LEU:O	1.56	1.03
2:B:361:ALA:N	2:B:362:GLY:CA	2.22	1.03
6:F:430:ASN:O	6:F:433:LYS:HB2	1.55	1.03
4:L:72:HIS:HB2	4:L:75:ALA:HB3	1.35	1.03
6:N:434:LEU:HD23	6:N:434:LEU:N	1.62	1.03
2:B:142:ASN:HB2	2:B:143:SER:HA	1.41	1.03
6:F:2:SER:C	6:F:4:GLN:HB2	1.77	1.03
7:O:226:TYR:CD1	7:O:229:PHE:O	2.10	1.03
5:E:401:THR:O	5:E:402:LYS:HE2	1.58	1.02
6:N:2:SER:C	6:N:4:GLN:HB2	1.77	1.02
5:E:350:GLU:O	5:E:352:GLU:N	1.92	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:228:VAL:HG22	1:I:363:GLN:NE2	1.75	1.02
5:M:350:GLU:O	5:M:352:GLU:N	1.92	1.02
6:N:133:LEU:HD12	6:N:422:LEU:HD21	1.37	1.02
6:F:158:LEU:HD12	6:F:158:LEU:O	1.60	1.02
2:J:361:ALA:N	2:J:362:GLY:CA	2.22	1.01
6:N:352:GLY:O	6:N:367:VAL:HG13	1.57	1.01
1:A:228:VAL:HG22	1:A:363:GLN:NE2	1.75	1.01
5:E:184:ALA:O	5:E:188:LEU:N	1.91	1.01
6:F:352:GLY:O	6:F:367:VAL:HG13	1.57	1.01
7:G:42:PRO:O	7:G:48:GLY:HA2	1.59	1.01
6:F:167:THR:HB	6:F:169:VAL:N	1.76	1.00
6:N:158:LEU:HD12	6:N:158:LEU:O	1.60	1.00
6:N:167:THR:HB	6:N:169:VAL:N	1.76	1.00
3:C:298:GLU:C	3:C:319:ARG:CB	2.30	1.00
3:C:234:MET:HB3	3:C:310:LEU:HD22	1.44	1.00
2:J:4:GLN:CA	2:J:5:ILE:HG23	1.91	1.00
4:L:134:ILE:HD11	4:L:424:ARG:HD3	1.41	1.00
3:K:298:GLU:C	3:K:319:ARG:CB	2.30	1.00
6:N:143:LEU:HD13	6:N:145:ASN:N	1.76	1.00
7:O:42:PRO:O	7:O:48:GLY:HA2	1.59	0.99
6:F:434:LEU:HA	6:F:441:LYS:CB	1.93	0.99
2:B:4:GLN:CA	2:B:5:ILE:HG23	1.91	0.99
6:F:143:LEU:HD13	6:F:145:ASN:N	1.75	0.99
6:F:434:LEU:O	6:F:438:GLY:N	1.95	0.99
6:N:434:LEU:HA	6:N:441:LYS:CB	1.92	0.99
6:F:540:THR:O	6:F:542:LYS:HG2	1.62	0.99
1:I:9:ARG:CB	1:I:10:SER:C	2.31	0.99
6:N:434:LEU:O	6:N:438:GLY:N	1.95	0.99
7:O:516:LEU:HD13	7:O:517:ILE:HG12	1.44	0.99
3:C:302:SER:O	3:C:303:ASP:HB2	1.59	0.99
2:J:142:ASN:HB2	2:J:143:SER:HA	1.41	0.99
2:B:490:SER:O	2:B:493:LEU:HG	1.63	0.99
6:F:16:ASP:HA	6:F:19:LEU:HD12	1.44	0.99
7:G:516:LEU:HD13	7:G:517:ILE:HG12	1.44	0.98
2:J:490:SER:O	2:J:493:LEU:HG	1.63	0.98
7:O:516:LEU:C	7:O:516:LEU:CD2	2.30	0.98
1:A:9:ARG:CB	1:A:10:SER:C	2.31	0.98
4:D:70:ILE:O	4:D:70:ILE:HG12	1.63	0.98
3:K:265:LYS:NZ	3:K:268:ASP:HB3	1.79	0.98
8:H:423:ALA:HA	9:H:601:ADP:H2'	1.45	0.98
6:N:540:THR:O	6:N:542:LYS:HG2	1.62	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:124:ALA:O	8:H:128:ILE:HG13	1.63	0.98
4:D:134:ILE:HD11	4:D:424:ARG:HD3	1.41	0.98
6:F:540:THR:C	6:F:541:LEU:HD22	1.84	0.98
2:J:8:ASP:HB3	2:J:9:GLN:HA	1.43	0.98
2:B:8:ASP:HB3	2:B:9:GLN:HA	1.43	0.97
2:J:260:GLN:HA	2:J:263:LYS:HD2	1.46	0.97
6:N:540:THR:C	6:N:541:LEU:HD22	1.84	0.97
3:C:265:LYS:NZ	3:C:268:ASP:HB3	1.79	0.97
4:L:524:ILE:CA	7:O:52:LEU:O	2.12	0.97
7:O:516:LEU:CD1	7:O:517:ILE:HG12	1.94	0.97
6:N:3:LEU:HD12	6:N:5:LEU:HD23	1.46	0.97
4:L:70:ILE:O	4:L:70:ILE:HG12	1.63	0.97
2:B:260:GLN:HA	2:B:263:LYS:HD2	1.46	0.97
7:G:94:VAL:CG2	7:G:502:VAL:HG22	1.93	0.97
6:F:43:LEU:HD23	6:F:57:LYS:HB2	1.44	0.97
6:N:16:ASP:HA	6:N:19:LEU:HD12	1.44	0.97
6:F:117:ILE:HD11	5:M:34:ASP:CA	1.93	0.97
6:F:434:LEU:CA	6:F:441:LYS:CB	2.43	0.97
3:K:234:MET:HB3	3:K:310:LEU:HD22	1.44	0.97
3:K:298:GLU:O	3:K:319:ARG:CB	2.13	0.97
1:A:184:LEU:CD2	1:A:198:TYR:CD2	2.49	0.96
2:J:202:LYS:O	2:J:370:ARG:HA	1.64	0.96
2:B:202:LYS:O	2:B:370:ARG:HA	1.64	0.96
2:J:4:GLN:CA	2:J:5:ILE:CG1	2.30	0.96
5:M:88:ALA:HB2	5:M:119:THR:HB	1.46	0.96
7:O:94:VAL:CG2	7:O:502:VAL:HG22	1.93	0.96
5:E:88:ALA:HB2	5:E:119:THR:HB	1.46	0.96
6:N:434:LEU:CA	6:N:441:LYS:CB	2.43	0.96
4:D:254:VAL:HG22	8:H:265:VAL:HA	1.47	0.96
7:G:43:THR:HG22	7:G:64:ASN:HB3	1.45	0.96
5:M:66:GLY:H	9:M:601:ADP:H5'1	1.30	0.96
2:J:514:ILE:HD12	3:K:47:MET:HB3	1.48	0.96
3:K:269:TRP:HH2	6:N:248:ASN:H	0.97	0.96
6:N:154:ALA:CB	6:N:402:VAL:HG23	1.96	0.96
3:C:298:GLU:O	3:C:319:ARG:CB	2.13	0.96
6:F:154:ALA:CB	6:F:402:VAL:HG23	1.96	0.96
7:G:516:LEU:CD1	7:G:517:ILE:HG12	1.94	0.96
6:F:117:ILE:CD1	5:M:34:ASP:CA	2.43	0.95
6:F:117:ILE:HD11	5:M:34:ASP:HA	0.97	0.95
7:O:90:GLN:HG3	7:O:101:VAL:HG21	1.48	0.95
8:P:124:ALA:O	8:P:128:ILE:HG13	1.63	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:3:LEU:HD12	6:F:5:LEU:HD23	1.46	0.95
6:F:43:LEU:CD2	6:F:57:LYS:HB2	1.96	0.95
6:N:36:ASN:CB	6:N:57:LYS:NZ	2.24	0.95
1:A:494:ARG:CB	1:A:495:ARG:C	2.35	0.95
1:I:184:LEU:CD2	1:I:198:TYR:CD2	2.49	0.95
4:D:521:ILE:CA	7:G:50:ASP:O	2.14	0.95
1:I:494:ARG:CB	1:I:495:ARG:C	2.35	0.95
7:O:235:LYS:CA	7:O:352:PHE:O	2.15	0.95
7:O:43:THR:HG22	7:O:64:ASN:HB3	1.45	0.94
6:N:541:LEU:CB	6:N:542:LYS:CA	2.22	0.94
6:F:465:ASP:HA	6:F:466:PRO:C	1.88	0.94
2:J:263:LYS:NZ	3:K:266:GLU:HB3	1.81	0.94
3:C:335:THR:HB	8:H:237:LYS:HE2	1.48	0.94
5:E:253:GLN:CB	5:E:254:MET:CB	2.46	0.94
8:H:316:TYR:H	8:H:316:TYR:HD2	1.15	0.94
5:M:253:GLN:CB	5:M:254:MET:CB	2.46	0.94
6:N:465:ASP:HA	6:N:466:PRO:C	1.88	0.94
8:P:316:TYR:H	8:P:316:TYR:HD2	1.15	0.94
5:M:107:LEU:HD22	5:M:544:LEU:HG	1.49	0.94
1:A:494:ARG:CB	1:A:496:SER:N	2.30	0.94
4:D:523:ASP:O	7:G:51:ILE:HG23	1.67	0.94
2:J:70:ASP:HB2	6:N:5:LEU:HD22	1.49	0.94
6:F:420:ILE:CG2	6:F:482:ASP:OD1	2.15	0.94
1:I:494:ARG:CB	1:I:496:SER:N	2.30	0.94
7:G:235:LYS:CA	7:G:352:PHE:O	2.15	0.93
7:G:516:LEU:C	7:G:516:LEU:CD2	2.30	0.93
8:H:237:LYS:CB	8:H:314:ASN:HB3	1.98	0.93
7:O:191:ARG:NE	7:O:192:ASN:H	1.65	0.93
6:N:420:ILE:CG2	6:N:482:ASP:OD1	2.15	0.93
2:B:4:GLN:CA	2:B:5:ILE:CG1	2.30	0.93
7:G:516:LEU:HD22	7:G:517:ILE:N	1.83	0.93
2:J:251:LYS:H	6:N:251:PHE:HA	1.32	0.93
6:N:434:LEU:CD2	6:N:434:LEU:N	2.30	0.93
2:J:127:ALA:HB2	2:J:430:VAL:HG22	1.51	0.93
3:K:57:LEU:HD23	3:K:57:LEU:N	1.83	0.93
7:O:513:ALA:O	7:O:516:LEU:HD13	1.68	0.93
8:P:237:LYS:CB	8:P:314:ASN:HB3	1.98	0.93
2:B:459:LEU:HD22	2:B:472:LEU:HG	1.51	0.93
3:C:42:LYS:CB	3:C:460:ALA:HA	1.98	0.93
4:D:524:ILE:HG12	7:G:52:LEU:HB3	0.94	0.93
3:K:42:LYS:CB	3:K:460:ALA:HA	1.98	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:433:LEU:O	1:A:437:ALA:N	2.01	0.93
6:F:424:ARG:HA	6:F:424:ARG:HE	1.33	0.93
6:F:434:LEU:CD2	6:F:434:LEU:N	2.30	0.93
6:N:53:ILE:HD12	6:N:53:ILE:C	1.89	0.93
7:G:471:ALA:O	7:G:475:GLY:CA	2.17	0.93
7:G:513:ALA:O	7:G:516:LEU:HD13	1.68	0.93
6:F:195:GLU:HB3	6:F:377:THR:HG22	1.51	0.93
6:F:409:LYS:H	6:F:409:LYS:HD3	1.34	0.93
2:J:459:LEU:HD22	2:J:472:LEU:HG	1.51	0.93
7:G:191:ARG:NE	7:G:192:ASN:H	1.65	0.92
3:C:57:LEU:HD23	3:C:57:LEU:N	1.83	0.92
1:I:350:PHE:HE2	1:I:354:TYR:HB2	1.34	0.92
1:I:433:LEU:O	1:I:437:ALA:N	2.01	0.92
4:L:523:ASP:O	7:O:51:ILE:HG23	1.69	0.92
2:B:442:THR:HG23	2:B:452:SER:HB2	1.50	0.92
4:L:210:ILE:HB	4:L:376:SER:O	1.69	0.92
6:N:409:LYS:H	6:N:409:LYS:HD3	1.34	0.92
6:N:424:ARG:HE	6:N:424:ARG:HA	1.33	0.92
7:O:471:ALA:O	7:O:475:GLY:N	2.02	0.92
6:F:434:LEU:CD2	6:F:434:LEU:H	1.80	0.92
2:J:442:THR:HG23	2:J:452:SER:HB2	1.50	0.92
7:O:516:LEU:HD22	7:O:517:ILE:N	1.83	0.92
6:F:541:LEU:CB	6:F:542:LYS:CA	2.22	0.92
4:D:254:VAL:HG11	4:D:260:MET:SD	2.09	0.92
5:E:107:LEU:HD22	5:E:544:LEU:HG	1.49	0.92
4:L:254:VAL:HG11	4:L:260:MET:SD	2.09	0.92
7:G:90:GLN:HG3	7:G:101:VAL:HG21	1.48	0.92
8:H:209:VAL:HG22	8:H:386:LEU:HD11	1.52	0.92
6:N:195:GLU:HB3	6:N:377:THR:HG22	1.51	0.92
7:O:471:ALA:O	7:O:475:GLY:CA	2.17	0.92
1:A:228:VAL:CG2	1:A:363:GLN:HE22	1.82	0.91
1:A:250:ASN:CB	1:A:300:LYS:CB	2.47	0.91
6:F:53:ILE:HD12	6:F:53:ILE:C	1.89	0.91
2:B:21:SER:HG	1:I:8:SER:N	1.67	0.91
2:B:127:ALA:HB2	2:B:430:VAL:HG22	1.51	0.91
1:I:228:VAL:CG2	1:I:363:GLN:HE22	1.82	0.91
5:E:166:ASP:N	5:E:167:ASP:HB2	1.86	0.91
4:D:210:ILE:HB	4:D:376:SER:O	1.69	0.91
6:N:36:ASN:HB3	6:N:57:LYS:HZ1	1.29	0.91
6:N:151:LEU:HD13	6:N:175:THR:HG23	0.91	0.91
7:G:471:ALA:O	7:G:475:GLY:N	2.02	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:250:ASN:CB	1:I:300:LYS:CB	2.47	0.91
2:J:3:VAL:O	2:J:5:ILE:HG21	1.71	0.91
2:B:27:ILE:HD12	2:B:104:ARG:HH11	1.36	0.91
2:B:29:VAL:O	2:B:33:VAL:CG2	2.19	0.91
2:J:27:ILE:HD12	2:J:104:ARG:HH11	1.36	0.91
4:L:521:ILE:CA	7:O:50:ASP:O	2.18	0.91
8:H:113:VAL:HG12	8:H:451:GLN:HG3	1.53	0.91
6:F:159:LEU:HA	6:F:164:ALA:CB	2.01	0.90
6:N:434:LEU:N	6:N:441:LYS:CB	2.34	0.90
2:J:422:ILE:CG2	2:J:427:SER:HB3	2.02	0.90
3:C:264:GLU:C	3:C:265:LYS:HG3	1.91	0.90
2:B:3:VAL:O	2:B:5:ILE:HG21	1.71	0.90
7:G:191:ARG:HA	7:G:191:ARG:NE	1.85	0.90
8:P:237:LYS:CB	8:P:314:ASN:CB	2.49	0.90
6:F:209:PHE:HE2	6:F:376:CYS:HG	0.92	0.90
8:H:463:LEU:O	8:H:466:THR:OG1	1.87	0.90
6:N:354:VAL:HG13	6:N:367:VAL:HG22	1.53	0.90
7:O:316:GLY:O	7:O:317:ARG:HB3	1.71	0.90
1:A:350:PHE:HE2	1:A:354:TYR:HB2	1.34	0.90
6:N:159:LEU:HA	6:N:164:ALA:CB	2.01	0.90
2:B:3:VAL:O	2:B:5:ILE:HD13	1.72	0.90
6:F:434:LEU:N	6:F:441:LYS:CB	2.34	0.90
8:P:463:LEU:O	8:P:466:THR:OG1	1.87	0.90
3:C:265:LYS:HZ3	3:C:268:ASP:HB3	1.35	0.89
6:F:109:ILE:HG13	5:M:39:LYS:HZ3	1.35	0.89
6:F:354:VAL:HG13	6:F:367:VAL:HG22	1.53	0.89
2:J:70:ASP:CB	6:N:5:LEU:HD22	2.02	0.89
5:M:32:VAL:HG22	5:M:33:LYS:H	1.34	0.89
5:M:166:ASP:N	5:M:167:ASP:HB2	1.85	0.89
7:O:191:ARG:HA	7:O:191:ARG:NE	1.85	0.89
8:P:209:VAL:HG22	8:P:386:LEU:HD11	1.52	0.89
2:B:422:ILE:CG2	2:B:427:SER:HB3	2.02	0.89
3:K:41:PRO:HA	3:K:161:THR:CG2	2.02	0.89
2:B:4:GLN:HA	2:B:5:ILE:HG12	0.90	0.89
6:F:151:LEU:HD13	6:F:175:THR:HG23	0.91	0.89
2:J:29:VAL:O	2:J:33:VAL:CG2	2.19	0.89
1:A:156:LEU:HD13	1:A:185:LEU:HD11	1.54	0.89
7:G:316:GLY:O	7:G:317:ARG:HB3	1.71	0.89
8:H:6:PRO:CB	4:L:71:LEU:CB	2.51	0.89
3:C:41:PRO:HA	3:C:161:THR:CG2	2.02	0.89
4:L:521:ILE:CG1	7:O:62:ILE:HD11	2.01	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:242:LYS:CE	2:B:247:GLY:H	1.86	0.89
2:B:72:PRO:HB3	3:C:47:MET:HE3	1.55	0.89
6:F:452:LEU:C	6:F:455:PRO:HD2	1.93	0.89
6:N:83:GLN:CG	6:N:94:VAL:HG21	2.02	0.89
8:P:113:VAL:HG12	8:P:451:GLN:HG3	1.54	0.88
1:I:90:GLN:CG	1:I:101:VAL:HG21	2.03	0.88
2:J:3:VAL:O	2:J:5:ILE:HD13	1.72	0.88
6:N:430:ASN:CA	6:N:433:LYS:HG2	2.00	0.88
5:E:174:GLU:O	5:E:175:LEU:HG	1.74	0.88
2:J:242:LYS:CE	2:J:247:GLY:H	1.86	0.88
6:N:143:LEU:CD1	6:N:145:ASN:H	1.85	0.88
8:P:6:PRO:HB2	8:P:7:GLN:HG3	1.55	0.88
8:H:388:GLY:HA3	8:H:394:LEU:HD21	1.53	0.88
1:I:350:PHE:CE2	1:I:354:TYR:HB2	2.09	0.88
2:J:4:GLN:HA	2:J:5:ILE:HG12	0.89	0.88
6:N:452:LEU:C	6:N:455:PRO:HD2	1.93	0.88
6:F:83:GLN:CG	6:F:94:VAL:HG21	2.02	0.88
5:M:173:ASP:HB3	5:M:437:SER:CB	2.04	0.88
5:E:32:VAL:HG22	5:E:33:LYS:H	1.34	0.88
3:K:265:LYS:HZ3	3:K:268:ASP:HB3	1.34	0.88
6:N:209:PHE:HE2	6:N:376:CYS:HG	0.92	0.88
1:A:90:GLN:CG	1:A:101:VAL:HG21	2.03	0.88
5:M:174:GLU:O	5:M:175:LEU:HG	1.74	0.88
5:E:320:VAL:HG22	5:E:341:PRO:HD2	1.56	0.88
8:H:237:LYS:CB	8:H:314:ASN:CB	2.49	0.88
6:N:330:LEU:HD12	6:N:375:SER:HB3	1.57	0.88
6:N:541:LEU:HB3	6:N:542:LYS:HA	1.56	0.88
2:B:514:ILE:HD12	3:C:47:MET:HB3	1.56	0.87
6:F:330:LEU:HD12	6:F:375:SER:HB3	1.56	0.87
7:G:188:SER:C	7:G:190:ASP:HB2	1.95	0.87
1:I:156:LEU:HD13	1:I:185:LEU:HD11	1.54	0.87
2:B:474:LEU:HG	9:B:601:ADP:C2	2.09	0.87
3:C:230:VAL:CG1	3:C:302:SER:OG	2.22	0.87
3:K:230:VAL:CG1	3:K:302:SER:OG	2.22	0.87
3:K:269:TRP:CZ3	6:N:247:VAL:HB	2.09	0.87
3:C:329:ALA:HB1	3:C:334:ALA:O	1.73	0.87
6:F:430:ASN:CA	6:F:433:LYS:HG2	2.00	0.87
7:O:188:SER:C	7:O:190:ASP:HB2	1.95	0.87
2:J:285:ILE:HD11	2:J:289:LEU:HD23	1.56	0.87
6:N:362:GLU:HG2	6:N:364:PHE:CE2	2.10	0.87
6:F:38:GLY:H	9:F:601:ADP:H5'1	1.36	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:43:THR:CG2	7:G:64:ASN:HB3	2.05	0.87
5:E:173:ASP:HB3	5:E:437:SER:CB	2.04	0.87
7:O:170:LEU:HD23	7:O:170:LEU:O	1.75	0.87
1:A:350:PHE:CE2	1:A:354:TYR:HB2	2.09	0.86
2:B:285:ILE:HD11	2:B:289:LEU:HD23	1.56	0.86
8:H:204:VAL:HG13	8:H:405:VAL:HG12	1.57	0.86
6:N:5:LEU:HA	6:N:6:LEU:HB3	1.57	0.86
6:N:5:LEU:HB2	6:N:6:LEU:O	1.75	0.86
7:O:43:THR:CG2	7:O:64:ASN:HB3	2.05	0.86
6:F:143:LEU:CD1	6:F:145:ASN:H	1.85	0.86
3:K:15:THR:O	3:K:16:THR:O	1.93	0.86
8:P:388:GLY:HA3	8:P:394:LEU:HD21	1.54	0.86
6:F:362:GLU:HG2	6:F:364:PHE:CE2	2.10	0.86
2:J:208:LEU:HD13	2:J:366:THR:HG22	1.56	0.86
6:F:117:ILE:HG12	5:M:33:LYS:HE2	1.56	0.86
3:K:264:GLU:C	3:K:265:LYS:HG3	1.91	0.86
7:O:148:THR:O	7:O:149:SER:HB3	1.75	0.86
3:C:129:LEU:HG	3:C:514:ILE:HG21	1.57	0.86
3:K:129:LEU:HG	3:K:514:ILE:HG21	1.57	0.86
8:P:24:ALA:HA	8:P:531:ALA:O	1.76	0.86
6:F:154:ALA:CB	6:F:402:VAL:CG2	2.54	0.86
6:F:411:ILE:HG22	6:F:412:ILE:H	1.39	0.86
8:H:6:PRO:HB2	8:H:7:GLN:HG3	1.55	0.86
5:E:401:THR:C	5:E:402:LYS:HG3	1.96	0.85
6:F:151:LEU:HD13	6:F:175:THR:HG21	0.86	0.85
6:F:541:LEU:HB3	6:F:542:LYS:HA	1.56	0.85
5:M:320:VAL:HG22	5:M:341:PRO:HD2	1.56	0.85
6:N:411:ILE:HG22	6:N:412:ILE:H	1.39	0.85
3:C:15:THR:O	3:C:16:THR:O	1.93	0.85
5:E:166:ASP:CA	5:E:167:ASP:HB2	2.06	0.85
6:F:5:LEU:HA	6:F:6:LEU:HB3	1.57	0.85
7:G:516:LEU:HD22	7:G:516:LEU:O	1.76	0.85
3:K:329:ALA:HB1	3:K:334:ALA:O	1.73	0.85
4:L:72:HIS:CB	4:L:75:ALA:HB3	2.05	0.85
4:L:185:ASN:N	4:L:186:SER:C	2.30	0.85
6:F:5:LEU:HB2	6:F:6:LEU:O	1.75	0.85
7:G:189:LEU:HD12	7:G:189:LEU:O	1.77	0.85
2:J:208:LEU:HD11	2:J:364:ALA:HB1	1.59	0.85
6:N:154:ALA:CB	6:N:402:VAL:CG2	2.54	0.85
6:N:243:GLU:OE2	6:N:243:GLU:HA	1.76	0.85
4:D:520:ARG:O	7:G:49:SER:CB	2.23	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:185:ASN:N	4:D:186:SER:C	2.30	0.85
2:B:208:LEU:HD11	2:B:364:ALA:HB1	1.59	0.85
2:B:211:GLY:HA3	2:B:355:LYS:O	1.77	0.85
2:B:245:ILE:O	2:B:246:PHE:CD2	2.30	0.85
2:B:422:ILE:CB	2:B:427:SER:HB2	2.07	0.85
4:D:72:HIS:CB	4:D:75:ALA:HB3	2.05	0.85
7:G:148:THR:O	7:G:149:SER:HB3	1.75	0.85
6:N:75:LEU:HD13	6:N:527:LEU:HD21	1.59	0.85
1:A:88:GLN:O	1:A:92:ARG:HD2	1.76	0.85
6:N:151:LEU:HD13	6:N:175:THR:HG21	0.86	0.85
6:N:224:MET:HE1	6:N:316:ALA:H	1.42	0.85
1:A:93:GLU:CB	1:A:94:ILE:CD1	2.55	0.85
2:J:422:ILE:CB	2:J:427:SER:HB2	2.07	0.85
8:H:24:ALA:HA	8:H:531:ALA:O	1.76	0.85
8:H:346:ALA:N	8:H:347:PRO:HD3	1.92	0.85
2:J:72:PRO:O	2:J:76:VAL:HG23	1.76	0.85
2:B:72:PRO:O	2:B:76:VAL:HG23	1.76	0.84
5:E:104:LEU:HD21	5:E:123:VAL:HG13	1.58	0.84
4:L:285:VAL:HA	4:L:311:MET:O	1.78	0.84
5:M:166:ASP:CA	5:M:167:ASP:HB2	2.07	0.84
8:P:204:VAL:HG13	8:P:405:VAL:HG12	1.57	0.84
7:O:189:LEU:HD12	7:O:189:LEU:O	1.77	0.84
7:O:516:LEU:HD22	7:O:516:LEU:O	1.76	0.84
4:D:330:CYS:CB	4:D:345:ASP:OD1	2.25	0.84
4:L:521:ILE:CD1	7:O:62:ILE:CD1	2.48	0.84
6:F:75:LEU:HD13	6:F:527:LEU:HD21	1.59	0.84
2:J:245:ILE:O	2:J:246:PHE:CD2	2.30	0.84
6:N:3:LEU:N	6:N:4:GLN:CB	2.41	0.84
7:O:109:MET:CG	7:O:514:THR:HG22	2.08	0.84
7:O:189:LEU:CA	7:O:190:ASP:HB2	1.94	0.84
4:D:330:CYS:CB	4:D:345:ASP:CG	2.45	0.84
7:G:170:LEU:HD23	7:G:170:LEU:O	1.75	0.84
1:I:158:ASN:HB3	1:I:516:GLY:O	1.77	0.84
1:I:88:GLN:O	1:I:92:ARG:HD2	1.76	0.84
7:O:186:VAL:HG21	7:O:400:VAL:CG2	2.08	0.84
4:D:250:ASN:HA	7:G:259:VAL:HG12	1.60	0.84
4:D:285:VAL:HA	4:D:311:MET:O	1.78	0.84
6:N:424:ARG:HG2	6:N:483:SER:HA	1.60	0.84
4:D:71:LEU:CB	8:P:6:PRO:CB	2.55	0.84
6:F:36:ASN:HB3	6:F:57:LYS:HZ1	1.41	0.84
1:I:93:GLU:CB	1:I:94:ILE:CD1	2.54	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:329:PHE:C	2:B:329:PHE:CD2	2.51	0.84
6:F:35:THR:HG22	6:F:42:THR:O	1.78	0.84
4:L:524:ILE:HG12	7:O:52:LEU:HB3	0.87	0.84
4:D:185:ASN:CB	4:D:186:SER:HB2	2.08	0.83
4:D:524:ILE:CA	7:G:52:LEU:O	2.24	0.83
2:J:361:ALA:H	2:J:362:GLY:HA2	1.01	0.83
5:M:104:LEU:HD21	5:M:123:VAL:HG13	1.58	0.83
5:M:401:THR:C	5:M:402:LYS:HG3	1.97	0.83
6:N:415:ALA:HB2	6:N:506:ILE:HG21	1.57	0.83
2:B:88:VAL:HG13	2:B:393:GLN:HE22	1.43	0.83
5:E:84:THR:HG22	5:E:86:ASP:H	1.42	0.83
6:F:3:LEU:N	6:F:4:GLN:CB	2.41	0.83
7:G:109:MET:CG	7:G:514:THR:HG22	2.08	0.83
7:O:94:VAL:HG21	7:O:502:VAL:CG2	2.06	0.83
4:L:151:VAL:HG22	4:L:175:VAL:HG21	1.58	0.83
2:B:320:VAL:HG21	2:B:337:LEU:CB	2.09	0.83
4:D:254:VAL:HG21	8:H:265:VAL:HG22	1.60	0.83
6:F:539:SER:CB	6:F:542:LYS:HD2	2.09	0.83
8:P:346:ALA:N	8:P:347:PRO:HD3	1.92	0.83
1:A:264:ILE:HD11	7:G:259:VAL:HG23	1.61	0.83
7:G:186:VAL:HG21	7:G:400:VAL:CG2	2.08	0.83
6:N:56:THR:HB	6:N:390:GLN:NE2	1.94	0.83
6:N:382:GLY:HA3	6:N:388:LEU:HD21	1.61	0.83
6:N:35:THR:HG22	6:N:42:THR:O	1.78	0.83
3:K:430:LYS:O	3:K:433:GLN:HG3	1.78	0.83
6:N:539:SER:CB	6:N:542:LYS:HD2	2.09	0.83
7:G:186:VAL:HG21	7:G:400:VAL:HG21	1.59	0.83
7:O:175:ALA:O	7:O:179:VAL:HG23	1.79	0.83
2:B:37:LEU:HA	9:B:601:ADP:H5'1	1.61	0.83
6:F:243:GLU:OE2	6:F:243:GLU:HA	1.76	0.83
6:F:415:ALA:HB2	6:F:506:ILE:HG21	1.58	0.83
5:M:84:THR:HG22	5:M:86:ASP:H	1.42	0.83
7:O:189:LEU:HA	7:O:190:ASP:HB3	0.83	0.83
4:D:521:ILE:CD1	7:G:62:ILE:CD1	2.50	0.82
7:G:175:ALA:O	7:G:179:VAL:HG23	1.79	0.82
2:J:211:GLY:HA3	2:J:355:LYS:O	1.77	0.82
5:M:173:ASP:HB3	5:M:437:SER:HB2	1.60	0.82
2:J:329:PHE:C	2:J:329:PHE:CD2	2.51	0.82
1:A:158:ASN:HB3	1:A:516:GLY:O	1.77	0.82
6:F:382:GLY:HA3	6:F:388:LEU:HD21	1.61	0.82
3:K:306:GLN:HA	3:K:316:VAL:HG11	1.62	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:185:ASN:CB	4:L:186:SER:HB2	2.08	0.82
6:F:56:THR:HB	6:F:390:GLN:NE2	1.94	0.82
2:J:4:GLN:CA	2:J:5:ILE:CB	2.57	0.82
2:B:4:GLN:CA	2:B:5:ILE:CG2	2.57	0.82
4:D:99:LEU:O	4:D:103:LEU:HB2	1.79	0.82
6:F:3:LEU:HA	6:F:5:LEU:HG	1.60	0.82
2:J:4:GLN:CA	2:J:5:ILE:CG2	2.57	0.82
2:J:88:VAL:HG13	2:J:393:GLN:HE22	1.43	0.82
2:J:176:LEU:HD23	2:J:208:LEU:HB2	1.60	0.82
2:B:361:ALA:H	2:B:362:GLY:HA2	1.01	0.82
2:J:320:VAL:HG21	2:J:337:LEU:CB	2.09	0.82
3:C:306:GLN:HA	3:C:316:VAL:HG11	1.62	0.82
3:C:493:ASP:HB3	3:C:495:VAL:HG12	1.62	0.82
4:D:134:ILE:HD11	4:D:424:ARG:CD	2.09	0.82
4:D:151:VAL:HG22	4:D:175:VAL:HG21	1.58	0.82
4:D:521:ILE:HG23	7:G:51:ILE:HA	1.61	0.82
1:I:12:THR:HG21	5:M:97:ASP:H	1.45	0.82
7:O:186:VAL:HG21	7:O:400:VAL:HG21	1.59	0.82
3:C:430:LYS:O	3:C:433:GLN:HG3	1.79	0.82
7:G:189:LEU:HA	7:G:190:ASP:HB3	0.83	0.82
6:N:540:THR:C	6:N:541:LEU:CD2	2.47	0.82
4:D:521:ILE:HG23	7:G:50:ASP:O	1.80	0.82
7:G:191:ARG:CD	7:G:192:ASN:H	1.92	0.81
8:H:74:GLU:OE1	8:H:74:GLU:HA	1.78	0.81
7:O:191:ARG:CD	7:O:192:ASN:H	1.92	0.81
4:D:246:PRO:HB2	4:D:250:ASN:OD1	1.80	0.81
6:F:430:ASN:O	6:F:433:LYS:N	2.12	0.81
2:J:249:LYS:O	6:N:250:GLY:N	2.12	0.81
2:J:361:ALA:H	2:J:362:GLY:CA	1.86	0.81
2:B:4:GLN:N	2:B:5:ILE:HG23	1.96	0.81
6:F:424:ARG:HG2	6:F:483:SER:HA	1.60	0.81
6:F:478:ASP:O	6:F:482:ASP:HB3	1.80	0.81
7:G:94:VAL:HG21	7:G:502:VAL:CG2	2.06	0.81
3:K:506:LYS:HA	3:K:506:LYS:HE2	1.63	0.81
4:L:134:ILE:HD11	4:L:424:ARG:CD	2.09	0.81
5:M:166:ASP:CB	5:M:167:ASP:HB2	2.11	0.81
8:P:74:GLU:OE1	8:P:74:GLU:HA	1.79	0.81
6:F:143:LEU:HA	6:F:145:ASN:N	1.95	0.81
5:M:368:ASP:O	5:M:370:SER:N	2.13	0.81
5:M:401:THR:O	5:M:402:LYS:HG3	1.81	0.81
6:N:430:ASN:O	6:N:433:LYS:N	2.12	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:173:ASP:HB3	5:E:437:SER:HB2	1.60	0.81
6:F:540:THR:C	6:F:541:LEU:CD2	2.47	0.81
2:J:426:LYS:O	2:J:429:ALA:HB3	1.81	0.81
6:N:3:LEU:HA	6:N:5:LEU:HG	1.60	0.81
8:P:206:SER:CB	8:P:381:THR:HG22	2.11	0.81
2:B:4:GLN:HA	2:B:5:ILE:CG2	2.11	0.81
2:B:426:LYS:O	2:B:429:ALA:HB3	1.81	0.81
5:E:166:ASP:CB	5:E:167:ASP:HB2	2.10	0.81
5:E:401:THR:O	5:E:402:LYS:HG3	1.81	0.81
6:F:5:LEU:HA	6:F:6:LEU:HB2	1.62	0.81
7:G:145:VAL:O	7:G:408:LEU:HA	1.80	0.81
7:G:171:ILE:HG23	7:G:178:PHE:CD2	2.16	0.81
2:J:4:GLN:N	2:J:5:ILE:HG23	1.96	0.81
6:N:2:SER:HA	6:N:3:LEU:HB2	1.63	0.81
4:D:499:GLN:HE22	9:D:601:ADP:H2'	1.45	0.81
3:K:41:PRO:HA	3:K:161:THR:HG22	1.63	0.81
3:K:493:ASP:HB3	3:K:495:VAL:HG12	1.62	0.81
4:L:99:LEU:O	4:L:103:LEU:HB2	1.79	0.81
6:N:541:LEU:HD22	6:N:541:LEU:N	1.95	0.81
6:N:452:LEU:O	6:N:455:PRO:HD2	1.80	0.81
7:O:120:ILE:H	7:O:120:ILE:HD13	1.46	0.81
2:J:4:GLN:HA	2:J:5:ILE:CG2	2.11	0.81
2:J:263:LYS:HZ3	3:K:266:GLU:HB3	1.43	0.81
7:O:171:ILE:HG23	7:O:178:PHE:CD2	2.16	0.81
8:P:360:THR:HG22	8:P:369:THR:HG22	1.63	0.81
2:B:4:GLN:CA	2:B:5:ILE:CB	2.58	0.81
5:E:368:ASP:O	5:E:370:SER:N	2.13	0.81
7:G:232:GLN:CG	7:G:313:PHE:HA	2.10	0.81
2:B:176:LEU:HD23	2:B:208:LEU:HB2	1.60	0.80
4:D:71:LEU:CB	8:P:6:PRO:HB3	2.12	0.80
6:F:195:GLU:HG2	6:F:197:MET:SD	2.21	0.80
7:G:248:LEU:CB	7:G:299:ILE:HD12	2.11	0.80
1:A:517:VAL:O	1:A:518:LEU:CG	2.28	0.80
2:B:242:LYS:HB2	3:C:269:TRP:HZ2	1.45	0.80
8:H:360:THR:HG22	8:H:369:THR:HG22	1.63	0.80
4:L:246:PRO:HB2	4:L:250:ASN:OD1	1.80	0.80
6:N:143:LEU:HA	6:N:145:ASN:N	1.95	0.80
5:E:245:LEU:HD13	5:E:247:LYS:H	1.47	0.80
7:G:412:GLY:O	7:G:491:ASN:ND2	2.14	0.80
1:I:224:LEU:CD1	1:I:226:CYS:HB2	2.11	0.80
1:I:264:ILE:HD11	7:O:259:VAL:HG23	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:457:ILE:CD1	3:K:467:LEU:HD13	2.11	0.80
6:F:452:LEU:O	6:F:455:PRO:HD2	1.80	0.80
6:F:541:LEU:HD22	6:F:541:LEU:N	1.95	0.80
1:I:9:ARG:CB	1:I:10:SER:O	2.30	0.80
2:J:4:GLN:C	2:J:5:ILE:HG23	2.02	0.80
7:O:145:VAL:O	7:O:408:LEU:HA	1.81	0.80
4:D:230:GLU:O	4:D:348:ASP:O	2.00	0.80
4:D:521:ILE:CG1	7:G:62:ILE:HD11	2.11	0.80
5:E:401:THR:O	5:E:402:LYS:CG	2.30	0.80
6:F:215:LEU:HB3	6:F:217:HIS:HD2	1.46	0.80
7:G:189:LEU:CA	7:G:190:ASP:HB2	1.94	0.80
4:L:72:HIS:O	4:L:76:ARG:CB	2.30	0.80
1:I:517:VAL:O	1:I:518:LEU:CG	2.28	0.80
7:O:248:LEU:CB	7:O:299:ILE:HD12	2.11	0.80
8:H:206:SER:CB	8:H:381:THR:HG22	2.11	0.80
5:M:401:THR:O	5:M:402:LYS:CG	2.30	0.80
4:D:323:PHE:HA	4:D:374:THR:HG21	1.64	0.80
2:J:132:LEU:HD21	2:J:495:ARG:HG3	1.64	0.80
2:J:250:PHE:HA	6:N:250:GLY:O	1.81	0.80
2:B:233:ILE:O	2:B:325:VAL:HB	1.82	0.80
2:B:361:ALA:H	2:B:362:GLY:CA	1.86	0.80
3:C:506:LYS:HA	3:C:506:LYS:HE2	1.63	0.80
5:E:401:THR:O	5:E:402:LYS:CE	2.30	0.80
4:L:336:ILE:O	4:L:336:ILE:HG22	1.81	0.80
6:N:195:GLU:HG2	6:N:197:MET:SD	2.21	0.80
7:O:232:GLN:CG	7:O:313:PHE:HA	2.10	0.80
1:A:224:LEU:CD1	1:A:226:CYS:HB2	2.11	0.80
6:N:5:LEU:HA	6:N:6:LEU:HB2	1.62	0.80
4:D:72:HIS:O	4:D:76:ARG:CB	2.30	0.79
6:F:2:SER:HA	6:F:3:LEU:HB2	1.63	0.79
6:F:276:LYS:O	6:F:279:ASP:CB	2.30	0.79
7:G:191:ARG:NE	7:G:192:ASN:N	2.30	0.79
7:O:191:ARG:NE	7:O:192:ASN:N	2.30	0.79
7:O:412:GLY:O	7:O:491:ASN:ND2	2.14	0.79
8:P:24:ALA:O	8:P:28:ILE:CG1	2.30	0.79
1:A:9:ARG:CB	1:A:10:SER:O	2.30	0.79
2:B:463:ILE:C	2:B:467:ILE:HG12	2.01	0.79
7:G:191:ARG:HE	7:G:191:ARG:CA	1.94	0.79
8:H:24:ALA:O	8:H:28:ILE:HG12	1.82	0.79
6:N:46:LEU:N	6:N:54:LYS:O	2.14	0.79
6:N:276:LYS:O	6:N:279:ASP:CB	2.30	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:82:SER:HB2	3:C:97:ILE:HD11	1.64	0.79
7:G:188:SER:O	7:G:190:ASP:CB	2.28	0.79
8:H:49:CYS:O	8:H:466:THR:HB	1.83	0.79
5:M:509:ASN:HB3	5:M:521:ASP:HB3	1.64	0.79
2:B:4:GLN:C	2:B:5:ILE:HG23	2.02	0.79
3:K:264:GLU:O	3:K:265:LYS:CG	2.30	0.79
6:N:215:LEU:HB3	6:N:217:HIS:HD2	1.46	0.79
2:B:295:GLU:C	6:F:337:GLN:HE22	1.86	0.79
1:I:180:VAL:HG13	1:I:406:LEU:HD23	1.63	0.79
2:J:463:ILE:C	2:J:467:ILE:HG12	2.01	0.79
8:P:49:CYS:O	8:P:466:THR:HB	1.82	0.79
2:B:3:VAL:O	2:B:5:ILE:CD1	2.30	0.79
2:B:475:ASN:H	2:B:475:ASN:HD22	1.28	0.79
8:H:24:ALA:O	8:H:28:ILE:CG1	2.30	0.79
1:I:93:GLU:C	1:I:94:ILE:HD12	2.03	0.79
3:K:82:SER:HB2	3:K:97:ILE:HD11	1.64	0.79
4:L:230:GLU:O	4:L:348:ASP:O	2.00	0.79
4:L:250:ASN:HA	7:O:259:VAL:CG1	2.12	0.79
6:N:478:ASP:O	6:N:482:ASP:HB3	1.80	0.79
6:F:433:LYS:CG	6:F:444:ILE:HG21	2.13	0.79
7:G:120:ILE:H	7:G:120:ILE:HD13	1.46	0.79
2:J:3:VAL:O	2:J:5:ILE:CG2	2.30	0.79
2:J:233:ILE:O	2:J:325:VAL:HB	1.82	0.79
2:J:475:ASN:H	2:J:475:ASN:HD22	1.28	0.79
7:O:191:ARG:HE	7:O:191:ARG:CA	1.94	0.79
7:O:455:GLU:HG3	7:O:461:ALA:CB	2.13	0.79
1:A:180:VAL:HG13	1:A:406:LEU:HD23	1.63	0.79
2:B:3:VAL:O	2:B:5:ILE:CG2	2.30	0.79
2:B:132:LEU:HD21	2:B:495:ARG:HG3	1.64	0.79
2:B:206:SER:HB3	2:B:368:VAL:HG13	1.65	0.79
4:D:524:ILE:HG23	7:G:52:LEU:O	1.82	0.79
2:J:37:LEU:HA	9:J:601:ADP:H5'1	1.65	0.79
7:O:125:ILE:HA	7:O:438:ILE:HG12	1.65	0.79
1:A:123:THR:HG21	5:E:68:ARG:HE	1.46	0.79
2:B:70:ASP:HB2	6:F:5:LEU:HD22	1.65	0.79
3:C:41:PRO:HA	3:C:161:THR:HG22	1.63	0.79
3:C:457:ILE:CD1	3:C:467:LEU:HD13	2.11	0.79
6:F:117:ILE:HD12	5:M:34:ASP:O	1.81	0.79
5:M:245:LEU:HD13	5:M:247:LYS:H	1.47	0.79
5:M:253:GLN:CA	5:M:254:MET:CB	2.61	0.79
6:N:53:ILE:O	6:N:53:ILE:CD1	2.30	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:501:PRO:HB3	6:N:506:ILE:CB	2.11	0.79
7:O:378:LEU:HD11	7:O:393:LEU:HD12	1.65	0.79
2:B:3:VAL:O	2:B:5:ILE:CG1	2.32	0.78
6:N:433:LYS:CG	6:N:444:ILE:HG21	2.13	0.78
8:P:24:ALA:O	8:P:28:ILE:HG12	1.82	0.78
2:J:3:VAL:O	2:J:5:ILE:CD1	2.30	0.78
7:O:191:ARG:NE	7:O:191:ARG:CA	2.46	0.78
4:D:336:ILE:O	4:D:336:ILE:HG22	1.81	0.78
6:F:501:PRO:HB3	6:F:506:ILE:CB	2.12	0.78
2:J:3:VAL:O	2:J:5:ILE:CG1	2.31	0.78
7:O:188:SER:O	7:O:190:ASP:CB	2.28	0.78
7:O:191:ARG:CZ	7:O:192:ASN:H	1.97	0.78
1:A:12:THR:HG21	5:E:97:ASP:H	1.47	0.78
5:E:253:GLN:CA	5:E:254:MET:CB	2.61	0.78
4:L:323:PHE:HA	4:L:374:THR:HG21	1.64	0.78
6:N:36:ASN:HA	6:N:57:LYS:HD2	1.66	0.78
8:H:206:SER:HB2	8:H:381:THR:CG2	2.13	0.78
5:E:166:ASP:HB3	5:E:167:ASP:HB2	1.66	0.78
7:G:191:ARG:NE	7:G:191:ARG:CA	2.46	0.78
2:J:329:PHE:O	2:J:329:PHE:HD2	1.67	0.78
2:J:469:THR:O	2:J:470:SER:HB2	1.82	0.78
5:M:401:THR:O	5:M:402:LYS:CE	2.30	0.78
6:N:35:THR:CG2	6:N:42:THR:O	2.32	0.78
5:E:509:ASN:HB3	5:E:521:ASP:HB3	1.64	0.78
6:F:331:VAL:HG12	6:F:332:THR:HG23	1.65	0.78
6:N:221:HIS:HB2	6:N:224:MET:HG3	1.66	0.78
6:N:331:VAL:HG12	6:N:332:THR:HG23	1.65	0.78
2:B:72:PRO:HB3	3:C:47:MET:CE	2.13	0.78
4:D:292:ILE:H	4:D:293:LEU:HA	1.48	0.78
7:G:455:GLU:HG3	7:G:461:ALA:CB	2.13	0.78
8:H:6:PRO:HB3	4:L:71:LEU:CB	2.11	0.78
7:G:212:SER:HB3	7:G:378:LEU:HA	1.66	0.78
2:J:208:LEU:HD12	2:J:209:ASP:H	1.48	0.78
2:B:492:LYS:HE2	2:B:493:LEU:H	1.48	0.77
6:F:36:ASN:HA	6:F:57:LYS:HD2	1.66	0.77
4:D:241:ILE:O	4:D:299:ASP:HB2	1.83	0.77
4:L:292:ILE:H	4:L:293:LEU:HA	1.48	0.77
5:M:88:ALA:HB1	5:M:109:LYS:NZ	2.00	0.77
5:M:166:ASP:HB3	5:M:167:ASP:HB2	1.66	0.77
1:A:93:GLU:C	1:A:94:ILE:HD12	2.03	0.77
6:F:151:LEU:HD12	6:F:175:THR:HG21	1.65	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:241:ILE:O	4:L:299:ASP:HB2	1.83	0.77
4:L:521:ILE:HG23	7:O:51:ILE:HA	1.66	0.77
6:N:395:VAL:O	6:N:399:LEU:HB2	1.85	0.77
7:G:191:ARG:CZ	7:G:192:ASN:H	1.97	0.77
7:G:378:LEU:HD11	7:G:393:LEU:HD12	1.65	0.77
3:C:264:GLU:O	3:C:265:LYS:CG	2.30	0.77
6:N:539:SER:CB	6:N:542:LYS:CD	2.62	0.77
2:B:208:LEU:HD12	2:B:209:ASP:H	1.48	0.77
2:B:469:THR:O	2:B:470:SER:HB2	1.82	0.77
3:C:42:LYS:O	3:C:459:ASN:HB3	1.85	0.77
3:C:452:ILE:O	3:C:456:LEU:HB2	1.84	0.77
6:F:224:MET:HE1	6:F:316:ALA:H	1.49	0.77
1:I:123:THR:HG21	5:M:68:ARG:HE	1.49	0.77
7:O:212:SER:HB3	7:O:378:LEU:HA	1.66	0.77
2:B:463:ILE:O	2:B:467:ILE:N	2.18	0.77
6:F:395:VAL:O	6:F:399:LEU:HB2	1.85	0.77
7:G:125:ILE:HA	7:G:438:ILE:HG12	1.65	0.77
8:P:430:LEU:O	8:P:434:ILE:HG12	1.84	0.77
2:B:329:PHE:O	2:B:329:PHE:HD2	1.67	0.77
5:E:449:THR:HG22	5:E:507:ILE:HB	1.65	0.77
6:F:35:THR:CG2	6:F:42:THR:O	2.32	0.77
6:F:420:ILE:HA	6:F:423:SER:HB3	1.67	0.77
7:G:30:ILE:HD12	7:G:109:MET:HB3	1.65	0.77
2:J:492:LYS:HE2	2:J:493:LEU:H	1.48	0.77
3:K:452:ILE:O	3:K:456:LEU:HB2	1.84	0.77
6:N:430:ASN:O	6:N:433:LYS:CB	2.33	0.77
4:D:292:ILE:N	4:D:293:LEU:HA	1.98	0.77
6:F:46:LEU:N	6:F:54:LYS:O	2.14	0.77
1:I:184:LEU:O	1:I:184:LEU:HD23	1.85	0.77
6:F:221:HIS:HB2	6:F:224:MET:HG3	1.66	0.76
7:G:513:ALA:O	7:G:516:LEU:CD1	2.33	0.76
4:L:416:ALA:HB3	4:L:417:PRO:HD3	1.66	0.76
2:B:70:ASP:CB	6:F:5:LEU:HD22	2.15	0.76
4:D:416:ALA:HB3	4:D:417:PRO:HD3	1.66	0.76
5:E:348:GLY:O	5:E:351:LEU:CD1	2.33	0.76
8:H:430:LEU:O	8:H:434:ILE:HG12	1.84	0.76
4:L:184:GLU:CA	4:L:186:SER:O	2.33	0.76
5:M:509:ASN:OD1	5:M:523:LYS:HB2	1.86	0.76
6:N:420:ILE:HA	6:N:423:SER:HB3	1.67	0.76
8:P:206:SER:HB2	8:P:381:THR:CG2	2.13	0.76
6:F:539:SER:CB	6:F:542:LYS:CD	2.62	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:412:SER:O	2:J:416:ASP:HB2	1.86	0.76
4:L:292:ILE:N	4:L:293:LEU:HA	1.98	0.76
7:O:513:ALA:O	7:O:516:LEU:CD1	2.33	0.76
1:A:431:ILE:HG12	1:A:482:ALA:HB2	1.68	0.76
4:D:334:ALA:HB3	7:G:305:GLN:HB2	1.64	0.76
8:H:237:LYS:HB2	8:H:314:ASN:HB3	1.65	0.76
2:B:412:SER:O	2:B:416:ASP:HB2	1.86	0.76
6:F:430:ASN:O	6:F:433:LYS:CB	2.33	0.76
2:J:463:ILE:O	2:J:467:ILE:N	2.18	0.76
5:M:348:GLY:O	5:M:351:LEU:CD1	2.33	0.76
5:M:449:THR:HG22	5:M:507:ILE:HB	1.65	0.76
6:N:478:ASP:O	6:N:482:ASP:N	2.19	0.76
5:E:509:ASN:OD1	5:E:523:LYS:HB2	1.86	0.76
6:F:526:ASN:HA	6:F:529:LEU:HD12	1.67	0.76
3:K:42:LYS:O	3:K:459:ASN:HB3	1.85	0.76
4:L:36:ARG:HE	4:L:98:ILE:HG23	1.51	0.76
4:L:268:ARG:HA	4:L:271:LEU:HD23	1.68	0.76
1:A:169:ILE:HD11	1:A:398:MET:HA	1.68	0.76
1:A:184:LEU:O	1:A:184:LEU:HD23	1.85	0.76
6:F:159:LEU:HA	6:F:164:ALA:HB1	1.68	0.76
7:G:447:GLU:O	7:G:450:PRO:HD2	1.86	0.76
2:J:422:ILE:CG2	2:J:427:SER:CB	2.63	0.76
3:K:56:VAL:C	3:K:57:LEU:HD23	2.06	0.76
5:M:73:ILE:HG12	5:M:83:ILE:HG12	1.67	0.76
2:B:201:GLY:H	6:F:86:ILE:HD12	1.49	0.76
2:B:473:ASP:OD2	2:B:476:ASN:O	2.04	0.76
2:J:473:ASP:OD2	2:J:476:ASN:O	2.04	0.76
2:J:493:LEU:HD12	2:J:494:LYS:N	2.01	0.76
7:O:30:ILE:HD12	7:O:109:MET:HB3	1.65	0.76
7:O:471:ALA:O	7:O:475:GLY:HA3	1.85	0.76
8:P:237:LYS:HB2	8:P:314:ASN:HB3	1.65	0.76
2:B:422:ILE:CG2	2:B:427:SER:CB	2.63	0.76
5:E:88:ALA:HB1	5:E:109:LYS:NZ	2.00	0.76
1:I:350:PHE:HD2	1:I:351:GLU:N	1.83	0.76
6:N:159:LEU:HA	6:N:164:ALA:HB1	1.68	0.76
6:N:352:GLY:O	6:N:367:VAL:HG12	1.86	0.76
7:O:447:GLU:O	7:O:450:PRO:HD2	1.86	0.76
7:O:448:VAL:HG12	7:O:452:GLN:HE22	1.51	0.76
6:F:352:GLY:O	6:F:367:VAL:HG12	1.86	0.76
6:N:159:LEU:HA	6:N:164:ALA:HB2	1.66	0.76
4:D:184:GLU:CA	4:D:186:SER:O	2.33	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:72:PRO:HG3	3:C:49:LEU:HD11	1.68	0.75
3:C:129:LEU:HB2	3:C:514:ILE:HD13	1.69	0.75
6:F:213:LEU:HD23	6:F:377:THR:HG23	1.68	0.75
7:O:238:ASN:N	7:O:239:PRO:HD3	2.01	0.75
5:E:73:ILE:HG12	5:E:83:ILE:HG12	1.67	0.75
5:E:187:SER:OG	5:E:429:VAL:HG21	1.86	0.75
6:F:478:ASP:O	6:F:482:ASP:N	2.19	0.75
1:I:543:THR:HB	5:M:72:LYS:HD3	1.67	0.75
6:N:526:ASN:HA	6:N:529:LEU:HD12	1.68	0.75
8:P:316:TYR:N	8:P:316:TYR:CD2	2.54	0.75
1:A:226:CYS:SG	1:A:318:VAL:CG1	2.75	0.75
2:B:208:LEU:HD12	2:B:209:ASP:N	2.01	0.75
2:B:493:LEU:HD12	2:B:494:LYS:N	2.01	0.75
6:F:154:ALA:HB2	6:F:402:VAL:CG2	2.16	0.75
2:J:165:ILE:HG12	6:N:529:LEU:HD13	1.68	0.75
1:A:221:GLY:HA2	1:A:382:SER:HB2	1.68	0.75
3:C:56:VAL:C	3:C:57:LEU:HD23	2.06	0.75
7:G:238:ASN:N	7:G:239:PRO:HD3	2.01	0.75
2:J:208:LEU:HD12	2:J:209:ASP:N	2.01	0.75
3:K:104:LEU:HD11	3:K:520:LEU:HD12	1.69	0.75
8:P:72:LEU:HD13	8:P:86:VAL:HG22	1.69	0.75
1:A:8:SER:N	2:J:21:SER:HG	1.84	0.75
1:A:456:LEU:O	1:A:460:LYS:HG2	1.86	0.75
4:D:36:ARG:HE	4:D:98:ILE:HG23	1.51	0.75
5:E:39:LYS:HZ3	6:N:109:ILE:HG13	1.51	0.75
7:G:448:VAL:HG12	7:G:452:GLN:HE22	1.51	0.75
3:K:129:LEU:HB2	3:K:514:ILE:HD13	1.69	0.75
6:N:154:ALA:HB2	6:N:402:VAL:CG2	2.16	0.75
6:F:53:ILE:O	6:F:53:ILE:CD1	2.30	0.75
6:F:465:ASP:HA	6:F:466:PRO:O	1.86	0.75
6:F:159:LEU:HA	6:F:164:ALA:HB2	1.66	0.75
7:G:377:LEU:H	7:G:377:LEU:HD13	1.51	0.75
1:I:431:ILE:HG12	1:I:482:ALA:HB2	1.68	0.75
1:A:543:THR:HB	5:E:72:LYS:HD3	1.67	0.74
2:B:295:GLU:HB2	6:F:337:GLN:NE2	2.02	0.74
7:G:33:CYS:SG	7:G:83:LEU:HD11	2.27	0.74
3:K:306:GLN:O	3:K:310:LEU:HG	1.87	0.74
5:M:492:ILE:H	5:M:492:ILE:HD12	1.52	0.74
6:N:13:LEU:HD13	6:N:21:VAL:HG21	1.69	0.74
6:N:395:VAL:O	6:N:399:LEU:CB	2.35	0.74
7:O:413:GLY:HA3	7:O:491:ASN:HD21	1.52	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:306:GLN:O	3:C:310:LEU:HG	1.87	0.74
4:D:268:ARG:HA	4:D:271:LEU:HD23	1.68	0.74
6:F:117:ILE:HD12	5:M:34:ASP:HA	1.64	0.74
7:G:471:ALA:O	7:G:475:GLY:HA3	1.85	0.74
1:I:115:LEU:HD21	1:I:446:LEU:HD22	1.69	0.74
1:I:221:GLY:HA2	1:I:382:SER:HB2	1.68	0.74
1:I:226:CYS:SG	1:I:318:VAL:CG1	2.75	0.74
7:O:488:ILE:HD12	7:O:488:ILE:H	1.52	0.74
8:P:114:SER:O	8:P:118:ILE:HG13	1.87	0.74
8:H:72:LEU:HD13	8:H:86:VAL:HG22	1.69	0.74
8:P:204:VAL:CG1	8:P:405:VAL:HG12	2.16	0.74
1:A:350:PHE:HD2	1:A:351:GLU:N	1.83	0.74
1:A:357:LEU:HB2	1:A:378:SER:HB3	1.69	0.74
3:C:104:LEU:HD11	3:C:520:LEU:HD12	1.69	0.74
4:D:119:ILE:HG23	4:D:436:GLN:HA	1.68	0.74
5:M:187:SER:OG	5:M:429:VAL:HG21	1.86	0.74
6:F:43:LEU:HD21	6:F:161:LYS:HA	1.68	0.74
4:L:25:ILE:HD13	4:L:108:GLU:HB2	1.70	0.74
2:B:451:ASP:O	2:B:455:LEU:HB2	1.88	0.74
6:F:3:LEU:HD12	6:F:5:LEU:CD2	2.17	0.74
6:F:395:VAL:O	6:F:399:LEU:CB	2.35	0.74
2:B:4:GLN:O	3:C:72:HIS:HB2	1.87	0.74
2:J:422:ILE:HG22	2:J:427:SER:HB3	1.68	0.74
6:N:201:HIS:HB3	6:N:381:LYS:NZ	2.03	0.74
7:O:33:CYS:SG	7:O:83:LEU:HD11	2.27	0.74
7:G:109:MET:SD	7:G:514:THR:CG2	2.76	0.74
7:G:498:GLU:OE2	9:G:601:ADP:H1'	1.88	0.74
8:H:204:VAL:CG1	8:H:405:VAL:HG12	2.16	0.74
5:M:355:ALA:HB3	6:N:222:PRO:HG2	1.68	0.74
2:B:242:LYS:HE2	2:B:246:PHE:HA	1.69	0.74
2:B:422:ILE:HG22	2:B:427:SER:HB3	1.68	0.74
7:G:330:VAL:HG12	7:G:347:GLY:HA3	1.69	0.74
1:I:169:ILE:HD11	1:I:398:MET:HA	1.68	0.74
2:J:451:ASP:O	2:J:455:LEU:HB2	1.88	0.74
3:C:329:ALA:O	3:C:333:GLY:N	2.21	0.74
6:F:13:LEU:HD13	6:F:21:VAL:HG21	1.69	0.74
7:G:488:ILE:HD12	7:G:488:ILE:H	1.52	0.74
2:B:242:LYS:CE	2:B:247:GLY:N	2.50	0.73
3:C:501:GLU:OE2	9:C:1101:ADP:H3'	1.87	0.73
6:F:138:ILE:O	6:F:138:ILE:HG22	1.87	0.73
7:G:44:LEU:HD12	7:G:452:GLN:HB2	1.68	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:63:THR:HG22	1:I:65:ASP:H	1.52	0.73
1:I:187:VAL:CG2	1:I:383:SER:HB3	2.18	0.73
6:N:155:ARG:CB	6:N:171:THR:CG2	2.66	0.73
7:O:44:LEU:HD12	7:O:452:GLN:HB2	1.68	0.73
8:P:345:GLY:C	8:P:347:PRO:HD3	2.08	0.73
1:A:115:LEU:HD21	1:A:446:LEU:HD22	1.69	0.73
2:B:232:LEU:HB3	2:B:283:THR:HG22	1.68	0.73
7:G:413:GLY:HA3	7:G:491:ASN:HD21	1.52	0.73
4:L:120:ILE:HG12	4:L:439:ILE:HG21	1.68	0.73
4:L:336:ILE:O	4:L:336:ILE:CG2	2.35	0.73
6:N:213:LEU:HD23	6:N:377:THR:HG23	1.68	0.73
6:N:465:ASP:HA	6:N:466:PRO:O	1.86	0.73
4:D:421:ILE:O	4:D:425:LEU:HG	1.88	0.73
8:H:316:TYR:N	8:H:316:TYR:CD2	2.54	0.73
1:I:456:LEU:O	1:I:460:LYS:HG2	1.86	0.73
6:N:138:ILE:O	6:N:138:ILE:HG22	1.87	0.73
7:O:143:LEU:HD13	7:O:411:ALA:HB3	1.70	0.73
7:O:377:LEU:H	7:O:377:LEU:HD13	1.51	0.73
1:A:30:VAL:O	1:A:33:THR:HG22	1.87	0.73
1:A:63:THR:HG22	1:A:65:ASP:H	1.52	0.73
4:D:336:ILE:O	4:D:336:ILE:CG2	2.35	0.73
8:H:316:TYR:HD2	8:H:316:TYR:N	1.87	0.73
2:J:232:LEU:HB3	2:J:283:THR:HG22	1.68	0.73
4:L:485:ARG:H	4:L:485:ARG:HD2	1.54	0.73
6:N:166:LEU:O	6:N:167:THR:CG2	2.33	0.73
7:O:330:VAL:HG12	7:O:347:GLY:HA3	1.69	0.73
8:P:77:ILE:H	8:P:77:ILE:HD13	1.53	0.73
8:P:163:ILE:HG23	8:P:179:SER:HB2	1.71	0.73
4:D:25:ILE:HD13	4:D:108:GLU:HB2	1.70	0.73
7:G:479:TYR:HA	7:G:490:ASP:HA	1.70	0.73
1:I:267:PRO:HA	1:I:268:GLU:CB	2.19	0.73
1:I:357:LEU:HB2	1:I:378:SER:HB3	1.69	0.73
1:A:187:VAL:CG2	1:A:383:SER:HB3	2.18	0.73
4:D:120:ILE:HG12	4:D:439:ILE:HG21	1.68	0.73
8:H:114:SER:O	8:H:118:ILE:HG13	1.87	0.73
3:K:329:ALA:O	3:K:333:GLY:N	2.21	0.73
2:B:285:ILE:CD1	2:B:289:LEU:HD23	2.19	0.73
4:D:183:ASP:O	4:D:187:LYS:HG2	1.88	0.73
2:J:242:LYS:HE2	2:J:246:PHE:HA	1.69	0.73
5:M:142:HIS:O	5:M:146:ILE:HG13	1.89	0.73
6:N:3:LEU:HD12	6:N:5:LEU:CD2	2.17	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:O:109:MET:SD	7:O:514:THR:CG2	2.76	0.73
8:P:204:VAL:HG21	8:P:409:LYS:CB	2.19	0.73
2:B:71:ASN:OD1	2:B:73:ALA:N	2.22	0.73
6:F:155:ARG:CB	6:F:171:THR:CG2	2.66	0.73
6:F:193:MET:CE	6:F:330:LEU:HD11	2.19	0.73
6:F:201:HIS:HB3	6:F:381:LYS:NZ	2.03	0.73
8:H:77:ILE:H	8:H:77:ILE:HD13	1.53	0.73
8:H:345:GLY:C	8:H:347:PRO:HD3	2.08	0.73
2:J:242:LYS:CE	2:J:247:GLY:N	2.50	0.73
4:D:254:VAL:CG2	8:H:265:VAL:HG22	2.18	0.73
2:J:57:THR:HG21	2:J:382:ARG:HD3	1.71	0.73
3:K:518:CYS:O	3:K:522:ARG:HG3	1.89	0.73
4:L:183:ASP:O	4:L:187:LYS:HG2	1.88	0.73
6:N:193:MET:CE	6:N:330:LEU:HD11	2.19	0.73
8:P:54:ILE:CG1	8:P:64:ILE:HG12	2.13	0.73
4:D:258:ARG:HD2	8:H:283:GLN:HE21	1.54	0.73
5:E:142:HIS:O	5:E:146:ILE:HG13	1.89	0.73
2:J:285:ILE:CD1	2:J:289:LEU:HD23	2.19	0.73
6:N:411:ILE:HG22	6:N:412:ILE:N	2.04	0.73
2:B:411:MET:HB2	2:B:437:LEU:HD13	1.70	0.72
7:G:55:THR:HG21	7:G:72:LEU:HB3	1.70	0.72
6:N:167:THR:HB	6:N:168:GLU:C	2.09	0.72
6:N:193:MET:HE3	6:N:330:LEU:HD11	1.71	0.72
7:G:143:LEU:HD13	7:G:411:ALA:HB3	1.70	0.72
1:I:17:GLY:HA3	5:M:95:GLU:OE2	1.88	0.72
5:M:479:ILE:O	5:M:483:LEU:HB2	1.89	0.72
3:C:518:CYS:O	3:C:522:ARG:HG3	1.89	0.72
5:E:479:ILE:O	5:E:483:LEU:HB2	1.89	0.72
5:E:492:ILE:HD11	2:J:115:ILE:HG12	1.71	0.72
6:F:143:LEU:CD2	6:F:145:ASN:HB3	2.19	0.72
6:F:540:THR:HB	6:F:541:LEU:HD22	1.72	0.72
8:H:63:ILE:HD12	8:H:74:GLU:HG3	1.70	0.72
8:H:234:GLY:HA2	8:H:310:LEU:HD11	1.69	0.72
4:L:421:ILE:O	4:L:425:LEU:HG	1.89	0.72
8:P:28:ILE:O	8:P:32:ILE:HB	1.89	0.72
6:F:5:LEU:CA	6:F:6:LEU:CB	2.66	0.72
6:F:167:THR:HB	6:F:168:GLU:C	2.09	0.72
8:H:6:PRO:HG2	4:L:71:LEU:HA	1.71	0.72
1:I:122:PRO:HG3	5:M:70:LEU:HD11	1.71	0.72
4:L:119:ILE:HG23	4:L:436:GLN:HA	1.68	0.72
4:L:524:ILE:HG23	7:O:52:LEU:O	1.88	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:352:GLY:C	6:N:369:GLU:O	2.27	0.72
7:O:479:TYR:HA	7:O:490:ASP:HA	1.70	0.72
2:B:475:ASN:N	2:B:475:ASN:ND2	2.38	0.72
5:E:492:ILE:H	5:E:492:ILE:HD12	1.52	0.72
6:F:108:PHE:CZ	6:F:118:ILE:HG13	2.25	0.72
6:F:352:GLY:C	6:F:369:GLU:O	2.27	0.72
2:J:5:ILE:O	3:K:70:VAL:HA	1.88	0.72
2:J:263:LYS:NZ	3:K:266:GLU:CB	2.53	0.72
1:I:30:VAL:O	1:I:33:THR:HG22	1.87	0.72
1:I:156:LEU:HD22	1:I:181:VAL:HG13	1.71	0.72
2:J:242:LYS:HB2	3:K:269:TRP:HZ2	1.55	0.72
2:J:411:MET:HB2	2:J:437:LEU:HD13	1.70	0.72
6:N:540:THR:HB	6:N:541:LEU:HD22	1.72	0.72
8:P:234:GLY:HA2	8:P:310:LEU:HD11	1.69	0.72
2:B:164:LYS:O	2:B:166:LEU:N	2.22	0.72
6:F:420:ILE:HG21	6:F:482:ASP:OD1	1.89	0.72
7:G:191:ARG:HD3	7:G:192:ASN:H	1.55	0.72
7:G:232:GLN:HG2	7:G:313:PHE:HA	1.72	0.72
8:H:204:VAL:HG21	8:H:409:LYS:CB	2.19	0.72
2:J:71:ASN:OD1	2:J:73:ALA:N	2.22	0.72
7:O:205:PRO:HA	7:O:386:ILE:HD11	1.71	0.72
1:A:267:PRO:HA	1:A:268:GLU:CB	2.19	0.72
3:C:114:LYS:HA	3:C:115:ASN:CB	2.20	0.72
3:C:322:LYS:HG3	3:C:323:SER:H	1.55	0.72
4:D:207:THR:HG22	4:D:380:ARG:H	1.54	0.72
6:F:411:ILE:HG22	6:F:412:ILE:N	2.04	0.72
2:J:4:GLN:HG2	3:K:72:HIS:HB2	1.72	0.72
2:J:164:LYS:O	2:J:166:LEU:N	2.22	0.72
2:J:198:ILE:O	2:J:377:LEU:HD21	1.89	0.72
3:K:322:LYS:HG3	3:K:323:SER:H	1.55	0.72
6:N:143:LEU:CD2	6:N:145:ASN:HB3	2.19	0.72
2:B:357:SER:O	2:B:360:LYS:CB	2.38	0.72
2:J:357:SER:O	2:J:360:LYS:CB	2.38	0.72
4:L:207:THR:HG22	4:L:380:ARG:H	1.54	0.72
3:C:291:ARG:N	3:C:292:PRO:HD3	2.05	0.71
7:O:56:SER:HA	7:O:57:ASN:O	1.90	0.71
6:F:166:LEU:O	6:F:167:THR:CG2	2.33	0.71
8:H:28:ILE:O	8:H:32:ILE:HB	1.89	0.71
8:H:163:ILE:HG23	8:H:179:SER:HB2	1.70	0.71
2:B:251:LYS:H	6:F:251:PHE:HA	1.55	0.71
4:D:404:LEU:O	4:D:407:GLU:O	2.08	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:108:PHE:CZ	6:N:118:ILE:HG13	2.25	0.71
7:G:43:THR:HB	7:G:99:THR:HG21	1.72	0.71
7:G:56:SER:HA	7:G:57:ASN:O	1.90	0.71
2:J:373:THR:O	2:J:376:THR:HG22	1.91	0.71
6:N:151:LEU:HD12	6:N:175:THR:HG21	1.66	0.71
8:P:63:ILE:HD12	8:P:74:GLU:HG3	1.70	0.71
3:K:51:PRO:O	3:K:52:MET:HG3	1.90	0.71
7:O:55:THR:HG21	7:O:72:LEU:HB3	1.71	0.71
2:B:4:GLN:HG2	3:C:72:HIS:HB2	1.72	0.71
2:B:345:GLU:O	2:B:351:GLN:CB	2.39	0.71
1:I:184:LEU:HD23	1:I:184:LEU:C	2.10	0.71
4:L:210:ILE:O	4:L:375:VAL:CG1	2.39	0.71
5:M:558:GLY:HA2	6:N:48:ASP:HB2	1.72	0.71
6:N:539:SER:HB3	6:N:542:LYS:CD	2.15	0.71
3:C:51:PRO:O	3:C:52:MET:HG3	1.90	0.71
5:E:319:ASP:O	5:E:340:LEU:HB2	1.91	0.71
7:G:226:TYR:CE1	7:G:229:PHE:O	2.44	0.71
7:G:232:GLN:HG3	7:G:313:PHE:HA	1.73	0.71
1:I:16:GLY:HA3	1:I:548:ASP:HB3	1.73	0.71
3:K:225:LEU:HD13	3:K:320:VAL:HG13	1.73	0.71
6:N:5:LEU:CB	6:N:6:LEU:O	2.38	0.71
6:N:154:ALA:HB1	6:N:402:VAL:HG23	1.73	0.71
6:N:203:SER:O	6:N:205:LYS:N	2.24	0.71
1:A:12:THR:HG22	1:A:13:LEU:HD23	1.73	0.71
1:A:184:LEU:HD23	1:A:184:LEU:C	2.10	0.71
1:A:350:PHE:HD2	1:A:351:GLU:H	1.37	0.71
2:B:57:THR:HG21	2:B:382:ARG:HD3	1.71	0.71
4:D:71:LEU:HA	8:P:6:PRO:HG2	1.73	0.71
4:D:328:LEU:CB	4:D:345:ASP:OD2	2.38	0.71
4:D:485:ARG:H	4:D:485:ARG:HD2	1.54	0.71
5:M:319:ASP:O	5:M:340:LEU:HB2	1.91	0.71
7:O:226:TYR:CE1	7:O:229:PHE:O	2.44	0.71
7:O:232:GLN:HG2	7:O:313:PHE:HA	1.72	0.71
1:A:16:GLY:HA3	1:A:548:ASP:HB3	1.73	0.71
1:A:230:SER:O	1:A:233:MET:HG3	1.91	0.71
2:B:373:THR:O	2:B:376:THR:HG22	1.91	0.71
1:I:101:VAL:HG22	1:I:527:SER:HB2	1.71	0.71
1:I:418:VAL:HG12	1:I:419:VAL:H	1.56	0.71
3:K:114:LYS:HA	3:K:115:ASN:CB	2.20	0.71
6:N:433:LYS:HG3	6:N:444:ILE:HG21	1.73	0.71
1:A:418:VAL:HG12	1:A:419:VAL:H	1.56	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:198:ILE:O	2:B:377:LEU:HD21	1.89	0.71
4:D:46:LYS:HG3	8:H:532:THR:HG23	1.71	0.71
8:H:243:LYS:C	8:H:244:LYS:HG2	2.12	0.71
1:I:350:PHE:C	1:I:351:GLU:OE2	2.30	0.71
4:L:134:ILE:CD1	4:L:424:ARG:HD3	2.20	0.71
6:F:209:PHE:HE2	6:F:376:CYS:SG	2.10	0.70
2:J:237:THR:H	2:J:287:ARG:HD2	1.56	0.70
2:J:475:ASN:N	2:J:475:ASN:ND2	2.38	0.70
3:K:269:TRP:HZ3	6:N:247:VAL:HB	1.54	0.70
6:N:209:PHE:HE2	6:N:376:CYS:SG	2.10	0.70
7:O:232:GLN:HG3	7:O:313:PHE:HA	1.73	0.70
6:F:5:LEU:CB	6:F:6:LEU:O	2.38	0.70
6:F:203:SER:O	6:F:205:LYS:N	2.24	0.70
1:I:94:ILE:HG22	1:I:96:ASP:H	1.56	0.70
2:B:30:GLY:HA2	2:B:33:VAL:HG23	1.73	0.70
2:B:242:LYS:NZ	2:B:247:GLY:H	1.90	0.70
4:D:210:ILE:O	4:D:375:VAL:CG1	2.39	0.70
8:P:291:ILE:HD11	8:P:345:GLY:HA2	1.74	0.70
2:B:131:ALA:HB1	2:B:411:MET:HB3	1.73	0.70
2:B:237:THR:H	2:B:287:ARG:HD2	1.56	0.70
2:B:295:GLU:OE1	6:F:339:SER:HB3	1.91	0.70
4:D:482:ILE:HD13	4:D:482:ILE:H	1.57	0.70
6:F:154:ALA:HB1	6:F:402:VAL:HG23	1.73	0.70
3:K:225:LEU:HD13	3:K:320:VAL:CG1	2.22	0.70
8:P:243:LYS:C	8:P:244:LYS:HG2	2.12	0.70
2:B:475:ASN:H	2:B:475:ASN:ND2	1.89	0.70
6:F:16:ASP:HA	6:F:19:LEU:CD1	2.20	0.70
8:H:333:CYS:SG	8:H:340:PRO:HD3	2.32	0.70
1:I:12:THR:HG22	1:I:13:LEU:HD23	1.73	0.70
6:N:5:LEU:CA	6:N:6:LEU:CB	2.66	0.70
6:N:420:ILE:HG21	6:N:482:ASP:OD1	1.89	0.70
7:O:43:THR:HB	7:O:99:THR:HG21	1.72	0.70
2:B:30:GLY:HA2	2:B:33:VAL:CG2	2.22	0.70
3:C:225:LEU:HD13	3:C:320:VAL:CG1	2.22	0.70
2:J:345:GLU:O	2:J:351:GLN:CB	2.39	0.70
4:L:521:ILE:CG2	7:O:52:LEU:H	2.05	0.70
5:M:253:GLN:N	5:M:254:MET:CB	2.54	0.70
5:M:509:ASN:O	5:M:522:MET:N	2.24	0.70
7:O:396:ALA:O	7:O:399:ILE:HG22	1.92	0.70
1:A:101:VAL:HG22	1:A:527:SER:HB2	1.71	0.70
4:D:184:GLU:HA	4:D:186:SER:O	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:207:THR:HG22	4:D:380:ARG:N	2.06	0.70
6:F:245:THR:OG1	6:F:247:VAL:HG22	1.91	0.70
7:G:58:GLN:NE2	8:P:6:PRO:O	2.24	0.70
8:H:6:PRO:CG	4:L:71:LEU:CA	2.69	0.70
2:J:39:PRO:HA	2:J:163:SER:HA	1.74	0.70
2:J:295:GLU:C	6:N:337:GLN:HE22	1.94	0.70
4:L:404:LEU:O	4:L:407:GLU:O	2.08	0.70
5:M:104:LEU:HA	5:M:107:LEU:HD23	1.73	0.70
1:A:350:PHE:C	1:A:351:GLU:OE2	2.30	0.70
5:E:509:ASN:O	5:E:522:MET:N	2.24	0.70
6:F:37:LEU:HD13	6:F:458:LEU:HA	1.73	0.70
8:H:475:LEU:HB2	8:H:476:PRO:HD3	1.74	0.70
2:J:131:ALA:HB1	2:J:411:MET:HB3	1.73	0.70
3:K:125:LEU:HD22	3:K:445:VAL:HG23	1.74	0.70
3:K:291:ARG:N	3:K:292:PRO:HD3	2.05	0.70
4:L:482:ILE:HD13	4:L:482:ILE:H	1.57	0.70
6:N:7:ASN:OD1	6:N:8:PRO:N	2.25	0.70
6:N:245:THR:OG1	6:N:247:VAL:HG22	1.91	0.70
8:P:333:CYS:SG	8:P:340:PRO:HD3	2.32	0.70
1:A:156:LEU:HD22	1:A:181:VAL:HG13	1.71	0.70
2:B:83:VAL:HG21	3:C:384:GLY:O	1.91	0.70
5:E:319:ASP:O	5:E:340:LEU:CB	2.40	0.70
1:I:12:THR:HB	1:I:13:LEU:HB2	1.74	0.70
2:J:206:SER:HB3	2:J:368:VAL:HG13	1.73	0.70
2:J:242:LYS:NZ	2:J:247:GLY:H	1.90	0.70
4:L:184:GLU:HA	4:L:186:SER:O	1.91	0.70
4:L:207:THR:HG22	4:L:380:ARG:N	2.06	0.70
7:O:121:SER:HB2	7:O:124:LEU:HD23	1.74	0.70
2:B:3:VAL:C	2:B:5:ILE:CG2	2.61	0.70
2:B:31:ASP:C	2:B:31:ASP:OD1	2.30	0.70
6:F:113:VAL:HB	6:F:118:ILE:HD11	1.73	0.70
2:J:3:VAL:C	2:J:5:ILE:CG2	2.61	0.70
4:L:521:ILE:HG12	7:O:62:ILE:HD11	1.73	0.70
6:N:113:VAL:HB	6:N:118:ILE:HD11	1.73	0.70
2:B:263:LYS:NZ	3:C:266:GLU:HB3	2.06	0.69
5:E:253:GLN:N	5:E:254:MET:CB	2.54	0.69
6:F:36:ASN:CB	6:F:57:LYS:NZ	2.24	0.69
6:F:154:ALA:HB2	6:F:402:VAL:HG23	1.73	0.69
7:G:121:SER:HB2	7:G:124:LEU:HD23	1.74	0.69
7:G:205:PRO:HA	7:G:386:ILE:HD11	1.71	0.69
2:J:31:ASP:C	2:J:31:ASP:OD1	2.30	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:158:LEU:O	6:N:158:LEU:CD1	2.39	0.69
6:N:434:LEU:O	6:N:437:LYS:C	2.30	0.69
8:P:475:LEU:HB2	8:P:476:PRO:HD3	1.74	0.69
2:B:414:ALA:O	2:B:417:THR:HG22	1.92	0.69
2:B:422:ILE:HB	2:B:427:SER:CB	2.15	0.69
3:C:299:LYS:CA	3:C:319:ARG:CB	2.70	0.69
6:F:433:LYS:HG3	6:F:444:ILE:HG13	1.74	0.69
5:M:35:GLN:CD	5:M:36:GLY:HA3	2.13	0.69
6:N:37:LEU:HD13	6:N:458:LEU:HA	1.74	0.69
7:O:191:ARG:HD3	7:O:192:ASN:H	1.55	0.69
1:A:299:THR:HG23	1:A:326:LEU:HD12	1.74	0.69
2:B:328:THR:O	2:B:329:PHE:CG	2.46	0.69
5:E:104:LEU:HA	5:E:107:LEU:HD23	1.73	0.69
6:F:434:LEU:O	6:F:437:LYS:C	2.30	0.69
4:L:166:TYR:O	4:L:169:PHE:HB3	1.92	0.69
3:C:265:LYS:NZ	3:C:268:ASP:CB	2.55	0.69
4:D:254:VAL:HG22	8:H:264:THR:O	1.92	0.69
6:F:321:LYS:HA	6:F:321:LYS:HE3	1.75	0.69
1:I:224:LEU:HD11	1:I:226:CYS:HB2	1.75	0.69
2:J:328:THR:O	2:J:329:PHE:CG	2.45	0.69
6:N:353:LEU:O	6:N:367:VAL:CG1	2.40	0.69
8:P:237:LYS:HB3	8:P:314:ASN:HB3	1.63	0.69
3:C:416:GLY:HA2	9:C:1101:ADP:H2'	1.74	0.69
4:D:169:PHE:O	4:D:173:LEU:HD13	1.92	0.69
4:L:521:ILE:HG21	7:O:52:LEU:H	1.56	0.69
6:N:433:LYS:HG3	6:N:444:ILE:HG13	1.74	0.69
3:C:225:LEU:HD13	3:C:320:VAL:HG13	1.73	0.69
4:D:265:LYS:NZ	8:H:343:ARG:HD3	2.07	0.69
1:I:230:SER:O	1:I:233:MET:HG3	1.91	0.69
1:I:299:THR:HG23	1:I:326:LEU:HD12	1.75	0.69
2:J:311:PHE:O	2:J:315:GLU:HG2	1.93	0.69
2:B:32:LEU:CD1	6:F:532:GLU:OE2	2.41	0.69
4:D:134:ILE:CD1	4:D:424:ARG:HD3	2.20	0.69
4:D:404:LEU:HD22	4:D:410:LEU:HG	1.74	0.69
8:H:153:LYS:H	8:H:153:LYS:HD2	1.56	0.69
2:J:30:GLY:HA2	2:J:33:VAL:CG2	2.22	0.69
2:J:459:LEU:HB2	2:J:472:LEU:HD21	1.73	0.69
7:O:109:MET:HG2	7:O:514:THR:HG22	1.74	0.69
7:O:148:THR:O	7:O:149:SER:CB	2.40	0.69
2:B:32:LEU:HG	6:F:532:GLU:OE1	1.92	0.69
2:B:257:LYS:HA	2:B:260:GLN:HB3	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:15:GLU:O	4:D:523:ASP:OD2	2.11	0.69
4:D:159:SER:O	4:D:161:LYS:HD3	1.93	0.69
4:D:166:TYR:O	4:D:169:PHE:HB3	1.92	0.69
5:E:35:GLN:CD	5:E:36:GLY:HA3	2.13	0.69
5:E:166:ASP:HB3	5:E:167:ASP:CB	2.23	0.69
6:F:167:THR:HA	6:F:168:GLU:HB3	1.75	0.69
6:F:539:SER:HB3	6:F:542:LYS:CD	2.15	0.69
7:G:148:THR:O	7:G:149:SER:CB	2.40	0.69
8:H:291:ILE:HD11	8:H:345:GLY:HA2	1.73	0.69
8:H:335:VAL:HG13	8:H:379:SER:HB3	1.75	0.69
8:H:346:ALA:N	8:H:347:PRO:CD	2.56	0.69
1:I:350:PHE:HD2	1:I:351:GLU:H	1.37	0.69
2:J:328:THR:O	2:J:329:PHE:CD1	2.46	0.69
2:J:475:ASN:H	2:J:475:ASN:ND2	1.89	0.69
6:N:433:LYS:HG2	6:N:444:ILE:HG21	1.74	0.69
8:P:153:LYS:H	8:P:153:LYS:HD2	1.56	0.69
3:C:467:LEU:O	3:C:471:LEU:HB2	1.93	0.69
5:E:544:LEU:HD23	6:F:384:THR:HG21	1.73	0.69
6:F:433:LYS:HG3	6:F:444:ILE:HG21	1.73	0.69
7:G:396:ALA:O	7:G:399:ILE:HG22	1.92	0.69
3:K:299:LYS:CA	3:K:319:ARG:CB	2.70	0.69
5:M:319:ASP:O	5:M:340:LEU:CB	2.40	0.69
2:B:459:LEU:HB2	2:B:472:LEU:HD21	1.73	0.69
3:C:125:LEU:HD22	3:C:445:VAL:HG23	1.74	0.69
6:F:158:LEU:O	6:F:158:LEU:CD1	2.39	0.69
6:F:209:PHE:HB2	6:F:378:ILE:HB	1.75	0.69
6:F:354:VAL:HG22	6:F:367:VAL:HG13	1.75	0.69
2:J:30:GLY:HA2	2:J:33:VAL:HG23	1.73	0.69
3:K:299:LYS:N	3:K:319:ARG:CB	2.55	0.69
4:L:520:ARG:O	7:O:49:SER:CB	2.36	0.69
1:A:94:ILE:HG22	1:A:96:ASP:H	1.56	0.68
1:A:224:LEU:HD11	1:A:226:CYS:HB2	1.75	0.68
2:B:39:PRO:HA	2:B:163:SER:HA	1.74	0.68
6:F:353:LEU:O	6:F:367:VAL:CG1	2.40	0.68
7:G:94:VAL:HG13	7:G:95:GLY:H	1.59	0.68
7:G:450:PRO:HA	7:G:453:LEU:HD12	1.75	0.68
2:J:360:LYS:C	2:J:362:GLY:HA2	2.12	0.68
3:K:467:LEU:O	3:K:471:LEU:HB2	1.93	0.68
1:A:12:THR:HB	1:A:13:LEU:HB2	1.74	0.68
1:A:94:ILE:HG12	1:A:523:SER:HA	1.75	0.68
2:B:328:THR:O	2:B:329:PHE:CD1	2.46	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:299:LYS:N	3:C:319:ARG:CB	2.55	0.68
5:E:251:HIS:O	5:E:253:GLN:N	2.25	0.68
2:J:83:VAL:HG21	3:K:384:GLY:O	1.92	0.68
5:M:74:LEU:HG	5:M:93:GLN:HB3	1.75	0.68
6:N:154:ALA:HB2	6:N:402:VAL:HG23	1.73	0.68
8:P:346:ALA:N	8:P:347:PRO:CD	2.56	0.68
6:F:420:ILE:HG22	6:F:482:ASP:OD1	1.94	0.68
2:J:30:GLY:CA	2:J:33:VAL:HG23	2.24	0.68
4:L:169:PHE:O	4:L:173:LEU:HD13	1.92	0.68
8:P:6:PRO:HB3	8:P:7:GLN:HA	1.75	0.68
8:P:316:TYR:HD2	8:P:316:TYR:N	1.87	0.68
1:A:66:GLY:O	1:A:69:ILE:HG22	1.94	0.68
4:D:71:LEU:CA	8:P:6:PRO:CG	2.71	0.68
2:J:4:GLN:CB	2:J:5:ILE:HG12	2.24	0.68
2:J:422:ILE:HG22	2:J:424:GLY:N	2.08	0.68
4:L:159:SER:O	4:L:161:LYS:HD3	1.93	0.68
4:L:404:LEU:HD22	4:L:410:LEU:HG	1.74	0.68
6:N:141:THR:HB	6:N:409:LYS:HG3	1.75	0.68
6:N:330:LEU:HB2	6:N:375:SER:OG	1.93	0.68
2:B:30:GLY:CA	2:B:33:VAL:HG23	2.24	0.68
5:E:74:LEU:HG	5:E:93:GLN:HB3	1.75	0.68
6:F:141:THR:HB	6:F:409:LYS:HG3	1.75	0.68
6:F:233:VAL:HG13	6:F:351:SER:HB3	1.76	0.68
6:F:433:LYS:HG2	6:F:444:ILE:HG21	1.74	0.68
7:G:109:MET:HG2	7:G:514:THR:HG22	1.74	0.68
2:J:285:ILE:HD11	2:J:289:LEU:CD2	2.24	0.68
2:J:402:LEU:HD21	2:J:483:ARG:HG3	1.74	0.68
6:N:354:VAL:HG22	6:N:367:VAL:HG13	1.75	0.68
4:D:184:GLU:C	4:D:186:SER:O	2.32	0.68
6:F:7:ASN:OD1	6:F:8:PRO:N	2.25	0.68
8:H:283:GLN:O	8:H:287:MET:HG2	1.93	0.68
8:P:24:ALA:HB2	8:P:531:ALA:HB1	1.76	0.68
2:B:402:LEU:HD21	2:B:483:ARG:HG3	1.74	0.68
4:D:178:VAL:HG11	4:D:401:ILE:HD11	1.76	0.68
4:D:461:ASN:HB3	4:D:464:LYS:HG2	1.75	0.68
8:H:249:VAL:HG22	8:H:300:VAL:HB	1.75	0.68
2:J:295:GLU:OE2	6:N:338:ASN:HB2	1.92	0.68
2:J:414:ALA:O	2:J:417:THR:HG22	1.92	0.68
5:M:166:ASP:HB3	5:M:167:ASP:CB	2.23	0.68
1:A:289:ILE:HA	1:A:293:ALA:HB2	1.76	0.68
2:B:19:ARG:NH2	2:B:512:ASP:H	1.92	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:181:ILE:HD13	4:D:373:PRO:O	1.94	0.68
4:L:178:VAL:HG11	4:L:401:ILE:HD11	1.76	0.68
6:N:154:ALA:O	6:N:157:SER:OG	2.12	0.68
8:H:131:TYR:HD2	8:H:452:PHE:HD2	1.42	0.68
8:H:291:ILE:HD12	8:H:347:PRO:CG	2.24	0.68
3:K:250:LEU:HG	3:K:301:VAL:CB	2.23	0.68
4:L:15:GLU:O	4:L:523:ASP:OD2	2.11	0.68
3:C:250:LEU:HG	3:C:301:VAL:CB	2.23	0.68
5:E:34:ASP:O	6:N:117:ILE:HD12	1.94	0.68
6:F:43:LEU:HD23	6:F:57:LYS:CB	2.20	0.68
3:K:332:THR:HB	3:K:349:GLY:HA3	1.76	0.68
4:L:521:ILE:HG23	7:O:50:ASP:O	1.94	0.68
7:O:409:ILE:HG22	7:O:410:VAL:H	1.59	0.68
8:P:291:ILE:HD12	8:P:347:PRO:CG	2.24	0.68
2:B:285:ILE:HD11	2:B:289:LEU:CD2	2.24	0.67
6:F:352:GLY:O	6:F:353:LEU:C	2.33	0.67
8:H:6:PRO:HB3	8:H:7:GLN:HA	1.76	0.67
1:I:66:GLY:O	1:I:69:ILE:HG22	1.94	0.67
2:J:257:LYS:HA	2:J:260:GLN:HB3	1.75	0.67
4:L:184:GLU:C	4:L:186:SER:O	2.32	0.67
6:N:167:THR:HA	6:N:168:GLU:HB3	1.75	0.67
7:O:42:PRO:O	7:O:48:GLY:CA	2.40	0.67
7:O:94:VAL:HG13	7:O:95:GLY:H	1.59	0.67
2:B:311:PHE:O	2:B:315:GLU:HG2	1.93	0.67
3:C:332:THR:HB	3:C:349:GLY:HA3	1.76	0.67
5:E:88:ALA:HB1	5:E:109:LYS:HZ1	1.60	0.67
6:F:330:LEU:HB2	6:F:375:SER:OG	1.93	0.67
6:F:352:GLY:O	6:F:367:VAL:HG11	1.91	0.67
7:G:241:ILE:HB	7:G:330:VAL:HG11	1.77	0.67
7:G:448:VAL:HG12	7:G:452:GLN:NE2	2.09	0.67
7:G:492:PHE:HA	7:G:497:TRP:HE1	1.59	0.67
6:N:423:SER:O	6:N:427:ARG:HG3	1.94	0.67
2:B:243:VAL:HG12	2:B:245:ILE:H	1.59	0.67
3:C:94:THR:HG23	10:C:1102:BEF:F1	1.82	0.67
4:D:241:ILE:H	4:D:241:ILE:HD12	1.60	0.67
6:F:170:LEU:O	6:F:173:ILE:HG22	1.94	0.67
1:I:64:ASN:ND2	1:I:166:SER:O	2.27	0.67
1:I:289:ILE:HA	1:I:293:ALA:HB2	1.76	0.67
6:N:501:PRO:CB	6:N:506:ILE:HB	2.17	0.67
7:O:241:ILE:HB	7:O:330:VAL:HG11	1.77	0.67
7:O:450:PRO:HA	7:O:453:LEU:HD12	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:P:249:VAL:HG22	8:P:300:VAL:HB	1.76	0.67
2:B:237:THR:N	2:B:287:ARG:HG3	2.10	0.67
2:B:422:ILE:HG22	2:B:424:GLY:N	2.08	0.67
8:H:54:ILE:CG1	8:H:64:ILE:HG12	2.13	0.67
1:I:94:ILE:HG12	1:I:523:SER:HA	1.75	0.67
2:J:422:ILE:HB	2:J:427:SER:CB	2.15	0.67
6:N:209:PHE:HB2	6:N:378:ILE:HB	1.75	0.67
8:P:283:GLN:O	8:P:287:MET:HG2	1.93	0.67
1:A:64:ASN:ND2	1:A:166:SER:O	2.27	0.67
2:B:295:GLU:OE2	6:F:338:ASN:HB2	1.93	0.67
4:D:521:ILE:CG2	7:G:50:ASP:O	2.42	0.67
5:E:34:ASP:CA	6:N:117:ILE:CD1	2.66	0.67
7:G:162:ALA:HB3	7:G:179:VAL:HG13	1.77	0.67
4:L:100:THR:HG22	4:L:515:VAL:HG13	1.77	0.67
6:N:321:LYS:HA	6:N:321:LYS:HE3	1.75	0.67
4:D:69:ALA:O	8:H:15:LYS:HE2	1.94	0.67
6:F:224:MET:CE	6:F:316:ALA:H	2.06	0.67
8:H:334:ARG:HG2	8:H:380:ARG:HB3	1.77	0.67
1:I:66:GLY:H	1:I:99:THR:HG22	1.60	0.67
2:J:19:ARG:NH2	2:J:512:ASP:H	1.92	0.67
3:K:108:ALA:N	3:K:109:PRO:HD2	2.10	0.67
5:M:251:HIS:O	5:M:253:GLN:N	2.24	0.67
6:N:485:GLU:HB3	6:N:488:TYR:CB	2.24	0.67
1:A:66:GLY:H	1:A:99:THR:HG22	1.60	0.67
4:D:100:THR:HG22	4:D:515:VAL:HG13	1.77	0.67
6:F:151:LEU:HB3	6:F:175:THR:OG1	1.95	0.67
7:G:282:LEU:HD22	7:G:307:PHE:HB3	1.76	0.67
1:I:348:GLU:CB	1:I:349:THR:HA	2.25	0.67
6:N:170:LEU:O	6:N:173:ILE:HG22	1.94	0.67
7:O:492:PHE:HA	7:O:497:TRP:HE1	1.59	0.67
8:P:335:VAL:HG13	8:P:379:SER:HB3	1.75	0.67
2:B:34:LYS:O	2:B:36:THR:N	2.27	0.67
6:F:485:GLU:HB3	6:F:488:TYR:CB	2.25	0.67
4:L:181:ILE:HD13	4:L:373:PRO:O	1.94	0.67
4:L:461:ASN:HB3	4:L:464:LYS:HG2	1.75	0.67
6:N:16:ASP:HA	6:N:19:LEU:CD1	2.20	0.67
6:N:280:LEU:HD23	6:N:280:LEU:H	1.60	0.67
7:O:282:LEU:HD22	7:O:307:PHE:HB3	1.76	0.67
4:D:528:ARG:H	4:D:528:ARG:HE	1.43	0.67
6:F:187:ASP:O	6:F:188:ASN:CB	2.43	0.67
6:F:423:SER:O	6:F:427:ARG:HG3	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:6:PRO:O	7:O:58:GLN:NE2	2.28	0.67
6:N:187:ASP:O	6:N:188:ASN:CB	2.43	0.67
7:O:162:ALA:HB3	7:O:179:VAL:HG13	1.77	0.67
4:D:233:LYS:HA	4:D:345:ASP:O	1.95	0.67
5:E:355:ALA:HB3	6:F:222:PRO:HG2	1.76	0.67
1:I:250:ASN:CG	1:I:250:ASN:O	2.32	0.67
4:L:9:ALA:HB1	7:O:76:VAL:H	1.60	0.67
8:P:334:ARG:HG2	8:P:380:ARG:HB3	1.77	0.67
3:C:467:LEU:HD21	3:C:491:ILE:HG21	1.78	0.66
6:F:195:GLU:OE1	6:F:197:MET:SD	2.53	0.66
1:I:397:GLU:HG2	1:I:400:ARG:HH11	1.61	0.66
1:A:507:GLY:O	1:A:508:LYS:CB	2.43	0.66
7:G:91:ASP:O	7:G:95:GLY:HA2	1.95	0.66
2:J:237:THR:N	2:J:287:ARG:HG3	2.10	0.66
4:L:24:ASN:HD21	4:L:524:ILE:HD11	1.60	0.66
6:N:224:MET:CE	6:N:316:ALA:H	2.06	0.66
7:O:108:LEU:HD11	7:O:511:THR:HG22	1.77	0.66
7:O:448:VAL:HG12	7:O:452:GLN:NE2	2.09	0.66
1:A:118:ASN:C	1:A:119:LYS:HD2	2.16	0.66
1:A:348:GLU:CB	1:A:349:THR:HA	2.25	0.66
2:B:206:SER:CB	2:B:368:VAL:HG13	2.26	0.66
2:B:329:PHE:C	2:B:329:PHE:HD2	1.96	0.66
2:B:360:LYS:C	2:B:362:GLY:HA2	2.12	0.66
4:D:24:ASN:HD21	4:D:524:ILE:HD11	1.60	0.66
9:D:601:ADP:O3'	9:D:601:ADP:H8	1.78	0.66
7:G:483:PHE:CB	9:G:601:ADP:HN62	2.08	0.66
8:H:24:ALA:HB2	8:H:531:ALA:HB1	1.76	0.66
2:J:409:MET:HE2	2:J:409:MET:HA	1.76	0.66
3:K:265:LYS:NZ	3:K:268:ASP:CB	2.55	0.66
3:K:467:LEU:HD21	3:K:491:ILE:HG21	1.77	0.66
4:L:241:ILE:H	4:L:241:ILE:HD12	1.60	0.66
8:P:131:TYR:HD2	8:P:452:PHE:HD2	1.42	0.66
6:F:543:GLU:O	6:F:544:THR:C	2.33	0.66
7:G:343:PRO:HA	7:G:346:LEU:HD21	1.78	0.66
7:G:410:VAL:HG12	7:G:498:GLU:O	1.95	0.66
2:J:49:ALA:HB1	6:N:538:ARG:HB2	1.78	0.66
4:L:24:ASN:HA	4:L:74:VAL:HG21	1.77	0.66
7:O:317:ARG:HG3	7:O:317:ARG:O	1.94	0.66
1:A:397:GLU:HG2	1:A:400:ARG:HH11	1.61	0.66
2:B:4:GLN:CB	2:B:5:ILE:HG12	2.24	0.66
2:B:23:PHE:HA	2:B:103:LEU:HD13	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:165:ILE:HG12	6:F:529:LEU:HD13	1.76	0.66
2:B:255:THR:HA	2:B:258:LEU:HD13	1.77	0.66
4:D:44:MET:HG3	8:H:531:ALA:HB3	1.77	0.66
7:G:317:ARG:HG3	7:G:317:ARG:O	1.95	0.66
8:H:204:VAL:HG13	8:H:405:VAL:CG1	2.25	0.66
1:I:431:ILE:HG12	1:I:482:ALA:CB	2.25	0.66
2:J:422:ILE:O	2:J:423:ASP:CG	2.34	0.66
2:J:463:ILE:O	2:J:467:ILE:CA	2.44	0.66
4:L:528:ARG:H	4:L:528:ARG:HE	1.43	0.66
6:N:352:GLY:O	6:N:353:LEU:C	2.33	0.66
6:N:541:LEU:HB3	6:N:543:GLU:H	1.60	0.66
4:L:233:LYS:HA	4:L:345:ASP:O	1.95	0.66
4:D:252:ILE:HB	8:H:262:LYS:O	1.96	0.66
6:F:451:LEU:O	6:F:455:PRO:CD	2.44	0.66
4:L:254:VAL:HG22	8:P:265:VAL:HA	1.77	0.66
6:N:75:LEU:HD22	6:N:527:LEU:HD11	1.78	0.66
7:O:516:LEU:HD11	7:O:517:ILE:HG12	1.75	0.66
2:B:444:LEU:HD21	9:B:601:ADP:HI'	1.78	0.66
6:F:541:LEU:HB3	6:F:543:GLU:H	1.60	0.66
7:G:409:ILE:HG22	7:G:410:VAL:H	1.59	0.66
3:K:297:THR:O	3:K:319:ARG:HA	1.96	0.66
6:N:233:VAL:HG13	6:N:351:SER:HB3	1.76	0.66
7:O:410:VAL:HG12	7:O:498:GLU:O	1.95	0.66
8:P:6:PRO:CB	8:P:7:GLN:HA	2.26	0.66
1:A:54:VAL:HG12	1:A:56:ASP:H	1.60	0.66
1:A:65:ASP:HB3	1:A:68:THR:OG1	1.96	0.66
7:G:108:LEU:HD11	7:G:511:THR:HG22	1.77	0.66
1:I:118:ASN:C	1:I:119:LYS:HD2	2.16	0.66
5:M:55:ARG:HG3	5:M:131:ASP:OD2	1.96	0.66
5:M:350:GLU:HA	5:M:352:GLU:OE2	1.96	0.66
7:O:75:VAL:HG21	7:O:84:VAL:HG21	1.78	0.66
7:O:91:ASP:O	7:O:95:GLY:HA2	1.95	0.66
1:A:183:ALA:HB1	1:A:383:SER:CB	2.26	0.66
1:A:431:ILE:HG12	1:A:482:ALA:CB	2.25	0.66
5:E:55:ARG:HG3	5:E:131:ASP:OD2	1.96	0.66
6:F:280:LEU:HD23	6:F:280:LEU:H	1.59	0.66
7:G:70:LEU:HB3	7:G:84:VAL:HG13	1.78	0.66
8:H:6:PRO:CB	8:H:7:GLN:HA	2.26	0.66
2:J:3:VAL:O	2:J:5:ILE:HG12	1.96	0.66
2:J:243:VAL:HG12	2:J:245:ILE:H	1.60	0.66
2:J:255:THR:HA	2:J:258:LEU:HD13	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:151:LEU:HB3	6:N:175:THR:OG1	1.95	0.66
6:N:420:ILE:HG22	6:N:482:ASP:OD1	1.94	0.66
8:P:24:ALA:CA	8:P:531:ALA:O	2.43	0.66
8:P:94:ILE:HD12	8:P:95:ASP:H	1.61	0.66
1:A:250:ASN:CG	1:A:250:ASN:O	2.32	0.65
3:C:108:ALA:N	3:C:109:PRO:HD2	2.10	0.65
5:M:66:GLY:N	9:M:601:ADP:H5'1	2.07	0.65
7:O:90:GLN:CG	7:O:101:VAL:HG21	2.24	0.65
6:F:75:LEU:HD22	6:F:527:LEU:HD11	1.78	0.65
6:F:193:MET:HE2	6:F:330:LEU:HD11	1.76	0.65
6:N:195:GLU:OE1	6:N:197:MET:SD	2.53	0.65
6:N:543:GLU:O	6:N:544:THR:C	2.33	0.65
4:D:185:ASN:N	4:D:186:SER:O	2.30	0.65
6:F:154:ALA:O	6:F:157:SER:OG	2.12	0.65
8:H:94:ILE:HD12	8:H:95:ASP:H	1.61	0.65
2:J:263:LYS:HZ1	3:K:266:GLU:CB	2.09	0.65
2:J:300:ASP:O	2:J:301:LEU:CB	2.44	0.65
6:N:451:LEU:O	6:N:455:PRO:CD	2.44	0.65
2:B:5:ILE:HG13	2:B:6:PHE:N	2.09	0.65
4:D:254:VAL:CG2	8:H:265:VAL:HA	2.25	0.65
1:I:183:ALA:HB1	1:I:383:SER:CB	2.26	0.65
2:J:319:LEU:HD21	2:J:357:SER:OG	1.97	0.65
2:J:492:LYS:HE2	2:J:493:LEU:N	2.12	0.65
6:N:353:LEU:O	6:N:367:VAL:HG13	1.97	0.65
2:B:422:ILE:O	2:B:423:ASP:CG	2.34	0.65
4:D:297:VAL:HB	4:D:298:ASN:HA	1.78	0.65
8:H:24:ALA:CA	8:H:531:ALA:O	2.43	0.65
3:K:57:LEU:N	3:K:57:LEU:CD2	2.57	0.65
3:K:269:TRP:HH2	6:N:248:ASN:N	1.82	0.65
6:N:540:THR:HB	6:N:541:LEU:CD2	2.25	0.65
2:B:402:LEU:HD11	2:B:483:ARG:HE	1.62	0.65
3:C:122:ILE:HD13	3:C:522:ARG:HG2	1.79	0.65
7:G:75:VAL:HG21	7:G:84:VAL:HG21	1.78	0.65
8:H:250:PHE:HE2	8:H:299:ILE:HD12	1.62	0.65
1:I:65:ASP:HB3	1:I:68:THR:OG1	1.96	0.65
2:J:459:LEU:HD22	2:J:472:LEU:CG	2.26	0.65
4:L:297:VAL:HB	4:L:298:ASN:HA	1.78	0.65
6:N:53:ILE:C	6:N:53:ILE:CD1	2.62	0.65
8:P:250:PHE:HE2	8:P:299:ILE:HD12	1.61	0.65
1:I:187:VAL:HG23	1:I:383:SER:HB3	1.79	0.65
1:I:507:GLY:O	1:I:508:LYS:CB	2.43	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:5:ILE:HG13	2:J:6:PHE:N	2.09	0.65
2:J:23:PHE:HA	2:J:103:LEU:HD13	1.77	0.65
2:J:393:GLN:HB3	2:J:492:LYS:HE3	1.79	0.65
3:K:255:GLY:H	3:K:259:THR:HG21	1.62	0.65
8:P:300:VAL:HG11	8:P:332:LEU:HD21	1.79	0.65
4:D:330:CYS:CB	4:D:345:ASP:OD2	2.44	0.65
6:F:540:THR:HB	6:F:541:LEU:CD2	2.25	0.65
7:G:86:ILE:HA	7:G:89:ALA:HB3	1.79	0.65
1:I:54:VAL:HG12	1:I:56:ASP:H	1.60	0.65
6:N:540:THR:O	6:N:542:LYS:CG	2.44	0.65
7:O:70:LEU:HB3	7:O:84:VAL:HG13	1.78	0.65
2:B:8:ASP:CB	2:B:9:GLN:HA	2.22	0.65
2:B:278:LYS:HA	2:B:333:SER:HB3	1.79	0.65
2:B:319:LEU:HD21	2:B:357:SER:OG	1.97	0.65
4:D:24:ASN:HA	4:D:74:VAL:HG21	1.77	0.65
4:D:217:GLN:NE2	4:D:316:ILE:HA	2.12	0.65
6:F:174:VAL:HG13	6:F:399:LEU:HD13	1.77	0.65
7:G:446:LEU:HD21	7:G:507:LEU:HD23	1.78	0.65
2:J:409:MET:HB3	2:J:463:ILE:HD13	1.78	0.65
4:L:38:SER:HB3	4:L:46:LYS:HZ3	1.61	0.65
4:L:154:ALA:HB2	4:L:175:VAL:HG13	1.79	0.65
7:O:56:SER:HA	7:O:57:ASN:C	2.17	0.65
3:C:161:THR:H	3:C:165:ILE:HG13	1.62	0.65
3:C:297:THR:O	3:C:319:ARG:HA	1.96	0.65
5:E:350:GLU:HA	5:E:352:GLU:OE2	1.96	0.65
6:F:539:SER:HB2	6:F:542:LYS:CD	2.27	0.65
7:G:454:CYS:HB2	7:G:461:ALA:CB	2.27	0.65
2:J:27:ILE:CD1	2:J:104:ARG:HH11	2.09	0.65
2:J:230:LYS:HA	2:J:337:LEU:O	1.97	0.65
2:J:402:LEU:HD11	2:J:483:ARG:HE	1.62	0.65
7:O:83:LEU:HD23	7:O:86:ILE:HD11	1.78	0.65
2:B:21:SER:OG	1:I:8:SER:N	2.30	0.64
2:J:45:LEU:HB2	6:N:533:LEU:CB	2.27	0.64
4:L:38:SER:HB3	4:L:46:LYS:NZ	2.12	0.64
4:L:185:ASN:N	4:L:186:SER:O	2.30	0.64
4:L:214:VAL:HG22	4:L:362:ARG:HG2	1.80	0.64
1:A:45:GLY:H	9:A:601:ADP:H5 ¹	1.63	0.64
2:B:206:SER:HB2	2:B:368:VAL:HG22	1.78	0.64
2:B:300:ASP:O	2:B:301:LEU:CB	2.44	0.64
2:B:463:ILE:O	2:B:467:ILE:CA	2.44	0.64
2:B:492:LYS:HE2	2:B:493:LEU:N	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:255:GLY:H	3:C:259:THR:HG21	1.62	0.64
4:D:38:SER:HB3	4:D:46:LYS:NZ	2.12	0.64
4:D:226:PRO:HB2	4:D:311:MET:HG2	1.79	0.64
4:D:521:ILE:HG21	7:G:52:LEU:H	1.61	0.64
6:F:241:GLU:HA	6:F:302:ASP:OD2	1.98	0.64
2:J:197:LYS:HB3	2:J:381:GLU:OE1	1.97	0.64
3:K:124:ALA:HB1	3:K:441:PRO:HB2	1.79	0.64
4:L:524:ILE:HG23	7:O:52:LEU:HD22	1.80	0.64
7:O:446:LEU:HD21	7:O:507:LEU:HD23	1.78	0.64
4:D:239:PHE:H	4:D:288:ILE:HD12	1.62	0.64
7:G:90:GLN:CG	7:G:101:VAL:HG21	2.24	0.64
7:G:235:LYS:CB	7:G:352:PHE:O	2.46	0.64
3:K:269:TRP:CH2	6:N:248:ASN:N	2.60	0.64
4:L:217:GLN:NE2	4:L:316:ILE:HA	2.12	0.64
4:L:410:LEU:HD13	4:L:498:LEU:HD22	1.78	0.64
6:N:143:LEU:HD22	6:N:145:ASN:HB3	1.79	0.64
1:A:187:VAL:HG23	1:A:383:SER:HB3	1.79	0.64
2:B:8:ASP:HA	2:B:10:VAL:HG23	1.80	0.64
2:B:230:LYS:HA	2:B:337:LEU:O	1.98	0.64
5:E:39:LYS:HE2	6:N:109:ILE:O	1.96	0.64
6:F:53:ILE:C	6:F:53:ILE:CD1	2.62	0.64
6:F:419:TYR:CZ	6:F:513:LEU:HD21	2.32	0.64
7:G:83:LEU:HD23	7:G:86:ILE:HD11	1.78	0.64
2:J:357:SER:C	2:J:360:LYS:CB	2.66	0.64
2:J:408:GLU:HG2	2:J:440:LEU:HB3	1.78	0.64
6:N:419:TYR:CZ	6:N:513:LEU:HD21	2.32	0.64
1:A:184:LEU:HD21	1:A:198:TYR:CB	2.28	0.64
2:B:232:LEU:HD21	2:B:325:VAL:HG21	1.79	0.64
2:B:393:GLN:HB3	2:B:492:LYS:HE3	1.79	0.64
6:F:434:LEU:O	6:F:438:GLY:CA	2.45	0.64
7:G:42:PRO:O	7:G:48:GLY:CA	2.40	0.64
2:J:232:LEU:HD21	2:J:325:VAL:HG21	1.80	0.64
2:J:295:GLU:HB2	6:N:337:GLN:NE2	2.12	0.64
4:L:226:PRO:HB2	4:L:311:MET:HG2	1.80	0.64
4:L:239:PHE:H	4:L:288:ILE:HD12	1.62	0.64
6:N:414:GLY:O	6:N:415:ALA:HB3	1.97	0.64
7:O:239:PRO:HA	7:O:291:ASN:HD21	1.63	0.64
8:P:168:SER:HB3	8:P:175:GLU:HB3	1.80	0.64
1:A:218:LEU:HD22	1:A:219:VAL:H	1.63	0.64
2:B:409:MET:HB3	2:B:463:ILE:HD13	1.78	0.64
4:D:134:ILE:HD11	4:D:424:ARG:CG	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:214:VAL:HG22	4:D:362:ARG:HG2	1.80	0.64
4:D:410:LEU:HD13	4:D:498:LEU:HD22	1.78	0.64
5:E:166:ASP:H	5:E:167:ASP:HB2	1.60	0.64
7:G:56:SER:HA	7:G:57:ASN:C	2.16	0.64
7:G:239:PRO:HA	7:G:291:ASN:HD21	1.63	0.64
2:J:8:ASP:HA	2:J:10:VAL:HG23	1.79	0.64
3:K:122:ILE:HD13	3:K:522:ARG:HG2	1.79	0.64
6:N:174:VAL:HG13	6:N:399:LEU:HD13	1.78	0.64
7:G:109:MET:HG2	7:G:514:THR:CG2	2.28	0.64
7:G:516:LEU:HD11	7:G:517:ILE:HG12	1.75	0.64
3:K:161:THR:H	3:K:165:ILE:HG13	1.62	0.64
4:L:134:ILE:HD11	4:L:424:ARG:CG	2.28	0.64
6:N:434:LEU:O	6:N:438:GLY:CA	2.45	0.64
7:O:343:PRO:HA	7:O:346:LEU:HD21	1.78	0.64
7:O:454:CYS:HB2	7:O:461:ALA:CB	2.27	0.64
2:B:197:LYS:HB3	2:B:381:GLU:OE1	1.97	0.64
3:C:93:THR:HG22	10:C:1102:BEF:F2	1.87	0.64
4:D:499:GLN:NE2	9:D:601:ADP:H2'	2.12	0.64
6:F:353:LEU:O	6:F:367:VAL:HG13	1.97	0.64
2:J:201:GLY:H	6:N:86:ILE:HD12	1.63	0.64
5:M:66:GLY:H	9:M:601:ADP:C5'	2.05	0.64
6:N:538:ARG:HH11	6:N:538:ARG:CG	2.11	0.64
7:O:86:ILE:HA	7:O:89:ALA:HB3	1.79	0.64
7:O:191:ARG:CD	7:O:192:ASN:N	2.61	0.64
1:A:517:VAL:C	1:A:518:LEU:HG	2.18	0.64
2:B:4:GLN:HB2	3:C:71:ALA:HB3	1.80	0.64
4:D:154:ALA:HB2	4:D:175:VAL:HG13	1.79	0.64
2:J:465:ASN:C	2:J:465:ASN:OD1	2.36	0.64
4:L:367:ARG:C	4:L:369:ASN:H	2.01	0.64
6:N:83:GLN:HG3	6:N:94:VAL:CG2	2.18	0.64
1:A:66:GLY:N	1:A:99:THR:HG22	2.12	0.64
3:C:223:VAL:HG12	3:C:224:LEU:H	1.63	0.64
5:E:33:LYS:HE2	6:N:117:ILE:HG12	1.79	0.64
5:E:128:ALA:HB2	5:E:478:THR:HG21	1.80	0.64
6:F:23:VAL:HG11	6:F:106:HIS:CB	2.28	0.64
6:F:331:VAL:O	6:F:332:THR:OG1	2.12	0.64
1:I:66:GLY:N	1:I:99:THR:HG22	2.12	0.64
2:J:278:LYS:HA	2:J:333:SER:HB3	1.79	0.64
2:J:411:MET:O	2:J:415:VAL:HG23	1.98	0.64
5:M:401:THR:O	5:M:402:LYS:CB	2.46	0.64
6:N:352:GLY:O	6:N:367:VAL:HG11	1.91	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:O:317:ARG:O	7:O:317:ARG:CG	2.46	0.64
2:B:357:SER:C	2:B:360:LYS:CB	2.66	0.63
3:C:124:ALA:HB1	3:C:441:PRO:HB2	1.79	0.63
1:I:540:ARG:O	5:M:70:LEU:HB3	1.98	0.63
2:J:329:PHE:C	2:J:329:PHE:HD2	1.95	0.63
5:M:166:ASP:H	5:M:167:ASP:HB2	1.60	0.63
8:P:430:LEU:HD13	8:P:434:ILE:HD11	1.79	0.63
3:C:391:GLU:O	3:C:395:ASN:HB2	1.99	0.63
4:D:210:ILE:O	4:D:375:VAL:HG13	1.98	0.63
6:F:538:ARG:HH11	6:F:538:ARG:CG	2.11	0.63
1:I:218:LEU:HD22	1:I:219:VAL:H	1.63	0.63
2:J:251:LYS:N	6:N:251:PHE:HA	2.10	0.63
2:B:411:MET:O	2:B:415:VAL:HG23	1.98	0.63
7:G:317:ARG:O	7:G:317:ARG:CG	2.46	0.63
3:K:335:THR:HB	8:P:237:LYS:HE2	1.80	0.63
4:D:252:ILE:O	8:H:263:GLY:HA2	1.99	0.63
6:N:159:LEU:O	6:N:160:THR:CB	2.46	0.63
6:N:241:GLU:HA	6:N:302:ASP:OD2	1.98	0.63
7:O:235:LYS:CB	7:O:352:PHE:O	2.46	0.63
2:B:408:GLU:HG2	2:B:440:LEU:HB3	1.78	0.63
3:C:35:ILE:HD11	3:C:65:LEU:HG	1.80	0.63
6:F:83:GLN:HG3	6:F:94:VAL:CG2	2.18	0.63
6:F:106:HIS:O	6:F:109:ILE:HG12	1.97	0.63
8:H:300:VAL:HG11	8:H:332:LEU:HD21	1.79	0.63
8:H:430:LEU:HD13	8:H:434:ILE:HD11	1.79	0.63
1:I:158:ASN:ND2	1:I:516:GLY:HA2	2.13	0.63
6:N:433:LYS:HB3	6:N:441:LYS:HA	1.80	0.63
6:N:539:SER:HB2	6:N:542:LYS:CD	2.27	0.63
7:O:282:LEU:HD21	7:O:306:PHE:HB2	1.80	0.63
2:B:236:THR:OG1	2:B:327:SER:HA	1.99	0.63
5:E:283:THR:HG22	5:E:284:LYS:H	1.64	0.63
6:F:143:LEU:HD22	6:F:145:ASN:HB3	1.79	0.63
6:F:330:LEU:CB	6:F:375:SER:OG	2.47	0.63
1:I:115:LEU:HD13	1:I:125:ILE:HD11	1.81	0.63
6:N:331:VAL:O	6:N:332:THR:OG1	2.12	0.63
7:O:237:ASN:C	7:O:239:PRO:HD3	2.18	0.63
8:P:204:VAL:HG13	8:P:405:VAL:CG1	2.25	0.63
2:B:465:ASN:C	2:B:465:ASN:OD1	2.36	0.63
6:F:159:LEU:O	6:F:160:THR:CB	2.46	0.63
7:G:191:ARG:CZ	7:G:192:ASN:N	2.61	0.63
1:I:55:ASP:HA	7:O:527:LYS:HB3	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:517:VAL:C	1:I:518:LEU:HG	2.18	0.63
2:J:210:GLU:OE1	2:J:357:SER:O	2.17	0.63
2:J:492:LYS:H	2:J:492:LYS:NZ	1.97	0.63
5:M:283:THR:HG22	5:M:284:LYS:H	1.64	0.63
6:N:106:HIS:O	6:N:109:ILE:HG12	1.97	0.63
6:N:330:LEU:CB	6:N:375:SER:OG	2.47	0.63
7:O:109:MET:SD	7:O:514:THR:HG22	2.39	0.63
7:O:109:MET:HG2	7:O:514:THR:CG2	2.28	0.63
7:O:189:LEU:N	7:O:190:ASP:HB2	2.14	0.63
1:A:458:ILE:HB	1:A:459:PRO:HD3	1.81	0.63
2:B:3:VAL:O	2:B:5:ILE:HG12	1.96	0.63
2:B:230:LYS:H	2:B:281:ILE:HG22	1.62	0.63
4:D:367:ARG:C	4:D:369:ASN:H	2.01	0.63
7:G:191:ARG:CD	7:G:192:ASN:N	2.61	0.63
7:G:498:GLU:HG2	9:G:601:ADP:O2'	1.99	0.63
8:H:168:SER:HB3	8:H:175:GLU:HB3	1.80	0.63
2:J:34:LYS:O	2:J:36:THR:N	2.27	0.63
5:M:104:LEU:CD2	5:M:123:VAL:HG13	2.27	0.63
6:N:23:VAL:HG11	6:N:106:HIS:CB	2.28	0.63
7:O:304:THR:HA	7:O:307:PHE:HE2	1.63	0.63
6:F:203:SER:C	6:F:205:LYS:H	2.03	0.63
6:F:414:GLY:O	6:F:415:ALA:HB3	1.98	0.63
1:I:228:VAL:CG2	1:I:363:GLN:NE2	2.49	0.63
2:J:98:LEU:O	2:J:102:LEU:HB2	1.99	0.63
2:J:422:ILE:HG21	2:J:427:SER:HB3	1.79	0.63
4:L:528:ARG:H	4:L:528:ARG:NE	1.97	0.63
5:M:128:ALA:HB2	5:M:478:THR:HG21	1.80	0.63
5:M:383:GLN:O	5:M:391:ARG:CB	2.47	0.63
6:N:108:PHE:CE2	6:N:118:ILE:HG13	2.34	0.63
1:A:115:LEU:HD13	1:A:125:ILE:HD11	1.81	0.62
2:B:210:GLU:OE1	2:B:357:SER:O	2.17	0.62
4:D:528:ARG:H	4:D:528:ARG:NE	1.97	0.62
7:G:237:ASN:C	7:G:239:PRO:HD3	2.18	0.62
7:G:304:THR:HA	7:G:307:PHE:HE2	1.63	0.62
2:J:246:PHE:CD1	2:J:246:PHE:C	2.73	0.62
4:L:292:ILE:HG13	4:L:293:LEU:HA	1.81	0.62
1:A:158:ASN:ND2	1:A:516:GLY:HA2	2.13	0.62
2:B:38:GLY:HA3	2:B:474:LEU:CD1	2.29	0.62
5:E:273:THR:HG22	5:E:363:VAL:O	1.99	0.62
6:F:109:ILE:HG13	5:M:39:LYS:NZ	2.11	0.62
7:G:409:ILE:HG22	7:G:410:VAL:N	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:227:VAL:HG21	8:H:385:ILE:HD11	1.81	0.62
2:J:230:LYS:H	2:J:281:ILE:HG22	1.62	0.62
2:J:436:ALA:O	2:J:439:GLN:HB3	1.99	0.62
3:K:35:ILE:HD11	3:K:65:LEU:HG	1.80	0.62
7:O:79:ALA:O	7:O:82:THR:HG22	1.99	0.62
7:O:214:PHE:HD1	7:O:376:LEU:HB3	1.64	0.62
8:P:227:VAL:HG21	8:P:385:ILE:HD11	1.81	0.62
6:F:481:GLN:O	6:F:489:VAL:HG21	1.99	0.62
7:G:126:MET:HE3	7:G:515:ASN:HA	1.82	0.62
4:D:292:ILE:HG13	4:D:293:LEU:HA	1.82	0.62
5:E:174:GLU:O	5:E:175:LEU:CG	2.47	0.62
5:E:337:GLN:C	5:E:338:ASN:HD22	2.03	0.62
7:G:109:MET:SD	7:G:514:THR:HG22	2.39	0.62
2:J:38:GLY:HA3	2:J:474:LEU:CD1	2.29	0.62
3:K:223:VAL:HG12	3:K:224:LEU:H	1.63	0.62
4:L:375:VAL:HG12	4:L:376:SER:H	1.64	0.62
1:A:184:LEU:CD2	1:A:198:TYR:CG	2.69	0.62
2:B:98:LEU:O	2:B:102:LEU:HB2	1.99	0.62
2:B:246:PHE:CD1	2:B:246:PHE:C	2.73	0.62
4:D:185:ASN:H	4:D:186:SER:C	2.02	0.62
5:E:401:THR:O	5:E:402:LYS:CB	2.46	0.62
7:G:226:TYR:CE1	7:G:229:PHE:C	2.73	0.62
8:H:375:GLN:N	8:H:376:GLY:HA3	2.14	0.62
3:K:391:GLU:O	3:K:395:ASN:HB2	1.98	0.62
4:L:210:ILE:O	4:L:375:VAL:HG13	1.98	0.62
6:N:173:ILE:HD11	6:N:209:PHE:HB3	1.82	0.62
7:O:409:ILE:HG22	7:O:410:VAL:N	2.14	0.62
8:P:24:ALA:O	8:P:28:ILE:HG13	1.99	0.62
8:P:227:VAL:HG22	8:P:370:VAL:HG12	1.81	0.62
3:C:142:PRO:HB3	3:C:410:PRO:HB2	1.81	0.62
8:H:227:VAL:HG22	8:H:370:VAL:HG12	1.81	0.62
8:H:441:THR:O	8:H:446:GLN:HG2	2.00	0.62
1:I:224:LEU:HD13	1:I:226:CYS:HB2	1.81	0.62
2:J:236:THR:OG1	2:J:327:SER:HA	1.99	0.62
5:M:88:ALA:HB1	5:M:109:LYS:HZ1	1.64	0.62
5:M:483:LEU:HD11	9:M:601:ADP:O4'	1.99	0.62
1:A:224:LEU:HD13	1:A:226:CYS:HB2	1.81	0.62
1:A:470:SER:H	3:K:115:ASN:CB	2.13	0.62
2:B:464:TYR:O	2:B:467:ILE:HD11	2.00	0.62
6:F:501:PRO:CB	6:F:506:ILE:HB	2.17	0.62
6:F:540:THR:O	6:F:542:LYS:CG	2.44	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:214:PHE:HD1	7:G:376:LEU:HB3	1.64	0.62
7:G:282:LEU:HD21	7:G:306:PHE:HB2	1.80	0.62
1:I:184:LEU:CD2	1:I:198:TYR:CG	2.69	0.62
1:I:480:TYR:O	1:I:483:ALA:HB3	2.00	0.62
2:J:375:GLN:NE2	6:N:75:LEU:HD12	2.14	0.62
3:K:495:VAL:HG23	3:K:500:TRP:HH2	1.65	0.62
6:N:481:GLN:O	6:N:489:VAL:HG21	1.99	0.62
7:O:226:TYR:CE1	7:O:229:PHE:C	2.73	0.62
2:B:436:ALA:O	2:B:439:GLN:HB3	2.00	0.62
4:D:375:VAL:HG12	4:D:376:SER:H	1.64	0.62
5:E:133:ALA:O	5:E:137:ILE:HG13	1.99	0.62
5:E:210:ASN:H	5:E:210:ASN:HD22	1.48	0.62
6:F:155:ARG:CB	6:F:171:THR:HG21	2.30	0.62
6:F:353:LEU:HB2	6:F:368:THR:OG1	2.00	0.62
7:G:189:LEU:N	7:G:190:ASP:HB2	2.14	0.62
7:G:413:GLY:HA3	7:G:491:ASN:ND2	2.15	0.62
1:I:458:ILE:HB	1:I:459:PRO:HD3	1.81	0.62
3:K:31:VAL:HG11	3:K:70:VAL:HG11	1.81	0.62
3:K:223:VAL:HG11	3:K:328:ILE:CG1	2.29	0.62
6:N:92:THR:CG2	10:N:602:BEF:F3	2.37	0.62
1:A:122:PRO:HG3	5:E:70:LEU:HD11	1.82	0.62
2:B:492:LYS:H	2:B:492:LYS:NZ	1.97	0.62
3:C:62:HIS:O	3:C:66:ARG:HG3	2.00	0.62
3:C:223:VAL:HG11	3:C:328:ILE:CG1	2.29	0.62
5:E:383:GLN:O	5:E:391:ARG:CB	2.47	0.62
8:H:131:TYR:CD2	8:H:452:PHE:HD2	2.17	0.62
2:J:8:ASP:CB	2:J:9:GLN:HA	2.22	0.62
3:K:264:GLU:C	3:K:265:LYS:CG	2.62	0.62
5:M:273:THR:HG22	5:M:363:VAL:O	1.99	0.62
7:O:43:THR:HG22	7:O:64:ASN:CB	2.27	0.62
3:C:462:GLY:O	3:C:464:PRO:HD3	1.99	0.62
5:E:348:GLY:O	5:E:351:LEU:HD11	2.00	0.62
1:I:233:MET:HG2	1:I:311:VAL:HG22	1.82	0.62
3:K:142:PRO:HB3	3:K:410:PRO:HB2	1.81	0.62
5:M:50:HIS:HB3	5:M:100:ILE:HG21	1.82	0.62
3:C:495:VAL:HG23	3:C:500:TRP:HH2	1.65	0.61
4:D:521:ILE:HG23	7:G:51:ILE:CA	2.29	0.61
5:E:39:LYS:NZ	6:N:109:ILE:HG13	2.14	0.61
7:G:307:PHE:HD1	7:G:312:ILE:HG23	1.64	0.61
8:H:24:ALA:O	8:H:28:ILE:HG13	1.99	0.61
8:H:335:VAL:HG22	8:H:379:SER:HB2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:266:ASP:N	1:I:267:PRO:HD2	2.15	0.61
5:M:133:ALA:O	5:M:137:ILE:HG13	1.99	0.61
8:P:109:GLU:O	8:P:113:VAL:HG23	2.00	0.61
1:A:118:ASN:O	1:A:119:LYS:HG2	2.00	0.61
3:C:50:ASP:HB2	3:C:51:PRO:HD2	1.82	0.61
5:E:104:LEU:CD2	5:E:123:VAL:HG13	2.27	0.61
5:E:183:ALA:O	5:E:187:SER:HB2	2.00	0.61
6:F:515:ASN:HD22	6:F:516:ALA:N	1.99	0.61
1:I:187:VAL:HG21	1:I:383:SER:HB3	1.83	0.61
5:M:348:GLY:O	5:M:351:LEU:HD11	2.00	0.61
6:N:229:LYS:HA	6:N:353:LEU:HD23	1.82	0.61
8:P:441:THR:O	8:P:446:GLN:HG2	1.99	0.61
1:A:228:VAL:CG2	1:A:363:GLN:NE2	2.49	0.61
2:B:263:LYS:HZ3	3:C:266:GLU:HB3	1.62	0.61
6:F:133:LEU:HD12	6:F:422:LEU:CD2	2.24	0.61
7:G:79:ALA:O	7:G:82:THR:HG22	1.99	0.61
7:G:165:ALA:HB2	7:G:399:ILE:HG21	1.82	0.61
1:I:90:GLN:OE1	1:I:96:ASP:O	2.17	0.61
1:I:118:ASN:O	1:I:119:LYS:HG2	2.00	0.61
2:J:509:LEU:O	2:J:509:LEU:HD23	2.00	0.61
3:K:50:ASP:HB2	3:K:51:PRO:HD2	1.82	0.61
5:M:174:GLU:O	5:M:175:LEU:CG	2.47	0.61
6:N:353:LEU:HB2	6:N:368:THR:OG1	2.00	0.61
7:O:239:PRO:HD2	7:O:349:CYS:O	2.01	0.61
7:O:413:GLY:HA3	7:O:491:ASN:ND2	2.15	0.61
1:A:233:MET:HG2	1:A:311:VAL:HG22	1.82	0.61
3:C:31:VAL:HG11	3:C:70:VAL:HG11	1.81	0.61
5:E:433:LEU:HD11	5:E:439:VAL:HG13	1.82	0.61
6:F:108:PHE:CE2	6:F:118:ILE:HG13	2.34	0.61
7:G:37:GLN:HE21	7:G:38:GLU:N	1.98	0.61
3:K:512:THR:HG23	8:P:389:ALA:HB1	1.82	0.61
5:M:337:GLN:C	5:M:338:ASN:HD22	2.03	0.61
6:N:203:SER:C	6:N:205:LYS:H	2.03	0.61
7:O:191:ARG:CZ	7:O:192:ASN:N	2.61	0.61
8:P:375:GLN:N	8:P:376:GLY:HA3	2.14	0.61
2:B:437:LEU:O	2:B:441:PRO:HD2	2.01	0.61
5:E:273:THR:HG22	5:E:364:PRO:CA	2.20	0.61
6:F:433:LYS:HB3	6:F:441:LYS:HA	1.80	0.61
7:G:239:PRO:HD2	7:G:349:CYS:O	2.01	0.61
6:N:36:ASN:HB3	6:N:57:LYS:HZ3	0.81	0.61
6:N:454:ILE:N	6:N:455:PRO:CD	2.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:540:ARG:O	5:E:70:LEU:HB3	2.00	0.61
3:C:41:PRO:HA	3:C:161:THR:HG21	1.82	0.61
4:D:524:ILE:CG2	7:G:52:LEU:O	2.47	0.61
6:F:454:ILE:N	6:F:455:PRO:CD	2.64	0.61
8:H:109:GLU:O	8:H:113:VAL:HG23	2.00	0.61
2:J:203:LEU:O	2:J:204:SER:CB	2.49	0.61
3:K:149:ALA:HA	3:K:152:LYS:HG3	1.83	0.61
3:K:462:GLY:O	3:K:464:PRO:HD3	1.99	0.61
6:N:178:VAL:O	6:N:182:TYR:N	2.34	0.61
1:A:218:LEU:HD13	1:A:219:VAL:N	2.16	0.61
3:C:149:ALA:HA	3:C:152:LYS:HG3	1.83	0.61
6:F:7:ASN:OD1	6:F:8:PRO:HD2	1.99	0.61
1:I:70:LEU:HD23	1:I:73:LEU:HD22	1.83	0.61
1:I:348:GLU:N	1:I:349:THR:HB	2.16	0.61
5:M:183:ALA:O	5:M:187:SER:HB2	2.00	0.61
7:O:307:PHE:HD1	7:O:312:ILE:HG23	1.64	0.61
8:P:131:TYR:CD2	8:P:452:PHE:HD2	2.17	0.61
8:P:335:VAL:HG22	8:P:379:SER:HB2	1.82	0.61
1:A:266:ASP:N	1:A:267:PRO:HD2	2.15	0.61
1:A:348:GLU:N	1:A:349:THR:HB	2.16	0.61
4:D:499:GLN:HE22	9:D:601:ADP:C2'	2.13	0.61
6:F:173:ILE:HD11	6:F:209:PHE:HB3	1.82	0.61
6:F:178:VAL:O	6:F:182:TYR:N	2.34	0.61
6:F:437:LYS:HE2	6:F:437:LYS:HA	1.83	0.61
7:G:43:THR:HG22	7:G:64:ASN:CB	2.27	0.61
1:I:218:LEU:HD13	1:I:219:VAL:N	2.16	0.61
1:I:258:MET:HA	1:I:258:MET:HE3	1.82	0.61
3:K:96:VAL:HG13	3:K:513:ALA:HB2	1.83	0.61
2:B:72:PRO:CB	3:C:47:MET:CE	2.79	0.61
3:C:299:LYS:HA	3:C:319:ARG:CB	2.31	0.61
4:D:485:ARG:NH2	9:D:601:ADP:HN62	1.99	0.61
6:F:98:VAL:HG22	6:F:520:ALA:HA	1.83	0.61
6:F:108:PHE:CE2	6:F:118:ILE:HG21	2.36	0.61
2:J:3:VAL:C	2:J:5:ILE:HG23	2.21	0.61
3:K:62:HIS:O	3:K:66:ARG:HG3	2.00	0.61
6:N:7:ASN:OD1	6:N:8:PRO:CD	2.49	0.61
6:N:7:ASN:OD1	6:N:8:PRO:HD2	1.99	0.61
6:N:437:LYS:HE2	6:N:437:LYS:HA	1.83	0.61
1:A:73:LEU:O	1:A:74:ASP:HB3	2.01	0.61
7:G:94:VAL:HG13	7:G:95:GLY:N	2.16	0.61
2:J:464:TYR:O	2:J:467:ILE:HD11	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:54:GLY:O	3:K:56:VAL:HG23	2.01	0.61
6:N:35:THR:CG2	6:N:42:THR:H	2.14	0.61
1:A:480:TYR:O	1:A:483:ALA:HB3	2.00	0.60
2:B:3:VAL:C	2:B:5:ILE:HG23	2.21	0.60
2:B:509:LEU:O	2:B:509:LEU:HD23	2.00	0.60
3:C:142:PRO:HG3	3:C:411:SER:HA	1.83	0.60
6:F:478:ASP:C	6:F:482:ASP:HB2	2.21	0.60
8:H:138:THR:HG22	8:H:434:ILE:HD12	1.83	0.60
1:I:184:LEU:HD21	1:I:198:TYR:CB	2.28	0.60
6:N:458:LEU:HD12	6:N:458:LEU:O	2.01	0.60
2:B:232:LEU:HD22	2:B:233:ILE:N	2.16	0.60
2:B:424:GLY:O	2:B:427:SER:CB	2.49	0.60
6:F:198:GLN:N	6:F:198:GLN:HE21	1.99	0.60
1:I:233:MET:HE2	1:I:315:ILE:O	2.01	0.60
2:J:30:GLY:C	2:J:33:VAL:HG23	2.22	0.60
2:J:295:GLU:OE1	6:N:339:SER:HB3	2.01	0.60
2:J:424:GLY:O	2:J:427:SER:CB	2.49	0.60
3:K:142:PRO:HG3	3:K:411:SER:HA	1.83	0.60
6:N:465:ASP:CA	6:N:466:PRO:C	2.68	0.60
8:P:269:ASN:H	8:P:272:GLU:HG3	1.66	0.60
2:B:27:ILE:CD1	2:B:104:ARG:HH11	2.09	0.60
2:B:397:GLU:OE1	2:B:399:ARG:HG3	2.01	0.60
2:B:422:ILE:HG21	2:B:427:SER:HB3	1.79	0.60
2:B:459:LEU:HD22	2:B:472:LEU:CG	2.26	0.60
6:F:35:THR:CG2	6:F:42:THR:H	2.14	0.60
6:F:264:ALA:O	6:F:268:LYS:HG2	2.02	0.60
6:F:478:ASP:O	6:F:482:ASP:CA	2.49	0.60
7:G:420:VAL:O	7:G:424:LEU:HG	2.01	0.60
5:M:100:ILE:HA	5:M:103:LEU:HD12	1.83	0.60
6:N:133:LEU:HD12	6:N:422:LEU:CD2	2.24	0.60
6:N:515:ASN:HD22	6:N:516:ALA:N	1.99	0.60
3:C:512:THR:HG23	8:H:389:ALA:HB1	1.83	0.60
5:E:50:HIS:HB3	5:E:100:ILE:HG21	1.82	0.60
6:F:229:LYS:HA	6:F:353:LEU:HD23	1.82	0.60
6:F:458:LEU:HD12	6:F:458:LEU:O	2.01	0.60
1:I:73:LEU:O	1:I:74:ASP:HB3	2.00	0.60
2:J:38:GLY:HA3	2:J:474:LEU:HD11	1.83	0.60
2:J:357:SER:CB	2:J:360:LYS:CB	2.69	0.60
5:M:433:LEU:HD11	5:M:439:VAL:HG13	1.82	0.60
2:B:384:LEU:O	2:B:387:ALA:HB3	2.01	0.60
4:D:284:ASN:O	4:D:310:ILE:HG23	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:151:LEU:O	6:F:171:THR:CG2	2.50	0.60
3:K:9:ASN:ND2	3:K:10:ALA:N	2.50	0.60
3:K:15:THR:O	3:K:16:THR:C	2.39	0.60
3:K:299:LYS:HA	3:K:319:ARG:CB	2.31	0.60
4:L:284:ASN:O	4:L:310:ILE:HG23	2.01	0.60
6:N:108:PHE:CE2	6:N:118:ILE:HG21	2.36	0.60
7:O:94:VAL:HG13	7:O:95:GLY:N	2.16	0.60
7:O:174:ASN:OD1	7:O:174:ASN:N	2.33	0.60
1:A:90:GLN:OE1	1:A:96:ASP:O	2.17	0.60
3:C:9:ASN:ND2	3:C:10:ALA:N	2.50	0.60
6:F:7:ASN:OD1	6:F:8:PRO:CD	2.49	0.60
7:G:293:VAL:HG13	7:G:312:ILE:HD11	1.84	0.60
1:I:65:ASP:O	1:I:69:ILE:HB	2.01	0.60
1:I:113:ASN:HA	1:I:116:VAL:HG22	1.83	0.60
3:K:223:VAL:HG11	3:K:328:ILE:HG13	1.83	0.60
6:N:61:VAL:HG12	6:N:62:LEU:HD23	1.84	0.60
6:N:98:VAL:HG22	6:N:520:ALA:HA	1.83	0.60
6:N:160:THR:H	6:N:164:ALA:HB3	1.67	0.60
7:O:516:LEU:CD2	7:O:516:LEU:O	2.46	0.60
8:P:182:VAL:O	8:P:186:VAL:HG23	2.02	0.60
2:B:200:GLY:O	2:B:371:GLY:N	2.28	0.60
2:B:326:VAL:HG13	3:C:304:LEU:HD22	1.83	0.60
2:B:487:ILE:HD12	9:B:601:ADP:N6	2.17	0.60
3:C:266:GLU:CD	3:C:266:GLU:H	2.05	0.60
8:H:182:VAL:O	8:H:186:VAL:HG23	2.02	0.60
2:J:397:GLU:OE1	2:J:399:ARG:HG3	2.02	0.60
6:N:198:GLN:N	6:N:198:GLN:HE21	1.99	0.60
6:N:233:VAL:HG12	6:N:294:VAL:HG22	1.84	0.60
6:N:430:ASN:HA	6:N:433:LYS:CB	2.32	0.60
1:A:187:VAL:HG21	1:A:383:SER:HB3	1.83	0.60
3:C:96:VAL:HG13	3:C:513:ALA:HB2	1.83	0.60
6:F:125:ALA:HB2	6:F:444:ILE:HG23	1.82	0.60
6:F:233:VAL:HG12	6:F:294:VAL:HG22	1.84	0.60
6:F:485:GLU:HB2	6:F:488:TYR:O	2.01	0.60
7:G:109:MET:CG	7:G:514:THR:CG2	2.79	0.60
7:G:208:ALA:HB3	7:G:211:GLU:HG3	1.84	0.60
2:J:384:LEU:O	2:J:387:ALA:HB3	2.01	0.60
2:J:437:LEU:O	2:J:441:PRO:HD2	2.00	0.60
4:L:524:ILE:CG2	7:O:52:LEU:O	2.50	0.60
5:M:210:ASN:H	5:M:210:ASN:HD22	1.48	0.60
6:N:155:ARG:CB	6:N:171:THR:HG21	2.30	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:264:ALA:O	6:N:268:LYS:HG2	2.02	0.60
6:N:389:ALA:O	6:N:393:ASP:OD2	2.20	0.60
7:O:37:GLN:HE21	7:O:38:GLU:N	1.98	0.60
1:A:183:ALA:HB1	1:A:383:SER:OG	2.02	0.60
2:B:27:ILE:HD12	2:B:104:ARG:HD2	1.84	0.60
2:B:203:LEU:O	2:B:204:SER:CB	2.49	0.60
3:C:42:LYS:CB	3:C:460:ALA:CA	2.75	0.60
3:C:229:VAL:HG12	3:C:230:VAL:N	2.17	0.60
6:F:61:VAL:HG12	6:F:62:LEU:HD23	1.84	0.60
6:F:170:LEU:HA	6:F:173:ILE:HG22	1.84	0.60
3:K:457:ILE:CD1	3:K:467:LEU:HD22	2.31	0.60
6:N:38:GLY:H	9:N:601:ADP:H5'1	1.66	0.60
6:N:151:LEU:CG	6:N:175:THR:HG23	2.32	0.60
8:P:162:MET:O	8:P:165:PRO:HD2	2.02	0.60
8:P:459:VAL:O	8:P:463:LEU:HD23	2.02	0.60
2:B:30:GLY:C	2:B:33:VAL:HG23	2.22	0.60
3:C:54:GLY:O	3:C:56:VAL:HG23	2.01	0.60
4:D:38:SER:HB3	4:D:46:LYS:HZ3	1.65	0.60
5:E:323:CYS:O	5:E:344:ARG:HA	2.02	0.60
6:F:389:ALA:O	6:F:393:ASP:OD2	2.20	0.60
7:G:191:ARG:HD3	7:G:192:ASN:N	2.16	0.60
1:I:183:ALA:HB1	1:I:383:SER:OG	2.02	0.60
4:L:210:ILE:O	4:L:375:VAL:HG12	2.02	0.60
5:M:273:THR:HG21	5:M:364:PRO:HA	1.78	0.60
7:O:165:ALA:HB2	7:O:399:ILE:HG21	1.82	0.60
8:P:153:LYS:H	8:P:153:LYS:CD	2.15	0.60
1:A:333:THR:HB	1:A:357:LEU:H	1.67	0.59
3:C:15:THR:O	3:C:16:THR:C	2.39	0.59
3:C:258:GLN:O	8:H:264:THR:HB	2.02	0.59
6:F:352:GLY:O	6:F:353:LEU:O	2.20	0.59
6:F:430:ASN:C	6:F:433:LYS:H	2.05	0.59
8:H:162:MET:O	8:H:165:PRO:HD2	2.02	0.59
3:K:229:VAL:HG12	3:K:230:VAL:N	2.17	0.59
8:P:362:GLU:HG2	8:P:367:ARG:HA	1.82	0.59
3:C:457:ILE:CD1	3:C:467:LEU:HD22	2.31	0.59
4:D:71:LEU:HA	8:P:6:PRO:CG	2.31	0.59
6:F:415:ALA:CB	6:F:506:ILE:HG21	2.30	0.59
1:I:50:ASP:CG	1:I:64:ASN:HB2	2.23	0.59
1:I:333:THR:HB	1:I:357:LEU:H	1.67	0.59
5:M:281:PRO:HD2	5:M:285:HIS:HB3	1.84	0.59
6:N:478:ASP:C	6:N:482:ASP:HB2	2.20	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:485:GLU:HB2	6:N:488:TYR:O	2.01	0.59
7:O:293:VAL:HG13	7:O:312:ILE:HD11	1.83	0.59
1:A:65:ASP:O	1:A:69:ILE:HB	2.01	0.59
2:B:213:ILE:H	2:B:213:ILE:HD12	1.67	0.59
5:E:39:LYS:HZ3	6:N:109:ILE:CG1	2.15	0.59
6:F:92:THR:HG21	10:F:602:BEF:F3	1.92	0.59
6:F:201:HIS:HB3	6:F:381:LYS:CE	2.32	0.59
7:G:174:ASN:OD1	7:G:174:ASN:N	2.34	0.59
8:H:153:LYS:H	8:H:153:LYS:CD	2.15	0.59
8:H:177:ILE:O	8:H:180:GLU:HB2	2.03	0.59
1:I:97:GLY:O	1:I:101:VAL:HG23	2.02	0.59
3:K:42:LYS:CB	3:K:460:ALA:CA	2.75	0.59
5:M:74:LEU:CD1	5:M:93:GLN:HB3	2.33	0.59
5:M:351:LEU:HD13	5:M:351:LEU:H	1.67	0.59
6:N:151:LEU:O	6:N:171:THR:CG2	2.50	0.59
6:N:167:THR:HB	6:N:169:VAL:H	1.66	0.59
7:O:189:LEU:O	7:O:189:LEU:CD1	2.50	0.59
7:O:401:LYS:HG3	7:O:402:ARG:N	2.17	0.59
8:P:138:THR:HG22	8:P:434:ILE:HD12	1.83	0.59
1:A:97:GLY:O	1:A:101:VAL:HG23	2.02	0.59
1:A:113:ASN:HA	1:A:116:VAL:HG22	1.83	0.59
3:C:57:LEU:N	3:C:57:LEU:CD2	2.57	0.59
3:C:275:ILE:HA	8:H:274:LEU:HD21	1.84	0.59
4:D:81:VAL:HG22	7:G:382:ALA:HB2	1.84	0.59
4:D:238:GLN:HB2	4:D:290:LYS:HE3	1.84	0.59
6:F:430:ASN:HA	6:F:433:LYS:CB	2.32	0.59
4:L:44:MET:HG3	8:P:531:ALA:HB3	1.83	0.59
4:L:185:ASN:H	4:L:186:SER:C	2.02	0.59
5:M:55:ARG:HH21	5:M:134:LEU:HD13	1.67	0.59
5:M:368:ASP:O	5:M:369:LEU:C	2.41	0.59
6:N:478:ASP:O	6:N:482:ASP:CA	2.49	0.59
7:O:109:MET:CG	7:O:514:THR:CG2	2.79	0.59
8:P:146:VAL:HG13	8:P:147:VAL:H	1.68	0.59
8:P:177:ILE:O	8:P:180:GLU:HB2	2.03	0.59
1:A:70:LEU:HD23	1:A:73:LEU:HD22	1.83	0.59
3:C:223:VAL:HG11	3:C:328:ILE:HG13	1.83	0.59
6:F:201:HIS:HB3	6:F:381:LYS:HZ3	1.66	0.59
6:F:485:GLU:HG3	6:F:489:VAL:HB	1.85	0.59
8:H:362:GLU:HG2	8:H:367:ARG:HA	1.82	0.59
8:H:459:VAL:O	8:H:463:LEU:HD23	2.02	0.59
1:I:159:ILE:HD11	1:I:418:VAL:HG11	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:418:VAL:HG12	1:I:419:VAL:N	2.17	0.59
3:K:41:PRO:HA	3:K:161:THR:HG21	1.82	0.59
4:L:12:LYS:HD3	4:L:526:PHE:O	2.01	0.59
4:L:254:VAL:HG23	4:L:254:VAL:O	2.01	0.59
4:D:12:LYS:HD3	4:D:526:PHE:O	2.01	0.59
5:E:241:ASN:O	5:E:241:ASN:ND2	2.34	0.59
5:E:368:ASP:O	5:E:369:LEU:C	2.41	0.59
6:N:125:ALA:HB2	6:N:444:ILE:HG23	1.82	0.59
8:P:322:LYS:O	8:P:324:PRO:HD3	2.02	0.59
1:A:50:ASP:CG	1:A:64:ASN:HB2	2.23	0.59
1:A:73:LEU:O	1:A:74:ASP:CB	2.50	0.59
4:D:336:ILE:HG23	4:D:339:PHE:HB3	1.85	0.59
4:D:379:ILE:H	4:D:379:ILE:HD12	1.68	0.59
5:E:351:LEU:HD13	5:E:351:LEU:H	1.67	0.59
8:H:269:ASN:H	8:H:272:GLU:HG3	1.66	0.59
8:H:322:LYS:O	8:H:324:PRO:HD3	2.02	0.59
1:I:73:LEU:O	1:I:74:ASP:CB	2.50	0.59
2:J:27:ILE:HD12	2:J:104:ARG:HD2	1.83	0.59
3:K:266:GLU:CD	3:K:266:GLU:H	2.05	0.59
3:K:414:PRO:O	3:K:418:ALA:HB3	2.03	0.59
4:L:336:ILE:HG23	4:L:339:PHE:HB3	1.85	0.59
5:M:32:VAL:HG22	5:M:33:LYS:N	2.13	0.59
1:A:164:MET:O	1:A:167:LYS:CB	2.51	0.59
2:B:326:VAL:HG22	3:C:304:LEU:HD22	1.85	0.59
4:D:521:ILE:CG2	7:G:52:LEU:H	2.15	0.59
5:E:74:LEU:CD1	5:E:93:GLN:HB3	2.32	0.59
7:G:238:ASN:N	7:G:239:PRO:CD	2.66	0.59
8:H:94:ILE:HD12	8:H:95:ASP:N	2.18	0.59
2:J:32:LEU:CD1	6:N:532:GLU:OE2	2.51	0.59
6:N:201:HIS:HB3	6:N:381:LYS:CE	2.33	0.59
6:N:540:THR:O	6:N:541:LEU:HD23	2.03	0.59
7:O:191:ARG:HD3	7:O:192:ASN:N	2.16	0.59
3:C:414:PRO:O	3:C:418:ALA:HB3	2.03	0.59
4:D:103:LEU:HD13	4:D:515:VAL:HG21	1.85	0.59
4:D:330:CYS:N	4:D:345:ASP:OD2	2.36	0.59
5:E:240:ILE:HG12	5:E:244:ILE:CG2	2.32	0.59
5:E:335:LEU:HD22	5:E:340:LEU:HD11	1.84	0.59
6:F:109:ILE:O	5:M:39:LYS:HE2	2.02	0.59
2:J:232:LEU:HD22	2:J:233:ILE:N	2.17	0.59
6:N:352:GLY:O	6:N:353:LEU:O	2.20	0.59
3:C:112:ILE:C	3:C:114:LYS:H	2.06	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:264:GLU:C	3:C:265:LYS:CG	2.62	0.59
3:C:508:GLN:HG2	8:H:215:GLY:HA2	1.85	0.59
5:E:281:PRO:HD2	5:E:285:HIS:HB3	1.84	0.59
5:E:373:LYS:HE2	6:F:311:LYS:NZ	2.18	0.59
6:F:43:LEU:CD2	6:F:57:LYS:CB	2.78	0.59
6:F:433:LYS:HG3	6:F:444:ILE:CG1	2.33	0.59
8:H:217:LEU:HA	8:H:387:ARG:O	2.03	0.59
8:H:288:MET:CE	8:H:313:LEU:HG	2.33	0.59
5:M:544:LEU:HD23	6:N:384:THR:HG21	1.85	0.59
6:N:201:HIS:HB3	6:N:381:LYS:HE2	1.85	0.59
7:O:484:GLU:CB	7:O:485:THR:HA	2.32	0.59
3:C:151:MET:O	3:C:155:ILE:HG12	2.04	0.58
3:C:265:LYS:O	3:C:268:ASP:OD1	2.21	0.58
5:E:55:ARG:HH21	5:E:134:LEU:HD13	1.67	0.58
5:E:100:ILE:HA	5:E:103:LEU:HD12	1.83	0.58
6:F:57:LYS:O	6:F:57:LYS:HG2	2.03	0.58
6:F:160:THR:H	6:F:164:ALA:HB3	1.67	0.58
4:L:128:ALA:O	4:L:132:VAL:HG23	2.03	0.58
4:L:334:ALA:HB3	7:O:305:GLN:HB2	1.84	0.58
5:M:350:GLU:C	5:M:352:GLU:N	2.55	0.58
1:A:17:GLY:HA3	5:E:95:GLU:OE2	2.03	0.58
5:E:544:LEU:HD23	6:F:384:THR:CG2	2.33	0.58
6:F:33:LEU:HD21	6:F:63:LEU:HD21	1.85	0.58
7:G:189:LEU:O	7:G:189:LEU:CD1	2.50	0.58
2:J:463:ILE:HG13	2:J:468:SER:HA	1.85	0.58
3:K:151:MET:O	3:K:155:ILE:HG12	2.04	0.58
6:N:433:LYS:HG3	6:N:444:ILE:CG1	2.33	0.58
6:N:485:GLU:HG3	6:N:489:VAL:HB	1.85	0.58
7:O:455:GLU:CG	7:O:461:ALA:CB	2.81	0.58
8:P:94:ILE:HD12	8:P:95:ASP:N	2.18	0.58
6:F:280:LEU:HD13	6:F:343:LEU:HD21	1.85	0.58
1:I:55:ASP:HB2	1:I:59:ASP:HB2	1.85	0.58
2:J:213:ILE:H	2:J:213:ILE:HD12	1.67	0.58
3:K:112:ILE:C	3:K:114:LYS:H	2.06	0.58
5:M:240:ILE:HG12	5:M:244:ILE:CG2	2.32	0.58
6:N:201:HIS:CB	6:N:381:LYS:HE2	2.34	0.58
6:N:424:ARG:HA	6:N:424:ARG:NE	2.12	0.58
7:O:125:ILE:HG22	7:O:129:TYR:CE2	2.38	0.58
2:B:357:SER:CB	2:B:360:LYS:CB	2.69	0.58
2:B:422:ILE:CB	2:B:427:SER:CB	2.79	0.58
4:D:110:LEU:HD13	4:D:439:ILE:HD12	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:147:ARG:HG2	4:D:148:GLU:N	2.18	0.58
5:E:253:GLN:H	5:E:254:MET:CB	2.16	0.58
6:F:465:ASP:CA	6:F:466:PRO:C	2.68	0.58
8:H:48:PRO:HA	8:H:169:SER:O	2.04	0.58
1:I:164:MET:O	1:I:167:LYS:CB	2.51	0.58
3:K:452:ILE:HB	3:K:453:PRO:HD3	1.85	0.58
4:L:298:ASN:HB3	4:L:299:ASP:HA	1.84	0.58
8:P:217:LEU:HA	8:P:387:ARG:O	2.03	0.58
8:P:222:VAL:HG22	8:P:384:ILE:HG23	1.86	0.58
1:A:333:THR:HG22	1:A:377:THR:HG22	1.86	0.58
3:C:452:ILE:HB	3:C:453:PRO:HD3	1.85	0.58
4:D:254:VAL:HG23	4:D:254:VAL:O	2.02	0.58
6:F:109:ILE:CG1	5:M:39:LYS:HZ3	2.13	0.58
7:G:218:VAL:HA	7:G:375:THR:HG21	1.86	0.58
8:H:69:ALA:HB2	8:H:100:THR:HB	1.85	0.58
2:J:373:THR:CG2	2:J:375:GLN:HG2	2.34	0.58
4:L:238:GLN:HB2	4:L:290:LYS:HE3	1.84	0.58
5:M:335:LEU:HD22	5:M:340:LEU:HD11	1.84	0.58
6:N:155:ARG:CB	6:N:171:THR:OG1	2.52	0.58
1:A:159:ILE:HD11	1:A:418:VAL:HG11	1.84	0.58
1:A:247:LEU:O	1:A:298:THR:HA	2.04	0.58
2:B:38:GLY:HA3	2:B:474:LEU:HD11	1.84	0.58
2:B:373:THR:CG2	2:B:375:GLN:HG2	2.34	0.58
2:B:407:ALA:O	2:B:410:VAL:HG12	2.03	0.58
2:B:463:ILE:O	2:B:467:ILE:CB	2.52	0.58
3:C:296:ILE:HG23	3:C:320:VAL:HG21	1.85	0.58
4:D:128:ALA:O	4:D:132:VAL:HG23	2.03	0.58
4:D:182:SER:HB2	4:D:187:LYS:HE2	1.85	0.58
4:D:521:ILE:HG12	7:G:62:ILE:HD11	1.86	0.58
6:F:32:VAL:HB	6:F:33:LEU:HD22	1.86	0.58
6:F:201:HIS:HB3	6:F:381:LYS:HE2	1.85	0.58
6:F:201:HIS:CB	6:F:381:LYS:HE2	2.34	0.58
7:G:125:ILE:HG22	7:G:129:TYR:CE2	2.38	0.58
8:H:427:GLU:HG2	8:H:459:VAL:HG21	1.85	0.58
2:J:32:LEU:HG	6:N:532:GLU:OE1	2.04	0.58
5:M:323:CYS:O	5:M:344:ARG:HA	2.02	0.58
6:N:57:LYS:O	6:N:57:LYS:HG2	2.03	0.58
1:A:463:ALA:HB1	1:A:470:SER:HB2	1.86	0.58
2:B:159:THR:HG21	2:B:488:VAL:H	1.69	0.58
2:B:285:ILE:HD13	2:B:285:ILE:N	2.19	0.58
4:D:104:LEU:HD11	4:D:518:ILE:HD12	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:171:ALA:HB3	4:D:172:PRO:HD3	1.86	0.58
4:D:210:ILE:O	4:D:375:VAL:HG12	2.02	0.58
6:F:125:ALA:HA	6:F:426:LEU:HD21	1.85	0.58
6:F:401:ALA:O	6:F:405:VAL:HG23	2.04	0.58
6:F:541:LEU:HB2	6:F:542:LYS:CB	2.32	0.58
7:G:376:LEU:HD23	7:G:376:LEU:H	1.69	0.58
2:J:200:GLY:O	2:J:371:GLY:N	2.28	0.58
5:M:253:GLN:H	5:M:254:MET:CB	2.16	0.58
5:M:448:VAL:HG21	5:M:498:LEU:HD13	1.86	0.58
6:N:33:LEU:HD21	6:N:63:LEU:HD21	1.85	0.58
6:N:56:THR:HG22	6:N:390:GLN:HB2	1.86	0.58
6:N:175:THR:O	6:N:179:LEU:HG	2.04	0.58
6:N:343:LEU:HG	6:N:344:SER:HB3	1.85	0.58
7:O:126:MET:HE3	7:O:515:ASN:HA	1.86	0.58
7:O:208:ALA:HB3	7:O:211:GLU:HG3	1.84	0.58
7:O:376:LEU:HD23	7:O:376:LEU:H	1.69	0.58
3:C:514:ILE:HA	3:C:517:ALA:HB3	1.86	0.58
4:D:258:ARG:HD2	8:H:283:GLN:NE2	2.19	0.58
6:F:151:LEU:O	6:F:171:THR:HG22	2.04	0.58
6:F:155:ARG:CB	6:F:171:THR:OG1	2.52	0.58
6:F:433:LYS:C	6:F:441:LYS:CB	2.72	0.58
7:G:401:LYS:HG3	7:G:402:ARG:N	2.17	0.58
8:H:68:ALA:H	8:H:101:ASN:HD21	1.49	0.58
1:I:247:LEU:O	1:I:298:THR:HA	2.04	0.58
6:N:433:LYS:C	6:N:441:LYS:CB	2.72	0.58
8:P:288:MET:CE	8:P:313:LEU:HG	2.32	0.58
1:A:209:HIS:HE1	7:G:89:ALA:HB2	1.69	0.58
4:D:89:ALA:HB1	4:D:503:VAL:HG22	1.85	0.58
4:D:215:LEU:HB3	4:D:217:GLN:HG2	1.86	0.58
5:E:273:THR:HG21	5:E:364:PRO:HA	1.78	0.58
6:F:343:LEU:HG	6:F:344:SER:HB3	1.85	0.58
6:F:540:THR:O	6:F:541:LEU:HD23	2.03	0.58
1:I:93:GLU:CA	1:I:94:ILE:HD12	2.34	0.58
1:I:333:THR:HG22	1:I:377:THR:HG22	1.86	0.58
3:K:296:ILE:HG23	3:K:320:VAL:HG21	1.85	0.58
4:L:16:LYS:O	4:L:20:VAL:HG23	2.04	0.58
6:N:125:ALA:HA	6:N:426:LEU:HD21	1.86	0.58
6:N:415:ALA:CB	6:N:506:ILE:HG21	2.30	0.58
6:N:447:PHE:CE2	6:N:451:LEU:HD11	2.39	0.58
7:O:218:VAL:HA	7:O:375:THR:HG21	1.86	0.58
1:A:55:ASP:HB2	1:A:59:ASP:HB2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:88:VAL:HA	2:B:393:GLN:NE2	2.19	0.58
3:C:255:GLY:N	3:C:259:THR:HG21	2.18	0.58
4:D:291:SER:HA	4:D:315:ASP:HA	1.86	0.58
7:G:484:GLU:CB	7:G:485:THR:HA	2.32	0.58
8:H:138:THR:HG22	8:H:434:ILE:CD1	2.34	0.58
8:H:222:VAL:HG22	8:H:384:ILE:HG23	1.86	0.58
4:L:65:LEU:HD13	4:L:79:VAL:HG13	1.85	0.58
4:L:182:SER:HB2	4:L:187:LYS:HE2	1.85	0.58
4:L:521:ILE:HG23	7:O:51:ILE:CA	2.32	0.58
6:N:32:VAL:HB	6:N:33:LEU:HD22	1.86	0.58
6:N:401:ALA:O	6:N:405:VAL:HG23	2.04	0.58
6:N:411:ILE:CG2	6:N:412:ILE:H	2.16	0.58
8:P:69:ALA:HB2	8:P:100:THR:HB	1.85	0.58
8:P:138:THR:HG22	8:P:434:ILE:CD1	2.34	0.58
8:P:213:MET:HE2	8:P:391:GLN:HG3	1.84	0.58
1:A:93:GLU:CA	1:A:94:ILE:HD12	2.34	0.57
2:B:250:PHE:HA	6:F:250:GLY:O	2.04	0.57
2:B:375:GLN:NE2	6:F:75:LEU:HD12	2.19	0.57
3:C:320:VAL:O	3:C:321:LYS:C	2.41	0.57
6:F:203:SER:C	6:F:205:LYS:N	2.58	0.57
8:H:146:VAL:HG13	8:H:147:VAL:H	1.68	0.57
2:J:285:ILE:HD13	2:J:285:ILE:N	2.19	0.57
2:J:407:ALA:O	2:J:410:VAL:HG12	2.03	0.57
3:K:265:LYS:O	3:K:268:ASP:OD1	2.21	0.57
4:L:103:LEU:HD13	4:L:515:VAL:HG21	1.85	0.57
4:L:110:LEU:HD13	4:L:439:ILE:HD12	1.84	0.57
4:L:379:ILE:H	4:L:379:ILE:HD12	1.68	0.57
5:M:68:ARG:HD3	5:M:514:CYS:HB3	1.85	0.57
6:N:451:LEU:H	6:N:451:LEU:HD12	1.69	0.57
7:O:238:ASN:N	7:O:239:PRO:CD	2.66	0.57
8:P:48:PRO:HA	8:P:169:SER:O	2.04	0.57
8:P:68:ALA:H	8:P:101:ASN:HD21	1.49	0.57
2:B:30:GLY:O	2:B:33:VAL:HG23	2.04	0.57
4:D:171:ALA:O	4:D:175:VAL:HG22	2.04	0.57
7:G:393:LEU:HD22	7:G:397:ILE:HG13	1.85	0.57
1:I:350:PHE:CE2	1:I:354:TYR:CB	2.85	0.57
3:K:255:GLY:N	3:K:259:THR:HG21	2.18	0.57
4:L:305:LEU:HD21	4:L:312:VAL:HG21	1.85	0.57
6:N:221:HIS:HD2	6:N:224:MET:SD	2.27	0.57
7:O:516:LEU:HD13	7:O:517:ILE:N	2.20	0.57
1:A:418:VAL:HG12	1:A:419:VAL:N	2.17	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:433:LEU:O	1:A:437:ALA:HB3	2.05	0.57
2:B:263:LYS:HB3	2:B:267:GLU:OE2	2.04	0.57
4:D:16:LYS:O	4:D:20:VAL:HG23	2.04	0.57
4:D:65:LEU:HD13	4:D:79:VAL:HG13	1.85	0.57
4:D:305:LEU:HD21	4:D:312:VAL:HG21	1.85	0.57
6:F:175:THR:O	6:F:179:LEU:HG	2.04	0.57
6:F:221:HIS:HD2	6:F:224:MET:SD	2.27	0.57
6:F:447:PHE:CD2	6:F:451:LEU:HD11	2.39	0.57
6:F:451:LEU:H	6:F:451:LEU:HD12	1.69	0.57
7:G:294:LEU:HD23	7:G:315:ALA:HB3	1.87	0.57
2:J:30:GLY:O	2:J:33:VAL:HG23	2.04	0.57
2:J:142:ASN:CB	2:J:143:SER:HA	2.18	0.57
3:K:279:GLN:O	3:K:283:MET:HG2	2.05	0.57
3:K:320:VAL:O	3:K:321:LYS:C	2.41	0.57
4:L:147:ARG:HG2	4:L:148:GLU:N	2.18	0.57
4:L:171:ALA:HB3	4:L:172:PRO:HD3	1.86	0.57
5:M:267:VAL:HA	5:M:319:ASP:OD2	2.04	0.57
5:M:273:THR:HG22	5:M:364:PRO:CA	2.20	0.57
6:N:167:THR:CA	6:N:168:GLU:HB3	2.35	0.57
6:N:231:ALA:HB1	6:N:293:PHE:N	2.18	0.57
6:N:430:ASN:C	6:N:433:LYS:HB2	2.24	0.57
2:B:72:PRO:CB	3:C:47:MET:HE1	2.33	0.57
2:B:373:THR:HG22	2:B:376:THR:N	2.20	0.57
2:B:463:ILE:HG13	2:B:468:SER:HA	1.85	0.57
3:C:402:VAL:HG13	3:C:502:PRO:HG2	1.86	0.57
6:F:167:THR:HG21	6:F:169:VAL:HG23	1.86	0.57
7:G:83:LEU:O	7:G:86:ILE:HG13	2.04	0.57
7:G:282:LEU:O	7:G:285:VAL:HG12	2.05	0.57
7:G:455:GLU:CG	7:G:461:ALA:CB	2.81	0.57
7:G:516:LEU:HD13	7:G:517:ILE:N	2.20	0.57
1:I:90:GLN:HG3	1:I:101:VAL:CG2	2.19	0.57
2:J:116:HIS:HE1	2:J:118:GLN:CB	2.18	0.57
9:L:601:ADP:H5'2	9:L:601:ADP:O3B	2.04	0.57
5:M:241:ASN:O	5:M:241:ASN:ND2	2.34	0.57
6:N:170:LEU:HA	6:N:173:ILE:HG22	1.84	0.57
6:N:430:ASN:C	6:N:433:LYS:H	2.05	0.57
7:O:83:LEU:O	7:O:86:ILE:HG13	2.04	0.57
3:C:9:ASN:HD22	3:C:10:ALA:H	1.53	0.57
4:D:298:ASN:HB3	4:D:299:ASP:HA	1.84	0.57
6:F:231:ALA:HB1	6:F:293:PHE:N	2.18	0.57
2:J:373:THR:HG22	2:J:376:THR:N	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:353:GLY:H	3:K:370:ASN:HB3	1.70	0.57
4:L:89:ALA:HB1	4:L:503:VAL:HG22	1.85	0.57
4:L:171:ALA:O	4:L:175:VAL:HG22	2.05	0.57
6:N:151:LEU:O	6:N:171:THR:HG22	2.04	0.57
6:N:447:PHE:CD2	6:N:451:LEU:HD11	2.39	0.57
1:A:182:ASP:O	1:A:186:ALA:HB3	2.05	0.57
2:B:329:PHE:CD2	2:B:329:PHE:O	2.53	0.57
3:C:113:GLU:HB2	1:I:460:LYS:HD2	1.86	0.57
6:F:58:ASP:O	6:F:62:LEU:HG	2.04	0.57
6:F:167:THR:CA	6:F:168:GLU:HB3	2.34	0.57
6:F:193:MET:HE3	6:F:330:LEU:HD11	1.86	0.57
8:H:486:GLU:H	8:H:487:PRO:HA	1.69	0.57
2:J:68:PRO:HG2	6:N:536:ALA:HB2	1.86	0.57
2:J:206:SER:CB	2:J:368:VAL:HG13	2.34	0.57
5:M:509:ASN:CG	5:M:523:LYS:HB2	2.24	0.57
2:B:40:LYS:HZ1	6:F:117:ILE:HG13	1.68	0.57
4:D:328:LEU:C	4:D:345:ASP:OD2	2.43	0.57
6:F:56:THR:HG22	6:F:390:GLN:HB2	1.86	0.57
6:F:430:ASN:C	6:F:433:LYS:HB2	2.24	0.57
7:G:51:ILE:HG22	7:G:53:ILE:HG23	1.87	0.57
7:G:516:LEU:CD2	7:G:516:LEU:O	2.46	0.57
8:H:204:VAL:CG2	8:H:409:LYS:CB	2.82	0.57
1:I:329:ILE:HD13	1:I:374:ILE:HD12	1.87	0.57
2:J:88:VAL:HA	2:J:393:GLN:NE2	2.19	0.57
4:L:41:PRO:HG2	9:L:601:ADP:C6	2.40	0.57
4:L:215:LEU:HB3	4:L:217:GLN:HG2	1.86	0.57
4:L:291:SER:HA	4:L:315:ASP:HA	1.86	0.57
5:M:352:GLU:HA	6:N:222:PRO:HG3	1.86	0.57
6:N:108:PHE:O	6:N:113:VAL:HG23	2.04	0.57
7:O:393:LEU:HD22	7:O:397:ILE:HG13	1.85	0.57
7:O:494:LYS:O	7:O:495:PHE:CB	2.52	0.57
2:B:43:ASP:O	6:F:530:CYS:HA	2.04	0.57
4:D:120:ILE:HA	4:D:123:SER:HB3	1.87	0.57
5:E:448:VAL:HG21	5:E:498:LEU:HD13	1.86	0.57
6:F:108:PHE:O	6:F:113:VAL:HG23	2.04	0.57
1:I:433:LEU:O	1:I:437:ALA:HB3	2.05	0.57
6:N:167:THR:HG21	6:N:169:VAL:HG23	1.86	0.57
6:N:280:LEU:HD13	6:N:343:LEU:HD21	1.85	0.57
6:N:485:GLU:O	6:N:488:TYR:CB	2.52	0.57
7:O:294:LEU:HD23	7:O:315:ALA:HB3	1.86	0.57
1:A:264:ILE:O	1:A:265:ASP:HB3	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:33:THR:OG1	1:I:83:LEU:HD11	2.05	0.57
2:J:263:LYS:HB3	2:J:267:GLU:OE2	2.04	0.57
3:K:355:PHE:HB2	3:K:368:LEU:HD13	1.87	0.57
4:L:110:LEU:HD13	4:L:439:ILE:HG23	1.87	0.57
5:M:255:PRO:HG3	5:M:336:LEU:HA	1.87	0.57
6:N:169:VAL:C	6:N:172:PRO:HD2	2.26	0.57
8:P:54:ILE:HG13	8:P:64:ILE:CG1	2.15	0.57
1:A:252:GLN:HG3	1:A:253:LYS:N	2.20	0.57
5:E:68:ARG:HD3	5:E:514:CYS:HB3	1.85	0.57
5:E:267:VAL:HA	5:E:319:ASP:OD2	2.04	0.57
6:F:6:LEU:CD1	6:F:7:ASN:H	2.18	0.57
6:F:38:GLY:N	9:F:601:ADP:H5'1	2.15	0.57
1:I:183:ALA:HB1	1:I:383:SER:HB2	1.87	0.57
2:J:91:GLY:HA2	9:J:601:ADP:O2A	2.05	0.57
2:J:463:ILE:O	2:J:467:ILE:CB	2.52	0.57
3:K:223:VAL:HG12	3:K:224:LEU:N	2.20	0.57
3:K:402:VAL:HG13	3:K:502:PRO:HG2	1.86	0.57
4:L:177:SER:O	4:L:181:ILE:HG12	2.05	0.57
6:N:45:MET:HA	6:N:54:LYS:O	2.05	0.57
6:N:56:THR:O	6:N:62:LEU:HD21	2.05	0.57
6:N:58:ASP:O	6:N:62:LEU:HG	2.04	0.57
1:A:33:THR:OG1	1:A:83:LEU:HD11	2.05	0.56
2:B:245:ILE:O	2:B:246:PHE:HD2	1.87	0.56
3:C:353:GLY:H	3:C:370:ASN:HB3	1.70	0.56
6:F:447:PHE:CE2	6:F:451:LEU:HD11	2.39	0.56
6:F:452:LEU:O	6:F:455:PRO:CD	2.51	0.56
2:J:159:THR:HG21	2:J:488:VAL:H	1.69	0.56
8:P:300:VAL:HG13	8:P:321:LEU:HB3	1.87	0.56
1:A:548:ASP:OD2	1:A:548:ASP:N	2.37	0.56
2:B:230:LYS:H	2:B:281:ILE:CG2	2.18	0.56
4:D:36:ARG:HE	4:D:98:ILE:CG2	2.18	0.56
5:E:32:VAL:HG22	5:E:33:LYS:N	2.14	0.56
6:F:29:LEU:O	6:F:33:LEU:HD23	2.05	0.56
7:G:43:THR:CG2	7:G:64:ASN:CB	2.83	0.56
1:I:252:GLN:HG3	1:I:253:LYS:N	2.20	0.56
2:J:213:ILE:HG23	2:J:354:LEU:CD2	2.35	0.56
5:M:74:LEU:CG	5:M:93:GLN:HB3	2.35	0.56
5:M:352:GLU:HA	6:N:222:PRO:CG	2.35	0.56
6:N:428:SER:O	6:N:431:MET:HG2	2.06	0.56
1:A:55:ASP:HA	7:G:527:LYS:HB3	1.86	0.56
3:C:80:GLU:O	3:C:84:THR:HG23	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:428:CYS:HA	5:E:431:ARG:HG3	1.88	0.56
5:E:509:ASN:CG	5:E:523:LYS:HB2	2.24	0.56
6:F:56:THR:O	6:F:62:LEU:HD21	2.05	0.56
6:F:169:VAL:C	6:F:172:PRO:HD2	2.26	0.56
6:F:428:SER:O	6:F:431:MET:HG2	2.05	0.56
8:H:284:ILE:O	8:H:288:MET:HG2	2.06	0.56
1:I:264:ILE:O	1:I:265:ASP:HB3	2.05	0.56
2:J:239:ASP:OD1	2:J:290:ILE:HB	2.06	0.56
2:J:245:ILE:O	2:J:246:PHE:HD2	1.87	0.56
3:K:118:PRO:O	3:K:122:ILE:HG13	2.05	0.56
3:K:302:SER:O	3:K:303:ASP:CB	2.40	0.56
3:K:321:LYS:HB3	3:K:324:ASP:HB2	1.87	0.56
3:K:514:ILE:HA	3:K:517:ALA:HB3	1.86	0.56
4:L:7:SER:HA	7:O:35:ALA:HB1	1.86	0.56
4:L:104:LEU:HD11	4:L:518:ILE:HD12	1.86	0.56
5:M:252:PRO:HA	5:M:255:PRO:C	2.26	0.56
6:N:452:LEU:O	6:N:455:PRO:CD	2.51	0.56
7:O:51:ILE:HG22	7:O:53:ILE:HG23	1.87	0.56
7:O:109:MET:SD	7:O:514:THR:HB	2.45	0.56
8:P:427:GLU:HG2	8:P:459:VAL:HG21	1.85	0.56
1:A:266:ASP:N	1:A:267:PRO:CD	2.68	0.56
2:B:213:ILE:HG23	2:B:354:LEU:CD2	2.35	0.56
3:C:149:ALA:O	3:C:153:LYS:HG2	2.05	0.56
3:C:279:GLN:O	3:C:283:MET:HG2	2.05	0.56
7:G:494:LYS:O	7:G:495:PHE:CB	2.52	0.56
8:H:52:ASN:OD1	8:H:66:ASN:HB2	2.06	0.56
3:K:226:ASN:OD1	3:K:365:PHE:HA	2.06	0.56
6:N:6:LEU:CD1	6:N:7:ASN:H	2.18	0.56
8:P:204:VAL:CG2	8:P:409:LYS:CB	2.82	0.56
8:P:486:GLU:H	8:P:487:PRO:HA	1.69	0.56
2:B:116:HIS:HE1	2:B:118:GLN:CB	2.18	0.56
3:C:355:PHE:HB2	3:C:368:LEU:HD13	1.87	0.56
4:D:110:LEU:HD13	4:D:439:ILE:HG23	1.87	0.56
4:D:485:ARG:HD2	4:D:485:ARG:N	2.20	0.56
5:E:255:PRO:HG3	5:E:336:LEU:HA	1.87	0.56
6:F:485:GLU:O	6:F:488:TYR:CB	2.52	0.56
7:G:71:LYS:HD2	7:G:72:LEU:HD12	1.88	0.56
8:H:300:VAL:HG13	8:H:321:LEU:HB3	1.87	0.56
1:I:159:ILE:O	1:I:162:THR:HG22	2.06	0.56
1:I:463:ALA:HB1	1:I:470:SER:HB2	1.86	0.56
2:J:237:THR:CB	2:J:288:GLN:O	2.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:80:GLU:O	3:K:84:THR:HG23	2.05	0.56
4:L:209:MET:HA	4:L:377:VAL:HG12	1.86	0.56
8:P:52:ASN:OD1	8:P:66:ASN:HB2	2.06	0.56
1:A:422:GLY:HA2	9:A:601:ADP:N3	2.20	0.56
2:B:45:LEU:CD2	2:B:56:VAL:HG22	2.35	0.56
2:B:237:THR:CB	2:B:288:GLN:O	2.54	0.56
2:B:242:LYS:HD3	3:C:269:TRP:CZ2	2.39	0.56
2:B:319:LEU:HD22	2:B:320:VAL:HG13	1.88	0.56
2:B:450:PHE:CB	2:B:455:LEU:HD22	2.36	0.56
3:C:12:GLN:NE2	3:C:529:GLY:HA2	2.21	0.56
3:C:335:THR:O	3:C:337:VAL:HG23	2.06	0.56
4:D:372:ARG:N	4:D:373:PRO:HD3	2.21	0.56
8:H:68:ALA:O	8:H:72:LEU:HG	2.05	0.56
2:J:375:GLN:HE22	6:N:75:LEU:HB2	1.70	0.56
3:K:335:THR:O	3:K:337:VAL:HG23	2.06	0.56
5:M:84:THR:HG22	5:M:86:ASP:N	2.18	0.56
7:O:121:SER:HB3	7:O:123:HIS:CE1	2.41	0.56
7:O:282:LEU:O	7:O:285:VAL:HG12	2.05	0.56
8:P:123:SER:OG	8:P:126:GLU:HG3	2.06	0.56
1:A:76:GLN:O	1:A:77:HIS:HB3	2.06	0.56
4:D:177:SER:O	4:D:181:ILE:HG12	2.05	0.56
4:D:219:ALA:HB1	4:D:221:LYS:NZ	2.20	0.56
6:F:143:LEU:HA	6:F:144:SER:C	2.24	0.56
6:F:154:ALA:HB2	6:F:402:VAL:HG22	1.87	0.56
6:F:415:ALA:O	6:F:491:VAL:HG23	2.06	0.56
6:F:424:ARG:HG2	6:F:483:SER:CA	2.34	0.56
7:G:323:MET:HA	7:G:326:VAL:HG22	1.88	0.56
1:I:209:HIS:HE1	7:O:89:ALA:HB2	1.71	0.56
2:J:16:GLU:HG3	2:J:17:ASN:H	1.70	0.56
3:K:9:ASN:HD22	3:K:10:ALA:H	1.53	0.56
3:K:149:ALA:O	3:K:153:LYS:HG2	2.05	0.56
6:N:29:LEU:O	6:N:33:LEU:HD23	2.05	0.56
6:N:143:LEU:CD1	6:N:145:ASN:CG	2.74	0.56
6:N:541:LEU:HB2	6:N:542:LYS:HA	0.59	0.56
7:O:43:THR:CG2	7:O:64:ASN:CB	2.83	0.56
8:P:284:ILE:O	8:P:288:MET:HG2	2.05	0.56
1:A:183:ALA:HB1	1:A:383:SER:HB2	1.87	0.56
2:B:32:LEU:HD12	6:F:532:GLU:OE2	2.05	0.56
2:B:239:ASP:OD1	2:B:290:ILE:HB	2.06	0.56
3:C:118:PRO:O	3:C:122:ILE:HG13	2.05	0.56
7:G:23:LYS:HA	7:G:26:ILE:CG2	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:37:LEU:HB2	2:J:444:LEU:HD13	1.87	0.56
2:J:47:GLN:OE1	2:J:54:CYS:HB3	2.05	0.56
3:K:264:GLU:O	3:K:265:LYS:CB	2.54	0.56
4:L:120:ILE:HA	4:L:123:SER:HB3	1.87	0.56
4:L:219:ALA:HB1	4:L:221:LYS:NZ	2.20	0.56
4:L:242:SER:O	4:L:244:PRO:HD3	2.06	0.56
5:M:428:CYS:HA	5:M:431:ARG:HG3	1.88	0.56
6:N:203:SER:C	6:N:205:LYS:N	2.58	0.56
1:A:187:VAL:HB	1:A:382:SER:N	2.21	0.56
2:B:326:VAL:CG1	3:C:304:LEU:HD22	2.36	0.56
3:C:223:VAL:HG12	3:C:224:LEU:N	2.20	0.56
9:D:601:ADP:O3'	9:D:601:ADP:C8	2.59	0.56
6:F:424:ARG:NH1	6:F:479:ASP:CB	2.69	0.56
6:F:541:LEU:HB2	6:F:542:LYS:HA	0.60	0.56
7:G:121:SER:HB3	7:G:123:HIS:CE1	2.41	0.56
7:G:420:VAL:HG23	7:G:446:LEU:HD13	1.88	0.56
2:J:402:LEU:HD21	2:J:483:ARG:CG	2.36	0.56
2:J:450:PHE:CB	2:J:455:LEU:HD22	2.36	0.56
6:N:47:VAL:HG12	6:N:48:ASP:H	1.71	0.56
6:N:92:THR:HG21	10:N:602:BEF:F3	1.95	0.56
7:O:41:LYS:N	7:O:42:PRO:CD	2.69	0.56
8:P:25:ASP:HA	8:P:28:ILE:HG13	1.87	0.56
8:P:323:VAL:HG23	8:P:323:VAL:O	2.06	0.56
1:A:159:ILE:O	1:A:162:THR:HG22	2.06	0.56
2:B:37:LEU:HB2	2:B:444:LEU:HD13	1.87	0.56
2:B:47:GLN:OE1	2:B:54:CYS:HB3	2.05	0.56
2:B:63:ILE:HG23	2:B:64:LEU:HG	1.88	0.56
4:D:242:SER:O	4:D:244:PRO:HD3	2.06	0.56
8:H:25:ASP:HA	8:H:28:ILE:HG13	1.87	0.56
8:H:29:ILE:CG2	8:H:30:LYS:N	2.69	0.56
1:I:76:GLN:O	1:I:77:HIS:HB3	2.06	0.56
1:I:266:ASP:N	1:I:267:PRO:CD	2.68	0.56
2:J:63:ILE:HG23	2:J:64:LEU:HG	1.88	0.56
2:J:230:LYS:H	2:J:281:ILE:CG2	2.18	0.56
4:L:527:SER:HB3	4:L:528:ARG:HH21	1.71	0.56
6:N:540:THR:O	6:N:541:LEU:CD2	2.54	0.56
7:O:323:MET:HA	7:O:326:VAL:HG22	1.88	0.56
1:A:252:GLN:HG3	1:A:253:LYS:H	1.71	0.55
1:A:329:ILE:HD13	1:A:374:ILE:HD12	1.87	0.55
2:B:16:GLU:HG3	2:B:17:ASN:H	1.71	0.55
2:B:402:LEU:HD11	2:B:483:ARG:HG3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:475:ASN:HD22	2:B:475:ASN:N	1.92	0.55
5:E:35:GLN:OE1	5:E:36:GLY:HA3	2.06	0.55
5:E:74:LEU:CG	5:E:93:GLN:HB3	2.35	0.55
5:E:252:PRO:HA	5:E:255:PRO:C	2.26	0.55
1:I:187:VAL:HB	1:I:382:SER:N	2.21	0.55
1:I:517:VAL:O	1:I:518:LEU:CD2	2.54	0.55
2:J:5:ILE:O	3:K:71:ALA:N	2.39	0.55
4:L:372:ARG:N	4:L:373:PRO:HD3	2.21	0.55
4:L:394:LEU:HA	4:L:397:ALA:HB3	1.88	0.55
5:M:181:LEU:HA	5:M:205:VAL:HG21	1.89	0.55
1:A:500:TYR:HA	1:A:511:ASP:HA	1.89	0.55
1:A:517:VAL:O	1:A:518:LEU:CD2	2.54	0.55
2:B:115:ILE:HG12	5:M:492:ILE:HD11	1.88	0.55
3:C:226:ASN:OD1	3:C:365:PHE:HA	2.06	0.55
3:C:321:LYS:HB3	3:C:324:ASP:HB2	1.87	0.55
5:E:350:GLU:C	5:E:352:GLU:N	2.55	0.55
6:F:45:MET:HA	6:F:54:LYS:O	2.05	0.55
6:F:47:VAL:HG12	6:F:48:ASP:H	1.70	0.55
1:I:182:ASP:O	1:I:186:ALA:HB3	2.05	0.55
3:K:482:THR:HA	3:K:493:ASP:HA	1.87	0.55
6:N:68:ILE:HD13	6:N:74:VAL:HG22	1.89	0.55
6:N:209:PHE:CZ	6:N:211:LYS:HD2	2.41	0.55
1:A:350:PHE:CE2	1:A:354:TYR:CB	2.85	0.55
3:C:322:LYS:HG3	3:C:323:SER:N	2.21	0.55
4:D:209:MET:HA	4:D:377:VAL:HG12	1.86	0.55
4:D:411:ILE:HG13	4:D:501:VAL:HG22	1.87	0.55
5:E:181:LEU:HA	5:E:205:VAL:HG21	1.88	0.55
5:E:351:LEU:HD13	5:E:351:LEU:N	2.22	0.55
6:F:5:LEU:CB	6:F:6:LEU:C	2.75	0.55
6:F:68:ILE:HD13	6:F:74:VAL:HG22	1.89	0.55
6:F:151:LEU:CG	6:F:175:THR:HG23	2.31	0.55
7:G:58:GLN:NE2	7:G:58:GLN:HA	2.22	0.55
1:I:273:ILE:HG21	5:M:295:TYR:CE2	2.41	0.55
2:J:511:VAL:HB	2:J:514:ILE:HD11	1.88	0.55
3:K:506:LYS:O	3:K:510:VAL:HG23	2.06	0.55
5:M:273:THR:CG2	5:M:364:PRO:CA	2.72	0.55
5:M:351:LEU:HD13	5:M:351:LEU:N	2.22	0.55
6:N:489:VAL:O	6:N:490:GLY:C	2.41	0.55
8:P:68:ALA:O	8:P:72:LEU:HG	2.06	0.55
2:B:3:VAL:C	2:B:5:ILE:HG21	2.25	0.55
2:B:402:LEU:HD21	2:B:483:ARG:CG	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:540:THR:O	6:F:541:LEU:CD2	2.54	0.55
1:I:484:SER:OG	1:I:498:ARG:CB	2.55	0.55
2:J:319:LEU:HD22	2:J:320:VAL:HG13	1.88	0.55
4:L:521:ILE:HD11	7:O:62:ILE:HD12	1.82	0.55
7:O:23:LYS:HA	7:O:26:ILE:CG2	2.36	0.55
7:O:492:PHE:HA	7:O:497:TRP:NE1	2.21	0.55
8:P:29:ILE:CG2	8:P:30:LYS:N	2.69	0.55
1:A:252:GLN:HB2	1:A:303:ASP:HB2	1.89	0.55
3:C:104:LEU:HD21	3:C:517:ALA:HA	1.89	0.55
6:F:143:LEU:CD1	6:F:145:ASN:CG	2.74	0.55
7:G:109:MET:SD	7:G:514:THR:HB	2.45	0.55
7:G:294:LEU:CD2	7:G:315:ALA:HB3	2.37	0.55
2:J:402:LEU:HD11	2:J:483:ARG:HG3	1.88	0.55
2:J:460:ARG:O	2:J:463:ILE:HG22	2.07	0.55
4:L:524:ILE:O	4:L:524:ILE:HG22	2.06	0.55
6:N:5:LEU:CB	6:N:6:LEU:C	2.75	0.55
6:N:35:THR:HG22	6:N:42:THR:H	1.72	0.55
6:N:160:THR:H	6:N:164:ALA:CB	2.20	0.55
6:N:415:ALA:O	6:N:491:VAL:HG23	2.06	0.55
6:N:424:ARG:NH1	6:N:479:ASP:CB	2.69	0.55
1:A:484:SER:OG	1:A:498:ARG:CB	2.55	0.55
3:C:47:MET:HE2	3:C:49:LEU:HD21	1.87	0.55
4:D:207:THR:HB	4:D:378:VAL:O	2.07	0.55
6:F:209:PHE:CZ	6:F:211:LYS:HD2	2.41	0.55
8:H:323:VAL:HG23	8:H:323:VAL:O	2.06	0.55
1:I:76:GLN:O	1:I:77:HIS:CB	2.55	0.55
1:I:252:GLN:HG3	1:I:253:LYS:H	1.71	0.55
2:J:45:LEU:CD2	2:J:56:VAL:HG22	2.36	0.55
4:L:298:ASN:CB	4:L:299:ASP:HA	2.37	0.55
4:L:485:ARG:HD2	4:L:485:ARG:N	2.20	0.55
5:M:470:ARG:O	5:M:474:GLN:HG3	2.07	0.55
7:O:115:PHE:O	7:O:119:GLY:HA3	2.07	0.55
7:O:126:MET:HE2	7:O:126:MET:HA	1.88	0.55
8:P:328:GLU:HG3	8:P:331:ARG:HH12	1.72	0.55
1:A:92:ARG:HB3	5:E:388:THR:HA	1.89	0.55
3:C:482:THR:HA	3:C:493:ASP:HA	1.87	0.55
4:D:394:LEU:HA	4:D:397:ALA:HB3	1.89	0.55
6:F:92:THR:CG2	10:F:602:BEF:F3	2.44	0.55
6:F:160:THR:H	6:F:164:ALA:CB	2.20	0.55
6:F:214:VAL:O	6:F:215:LEU:HD23	2.06	0.55
7:G:34:VAL:O	7:G:38:GLU:HG2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:41:LYS:N	7:G:42:PRO:CD	2.69	0.55
3:K:104:LEU:HD21	3:K:517:ALA:HA	1.89	0.55
3:K:508:GLN:HG2	8:P:215:GLY:HA2	1.89	0.55
6:N:143:LEU:HA	6:N:144:SER:C	2.24	0.55
8:P:146:VAL:C	8:P:148:GLY:H	2.10	0.55
2:B:229:ALA:HB3	2:B:339:GLU:O	2.07	0.55
2:B:460:ARG:O	2:B:463:ILE:HG22	2.07	0.55
2:B:514:ILE:CD1	3:C:47:MET:HB3	2.35	0.55
3:C:264:GLU:O	3:C:265:LYS:CB	2.54	0.55
5:E:173:ASP:HB3	5:E:437:SER:HB3	1.87	0.55
2:J:3:VAL:C	2:J:5:ILE:HG21	2.24	0.55
2:J:4:GLN:N	2:J:5:ILE:HG12	2.19	0.55
2:J:173:PHE:HA	2:J:176:LEU:HD12	1.89	0.55
2:J:475:ASN:HD22	2:J:475:ASN:N	1.92	0.55
3:K:322:LYS:HG3	3:K:323:SER:N	2.21	0.55
4:L:81:VAL:HG22	7:O:382:ALA:HB2	1.89	0.55
4:L:207:THR:HB	4:L:378:VAL:O	2.07	0.55
4:L:410:LEU:HD22	4:L:498:LEU:HB3	1.89	0.55
6:N:195:GLU:CG	6:N:197:MET:SD	2.94	0.55
6:N:214:VAL:O	6:N:215:LEU:HD23	2.07	0.55
6:N:277:ILE:HG21	6:N:295:ILE:HG13	1.89	0.55
7:O:386:ILE:O	7:O:389:VAL:HB	2.07	0.55
8:P:24:ALA:CB	8:P:531:ALA:HB1	2.37	0.55
2:B:95:VAL:HG22	2:B:497:VAL:HG22	1.89	0.55
2:B:173:PHE:HA	2:B:176:LEU:HD12	1.89	0.55
3:C:275:ILE:CA	8:H:274:LEU:HD21	2.37	0.55
4:D:375:VAL:HG12	4:D:376:SER:N	2.22	0.55
6:F:277:ILE:HG21	6:F:295:ILE:HG13	1.89	0.55
6:F:353:LEU:N	6:F:369:GLU:HB3	2.22	0.55
6:F:372:ASP:N	6:F:373:PRO:HD3	2.22	0.55
6:F:406:LEU:C	6:F:407:LYS:HE3	2.27	0.55
2:J:39:PRO:HA	2:J:163:SER:CA	2.37	0.55
3:K:523:VAL:HA	8:P:52:ASN:O	2.06	0.55
5:M:35:GLN:OE1	5:M:36:GLY:HA3	2.06	0.55
6:N:171:THR:O	6:N:175:THR:CB	2.55	0.55
6:N:538:ARG:HH11	6:N:538:ARG:HG3	1.71	0.55
6:N:541:LEU:HB2	6:N:542:LYS:CB	2.32	0.55
7:O:71:LYS:HD2	7:O:72:LEU:HD12	1.88	0.55
3:C:124:ALA:HB1	3:C:441:PRO:CB	2.37	0.55
5:E:88:ALA:CB	5:E:109:LYS:NZ	2.68	0.55
6:F:199:MET:O	6:F:381:LYS:CE	2.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:538:ARG:HH11	6:F:538:ARG:HG3	1.71	0.55
8:H:123:SER:OG	8:H:126:GLU:HG3	2.06	0.55
1:I:252:GLN:HB2	1:I:303:ASP:HB2	1.89	0.55
4:L:411:ILE:HG13	4:L:501:VAL:HG22	1.87	0.55
6:N:372:ASP:N	6:N:373:PRO:HD3	2.22	0.55
7:O:58:GLN:NE2	7:O:58:GLN:HA	2.22	0.55
7:O:455:GLU:HG3	7:O:461:ALA:HB2	1.88	0.55
1:A:94:ILE:HD11	1:A:526:LYS:HB2	1.89	0.54
1:A:460:LYS:HD2	3:K:113:GLU:HB2	1.89	0.54
2:B:422:ILE:HG21	2:B:427:SER:CB	2.36	0.54
3:C:370:ASN:OD1	3:C:1054:GLY:HA2	2.07	0.54
4:D:196:LEU:HD22	4:D:377:VAL:CG2	2.37	0.54
4:D:214:VAL:HG13	4:D:362:ARG:HG2	1.89	0.54
4:D:524:ILE:HG22	4:D:524:ILE:O	2.07	0.54
7:G:191:ARG:HB3	7:G:193:ASP:O	2.07	0.54
7:G:440:ASN:O	7:G:444:LYS:HD3	2.08	0.54
2:J:127:ALA:CB	2:J:430:VAL:HG22	2.31	0.54
2:J:210:GLU:HB3	2:J:357:SER:O	2.07	0.54
3:K:432:LYS:HA	3:K:439:GLN:HE21	1.72	0.54
4:L:499:GLN:HE22	9:L:601:ADP:HI'	1.72	0.54
6:N:33:LEU:HD22	6:N:33:LEU:N	2.22	0.54
6:N:353:LEU:N	6:N:369:GLU:HB3	2.22	0.54
2:B:192:HIS:CD2	2:B:193:ILE:HG23	2.42	0.54
2:B:511:VAL:HB	2:B:514:ILE:HD11	1.88	0.54
4:D:70:ILE:HA	8:H:15:LYS:HZ3	1.72	0.54
4:D:418:GLU:HG2	4:D:450:ILE:HB	1.89	0.54
6:F:171:THR:O	6:F:175:THR:CB	2.55	0.54
6:F:215:LEU:HB3	6:F:217:HIS:CD2	2.36	0.54
1:I:548:ASP:OD2	1:I:548:ASP:N	2.37	0.54
2:J:505:ALA:O	2:J:509:LEU:HB2	2.07	0.54
4:L:418:GLU:HG2	4:L:450:ILE:HB	1.89	0.54
6:N:75:LEU:HD21	6:N:523:ILE:HG23	1.89	0.54
6:N:199:MET:O	6:N:381:LYS:CE	2.55	0.54
6:N:424:ARG:HG2	6:N:483:SER:CA	2.34	0.54
7:O:294:LEU:CD2	7:O:315:ALA:HB3	2.36	0.54
1:A:90:GLN:NE2	1:A:527:SER:HB3	2.22	0.54
2:B:4:GLN:N	2:B:5:ILE:HG12	2.19	0.54
4:D:527:SER:HB3	4:D:528:ARG:HH21	1.71	0.54
5:E:84:THR:HG23	5:E:418:GLU:OE2	2.08	0.54
5:E:470:ARG:O	5:E:474:GLN:HG3	2.07	0.54
6:F:75:LEU:HD21	6:F:523:ILE:HG23	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:324:ASN:O	6:F:328:LEU:N	2.33	0.54
8:H:138:THR:HG21	8:H:452:PHE:HE1	1.72	0.54
2:J:326:VAL:HG13	3:K:304:LEU:HD22	1.90	0.54
3:K:12:GLN:NE2	3:K:529:GLY:HA2	2.21	0.54
6:N:501:PRO:O	6:N:504:GLU:N	2.39	0.54
7:O:420:VAL:HG23	7:O:446:LEU:HD13	1.88	0.54
1:A:412:THR:OG1	1:A:520:PRO:HG3	2.08	0.54
2:B:284:PHE:HB3	2:B:305:SER:HB3	1.89	0.54
2:B:289:LEU:HD13	2:B:294:PRO:HG3	1.90	0.54
2:B:326:VAL:CG2	3:C:304:LEU:HD22	2.37	0.54
3:C:262:GLU:H	8:H:266:LEU:HD11	1.73	0.54
4:D:196:LEU:HD22	4:D:377:VAL:HG22	1.89	0.54
2:J:31:ASP:OD1	2:J:32:LEU:N	2.40	0.54
2:J:95:VAL:HG22	2:J:497:VAL:HG22	1.89	0.54
2:J:196:ILE:O	2:J:367:ILE:HA	2.07	0.54
2:J:284:PHE:HB3	2:J:305:SER:HB3	1.89	0.54
4:L:28:ALA:HB1	4:L:78:LEU:HD11	1.89	0.54
4:L:46:LYS:HG3	8:P:532:THR:HG23	1.89	0.54
4:L:214:VAL:HG13	4:L:362:ARG:HG2	1.89	0.54
5:M:173:ASP:HB3	5:M:437:SER:HB3	1.87	0.54
6:N:155:ARG:CB	6:N:171:THR:HG23	2.38	0.54
7:O:397:ILE:O	7:O:400:VAL:HG22	2.07	0.54
1:A:44:LEU:HD21	1:A:103:ILE:HD12	1.89	0.54
1:A:267:PRO:HB3	1:A:268:GLU:C	2.28	0.54
2:B:504:ALA:O	2:B:508:LEU:HB3	2.07	0.54
6:F:33:LEU:HD22	6:F:33:LEU:N	2.21	0.54
6:F:35:THR:HG22	6:F:42:THR:H	1.72	0.54
7:G:115:PHE:O	7:G:119:GLY:HA3	2.07	0.54
1:I:500:TYR:HA	1:I:511:ASP:HA	1.89	0.54
2:J:192:HIS:CD2	2:J:193:ILE:HG23	2.42	0.54
3:K:334:ALA:HB2	3:K:349:GLY:N	2.23	0.54
3:K:370:ASN:OD1	3:K:1054:GLY:HA2	2.07	0.54
5:M:476:LEU:HD11	5:M:538:ILE:HD11	1.90	0.54
6:N:488:TYR:O	6:N:489:VAL:CB	2.56	0.54
7:O:34:VAL:O	7:O:38:GLU:HG2	2.06	0.54
1:A:76:GLN:O	1:A:77:HIS:CB	2.55	0.54
2:B:455:LEU:HG	2:B:472:LEU:HD13	1.90	0.54
3:C:241:PRO:O	3:C:350:THR:HG23	2.08	0.54
3:C:515:GLU:OE2	8:H:390:THR:HG22	2.08	0.54
4:D:28:ALA:HB1	4:D:78:LEU:HD11	1.89	0.54
7:G:397:ILE:O	7:G:400:VAL:HG22	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:131:TYR:HD2	8:H:452:PHE:CD2	2.24	0.54
1:I:350:PHE:HE2	1:I:354:TYR:CB	2.16	0.54
1:I:532:LEU:HD22	1:I:536:VAL:HG23	1.90	0.54
2:J:27:ILE:HA	2:J:100:ALA:HB1	1.88	0.54
2:J:70:ASP:HB3	6:N:5:LEU:HD22	1.87	0.54
6:N:406:LEU:C	6:N:407:LYS:HE3	2.27	0.54
6:N:434:LEU:O	6:N:438:GLY:HA2	2.08	0.54
7:O:440:ASN:O	7:O:444:LYS:HD3	2.08	0.54
8:P:288:MET:HE2	8:P:313:LEU:HG	1.89	0.54
2:B:459:LEU:CD2	2:B:472:LEU:HG	2.33	0.54
2:B:505:ALA:O	2:B:509:LEU:HB2	2.07	0.54
3:C:334:ALA:HB2	3:C:349:GLY:N	2.23	0.54
4:D:273:ASN:HD22	7:G:268:GLN:HE22	1.56	0.54
5:E:350:GLU:O	5:E:351:LEU:C	2.46	0.54
6:F:434:LEU:O	6:F:438:GLY:HA2	2.08	0.54
6:F:501:PRO:O	6:F:504:GLU:N	2.39	0.54
8:H:237:LYS:HB2	8:H:314:ASN:CB	2.31	0.54
1:I:431:ILE:HG13	1:I:435:ASN:HD22	1.73	0.54
2:J:245:ILE:O	2:J:246:PHE:CB	2.56	0.54
2:J:445:ALA:HB2	2:J:455:LEU:HD23	1.90	0.54
2:J:455:LEU:HG	2:J:472:LEU:HD13	1.90	0.54
2:J:514:ILE:CD1	3:K:47:MET:HB3	2.30	0.54
5:M:88:ALA:CB	5:M:109:LYS:NZ	2.68	0.54
6:N:451:LEU:O	6:N:455:PRO:HD3	2.07	0.54
7:O:241:ILE:HG12	7:O:292:ILE:HG23	1.89	0.54
8:P:131:TYR:HD2	8:P:452:PHE:CD2	2.24	0.54
1:A:350:PHE:CD2	1:A:351:GLU:N	2.72	0.54
2:B:40:LYS:HA	6:F:116:ARG:HG3	1.90	0.54
2:B:213:ILE:HG23	2:B:354:LEU:HD23	1.90	0.54
3:C:506:LYS:O	3:C:510:VAL:HG23	2.06	0.54
6:F:155:ARG:CB	6:F:171:THR:HG23	2.38	0.54
6:F:236:LEU:O	6:F:297:ASN:HA	2.08	0.54
6:F:481:GLN:O	6:F:485:GLU:HG2	2.07	0.54
7:G:206:GLY:O	7:G:379:ARG:HD2	2.07	0.54
7:G:455:GLU:HG3	7:G:461:ALA:HB2	1.88	0.54
1:I:12:THR:HB	5:M:96:LEU:HA	1.90	0.54
2:J:242:LYS:HE2	2:J:247:GLY:H	1.69	0.54
2:J:359:CYS:CB	2:J:360:LYS:HA	2.38	0.54
3:K:124:ALA:HB1	3:K:441:PRO:CB	2.37	0.54
6:N:125:ALA:CA	6:N:426:LEU:HD21	2.38	0.54
7:O:208:ALA:HB1	7:O:210:GLU:OE1	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:P:138:THR:HG21	8:P:452:PHE:HE1	1.72	0.54
2:B:45:LEU:HB2	6:F:533:LEU:CB	2.38	0.54
2:B:49:ALA:HB1	6:F:538:ARG:HB2	1.90	0.54
2:B:359:CYS:CB	2:B:360:LYS:HA	2.38	0.54
4:D:110:LEU:CD1	4:D:439:ILE:HG23	2.38	0.54
6:F:488:TYR:O	6:F:489:VAL:CB	2.56	0.54
2:J:213:ILE:HG23	2:J:354:LEU:HD23	1.90	0.54
5:M:188:LEU:CB	5:M:197:HIS:HB2	2.38	0.54
6:N:15:ARG:O	6:N:18:ALA:HB3	2.08	0.54
6:N:154:ALA:HB2	6:N:402:VAL:HG22	1.87	0.54
7:O:377:LEU:H	7:O:377:LEU:CD1	2.19	0.54
2:B:27:ILE:HA	2:B:100:ALA:HB1	1.88	0.54
2:B:210:GLU:HB3	2:B:357:SER:O	2.07	0.54
2:B:409:MET:HA	2:B:409:MET:CE	2.38	0.54
3:C:457:ILE:HD11	3:C:467:LEU:HD22	1.90	0.54
5:E:61:ILE:O	5:E:61:ILE:HD13	2.08	0.54
5:E:355:ALA:HB2	5:E:362:ILE:HD11	1.90	0.54
6:F:16:ASP:O	6:F:19:LEU:HB2	2.08	0.54
6:F:43:LEU:HD22	6:F:57:LYS:HB2	1.84	0.54
7:G:174:ASN:ND2	7:G:209:MET:SD	2.80	0.54
7:G:208:ALA:HB1	7:G:210:GLU:OE1	2.08	0.54
7:G:492:PHE:HA	7:G:497:TRP:NE1	2.21	0.54
8:H:24:ALA:CB	8:H:531:ALA:O	2.56	0.54
8:H:252:CYS:HB2	8:H:343:ARG:H	1.73	0.54
1:I:90:GLN:NE2	1:I:527:SER:HB3	2.22	0.54
1:I:458:ILE:N	1:I:458:ILE:HD12	2.24	0.54
2:J:289:LEU:HD12	2:J:289:LEU:O	2.08	0.54
2:J:289:LEU:HD13	2:J:294:PRO:HG3	1.90	0.54
4:L:521:ILE:CG2	7:O:50:ASP:O	2.55	0.54
1:A:36:VAL:HG13	1:A:70:LEU:HD22	1.89	0.53
1:A:184:LEU:CD2	1:A:184:LEU:C	2.76	0.53
4:D:258:ARG:CD	8:H:283:GLN:HE21	2.20	0.53
4:D:423:ARG:HH12	4:D:473:HIS:CD2	2.26	0.53
4:D:485:ARG:HH22	9:D:601:ADP:HN62	1.55	0.53
5:E:88:ALA:CB	5:E:119:THR:HB	2.29	0.53
6:F:105:ALA:C	6:F:107:ARG:H	2.10	0.53
6:F:183:ASP:N	6:F:183:ASP:OD1	2.41	0.53
6:F:451:LEU:O	6:F:455:PRO:HD3	2.07	0.53
7:G:75:VAL:HG11	7:G:80:ALA:HB1	1.89	0.53
7:G:377:LEU:H	7:G:377:LEU:CD1	2.19	0.53
7:G:386:ILE:O	7:G:389:VAL:HB	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:213:MET:HE2	8:H:391:GLN:HG3	1.89	0.53
8:H:288:MET:HE2	8:H:313:LEU:HG	1.90	0.53
8:H:354:LEU:HD23	8:H:354:LEU:H	1.73	0.53
1:I:267:PRO:HB3	1:I:268:GLU:C	2.28	0.53
2:J:504:ALA:O	2:J:508:LEU:HB3	2.07	0.53
3:K:241:PRO:O	3:K:350:THR:HG23	2.08	0.53
4:L:196:LEU:HD22	4:L:377:VAL:HG22	1.89	0.53
6:N:16:ASP:O	6:N:19:LEU:HB2	2.08	0.53
6:N:481:GLN:O	6:N:485:GLU:HG2	2.08	0.53
8:P:24:ALA:CB	8:P:531:ALA:O	2.56	0.53
1:A:20:ILE:CB	1:A:25:ILE:HG12	2.38	0.53
2:B:196:ILE:O	2:B:367:ILE:HA	2.09	0.53
4:D:410:LEU:HD22	4:D:498:LEU:HB3	1.89	0.53
6:F:125:ALA:CA	6:F:426:LEU:HD21	2.38	0.53
7:G:420:VAL:CG2	7:G:446:LEU:HD13	2.38	0.53
1:I:363:GLN:HA	1:I:372:ILE:HA	1.90	0.53
2:J:422:ILE:HG21	2:J:427:SER:CB	2.36	0.53
4:L:196:LEU:HD22	4:L:377:VAL:CG2	2.37	0.53
4:L:375:VAL:HG12	4:L:376:SER:N	2.22	0.53
6:N:57:LYS:NZ	6:N:57:LYS:O	2.40	0.53
6:N:236:LEU:O	6:N:297:ASN:HA	2.08	0.53
8:P:354:LEU:HD23	8:P:354:LEU:H	1.74	0.53
2:B:31:ASP:OD1	2:B:32:LEU:N	2.40	0.53
2:B:39:PRO:HA	2:B:163:SER:CA	2.37	0.53
2:B:198:ILE:O	2:B:377:LEU:CD2	2.55	0.53
5:E:476:LEU:HD11	5:E:538:ILE:HD11	1.90	0.53
8:H:24:ALA:CB	8:H:531:ALA:HB1	2.37	0.53
1:I:63:THR:HG22	1:I:65:ASP:N	2.22	0.53
1:I:94:ILE:HD11	1:I:526:LYS:HB2	1.89	0.53
1:I:158:ASN:CG	1:I:516:GLY:HA2	2.28	0.53
1:I:412:THR:OG1	1:I:520:PRO:HG3	2.08	0.53
2:J:459:LEU:CD2	2:J:472:LEU:HG	2.33	0.53
6:N:406:LEU:HB3	6:N:407:LYS:NZ	2.24	0.53
7:O:75:VAL:HG11	7:O:80:ALA:HB1	1.89	0.53
8:P:428:ILE:HD13	8:P:478:LEU:HD13	1.89	0.53
5:E:81:ILE:HG22	5:E:414:MET:HE1	1.89	0.53
6:F:117:ILE:CG1	5:M:33:LYS:HE2	2.34	0.53
2:J:49:ALA:HB2	6:N:536:ALA:O	2.08	0.53
2:J:229:ALA:HB3	2:J:339:GLU:O	2.07	0.53
3:K:457:ILE:HD11	3:K:467:LEU:HD22	1.90	0.53
4:L:110:LEU:CD1	4:L:439:ILE:HG23	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:84:THR:HG23	5:M:418:GLU:OE2	2.08	0.53
5:M:350:GLU:O	5:M:351:LEU:C	2.46	0.53
8:P:229:ASN:HA	8:P:368:VAL:HG22	1.90	0.53
8:P:420:LEU:HD23	8:P:421:PRO:N	2.24	0.53
1:A:431:ILE:HG13	1:A:435:ASN:HD22	1.73	0.53
1:A:532:LEU:HD22	1:A:536:VAL:HG23	1.90	0.53
2:B:124:TYR:O	2:B:128:SER:HB2	2.08	0.53
2:B:127:ALA:CB	2:B:430:VAL:HG22	2.31	0.53
2:B:201:GLY:N	6:F:86:ILE:HD12	2.21	0.53
2:B:319:LEU:CD2	2:B:357:SER:OG	2.57	0.53
3:C:432:LYS:HA	3:C:439:GLN:HE21	1.72	0.53
6:F:35:THR:HG21	6:F:42:THR:O	2.08	0.53
7:G:201:ILE:HG21	7:G:390:GLU:HG3	1.90	0.53
7:G:225:SER:HB3	7:G:314:CYS:O	2.09	0.53
8:H:420:LEU:HD23	8:H:421:PRO:N	2.24	0.53
4:L:491:ASN:HB2	4:L:494:GLU:OE1	2.09	0.53
5:M:93:GLN:NE2	5:M:93:GLN:HA	2.23	0.53
5:M:471:GLY:HA2	5:M:474:GLN:OE1	2.08	0.53
6:N:183:ASP:N	6:N:183:ASP:OD1	2.41	0.53
7:O:206:GLY:O	7:O:379:ARG:HD2	2.07	0.53
1:A:63:THR:HG22	1:A:65:ASP:N	2.22	0.53
1:A:158:ASN:CG	1:A:516:GLY:HA2	2.28	0.53
4:D:77:MET:CE	7:G:384:GLN:HB2	2.39	0.53
6:F:36:ASN:HA	6:F:57:LYS:CD	2.38	0.53
6:F:105:ALA:HA	6:F:108:PHE:CD2	2.44	0.53
6:F:416:GLY:HA2	6:F:419:TYR:CD2	2.44	0.53
6:F:437:LYS:HE2	6:F:437:LYS:CA	2.33	0.53
8:H:27:GLN:O	8:H:31:SER:N	2.33	0.53
1:I:20:ILE:CB	1:I:25:ILE:HG12	2.38	0.53
2:J:30:GLY:CA	2:J:33:VAL:CG2	2.86	0.53
2:J:124:TYR:O	2:J:128:SER:HB2	2.08	0.53
3:K:422:ALA:HA	3:K:475:HIS:CE1	2.44	0.53
4:L:36:ARG:HE	4:L:98:ILE:CG2	2.18	0.53
4:L:423:ARG:HH12	4:L:473:HIS:CD2	2.26	0.53
7:O:191:ARG:HB3	7:O:193:ASP:O	2.08	0.53
3:C:269:TRP:HH2	6:F:248:ASN:H	1.56	0.53
5:E:58:ALA:CB	5:E:127:SER:HB3	2.39	0.53
5:E:100:ILE:O	5:E:103:LEU:HB2	2.08	0.53
6:F:45:MET:HA	6:F:55:LEU:HA	1.91	0.53
1:I:44:LEU:HD21	1:I:103:ILE:HD12	1.89	0.53
2:J:43:ASP:O	6:N:530:CYS:HA	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:45:LEU:HD12	6:N:533:LEU:HD13	1.91	0.53
3:K:413:SER:HB3	3:K:419:THR:HG21	1.91	0.53
4:L:249:GLU:O	7:O:259:VAL:HG12	2.09	0.53
5:M:58:ALA:CB	5:M:127:SER:HB3	2.39	0.53
5:M:227:GLN:O	5:M:407:PHE:HA	2.09	0.53
5:M:350:GLU:C	5:M:352:GLU:H	2.11	0.53
6:N:105:ALA:HA	6:N:108:PHE:CD2	2.44	0.53
6:N:143:LEU:HD11	6:N:145:ASN:CG	2.29	0.53
2:B:376:THR:HA	2:B:379:GLU:HB2	1.91	0.53
5:E:188:LEU:CB	5:E:197:HIS:HB2	2.38	0.53
5:E:273:THR:CG2	5:E:364:PRO:CA	2.72	0.53
6:F:5:LEU:CA	6:F:6:LEU:HB2	2.34	0.53
6:F:15:ARG:O	6:F:18:ALA:HB3	2.08	0.53
1:I:498:ARG:O	1:I:499:ASN:CB	2.56	0.53
5:M:81:ILE:HG22	5:M:414:MET:HE1	1.91	0.53
6:N:76:ILE:CG2	6:N:95:VAL:HG13	2.39	0.53
7:O:201:ILE:HG21	7:O:390:GLU:HG3	1.90	0.53
8:P:243:LYS:C	8:P:244:LYS:CG	2.77	0.53
1:A:363:GLN:HA	1:A:372:ILE:HA	1.90	0.53
2:B:91:GLY:HA2	9:B:601:ADP:PA	2.48	0.53
4:D:263:ILE:O	4:D:263:ILE:HD13	2.09	0.53
4:D:524:ILE:HG23	7:G:52:LEU:HD22	1.91	0.53
5:E:58:ALA:HB3	5:E:127:SER:HB3	1.91	0.53
8:H:237:LYS:HB3	8:H:314:ASN:HB3	1.63	0.53
1:I:184:LEU:CD2	1:I:184:LEU:C	2.76	0.53
2:J:39:PRO:HD2	2:J:474:LEU:HD12	1.91	0.53
2:J:409:MET:HA	2:J:409:MET:CE	2.38	0.53
6:N:35:THR:HG21	6:N:42:THR:O	2.08	0.53
6:N:171:THR:N	6:N:172:PRO:CD	2.71	0.53
6:N:324:ASN:O	6:N:328:LEU:N	2.33	0.53
8:P:67:ASP:HB3	8:P:70:THR:OG1	2.08	0.53
2:B:289:LEU:HD12	2:B:289:LEU:O	2.08	0.53
3:C:269:TRP:CZ3	6:F:247:VAL:HB	2.44	0.53
3:C:422:ALA:HA	3:C:475:HIS:CE1	2.44	0.53
4:D:491:ASN:HB2	4:D:494:GLU:OE1	2.09	0.53
6:F:167:THR:HB	6:F:169:VAL:H	1.66	0.53
6:F:171:THR:N	6:F:172:PRO:CD	2.71	0.53
6:F:195:GLU:CG	6:F:197:MET:SD	2.94	0.53
6:F:345:PRO:O	6:F:347:ILE:HG13	2.09	0.53
7:G:43:THR:HB	7:G:99:THR:CG2	2.40	0.53
1:I:541:ILE:HD13	5:M:73:ILE:HG13	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:544:MET:HG2	1:I:546:THR:HG23	1.90	0.53
2:J:164:LYS:O	2:J:165:ILE:C	2.48	0.53
5:M:61:ILE:O	5:M:61:ILE:HD13	2.08	0.53
6:N:276:LYS:O	6:N:279:ASP:N	2.42	0.53
6:N:345:PRO:O	6:N:347:ILE:HG13	2.09	0.53
9:N:601:ADP:C8	9:N:601:ADP:O2'	2.62	0.53
1:A:544:MET:HG2	1:A:546:THR:HG23	1.90	0.52
2:B:39:PRO:HD2	2:B:474:LEU:HD12	1.91	0.52
4:D:195:ARG:O	4:D:196:LEU:HD23	2.10	0.52
5:E:471:GLY:HA2	5:E:474:GLN:OE1	2.08	0.52
7:G:307:PHE:CD1	7:G:312:ILE:HG23	2.44	0.52
8:H:146:VAL:C	8:H:148:GLY:H	2.10	0.52
2:J:64:LEU:HD23	2:J:67:ILE:HD12	1.91	0.52
2:J:263:LYS:HZ1	3:K:266:GLU:HB3	1.66	0.52
5:M:310:ILE:HD11	5:M:331:ALA:HB1	1.91	0.52
7:O:225:SER:HB3	7:O:314:CYS:O	2.09	0.52
7:O:377:LEU:O	7:O:377:LEU:HD22	2.09	0.52
8:P:252:CYS:HB2	8:P:343:ARG:H	1.73	0.52
1:A:498:ARG:O	1:A:499:ASN:CB	2.57	0.52
2:B:102:LEU:HD21	2:B:124:TYR:HD2	1.75	0.52
2:B:445:ALA:HB2	2:B:455:LEU:HD23	1.90	0.52
5:E:48:LYS:O	5:E:51:ILE:HG22	2.09	0.52
6:F:352:GLY:CA	6:F:369:GLU:C	2.48	0.52
7:G:241:ILE:HG12	7:G:292:ILE:HG23	1.89	0.52
8:H:243:LYS:C	8:H:244:LYS:CG	2.77	0.52
8:H:328:GLU:HG3	8:H:331:ARG:HH12	1.72	0.52
1:I:501:GLY:HA3	1:I:512:GLU:CG	2.39	0.52
2:J:106:ALA:HB1	2:J:509:LEU:HD11	1.91	0.52
4:L:310:ILE:HG22	4:L:312:VAL:HG23	1.92	0.52
5:M:100:ILE:O	5:M:103:LEU:HB2	2.08	0.52
6:N:45:MET:HA	6:N:55:LEU:HA	1.91	0.52
6:N:105:ALA:C	6:N:107:ARG:H	2.10	0.52
6:N:167:THR:OG1	6:N:169:VAL:HB	2.09	0.52
6:N:231:ALA:O	6:N:351:SER:OG	2.22	0.52
8:P:423:ALA:HA	9:P:601:ADP:H2'	1.90	0.52
2:B:88:VAL:HG13	2:B:393:GLN:NE2	2.21	0.52
5:E:74:LEU:HG	5:E:93:GLN:CB	2.39	0.52
5:E:84:THR:HG22	5:E:86:ASP:N	2.19	0.52
5:E:498:LEU:HD11	5:E:512:VAL:HG23	1.91	0.52
7:G:66:GLY:HA2	7:G:69:ILE:HG22	1.92	0.52
8:H:428:ILE:HD13	8:H:478:LEU:HD13	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:36:VAL:HG13	1:I:70:LEU:HD22	1.89	0.52
4:L:241:ILE:HD13	4:L:292:ILE:HG23	1.92	0.52
6:N:129:SER:HB2	6:N:426:LEU:HD23	1.91	0.52
7:O:420:VAL:CG2	7:O:446:LEU:HD13	2.38	0.52
1:A:458:ILE:N	1:A:458:ILE:HD12	2.24	0.52
2:B:407:ALA:O	2:B:411:MET:HG2	2.10	0.52
4:D:198:LYS:HD3	4:D:198:LYS:H	1.74	0.52
6:F:76:ILE:CG2	6:F:95:VAL:HG13	2.39	0.52
6:F:129:SER:HB2	6:F:426:LEU:HD23	1.91	0.52
6:F:406:LEU:HB3	6:F:407:LYS:NZ	2.24	0.52
2:J:102:LEU:O	2:J:105:GLU:HB2	2.10	0.52
2:J:514:ILE:HG22	2:J:515:ILE:N	2.24	0.52
3:K:320:VAL:CG1	3:K:324:ASP:HB3	2.40	0.52
4:L:69:ALA:O	8:P:15:LYS:HE2	2.09	0.52
5:M:355:ALA:HB2	5:M:362:ILE:HD11	1.90	0.52
5:M:498:LEU:HD11	5:M:512:VAL:HG23	1.91	0.52
5:M:544:LEU:HD23	6:N:384:THR:CG2	2.40	0.52
6:N:171:THR:O	6:N:175:THR:OG1	2.24	0.52
8:P:463:LEU:HD11	9:P:601:ADP:H8	1.73	0.52
2:B:102:LEU:HD21	2:B:124:TYR:CD2	2.45	0.52
5:E:166:ASP:N	5:E:167:ASP:CB	2.66	0.52
5:E:186:THR:HG23	5:E:187:SER:N	2.24	0.52
6:F:143:LEU:HD11	6:F:145:ASN:CG	2.29	0.52
7:G:516:LEU:HD13	7:G:517:ILE:H	1.75	0.52
8:H:54:ILE:HG13	8:H:64:ILE:CG1	2.15	0.52
8:H:160:LEU:HA	8:H:163:ILE:HG22	1.92	0.52
2:J:102:LEU:HD21	2:J:124:TYR:CD2	2.45	0.52
2:J:245:ILE:O	2:J:246:PHE:CG	2.62	0.52
2:J:319:LEU:CD2	2:J:357:SER:OG	2.57	0.52
5:M:48:LYS:O	5:M:51:ILE:HG22	2.09	0.52
5:M:58:ALA:HB3	5:M:127:SER:HB3	1.91	0.52
7:O:91:ASP:O	7:O:95:GLY:CA	2.57	0.52
8:P:138:THR:HG21	8:P:452:PHE:CE1	2.45	0.52
8:P:160:LEU:HA	8:P:163:ILE:HG22	1.92	0.52
2:B:106:ALA:HB1	2:B:509:LEU:HD11	1.91	0.52
2:B:295:GLU:HB2	6:F:337:GLN:CD	2.29	0.52
3:C:320:VAL:CG1	3:C:324:ASP:HB3	2.40	0.52
3:C:341:GLU:OE1	8:H:281:GLU:OE1	2.28	0.52
3:C:413:SER:HB3	3:C:419:THR:HG21	1.91	0.52
5:E:37:ASN:HD22	6:N:114:HIS:CD2	2.27	0.52
4:L:85:GLN:NE2	4:L:507:ALA:HB2	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:195:ARG:O	4:L:196:LEU:HD23	2.10	0.52
4:L:263:ILE:O	4:L:263:ILE:HD13	2.09	0.52
6:N:436:ALA:HA	6:N:437:LYS:HE2	1.92	0.52
2:B:30:GLY:CA	2:B:33:VAL:CG2	2.86	0.52
2:B:153:LEU:HB3	2:B:178:THR:HG22	1.92	0.52
2:B:245:ILE:O	2:B:246:PHE:CB	2.56	0.52
3:C:320:VAL:O	3:C:321:LYS:O	2.28	0.52
4:D:94:THR:O	4:D:98:ILE:HG12	2.10	0.52
4:D:135:LEU:HD11	4:D:411:ILE:HD11	1.92	0.52
4:D:219:ALA:HB1	4:D:221:LYS:HZ3	1.74	0.52
4:D:292:ILE:HG13	4:D:293:LEU:CA	2.40	0.52
7:G:91:ASP:O	7:G:95:GLY:CA	2.57	0.52
7:G:243:SER:HB2	7:G:334:ILE:HD13	1.92	0.52
8:H:229:ASN:HA	8:H:368:VAL:HG22	1.91	0.52
1:I:226:CYS:SG	1:I:318:VAL:HG12	2.50	0.52
2:J:102:LEU:HD21	2:J:124:TYR:HD2	1.74	0.52
2:J:159:THR:HG21	2:J:488:VAL:N	2.25	0.52
2:J:376:THR:HA	2:J:379:GLU:HB2	1.91	0.52
3:K:60:ASP:OD1	3:K:93:THR:HG21	2.10	0.52
7:O:307:PHE:CD1	7:O:312:ILE:HG23	2.44	0.52
1:A:147:SER:OG	1:A:418:VAL:HB	2.10	0.52
1:A:344:LEU:CD1	1:A:345:GLU:H	2.23	0.52
2:B:64:LEU:HD23	2:B:67:ILE:HD12	1.91	0.52
2:B:68:PRO:HG2	6:F:536:ALA:HB2	1.92	0.52
2:B:245:ILE:O	2:B:246:PHE:CG	2.62	0.52
4:D:85:GLN:NE2	4:D:507:ALA:HB2	2.25	0.52
4:D:178:VAL:CG1	4:D:401:ILE:HD11	2.40	0.52
6:F:16:ASP:CA	6:F:19:LEU:HD12	2.28	0.52
6:F:420:ILE:CB	6:F:482:ASP:OD1	2.58	0.52
6:F:515:ASN:ND2	6:F:516:ALA:N	2.58	0.52
7:G:156:GLU:OE1	7:G:157:LEU:HB2	2.10	0.52
7:G:303:ALA:O	7:G:307:PHE:HD2	1.93	0.52
8:H:138:THR:HG21	8:H:452:PHE:CE1	2.45	0.52
2:J:231:ILE:HD13	2:J:282:ASN:HB2	1.92	0.52
2:J:256:ALA:HB1	3:K:266:GLU:OE2	2.10	0.52
2:J:407:ALA:O	2:J:411:MET:HG2	2.10	0.52
4:L:449:VAL:O	4:L:453:THR:HG23	2.10	0.52
5:M:74:LEU:HG	5:M:93:GLN:CB	2.39	0.52
5:M:88:ALA:HB1	5:M:109:LYS:HZ2	1.72	0.52
6:N:420:ILE:CB	6:N:482:ASP:OD1	2.58	0.52
1:A:501:GLY:HA3	1:A:512:GLU:CG	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:102:LEU:O	2:B:105:GLU:HB2	2.10	0.52
2:B:514:ILE:HG22	2:B:515:ILE:N	2.24	0.52
3:C:165:ILE:HA	3:C:168:SER:HB3	1.91	0.52
4:D:241:ILE:HD13	4:D:292:ILE:HG23	1.91	0.52
5:E:450:MET:HE3	5:E:454:VAL:HG23	1.92	0.52
6:F:57:LYS:NZ	6:F:57:LYS:O	2.40	0.52
6:F:137:LYS:O	6:F:138:ILE:HB	2.10	0.52
6:F:353:LEU:O	6:F:367:VAL:HG12	2.09	0.52
7:G:424:LEU:O	7:G:427:TYR:N	2.43	0.52
2:J:141:ASP:CG	2:J:142:ASN:H	2.13	0.52
2:J:371:GLY:O	2:J:372:ALA:C	2.49	0.52
4:L:20:VAL:HG13	4:L:524:ILE:HD12	1.92	0.52
4:L:292:ILE:HG13	4:L:293:LEU:CA	2.40	0.52
4:L:521:ILE:CD1	7:O:62:ILE:HD12	2.36	0.52
6:N:36:ASN:HA	6:N:57:LYS:CD	2.38	0.52
6:N:143:LEU:CD1	6:N:145:ASN:OD1	2.58	0.52
6:N:193:MET:HE2	6:N:330:LEU:HD11	1.92	0.52
6:N:342:ASP:O	6:N:345:PRO:HD3	2.10	0.52
6:N:367:VAL:HG12	6:N:369:GLU:O	2.10	0.52
6:N:488:TYR:O	6:N:489:VAL:HB	2.10	0.52
7:O:243:SER:HB2	7:O:334:ILE:HD13	1.92	0.52
7:O:303:ALA:O	7:O:307:PHE:HD2	1.92	0.52
1:A:345:GLU:CD	1:A:346:GLY:HA2	2.30	0.52
2:B:159:THR:HG21	2:B:488:VAL:N	2.25	0.52
4:D:419:ILE:O	4:D:423:ARG:HG3	2.09	0.52
5:E:93:GLN:NE2	5:E:93:GLN:HA	2.23	0.52
6:F:143:LEU:HD13	6:F:145:ASN:CB	2.40	0.52
8:H:67:ASP:HB3	8:H:70:THR:OG1	2.08	0.52
8:H:243:LYS:HB3	8:H:244:LYS:CE	2.40	0.52
1:I:345:GLU:CD	1:I:346:GLY:HA2	2.30	0.52
2:J:198:ILE:O	2:J:377:LEU:CD2	2.55	0.52
4:L:94:THR:O	4:L:98:ILE:HG12	2.10	0.52
4:L:419:ILE:O	4:L:423:ARG:HG3	2.10	0.52
5:M:450:MET:HE3	5:M:454:VAL:HG23	1.92	0.52
6:N:416:GLY:HA2	6:N:419:TYR:CD2	2.44	0.52
7:O:516:LEU:HD13	7:O:517:ILE:H	1.75	0.52
1:A:549:PRO:HA	5:E:77:PRO:O	2.10	0.51
3:C:104:LEU:CD1	3:C:520:LEU:HD12	2.39	0.51
3:C:491:ILE:HD13	3:C:491:ILE:H	1.75	0.51
4:D:310:ILE:HG22	4:D:312:VAL:HG23	1.91	0.51
5:E:509:ASN:O	5:E:521:ASP:HA	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:92:THR:OG1	9:F:601:ADP:O2B	2.28	0.51
6:F:143:LEU:CD1	6:F:145:ASN:OD1	2.58	0.51
6:F:167:THR:OG1	6:F:169:VAL:HB	2.09	0.51
6:F:276:LYS:O	6:F:279:ASP:N	2.43	0.51
6:F:488:TYR:O	6:F:489:VAL:HG12	2.10	0.51
7:G:377:LEU:O	7:G:377:LEU:HD22	2.09	0.51
2:J:45:LEU:HB2	6:N:533:LEU:HB2	1.92	0.51
2:J:250:PHE:CA	6:N:250:GLY:O	2.56	0.51
4:L:226:PRO:CB	4:L:311:MET:HG2	2.40	0.51
6:N:201:HIS:HB3	6:N:381:LYS:HZ3	1.74	0.51
6:N:406:LEU:HD22	6:N:407:LYS:HZ1	1.75	0.51
8:P:463:LEU:CD1	9:P:601:ADP:H8	2.23	0.51
2:B:43:ASP:OD1	6:F:529:LEU:HD22	2.11	0.51
2:B:141:ASP:CG	2:B:142:ASN:H	2.13	0.51
2:B:319:LEU:HD11	2:B:355:LYS:O	2.10	0.51
4:D:226:PRO:CB	4:D:311:MET:HG2	2.40	0.51
5:E:197:HIS:O	5:E:200:PHE:N	2.44	0.51
5:E:310:ILE:HD11	5:E:331:ALA:HB1	1.91	0.51
5:E:431:ARG:O	5:E:434:VAL:HG12	2.10	0.51
6:F:356:GLN:CB	6:F:365:THR:HG22	2.40	0.51
6:F:485:GLU:O	6:F:486:THR:C	2.48	0.51
6:F:488:TYR:O	6:F:489:VAL:HB	2.10	0.51
2:J:153:LEU:HB3	2:J:178:THR:HG22	1.92	0.51
7:O:225:SER:O	7:O:226:TYR:HB3	2.10	0.51
7:O:242:LEU:HB2	7:O:293:VAL:HG12	1.93	0.51
3:C:38:CYS:HA	3:C:44:MET:H	1.75	0.51
4:D:192:ASN:HB2	7:G:361:ARG:HH21	1.76	0.51
5:E:197:HIS:O	5:E:198:ASP:C	2.49	0.51
6:F:39:PRO:HA	6:F:160:THR:CB	2.40	0.51
6:F:342:ASP:O	6:F:345:PRO:HD3	2.10	0.51
3:K:49:LEU:HD21	3:K:55:LEU:HD23	1.92	0.51
3:K:250:LEU:N	3:K:250:LEU:HD23	2.26	0.51
4:L:147:ARG:HG2	4:L:148:GLU:H	1.74	0.51
5:M:431:ARG:O	5:M:434:VAL:HG12	2.10	0.51
6:N:92:THR:HG23	10:N:602:BEF:F3	2.00	0.51
6:N:138:ILE:O	6:N:138:ILE:CG2	2.58	0.51
6:N:356:GLN:CB	6:N:365:THR:HG22	2.40	0.51
7:O:413:GLY:CA	7:O:491:ASN:HD21	2.22	0.51
8:P:304:GLY:N	8:P:323:VAL:HG11	2.26	0.51
2:B:164:LYS:O	2:B:165:ILE:C	2.48	0.51
2:B:242:LYS:HE2	2:B:247:GLY:H	1.69	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:8:ASN:C	4:D:10:THR:H	2.14	0.51
5:E:76:SER:HB2	5:E:79:GLY:H	1.75	0.51
6:F:129:SER:O	6:F:422:LEU:HD23	2.10	0.51
7:G:418:MET:HE3	7:G:447:GLU:HG2	1.93	0.51
8:H:163:ILE:CG2	8:H:179:SER:HB2	2.40	0.51
2:J:88:VAL:HG13	2:J:393:GLN:NE2	2.21	0.51
3:K:165:ILE:HA	3:K:168:SER:HB3	1.91	0.51
5:M:76:SER:HB2	5:M:79:GLY:H	1.75	0.51
5:M:186:THR:HG23	5:M:187:SER:N	2.24	0.51
5:M:197:HIS:O	5:M:198:ASP:C	2.49	0.51
6:N:488:TYR:O	6:N:489:VAL:HG12	2.10	0.51
1:A:12:THR:HB	5:E:96:LEU:HA	1.91	0.51
4:D:147:ARG:HG2	4:D:148:GLU:H	1.74	0.51
4:D:390:THR:O	4:D:394:LEU:HD23	2.10	0.51
5:E:341:PRO:O	5:E:343:VAL:HG23	2.11	0.51
6:F:92:THR:OG1	9:F:601:ADP:O3B	2.28	0.51
6:F:143:LEU:HD13	6:F:145:ASN:OD1	2.10	0.51
7:G:242:LEU:HB2	7:G:293:VAL:HG12	1.92	0.51
8:H:452:PHE:CE1	8:H:456:PHE:HE2	2.28	0.51
2:J:93:THR:HG21	9:J:601:ADP:O3B	2.10	0.51
2:J:319:LEU:HD11	2:J:355:LYS:O	2.10	0.51
5:M:166:ASP:N	5:M:167:ASP:CB	2.66	0.51
5:M:197:HIS:O	5:M:200:PHE:N	2.44	0.51
6:N:424:ARG:HD3	6:N:483:SER:OG	2.11	0.51
8:P:31:SER:O	8:P:35:ILE:HG12	2.11	0.51
1:A:258:MET:HA	1:A:258:MET:HE3	1.93	0.51
2:B:402:LEU:CD1	2:B:483:ARG:HE	2.24	0.51
3:C:153:LYS:HD3	3:C:500:TRP:CD1	2.46	0.51
4:D:298:ASN:CB	4:D:299:ASP:HA	2.37	0.51
6:F:114:HIS:HA	5:M:37:ASN:HB2	1.92	0.51
6:F:354:VAL:HA	6:F:367:VAL:HA	1.93	0.51
7:G:126:MET:HA	7:G:126:MET:CE	2.40	0.51
7:G:126:MET:HA	7:G:126:MET:HE2	1.92	0.51
7:G:225:SER:O	7:G:226:TYR:HB3	2.10	0.51
1:I:350:PHE:CD2	1:I:351:GLU:N	2.72	0.51
2:J:46:LEU:HD11	2:J:63:ILE:HA	1.93	0.51
3:K:47:MET:HE2	3:K:49:LEU:HD21	1.93	0.51
3:K:104:LEU:CD1	3:K:520:LEU:HD12	2.39	0.51
3:K:320:VAL:O	3:K:321:LYS:O	2.28	0.51
5:M:509:ASN:O	5:M:521:ASP:HA	2.09	0.51
6:N:56:THR:OG1	6:N:61:VAL:HG11	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:143:LEU:HD13	6:N:145:ASN:CB	2.40	0.51
6:N:209:PHE:HB2	6:N:378:ILE:CB	2.40	0.51
8:P:15:LYS:HE3	8:P:16:GLN:N	2.26	0.51
8:P:163:ILE:CG2	8:P:179:SER:HB2	2.40	0.51
8:P:243:LYS:HB3	8:P:244:LYS:CE	2.41	0.51
1:A:226:CYS:SG	1:A:318:VAL:HG12	2.50	0.51
2:B:371:GLY:O	2:B:372:ALA:C	2.49	0.51
2:B:442:THR:HG23	2:B:452:SER:CB	2.34	0.51
4:D:449:VAL:O	4:D:453:THR:HG23	2.10	0.51
5:E:55:ARG:NH2	5:E:134:LEU:HD13	2.26	0.51
5:E:227:GLN:O	5:E:407:PHE:HA	2.09	0.51
7:G:292:ILE:HA	7:G:313:PHE:O	2.10	0.51
3:K:38:CYS:HA	3:K:44:MET:H	1.75	0.51
5:M:506:LYS:C	5:M:507:ILE:HD12	2.31	0.51
6:N:151:LEU:CD2	6:N:175:THR:HG23	2.41	0.51
6:N:167:THR:HG22	6:N:168:GLU:HB3	1.93	0.51
7:O:126:MET:HA	7:O:126:MET:CE	2.40	0.51
7:O:156:GLU:OE1	7:O:157:LEU:HB2	2.10	0.51
7:O:459:PHE:HB3	7:O:460:ASP:HB3	1.93	0.51
8:P:250:PHE:CE2	8:P:299:ILE:HD12	2.45	0.51
2:B:375:GLN:HE22	6:F:75:LEU:HB2	1.75	0.51
3:C:60:ASP:OD1	3:C:93:THR:HG21	2.10	0.51
3:C:109:PRO:O	3:C:113:GLU:HG2	2.11	0.51
3:C:335:THR:CB	8:H:237:LYS:HE2	2.30	0.51
4:D:221:LYS:HE2	4:D:225:GLY:CA	2.41	0.51
6:F:167:THR:HG22	6:F:168:GLU:HB3	1.93	0.51
6:F:436:ALA:HA	6:F:437:LYS:HE2	1.92	0.51
1:I:147:SER:OG	1:I:418:VAL:HB	2.10	0.51
3:K:266:GLU:CD	3:K:266:GLU:N	2.64	0.51
3:K:491:ILE:HD13	3:K:491:ILE:H	1.75	0.51
6:N:39:PRO:HA	6:N:160:THR:CB	2.41	0.51
6:N:143:LEU:HD13	6:N:145:ASN:OD1	2.10	0.51
6:N:230:ASN:H	6:N:353:LEU:HD23	1.76	0.51
6:N:354:VAL:HA	6:N:367:VAL:HA	1.93	0.51
6:N:437:LYS:HE2	6:N:437:LYS:CA	2.33	0.51
6:N:515:ASN:ND2	6:N:516:ALA:N	2.58	0.51
5:E:483:LEU:HD11	9:E:601:ADP:H1'	1.92	0.51
6:F:367:VAL:HG12	6:F:369:GLU:O	2.10	0.51
8:H:304:GLY:N	8:H:323:VAL:HG11	2.26	0.51
1:I:104:ILE:HG12	1:I:458:ILE:HD11	1.93	0.51
1:I:221:GLY:HA3	1:I:374:ILE:O	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:225:ASN:C	1:I:225:ASN:HD22	2.13	0.51
2:J:422:ILE:HG22	2:J:424:GLY:H	1.75	0.51
3:K:109:PRO:O	3:K:113:GLU:HG2	2.11	0.51
3:K:153:LYS:HD3	3:K:500:TRP:CD1	2.46	0.51
4:L:8:ASN:C	4:L:10:THR:H	2.14	0.51
5:M:45:GLU:C	5:M:47:LYS:H	2.14	0.51
6:N:16:ASP:CA	6:N:19:LEU:HD12	2.28	0.51
6:N:129:SER:O	6:N:422:LEU:HD23	2.10	0.51
6:N:484:ASP:N	6:N:484:ASP:OD1	2.44	0.51
8:P:29:ILE:O	8:P:32:ILE:HG22	2.11	0.51
1:A:159:ILE:HD12	1:A:412:THR:HG21	1.93	0.51
1:A:351:GLU:O	1:A:353:SER:N	2.44	0.51
3:C:269:TRP:HZ3	6:F:247:VAL:HB	1.76	0.51
6:F:151:LEU:CD2	6:F:175:THR:HG23	2.41	0.51
6:F:230:ASN:H	6:F:353:LEU:HD23	1.76	0.51
4:L:390:THR:O	4:L:394:LEU:HD23	2.10	0.51
4:L:450:ILE:HB	4:L:451:PRO:HD3	1.93	0.51
5:M:90:ILE:O	5:M:94:MET:HG2	2.11	0.51
5:M:513:ASP:OD2	5:M:525:LEU:HD13	2.11	0.51
7:O:62:ILE:O	7:O:63:SER:HB3	2.11	0.51
7:O:292:ILE:HA	7:O:313:PHE:O	2.10	0.51
2:B:46:LEU:HD11	2:B:63:ILE:HA	1.93	0.50
3:C:242:ARG:CB	3:C:292:PRO:HA	2.42	0.50
3:C:266:GLU:CD	3:C:266:GLU:N	2.64	0.50
6:F:56:THR:OG1	6:F:61:VAL:HG11	2.10	0.50
6:F:90:GLY:O	6:F:94:VAL:CG2	2.34	0.50
6:F:424:ARG:HD3	6:F:483:SER:OG	2.11	0.50
6:F:433:LYS:O	6:F:436:ALA:O	2.30	0.50
2:J:46:LEU:HD11	2:J:63:ILE:HD12	1.93	0.50
2:J:242:LYS:HE3	2:J:247:GLY:N	2.25	0.50
2:J:271:ASN:ND2	2:J:328:THR:OG1	2.44	0.50
4:L:135:LEU:HD11	4:L:411:ILE:HD11	1.92	0.50
4:L:198:LYS:HD3	4:L:198:LYS:H	1.74	0.50
4:L:229:LYS:CB	4:L:232:ALA:HB2	2.42	0.50
6:N:433:LYS:O	6:N:436:ALA:O	2.30	0.50
7:O:66:GLY:HA2	7:O:69:ILE:HG22	1.92	0.50
7:O:115:PHE:CD1	7:O:437:MET:HB3	2.46	0.50
8:P:452:PHE:CE1	8:P:456:PHE:HE2	2.28	0.50
1:A:225:ASN:C	1:A:225:ASN:HD22	2.14	0.50
4:D:20:VAL:HG13	4:D:524:ILE:HD12	1.92	0.50
4:D:30:SER:O	4:D:33:ASP:HB2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:513:ASP:OD2	5:E:525:LEU:HD13	2.11	0.50
6:F:484:ASP:N	6:F:484:ASP:OD1	2.44	0.50
8:H:226:MET:HA	8:H:383:THR:OG1	2.11	0.50
1:I:351:GLU:O	1:I:353:SER:N	2.44	0.50
2:J:3:VAL:HB	2:J:4:GLN:OE1	2.12	0.50
3:K:242:ARG:CB	3:K:292:PRO:HA	2.42	0.50
5:M:341:PRO:O	5:M:343:VAL:HG23	2.11	0.50
6:N:137:LYS:O	6:N:138:ILE:HB	2.10	0.50
6:N:353:LEU:O	6:N:367:VAL:HG12	2.09	0.50
6:N:485:GLU:O	6:N:486:THR:C	2.48	0.50
2:B:34:LYS:O	2:B:37:LEU:HG	2.12	0.50
2:B:490:SER:HB2	2:B:492:LYS:NZ	2.26	0.50
4:D:115:ILE:HG21	4:D:439:ILE:HG13	1.94	0.50
4:L:386:ILE:C	4:L:388:ASP:H	2.15	0.50
4:L:418:GLU:HG3	4:L:447:LEU:O	2.11	0.50
5:M:88:ALA:CB	5:M:119:THR:HB	2.29	0.50
5:M:556:ILE:HG23	6:N:47:VAL:HB	1.93	0.50
6:N:440:THR:O	6:N:444:ILE:HG12	2.12	0.50
7:O:346:LEU:HD23	7:O:346:LEU:H	1.76	0.50
8:P:31:SER:CB	8:P:79:HIS:HE1	2.24	0.50
8:P:287:MET:O	8:P:291:ILE:HG12	2.12	0.50
1:A:221:GLY:HA3	1:A:374:ILE:O	2.11	0.50
2:B:3:VAL:HB	2:B:4:GLN:OE1	2.12	0.50
2:B:367:ILE:HG23	2:B:367:ILE:O	2.11	0.50
5:E:273:THR:O	5:E:274:CYS:CB	2.59	0.50
6:F:541:LEU:HB3	6:F:543:GLU:N	2.26	0.50
8:H:49:CYS:O	8:H:466:THR:CB	2.57	0.50
1:I:379:LYS:HD2	1:I:379:LYS:N	2.26	0.50
3:K:170:LYS:C	3:K:170:LYS:HD3	2.32	0.50
3:K:465:ILE:N	3:K:465:ILE:HD12	2.26	0.50
3:K:475:HIS:O	3:K:478:GLY:O	2.28	0.50
4:L:198:LYS:HD3	4:L:198:LYS:N	2.27	0.50
5:M:131:ASP:O	5:M:134:LEU:HB3	2.12	0.50
5:M:364:PRO:O	5:M:365:ARG:CB	2.59	0.50
6:N:538:ARG:CG	6:N:538:ARG:NH1	2.72	0.50
7:O:171:ILE:O	7:O:171:ILE:HG22	2.12	0.50
1:A:147:SER:HB3	1:A:418:VAL:O	2.11	0.50
1:A:161:LYS:HA	1:A:164:MET:HG2	1.93	0.50
1:A:379:LYS:HD2	1:A:379:LYS:N	2.26	0.50
2:B:292:ASP:HA	2:B:295:GLU:CD	2.32	0.50
3:C:475:HIS:O	3:C:478:GLY:O	2.28	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:450:ILE:HB	4:D:451:PRO:HD3	1.93	0.50
5:E:171:SER:HA	5:E:438:ARG:HA	1.93	0.50
5:E:210:ASN:HD22	5:E:210:ASN:N	2.08	0.50
5:E:364:PRO:O	5:E:365:ARG:CB	2.59	0.50
5:E:506:LYS:C	5:E:507:ILE:HD12	2.31	0.50
6:F:440:THR:O	6:F:444:ILE:HG12	2.12	0.50
1:I:147:SER:HB3	1:I:418:VAL:O	2.11	0.50
1:I:159:ILE:HD12	1:I:412:THR:HG21	1.93	0.50
4:L:430:ARG:O	4:L:431:SER:C	2.50	0.50
5:M:55:ARG:NH2	5:M:134:LEU:HD13	2.26	0.50
6:N:124:ILE:HB	6:N:444:ILE:HD12	1.94	0.50
6:N:167:THR:HA	6:N:168:GLU:CB	2.40	0.50
6:N:489:VAL:O	6:N:489:VAL:HG13	2.11	0.50
2:B:3:VAL:C	2:B:5:ILE:HG12	2.32	0.50
2:B:46:LEU:HD11	2:B:63:ILE:HD12	1.93	0.50
2:B:271:ASN:ND2	2:B:328:THR:OG1	2.44	0.50
3:C:250:LEU:N	3:C:250:LEU:HD23	2.26	0.50
3:C:465:ILE:N	3:C:465:ILE:HD12	2.26	0.50
6:F:209:PHE:HB2	6:F:378:ILE:CB	2.40	0.50
7:G:455:GLU:CG	7:G:461:ALA:HB3	2.42	0.50
7:G:459:PHE:HB3	7:G:460:ASP:HB3	1.93	0.50
1:I:129:PHE:HB3	1:I:532:LEU:HD21	1.93	0.50
2:J:422:ILE:O	2:J:423:ASP:OD2	2.30	0.50
2:J:464:TYR:HA	2:J:467:ILE:CD1	2.42	0.50
4:L:178:VAL:CG1	4:L:401:ILE:HD11	2.40	0.50
6:N:436:ALA:HA	6:N:437:LYS:CE	2.42	0.50
2:B:422:ILE:O	2:B:423:ASP:OD2	2.30	0.50
2:B:507:VAL:HG13	3:C:57:LEU:HD12	1.94	0.50
3:C:49:LEU:HD21	3:C:55:LEU:HD23	1.93	0.50
4:D:60:ASP:HB3	4:D:63:THR:OG1	2.12	0.50
5:E:90:ILE:O	5:E:94:MET:HG2	2.11	0.50
6:F:167:THR:HA	6:F:168:GLU:CB	2.40	0.50
6:F:387:ALA:O	6:F:391:THR:HG23	2.12	0.50
6:F:411:ILE:CG2	6:F:412:ILE:H	2.16	0.50
7:G:191:ARG:NH1	7:G:192:ASN:HB2	2.27	0.50
8:H:31:SER:CB	8:H:79:HIS:HE1	2.25	0.50
8:H:31:SER:O	8:H:35:ILE:HG12	2.11	0.50
8:H:79:HIS:ND1	8:H:81:ALA:HB3	2.27	0.50
1:I:344:LEU:CD1	1:I:345:GLU:H	2.23	0.50
5:M:535:LYS:O	5:M:539:LEU:HG	2.11	0.50
6:N:193:MET:HB3	6:N:330:LEU:HD12	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:409:LYS:HD3	6:N:409:LYS:N	2.16	0.50
6:N:430:ASN:O	6:N:433:LYS:CA	2.60	0.50
1:A:104:ILE:HG12	1:A:458:ILE:HD11	1.93	0.50
2:B:131:ALA:HB2	2:B:415:VAL:CG2	2.42	0.50
2:B:231:ILE:HD13	2:B:282:ASN:HB2	1.92	0.50
2:B:423:ASP:O	2:B:423:ASP:OD1	2.30	0.50
3:C:170:LYS:C	3:C:170:LYS:HD3	2.32	0.50
6:F:436:ALA:HA	6:F:437:LYS:CE	2.42	0.50
6:F:489:VAL:O	6:F:489:VAL:HG13	2.11	0.50
7:G:75:VAL:O	7:G:81:LYS:HE3	2.12	0.50
7:G:115:PHE:CD1	7:G:437:MET:HB3	2.46	0.50
7:G:193:ASP:O	7:G:193:ASP:OD1	2.30	0.50
8:H:29:ILE:O	8:H:32:ILE:HG22	2.11	0.50
8:H:259:THR:HG21	8:H:263:GLY:HA3	1.94	0.50
2:J:490:SER:HB2	2:J:492:LYS:NZ	2.26	0.50
4:L:30:SER:O	4:L:33:ASP:HB2	2.11	0.50
4:L:115:ILE:HG21	4:L:439:ILE:HG13	1.94	0.50
6:N:387:ALA:O	6:N:391:THR:HG23	2.12	0.50
7:O:23:LYS:HA	7:O:26:ILE:HG22	1.93	0.50
7:O:193:ASP:O	7:O:193:ASP:OD1	2.30	0.50
2:B:236:THR:HA	2:B:287:ARG:HD2	1.94	0.50
2:B:464:TYR:HA	2:B:467:ILE:CD1	2.42	0.50
4:D:229:LYS:CB	4:D:232:ALA:HB2	2.42	0.50
4:D:418:GLU:HG3	4:D:447:LEU:O	2.11	0.50
4:D:430:ARG:O	4:D:431:SER:C	2.50	0.50
5:E:45:GLU:C	5:E:47:LYS:H	2.14	0.50
7:G:23:LYS:HA	7:G:26:ILE:HG22	1.93	0.50
7:G:483:PHE:CB	9:G:601:ADP:N6	2.74	0.50
8:H:15:LYS:HE3	8:H:16:GLN:N	2.26	0.50
1:I:92:ARG:HB3	5:M:388:THR:HA	1.93	0.50
2:J:235:ASN:ND2	3:K:304:LEU:HD21	2.27	0.50
3:K:29:LYS:O	3:K:33:ASP:HB2	2.12	0.50
4:L:195:ARG:O	4:L:376:SER:HA	2.12	0.50
5:M:264:SER:O	5:M:266:GLY:O	2.30	0.50
5:M:509:ASN:HB3	5:M:521:ASP:CB	2.36	0.50
6:N:195:GLU:OE1	6:N:197:MET:HE2	2.11	0.50
6:N:232:TYR:HA	6:N:351:SER:OG	2.12	0.50
7:O:57:ASN:O	7:O:58:GLN:NE2	2.45	0.50
8:P:83:LYS:O	8:P:87:MET:HG2	2.12	0.50
2:B:164:LYS:O	2:B:167:SER:N	2.40	0.49
4:D:198:LYS:HD3	4:D:198:LYS:N	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:406:LEU:O	6:F:406:LEU:HD23	2.12	0.49
7:G:117:GLU:CD	7:G:117:GLU:H	2.15	0.49
1:I:77:HIS:CG	1:I:78:PRO:HD2	2.47	0.49
2:J:34:LYS:O	2:J:37:LEU:HG	2.12	0.49
2:J:195:ILE:HG21	2:J:381:GLU:HB2	1.93	0.49
2:J:242:LYS:HE2	2:J:247:GLY:N	2.26	0.49
4:L:221:LYS:HE2	4:L:225:GLY:CA	2.41	0.49
5:M:132:GLN:HE21	5:M:132:GLN:HA	1.77	0.49
7:O:36:VAL:HG22	7:O:83:LEU:HD13	1.93	0.49
7:O:75:VAL:O	7:O:81:LYS:HE3	2.12	0.49
7:O:214:PHE:CD1	7:O:376:LEU:HB3	2.46	0.49
8:P:226:MET:HA	8:P:383:THR:OG1	2.11	0.49
1:A:129:PHE:HB3	1:A:532:LEU:HD21	1.93	0.49
2:B:4:GLN:O	3:C:72:HIS:CB	2.60	0.49
2:B:60:GLY:H	2:B:93:THR:CG2	2.25	0.49
3:C:29:LYS:O	3:C:33:ASP:HB2	2.12	0.49
5:E:509:ASN:HB3	5:E:521:ASP:CB	2.36	0.49
6:F:2:SER:C	6:F:3:LEU:HD22	2.32	0.49
6:F:23:VAL:HG22	6:F:102:LEU:CD1	2.42	0.49
6:F:171:THR:O	6:F:175:THR:OG1	2.24	0.49
7:G:346:LEU:HD23	7:G:346:LEU:H	1.76	0.49
8:H:83:LYS:O	8:H:87:MET:HG2	2.12	0.49
5:M:325:TRP:CG	5:M:326:GLY:N	2.80	0.49
6:N:215:LEU:HB3	6:N:217:HIS:CD2	2.36	0.49
6:N:406:LEU:O	6:N:406:LEU:HD23	2.12	0.49
6:N:491:VAL:HG12	6:N:492:ASP:N	2.27	0.49
7:O:117:GLU:CD	7:O:117:GLU:H	2.15	0.49
8:P:72:LEU:HA	8:P:75:LEU:HB2	1.94	0.49
8:P:259:THR:HG21	8:P:263:GLY:HA3	1.94	0.49
3:C:124:ALA:HB2	3:C:438:GLN:HE22	1.77	0.49
6:F:43:LEU:CD2	6:F:161:LYS:HA	2.40	0.49
6:F:193:MET:HB3	6:F:330:LEU:HD12	1.94	0.49
6:F:213:LEU:HD23	6:F:377:THR:CG2	2.40	0.49
7:G:236:PHE:O	7:G:351:LEU:HA	2.12	0.49
8:H:249:VAL:HG13	8:H:300:VAL:O	2.13	0.49
8:H:287:MET:O	8:H:291:ILE:HG12	2.12	0.49
2:J:42:MET:HB3	6:N:531:ASP:HB2	1.95	0.49
2:J:131:ALA:HB2	2:J:415:VAL:CG2	2.42	0.49
2:J:236:THR:HA	2:J:287:ARG:HD2	1.94	0.49
3:K:124:ALA:HB2	3:K:438:GLN:HE22	1.77	0.49
5:M:364:PRO:HG3	6:N:307:ASP:CB	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:154:ALA:O	6:N:157:SER:CB	2.60	0.49
6:N:229:LYS:C	6:N:231:ALA:H	2.16	0.49
8:P:301:ALA:O	8:P:323:VAL:HA	2.11	0.49
1:A:8:SER:N	2:J:21:SER:OG	2.43	0.49
1:A:77:HIS:CG	1:A:78:PRO:HD2	2.47	0.49
2:B:160:THR:HG21	2:B:390:VAL:HG21	1.94	0.49
2:B:195:ILE:HG21	2:B:381:GLU:HB2	1.93	0.49
6:F:71:PRO:HG2	6:F:533:LEU:HD12	1.94	0.49
6:F:121:GLY:O	6:F:444:ILE:HD13	2.12	0.49
6:F:124:ILE:HB	6:F:444:ILE:HD12	1.94	0.49
7:G:214:PHE:CD1	7:G:376:LEU:HB3	2.46	0.49
8:H:301:ALA:O	8:H:323:VAL:HA	2.11	0.49
1:I:161:LYS:HA	1:I:164:MET:HG2	1.93	0.49
2:J:170:LYS:HB2	2:J:170:LYS:NZ	2.28	0.49
3:K:16:THR:HA	3:K:525:ASP:HB3	1.95	0.49
4:L:246:PRO:HB2	4:L:250:ASN:CG	2.33	0.49
5:M:273:THR:O	5:M:274:CYS:CB	2.59	0.49
7:O:304:THR:HA	7:O:307:PHE:CE2	2.46	0.49
7:O:470:LEU:O	7:O:473:SER:OG	2.29	0.49
8:P:249:VAL:HG13	8:P:300:VAL:O	2.12	0.49
2:B:242:LYS:HE3	2:B:247:GLY:N	2.25	0.49
2:B:274:ALA:HB1	2:B:329:PHE:HA	1.94	0.49
2:B:409:MET:HA	2:B:409:MET:HE1	1.93	0.49
3:C:103:ILE:HD12	3:C:445:VAL:HG22	1.95	0.49
5:E:84:THR:CG2	5:E:86:ASP:H	2.20	0.49
5:E:131:ASP:O	5:E:134:LEU:HB3	2.12	0.49
5:E:350:GLU:C	5:E:352:GLU:H	2.11	0.49
5:E:535:LYS:O	5:E:539:LEU:HG	2.11	0.49
6:F:280:LEU:HD23	6:F:280:LEU:N	2.27	0.49
6:F:446:ALA:HA	6:F:449:GLU:HG3	1.95	0.49
7:G:36:VAL:HG22	7:G:83:LEU:HD13	1.93	0.49
2:J:423:ASP:O	2:J:423:ASP:OD1	2.30	0.49
5:M:171:SER:HA	5:M:438:ARG:HA	1.93	0.49
6:N:446:ALA:HA	6:N:449:GLU:HG3	1.95	0.49
1:A:433:LEU:O	1:A:437:ALA:CB	2.61	0.49
5:E:132:GLN:HE21	5:E:132:GLN:HA	1.77	0.49
6:F:154:ALA:O	6:F:157:SER:CB	2.60	0.49
6:F:430:ASN:O	6:F:433:LYS:CA	2.60	0.49
7:G:317:ARG:O	7:G:317:ARG:CD	2.61	0.49
8:H:250:PHE:CE2	8:H:299:ILE:HD12	2.45	0.49
8:H:482:HIS:C	8:H:484:VAL:N	2.65	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:45:GLY:C	1:I:166:SER:HB2	2.33	0.49
1:I:433:LEU:O	1:I:437:ALA:CB	2.61	0.49
1:I:501:GLY:HA3	1:I:512:GLU:HG2	1.95	0.49
2:J:502:SER:HA	2:J:505:ALA:HB3	1.94	0.49
6:N:2:SER:C	6:N:3:LEU:HD22	2.32	0.49
6:N:458:LEU:HD12	6:N:458:LEU:C	2.33	0.49
7:O:191:ARG:NH1	7:O:192:ASN:HB2	2.27	0.49
7:O:236:PHE:O	7:O:351:LEU:HA	2.12	0.49
8:P:79:HIS:ND1	8:P:81:ALA:HB3	2.27	0.49
1:A:96:ASP:OD1	9:A:601:ADP:O1B	2.31	0.49
2:B:4:GLN:C	2:B:5:ILE:CG2	2.73	0.49
3:C:229:VAL:HG11	3:C:234:MET:HE2	1.95	0.49
3:C:430:LYS:O	3:C:433:GLN:CG	2.57	0.49
5:E:264:SER:O	5:E:266:GLY:O	2.30	0.49
6:F:61:VAL:O	6:F:65:GLU:HB2	2.13	0.49
6:F:237:ASN:HA	6:F:297:ASN:OD1	2.13	0.49
8:H:29:ILE:HG22	8:H:30:LYS:N	2.28	0.49
2:J:5:ILE:HD12	2:J:7:GLY:H	1.78	0.49
2:J:72:PRO:HB3	3:K:47:MET:HE3	1.95	0.49
2:J:183:ARG:O	2:J:184:LEU:CB	2.60	0.49
6:N:23:VAL:HG22	6:N:102:LEU:CD1	2.42	0.49
8:P:463:LEU:HD11	9:P:601:ADP:C8	2.48	0.49
4:D:46:LYS:HG3	8:H:532:THR:CG2	2.40	0.49
5:E:148:ASN:HA	5:E:151:ASP:HB2	1.95	0.49
6:F:232:TYR:HA	6:F:351:SER:OG	2.12	0.49
7:G:516:LEU:HD22	7:G:517:ILE:CA	2.42	0.49
1:I:12:THR:CG2	5:M:97:ASP:H	2.18	0.49
2:J:3:VAL:C	2:J:5:ILE:HG12	2.32	0.49
2:J:292:ASP:HA	2:J:295:GLU:CD	2.32	0.49
3:K:103:ILE:HD12	3:K:445:VAL:HG22	1.95	0.49
7:O:455:GLU:CG	7:O:461:ALA:HB3	2.42	0.49
8:P:79:HIS:CE1	8:P:81:ALA:HB3	2.48	0.49
2:B:32:LEU:HG	6:F:532:GLU:CD	2.33	0.49
2:B:32:LEU:HD11	6:F:532:GLU:CD	2.33	0.49
2:B:183:ARG:O	2:B:184:LEU:CB	2.60	0.49
2:B:464:TYR:HA	2:B:467:ILE:HD11	1.94	0.49
4:D:195:ARG:O	4:D:376:SER:HA	2.12	0.49
5:E:157:ALA:HA	5:E:450:MET:HE1	1.95	0.49
5:E:558:GLY:HA2	6:F:48:ASP:HB2	1.94	0.49
6:F:117:ILE:HD12	5:M:34:ASP:C	2.33	0.49
6:F:138:ILE:O	6:F:138:ILE:CG2	2.58	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:199:MET:O	6:F:381:LYS:HE2	2.13	0.49
7:G:43:THR:HG21	7:G:64:ASN:O	2.13	0.49
7:G:44:LEU:C	7:G:46:PRO:HD2	2.33	0.49
7:G:57:ASN:O	7:G:58:GLN:NE2	2.45	0.49
7:G:143:LEU:HD22	7:G:411:ALA:HB2	1.94	0.49
8:H:163:ILE:HG23	8:H:179:SER:CB	2.42	0.49
8:H:356:GLU:HB2	8:H:374:GLU:HA	1.95	0.49
1:I:13:LEU:HD22	1:I:14:PHE:H	1.78	0.49
2:J:160:THR:HG21	2:J:390:VAL:HG21	1.94	0.49
2:J:427:SER:O	2:J:430:VAL:HB	2.12	0.49
4:L:77:MET:HE1	7:O:384:GLN:HB2	1.94	0.49
4:L:209:MET:HE3	4:L:375:VAL:HG11	1.95	0.49
6:N:355:TYR:O	6:N:366:TYR:O	2.31	0.49
6:N:405:VAL:HG22	6:N:509:SER:HB2	1.94	0.49
7:O:29:ASN:OD1	7:O:79:ALA:HB2	2.12	0.49
7:O:317:ARG:O	7:O:317:ARG:CD	2.61	0.49
1:A:116:VAL:HG12	1:A:120:ILE:HG22	1.95	0.49
2:B:170:LYS:HB2	2:B:170:LYS:NZ	2.28	0.49
2:B:233:ILE:O	2:B:325:VAL:N	2.46	0.49
2:B:382:ARG:HG3	2:B:382:ARG:HH11	1.78	0.49
3:C:409:SER:C	3:C:411:SER:H	2.17	0.49
4:D:135:LEU:CD1	4:D:411:ILE:HD11	2.43	0.49
6:F:16:ASP:OD1	6:F:16:ASP:N	2.36	0.49
7:G:127:LYS:HD3	7:G:127:LYS:C	2.34	0.49
7:G:413:GLY:CA	7:G:491:ASN:HD21	2.22	0.49
1:I:132:ALA:HB2	1:I:448:ILE:HD13	1.94	0.49
2:J:459:LEU:HD13	2:J:472:LEU:CD2	2.43	0.49
3:K:430:LYS:O	3:K:433:GLN:CG	2.57	0.49
5:M:148:ASN:HA	5:M:151:ASP:HB2	1.95	0.49
6:N:121:GLY:O	6:N:444:ILE:HD13	2.12	0.49
7:O:44:LEU:C	7:O:46:PRO:HD2	2.33	0.49
7:O:44:LEU:HB2	7:O:456:ASN:ND2	2.28	0.49
7:O:127:LYS:HD3	7:O:127:LYS:C	2.34	0.49
8:P:49:CYS:O	8:P:466:THR:CB	2.57	0.49
1:A:14:PHE:CB	1:A:15:LEU:HA	2.43	0.48
1:A:121:HIS:CE1	5:E:68:ARG:HG3	2.48	0.48
1:A:132:ALA:HB2	1:A:448:ILE:HD13	1.94	0.48
4:D:254:VAL:CG2	4:D:254:VAL:O	2.61	0.48
7:G:62:ILE:O	7:G:63:SER:HB3	2.11	0.48
1:I:164:MET:CE	1:I:169:ILE:HB	2.43	0.48
2:J:60:GLY:H	2:J:93:THR:CG2	2.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:263:LYS:NZ	3:K:266:GLU:CG	2.76	0.48
2:J:464:TYR:HA	2:J:467:ILE:HD11	1.94	0.48
2:J:514:ILE:HG22	2:J:515:ILE:H	1.78	0.48
3:K:41:PRO:CA	3:K:161:THR:HG21	2.43	0.48
4:L:135:LEU:CD1	4:L:411:ILE:HD11	2.43	0.48
4:L:204:ILE:O	4:L:207:THR:HG23	2.13	0.48
4:L:325:SER:O	4:L:329:GLY:N	2.46	0.48
5:M:157:ALA:HA	5:M:450:MET:HE1	1.95	0.48
8:P:334:ARG:HD3	8:P:380:ARG:HH11	1.78	0.48
1:A:10:SER:O	1:A:11:ASP:O	2.31	0.48
1:A:45:GLY:C	1:A:166:SER:HB2	2.33	0.48
1:A:164:MET:CE	1:A:169:ILE:HB	2.43	0.48
2:B:5:ILE:HD12	2:B:7:GLY:H	1.78	0.48
2:B:263:LYS:HZ1	3:C:266:GLU:HG2	1.78	0.48
2:B:514:ILE:HG22	2:B:515:ILE:H	1.78	0.48
3:C:16:THR:HA	3:C:525:ASP:HB3	1.95	0.48
3:C:414:PRO:O	3:C:419:THR:HG23	2.14	0.48
5:E:189:GLY:O	5:E:190:SER:CB	2.61	0.48
5:E:547:MET:SD	6:F:387:ALA:HA	2.53	0.48
6:F:160:THR:N	6:F:164:ALA:CB	2.76	0.48
6:F:491:VAL:HG12	6:F:492:ASP:N	2.27	0.48
7:G:107:GLU:HG2	7:G:448:VAL:HG21	1.95	0.48
7:G:470:LEU:O	7:G:473:SER:OG	2.30	0.48
8:H:334:ARG:HD3	8:H:380:ARG:HH11	1.78	0.48
2:J:274:ALA:HB1	2:J:329:PHE:HA	1.94	0.48
2:J:382:ARG:HG3	2:J:382:ARG:HH11	1.78	0.48
2:J:463:ILE:CG2	2:J:464:TYR:N	2.76	0.48
5:M:193:VAL:O	5:M:193:VAL:HG12	2.14	0.48
7:O:145:VAL:O	7:O:408:LEU:CA	2.58	0.48
8:P:29:ILE:HG22	8:P:30:LYS:N	2.28	0.48
8:P:356:GLU:HB2	8:P:374:GLU:HA	1.95	0.48
1:A:13:LEU:HD22	1:A:14:PHE:H	1.78	0.48
2:B:57:THR:HG21	2:B:382:ARG:NH1	2.28	0.48
2:B:377:LEU:H	2:B:377:LEU:HD12	1.78	0.48
2:B:459:LEU:HD13	2:B:472:LEU:CD2	2.43	0.48
4:D:254:VAL:HG13	8:H:264:THR:O	2.14	0.48
6:F:229:LYS:C	6:F:231:ALA:H	2.16	0.48
6:F:275:LYS:O	6:F:276:LYS:C	2.52	0.48
7:G:29:ASN:OD1	7:G:79:ALA:HB2	2.12	0.48
7:G:44:LEU:HB2	7:G:456:ASN:ND2	2.28	0.48
8:H:72:LEU:HA	8:H:75:LEU:HB2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:264:ILE:O	1:I:264:ILE:HD12	2.13	0.48
1:I:540:ARG:HA	5:M:70:LEU:HD22	1.95	0.48
3:K:9:ASN:HD22	3:K:10:ALA:N	2.11	0.48
3:K:409:SER:C	3:K:411:SER:H	2.17	0.48
4:L:60:ASP:HB3	4:L:63:THR:OG1	2.12	0.48
5:M:240:ILE:HG12	5:M:244:ILE:HG21	1.94	0.48
6:N:160:THR:N	6:N:164:ALA:CB	2.76	0.48
6:N:199:MET:O	6:N:381:LYS:HE2	2.13	0.48
6:N:433:LYS:O	6:N:436:ALA:C	2.52	0.48
8:P:443:GLY:O	8:P:446:GLN:HG3	2.13	0.48
2:B:118:GLN:O	2:B:121:ILE:HG12	2.14	0.48
2:B:427:SER:O	2:B:430:VAL:HB	2.12	0.48
2:B:467:ILE:HA	2:B:468:SER:HA	1.59	0.48
3:C:9:ASN:HD22	3:C:10:ALA:N	2.11	0.48
4:D:8:ASN:OD1	4:D:8:ASN:O	2.31	0.48
4:D:204:ILE:O	4:D:207:THR:HG23	2.13	0.48
4:D:260:MET:O	4:D:263:ILE:HG22	2.13	0.48
4:D:386:ILE:C	4:D:388:ASP:H	2.15	0.48
6:F:405:VAL:HG22	6:F:509:SER:HB2	1.94	0.48
8:H:348:THR:O	8:H:352:LEU:HD23	2.13	0.48
2:J:442:THR:HG23	2:J:452:SER:CB	2.34	0.48
5:M:32:VAL:CG2	5:M:33:LYS:H	2.15	0.48
5:M:84:THR:CG2	5:M:86:ASP:H	2.20	0.48
6:N:83:GLN:CD	6:N:94:VAL:HG21	2.34	0.48
6:N:353:LEU:H	6:N:369:GLU:HB3	1.77	0.48
6:N:395:VAL:O	6:N:399:LEU:HB3	2.14	0.48
7:O:97:GLY:O	7:O:101:VAL:HG23	2.14	0.48
7:O:217:GLY:HA3	7:O:366:GLN:HA	1.95	0.48
8:P:248:ALA:HB2	8:P:352:LEU:HD13	1.95	0.48
2:B:502:SER:HA	2:B:505:ALA:HB3	1.94	0.48
3:C:9:ASN:ND2	3:C:10:ALA:H	2.11	0.48
6:F:105:ALA:C	6:F:107:ARG:N	2.67	0.48
6:F:355:TYR:O	6:F:366:TYR:O	2.31	0.48
7:G:214:PHE:O	7:G:214:PHE:CG	2.67	0.48
8:H:31:SER:HB2	8:H:79:HIS:HE1	1.78	0.48
8:H:85:LEU:HD13	8:H:107:ALA:HB1	1.95	0.48
1:I:10:SER:O	1:I:11:ASP:O	2.31	0.48
1:I:12:THR:CB	5:M:96:LEU:HA	2.43	0.48
2:J:57:THR:HG21	2:J:382:ARG:NH1	2.28	0.48
2:J:250:PHE:HA	6:N:250:GLY:C	2.32	0.48
6:N:61:VAL:O	6:N:65:GLU:HB2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:O:516:LEU:HD22	7:O:517:ILE:CA	2.42	0.48
8:P:27:GLN:O	8:P:31:SER:N	2.33	0.48
8:P:237:LYS:HB2	8:P:314:ASN:CB	2.31	0.48
2:B:463:ILE:CG2	2:B:464:TYR:N	2.76	0.48
4:D:246:PRO:HB2	4:D:250:ASN:CG	2.33	0.48
4:D:265:LYS:HZ2	8:H:343:ARG:HD3	1.74	0.48
4:D:523:ASP:O	7:G:51:ILE:CG2	2.53	0.48
6:F:47:VAL:HG12	6:F:48:ASP:N	2.28	0.48
7:G:171:ILE:O	7:G:171:ILE:HG22	2.12	0.48
4:L:81:VAL:HG21	4:L:514:CYS:SG	2.54	0.48
4:L:291:SER:HA	4:L:315:ASP:CA	2.44	0.48
6:N:486:THR:O	6:N:487:ARG:CB	2.62	0.48
7:O:108:LEU:O	7:O:108:LEU:HD23	2.13	0.48
1:A:494:ARG:CB	1:A:496:SER:H	2.21	0.48
4:D:448:GLU:C	4:D:451:PRO:HD2	2.34	0.48
5:E:215:ASP:O	5:E:216:ARG:CB	2.62	0.48
5:E:351:LEU:HD22	5:E:352:GLU:N	2.29	0.48
6:F:406:LEU:HD22	6:F:407:LYS:HZ1	1.78	0.48
6:F:486:THR:O	6:F:487:ARG:CB	2.62	0.48
8:H:65:THR:HG22	8:H:396:ASP:OD1	2.14	0.48
8:H:443:GLY:O	8:H:446:GLN:HG3	2.13	0.48
2:J:59:ASP:HB3	2:J:62:THR:OG1	2.14	0.48
2:J:206:SER:HB2	2:J:368:VAL:HG22	1.94	0.48
2:J:314:VAL:HG11	3:K:232:PRO:HD3	1.95	0.48
2:J:438:ARG:O	2:J:441:PRO:HG2	2.14	0.48
4:L:72:HIS:CD2	8:P:15:LYS:NZ	2.82	0.48
4:L:367:ARG:C	4:L:369:ASN:N	2.67	0.48
5:M:215:ASP:O	5:M:216:ARG:CB	2.62	0.48
6:N:237:ASN:HA	6:N:297:ASN:OD1	2.13	0.48
6:N:430:ASN:HA	6:N:433:LYS:HB2	1.96	0.48
7:O:500:ALA:O	7:O:504:ILE:HG13	2.14	0.48
8:P:85:LEU:HD13	8:P:107:ALA:HB1	1.95	0.48
1:A:92:ARG:HG2	5:E:388:THR:CB	2.43	0.48
1:A:156:LEU:HD23	1:A:156:LEU:O	2.14	0.48
6:F:22:ASN:O	6:F:72:THR:HG21	2.14	0.48
6:F:433:LYS:O	6:F:436:ALA:C	2.52	0.48
7:G:97:GLY:O	7:G:101:VAL:HG23	2.14	0.48
8:H:310:LEU:HD13	8:H:314:ASN:OD1	2.14	0.48
5:M:250:SER:HB3	5:M:342:ALA:O	2.14	0.48
6:N:332:THR:HB	6:N:351:SER:HA	1.96	0.48
6:N:414:GLY:O	6:N:415:ALA:CB	2.62	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:429:ALA:O	6:N:433:LYS:HD3	2.14	0.48
6:N:485:GLU:CG	6:N:489:VAL:HB	2.44	0.48
7:O:107:GLU:HG2	7:O:448:VAL:HG21	1.95	0.48
8:P:48:PRO:HB3	8:P:172:TYR:CD1	2.49	0.48
2:B:263:LYS:NZ	3:C:266:GLU:CB	2.77	0.48
3:C:479:ASN:HB3	3:C:482:THR:OG1	2.14	0.48
4:D:44:MET:HG3	8:H:531:ALA:CB	2.41	0.48
5:E:193:VAL:O	5:E:193:VAL:HG12	2.14	0.48
6:F:429:ALA:O	6:F:433:LYS:HD3	2.14	0.48
6:F:458:LEU:HD12	6:F:458:LEU:C	2.33	0.48
7:G:241:ILE:HG12	7:G:292:ILE:CG2	2.44	0.48
2:J:233:ILE:O	2:J:325:VAL:N	2.46	0.48
2:J:285:ILE:HD13	2:J:285:ILE:H	1.78	0.48
2:J:377:LEU:H	2:J:377:LEU:HD12	1.78	0.48
3:K:268:ASP:O	3:K:272:ILE:HG12	2.14	0.48
4:L:91:ASP:OD1	10:L:602:BEF:F1	2.22	0.48
5:M:351:LEU:HD22	5:M:352:GLU:N	2.29	0.48
5:M:373:LYS:HE2	6:N:311:LYS:HZ3	1.79	0.48
5:M:401:THR:C	5:M:402:LYS:CG	2.70	0.48
6:N:2:SER:HA	6:N:3:LEU:CB	2.35	0.48
7:O:43:THR:HB	7:O:99:THR:CG2	2.39	0.48
8:P:65:THR:HG22	8:P:396:ASP:OD1	2.14	0.48
1:A:94:ILE:HD12	1:A:94:ILE:N	2.29	0.48
1:A:264:ILE:O	1:A:264:ILE:HD12	2.14	0.48
1:A:501:GLY:HA3	1:A:512:GLU:HG2	1.95	0.48
3:C:268:ASP:O	3:C:272:ILE:HG12	2.14	0.48
3:C:471:LEU:HG	3:C:491:ILE:HG13	1.96	0.48
5:E:133:ALA:HB2	5:E:150:PHE:HE2	1.79	0.48
5:E:325:TRP:CG	5:E:326:GLY:N	2.80	0.48
6:F:83:GLN:CD	6:F:94:VAL:HG21	2.34	0.48
6:F:332:THR:HB	6:F:351:SER:HA	1.96	0.48
6:F:353:LEU:H	6:F:369:GLU:HB3	1.77	0.48
7:G:145:VAL:O	7:G:408:LEU:CA	2.58	0.48
7:G:455:GLU:N	7:G:461:ALA:HB2	2.29	0.48
8:H:48:PRO:HB3	8:H:172:TYR:CD1	2.49	0.48
1:I:116:VAL:HG12	1:I:120:ILE:HG22	1.95	0.48
1:I:351:GLU:C	1:I:353:SER:N	2.66	0.48
4:L:254:VAL:O	4:L:254:VAL:CG2	2.61	0.48
6:N:541:LEU:HB3	6:N:543:GLU:N	2.26	0.48
7:O:174:ASN:ND2	7:O:209:MET:SD	2.80	0.48
8:P:163:ILE:HG23	8:P:179:SER:CB	2.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:162:THR:HG21	1:A:518:LEU:O	2.13	0.47
2:B:32:LEU:CD1	6:F:532:GLU:CD	2.82	0.47
2:B:88:VAL:CG1	2:B:393:GLN:HE22	2.22	0.47
2:B:124:TYR:N	2:B:124:TYR:HD1	2.12	0.47
2:B:282:ASN:ND2	2:B:303:ILE:HB	2.29	0.47
3:C:39:LEU:CB	9:C:1101:ADP:O2A	2.62	0.47
3:C:225:LEU:HD13	3:C:320:VAL:HG11	1.96	0.47
4:D:81:VAL:HG21	4:D:514:CYS:SG	2.54	0.47
5:E:85:ASN:ND2	9:E:601:ADP:O3B	2.46	0.47
6:F:167:THR:CB	6:F:169:VAL:N	2.64	0.47
7:G:208:ALA:O	7:G:211:GLU:HB2	2.14	0.47
7:G:500:ALA:O	7:G:504:ILE:HG13	2.14	0.47
8:H:79:HIS:CE1	8:H:81:ALA:HB3	2.48	0.47
1:I:162:THR:HG21	1:I:518:LEU:O	2.13	0.47
3:K:225:LEU:HD13	3:K:320:VAL:HG11	1.96	0.47
3:K:471:LEU:HG	3:K:491:ILE:HG13	1.96	0.47
4:L:8:ASN:O	4:L:8:ASN:OD1	2.31	0.47
4:L:260:MET:O	4:L:263:ILE:HG22	2.13	0.47
4:L:298:ASN:HB3	4:L:299:ASP:CA	2.43	0.47
5:M:355:ALA:CB	6:N:222:PRO:HG2	2.43	0.47
6:N:47:VAL:HG12	6:N:48:ASP:N	2.28	0.47
6:N:71:PRO:HG2	6:N:533:LEU:HD12	1.94	0.47
6:N:454:ILE:N	6:N:455:PRO:HD2	2.29	0.47
7:O:115:PHE:CE1	7:O:437:MET:HB3	2.49	0.47
7:O:214:PHE:O	7:O:214:PHE:CG	2.67	0.47
8:P:310:LEU:HD13	8:P:314:ASN:OD1	2.14	0.47
8:P:396:ASP:HA	8:P:399:ARG:HH11	1.79	0.47
2:B:242:LYS:HE2	2:B:247:GLY:N	2.26	0.47
4:D:174:ALA:O	4:D:178:VAL:HG23	2.13	0.47
4:D:298:ASN:HB3	4:D:299:ASP:CA	2.43	0.47
5:E:32:VAL:CG2	5:E:33:LYS:H	2.15	0.47
5:E:175:LEU:HD12	5:E:175:LEU:O	2.14	0.47
5:E:250:SER:HB3	5:E:342:ALA:O	2.14	0.47
5:E:277:GLU:CB	5:E:278:PRO:HD2	2.44	0.47
6:F:414:GLY:O	6:F:415:ALA:CB	2.62	0.47
7:G:108:LEU:O	7:G:108:LEU:HD23	2.13	0.47
7:G:120:ILE:HG23	8:P:472:ASN:ND2	2.30	0.47
8:H:6:PRO:CG	4:L:71:LEU:HA	2.35	0.47
8:H:167:ILE:HD11	8:H:182:VAL:HG21	1.96	0.47
8:H:248:ALA:HB2	8:H:352:LEU:HD13	1.95	0.47
2:J:237:THR:N	2:J:287:ARG:HD2	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:410:VAL:HB	2:J:468:SER:OG	2.13	0.47
3:K:129:LEU:HD23	3:K:510:VAL:HG12	1.96	0.47
4:L:434:GLY:HA3	4:L:436:GLN:OE1	2.14	0.47
6:N:86:ILE:HG23	6:N:87:THR:HG23	1.96	0.47
7:O:241:ILE:HG12	7:O:292:ILE:CG2	2.44	0.47
8:P:248:ALA:HB2	8:P:352:LEU:CD1	2.44	0.47
1:A:258:MET:HE2	1:A:259:GLY:H	1.79	0.47
1:A:540:ARG:HA	5:E:70:LEU:HD22	1.95	0.47
2:B:59:ASP:HB3	2:B:62:THR:OG1	2.14	0.47
2:B:422:ILE:HG22	2:B:424:GLY:H	1.75	0.47
5:E:74:LEU:HD12	5:E:93:GLN:HB3	1.96	0.47
5:E:428:CYS:O	5:E:431:ARG:HG3	2.15	0.47
8:H:248:ALA:HB2	8:H:352:LEU:CD1	2.44	0.47
1:I:14:PHE:CB	1:I:15:LEU:HA	2.43	0.47
2:J:124:TYR:N	2:J:124:TYR:CD1	2.82	0.47
2:J:319:LEU:HD23	2:J:319:LEU:C	2.35	0.47
3:K:84:THR:HG21	8:P:389:ALA:HA	1.97	0.47
3:K:117:HIS:HE1	8:P:50:GLY:O	1.97	0.47
3:K:170:LYS:HD3	3:K:170:LYS:O	2.14	0.47
3:K:479:ASN:HB3	3:K:482:THR:OG1	2.14	0.47
4:L:350:VAL:HG22	4:L:363:VAL:HG13	1.97	0.47
6:N:105:ALA:C	6:N:107:ARG:N	2.67	0.47
7:O:143:LEU:HD22	7:O:411:ALA:HB2	1.94	0.47
4:D:367:ARG:C	4:D:369:ASN:N	2.67	0.47
8:H:423:ALA:CA	9:H:601:ADP:H2'	2.31	0.47
1:I:94:ILE:HD12	1:I:94:ILE:N	2.29	0.47
1:I:221:GLY:HA2	1:I:382:SER:CB	2.42	0.47
2:J:63:ILE:CG2	2:J:64:LEU:HG	2.44	0.47
2:J:118:GLN:O	2:J:121:ILE:HG12	2.14	0.47
2:J:263:LYS:HZ1	3:K:266:GLU:HG2	1.78	0.47
2:J:282:ASN:ND2	2:J:303:ILE:HB	2.29	0.47
2:J:469:THR:CG2	2:J:481:ASP:HB2	2.44	0.47
3:K:112:ILE:HG13	3:K:113:GLU:N	2.29	0.47
3:K:495:VAL:HG23	3:K:500:TRP:CH2	2.48	0.47
4:L:448:GLU:C	4:L:451:PRO:HD2	2.34	0.47
5:M:175:LEU:HD12	5:M:175:LEU:O	2.14	0.47
6:N:213:LEU:HD23	6:N:377:THR:CG2	2.40	0.47
9:N:601:ADP:O2'	9:N:601:ADP:H8	1.97	0.47
7:O:43:THR:HG21	7:O:64:ASN:O	2.13	0.47
1:A:419:VAL:CG1	1:A:425:VAL:HG21	2.44	0.47
2:B:285:ILE:HD13	2:B:285:ILE:H	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:289:LEU:HD21	2:B:304:ASN:OD1	2.15	0.47
2:B:410:VAL:HB	2:B:468:SER:OG	2.13	0.47
2:B:514:ILE:HG23	3:C:47:MET:O	2.14	0.47
3:C:47:MET:HG2	3:C:48:LEU:N	2.30	0.47
3:C:184:LYS:HA	3:C:198:ILE:C	2.35	0.47
3:C:457:ILE:HG22	3:C:462:GLY:O	2.14	0.47
4:D:12:LYS:HZ2	7:G:73:LEU:CD2	2.28	0.47
4:D:81:VAL:HA	7:G:382:ALA:HB2	1.96	0.47
5:E:150:PHE:CD1	5:E:472:PHE:CE2	3.03	0.47
6:F:406:LEU:HB3	6:F:407:LYS:HZ2	1.80	0.47
6:F:424:ARG:HA	6:F:424:ARG:NE	2.12	0.47
7:G:217:GLY:O	7:G:375:THR:HG22	2.15	0.47
7:G:235:LYS:CB	7:G:353:GLU:HA	2.44	0.47
8:H:164:LYS:HB3	8:H:165:PRO:HD3	1.96	0.47
8:H:243:LYS:HB3	8:H:244:LYS:NZ	2.29	0.47
2:J:289:LEU:HD21	2:J:304:ASN:OD1	2.15	0.47
2:J:402:LEU:CD1	2:J:483:ARG:HE	2.24	0.47
3:K:108:ALA:O	3:K:112:ILE:HG23	2.15	0.47
3:K:174:LEU:HG	3:K:219:VAL:HG22	1.96	0.47
3:K:414:PRO:O	3:K:419:THR:HG23	2.14	0.47
4:L:292:ILE:N	4:L:293:LEU:CA	2.73	0.47
5:M:133:ALA:HB2	5:M:150:PHE:HE2	1.79	0.47
5:M:189:GLY:O	5:M:190:SER:CB	2.61	0.47
6:N:108:PHE:CE1	6:N:118:ILE:HG13	2.50	0.47
7:O:452:GLN:HA	7:O:455:GLU:HB2	1.96	0.47
8:P:31:SER:HB2	8:P:79:HIS:HE1	1.78	0.47
8:P:243:LYS:HB3	8:P:244:LYS:NZ	2.29	0.47
8:P:348:THR:O	8:P:352:LEU:HD23	2.13	0.47
2:B:93:THR:OG1	9:B:601:ADP:O2A	2.31	0.47
1:I:145:SER:O	1:I:148:VAL:HG23	2.15	0.47
5:M:150:PHE:CD1	5:M:472:PHE:CE2	3.03	0.47
6:N:246:GLU:CD	6:N:246:GLU:H	2.18	0.47
6:N:280:LEU:HD23	6:N:280:LEU:N	2.27	0.47
2:B:124:TYR:N	2:B:124:TYR:CD1	2.82	0.47
2:B:142:ASN:CB	2:B:143:SER:HA	2.18	0.47
2:B:463:ILE:HD11	2:B:468:SER:OG	2.15	0.47
3:C:108:ALA:O	3:C:112:ILE:HG23	2.15	0.47
3:C:112:ILE:HG13	3:C:113:GLU:N	2.29	0.47
3:C:117:HIS:CG	3:C:118:PRO:HD2	2.50	0.47
3:C:174:LEU:HG	3:C:219:VAL:HG22	1.96	0.47
3:C:407:MET:HE1	3:C:408:LEU:HD23	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:24:ASN:ND2	4:D:524:ILE:HD11	2.29	0.47
4:D:350:VAL:HG22	4:D:363:VAL:HG13	1.97	0.47
4:D:352:GLU:HA	4:D:361:VAL:HA	1.95	0.47
4:D:521:ILE:CB	7:G:50:ASP:O	2.61	0.47
5:E:88:ALA:HB1	5:E:109:LYS:HZ2	1.77	0.47
6:F:3:LEU:N	6:F:3:LEU:HD22	2.30	0.47
6:F:86:ILE:HG23	6:F:87:THR:HG23	1.96	0.47
6:F:246:GLU:CD	6:F:246:GLU:H	2.18	0.47
6:F:424:ARG:HE	6:F:424:ARG:CA	2.17	0.47
6:F:485:GLU:CG	6:F:489:VAL:HB	2.44	0.47
7:G:204:ILE:O	7:G:379:ARG:HD3	2.14	0.47
7:G:217:GLY:HA3	7:G:366:GLN:HA	1.95	0.47
7:G:279:PHE:O	7:G:282:LEU:HD12	2.15	0.47
7:G:291:ASN:C	7:G:312:ILE:HG13	2.34	0.47
7:G:292:ILE:N	7:G:312:ILE:HG13	2.30	0.47
8:H:35:ILE:HD13	8:H:82:VAL:HA	1.95	0.47
8:H:99:GLY:O	8:H:103:VAL:HG23	2.15	0.47
8:H:396:ASP:HA	8:H:399:ARG:HH11	1.79	0.47
1:I:156:LEU:HD23	1:I:156:LEU:O	2.14	0.47
2:J:60:GLY:O	2:J:63:ILE:HG22	2.15	0.47
2:J:403:GLY:O	2:J:482:MET:HG3	2.14	0.47
2:J:463:ILE:HD11	2:J:468:SER:OG	2.15	0.47
3:K:25:ILE:HD13	3:K:26:THR:N	2.30	0.47
3:K:142:PRO:HG3	3:K:411:SER:CA	2.44	0.47
3:K:175:ALA:O	3:K:179:VAL:HG23	2.14	0.47
3:K:184:LYS:HA	3:K:198:ILE:C	2.35	0.47
3:K:457:ILE:HG22	3:K:462:GLY:O	2.14	0.47
6:N:3:LEU:N	6:N:3:LEU:HD22	2.30	0.47
6:N:22:ASN:O	6:N:72:THR:HG21	2.14	0.47
6:N:275:LYS:O	6:N:276:LYS:C	2.52	0.47
7:O:51:ILE:HB	7:O:69:ILE:HD11	1.96	0.47
1:A:351:GLU:C	1:A:353:SER:N	2.66	0.47
2:B:27:ILE:O	2:B:27:ILE:HG12	2.15	0.47
2:B:232:LEU:HD22	2:B:233:ILE:H	1.80	0.47
2:B:328:THR:O	2:B:329:PHE:CB	2.62	0.47
3:C:25:ILE:HD13	3:C:26:THR:N	2.30	0.47
3:C:41:PRO:CA	3:C:161:THR:HG21	2.43	0.47
3:C:262:GLU:H	8:H:266:LEU:CD1	2.28	0.47
5:E:84:THR:CG2	5:E:85:ASN:N	2.78	0.47
5:E:176:PHE:O	5:E:180:LEU:HD23	2.15	0.47
7:G:409:ILE:CG2	7:G:410:VAL:H	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:9:ASN:ND2	3:K:10:ALA:H	2.11	0.47
3:K:117:HIS:CG	3:K:118:PRO:HD2	2.50	0.47
5:M:428:CYS:O	5:M:431:ARG:HG3	2.14	0.47
5:M:547:MET:SD	6:N:387:ALA:HA	2.55	0.47
6:N:16:ASP:OD1	6:N:16:ASP:N	2.36	0.47
6:N:76:ILE:HG21	6:N:95:VAL:HG13	1.96	0.47
7:O:94:VAL:CG1	7:O:95:GLY:H	2.28	0.47
7:O:217:GLY:HA3	7:O:365:PHE:O	2.15	0.47
7:O:455:GLU:N	7:O:461:ALA:HB2	2.29	0.47
1:A:12:THR:CB	5:E:96:LEU:HA	2.44	0.47
1:A:480:TYR:O	1:A:483:ALA:CB	2.63	0.47
2:B:403:GLY:O	2:B:482:MET:HG3	2.14	0.47
3:C:142:PRO:HG3	3:C:411:SER:CA	2.44	0.47
3:C:202:ARG:O	3:C:204:VAL:O	2.32	0.47
3:C:348:VAL:HG12	3:C:349:GLY:N	2.30	0.47
4:D:178:VAL:CB	4:D:401:ILE:HD11	2.45	0.47
6:F:430:ASN:HA	6:F:433:LYS:HB2	1.96	0.47
6:F:454:ILE:HB	6:F:455:PRO:HD3	1.97	0.47
2:J:324:GLU:H	3:K:311:LYS:NZ	2.12	0.47
2:J:494:LYS:HD2	2:J:494:LYS:HA	1.79	0.47
3:K:246:LEU:O	3:K:247:ASP:HB3	2.15	0.47
3:K:348:VAL:HG12	3:K:349:GLY:N	2.30	0.47
4:L:92:GLY:O	4:L:96:VAL:HG23	2.15	0.47
4:L:134:ILE:HD12	4:L:421:ILE:HD13	1.95	0.47
4:L:174:ALA:O	4:L:178:VAL:HG23	2.13	0.47
4:L:352:GLU:HA	4:L:361:VAL:HA	1.95	0.47
4:L:461:ASN:HD22	4:L:462:SER:N	2.13	0.47
4:L:523:ASP:O	7:O:51:ILE:CG2	2.53	0.47
5:M:277:GLU:CB	5:M:278:PRO:HD2	2.44	0.47
7:O:455:GLU:HG3	7:O:461:ALA:HB3	1.97	0.47
8:P:35:ILE:HD13	8:P:82:VAL:HA	1.95	0.47
8:P:99:GLY:O	8:P:103:VAL:HG23	2.15	0.47
2:B:165:ILE:HD13	6:F:526:ASN:HB2	1.97	0.47
2:B:319:LEU:HD23	2:B:319:LEU:C	2.35	0.47
2:B:438:ARG:O	2:B:441:PRO:HG2	2.14	0.47
3:C:275:ILE:O	8:H:274:LEU:HD21	2.15	0.47
4:D:292:ILE:N	4:D:293:LEU:CA	2.73	0.47
4:D:434:GLY:HA3	4:D:436:GLN:OE1	2.14	0.47
5:E:240:ILE:HG12	5:E:244:ILE:HG21	1.94	0.47
5:E:262:GLU:HA	5:E:263:GLY:HA2	1.67	0.47
6:F:141:THR:CB	6:F:409:LYS:HG3	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:217:GLY:HA3	7:G:365:PHE:O	2.15	0.47
8:H:6:PRO:CB	8:H:7:GLN:HG3	2.38	0.47
1:I:29:ASN:HD22	1:I:538:ILE:HG23	1.80	0.47
1:I:419:VAL:CG1	1:I:425:VAL:HG21	2.44	0.47
2:J:263:LYS:HZ1	3:K:266:GLU:CG	2.26	0.47
2:J:477:GLY:O	2:J:478:THR:CB	2.62	0.47
5:M:210:ASN:HD22	5:M:210:ASN:N	2.08	0.47
7:O:279:PHE:O	7:O:282:LEU:HD12	2.15	0.47
7:O:291:ASN:C	7:O:312:ILE:HG13	2.34	0.47
7:O:354:GLU:HA	7:O:363:ASN:HA	1.97	0.47
1:A:16:GLY:CA	1:A:548:ASP:HB3	2.44	0.46
1:A:128:GLY:O	1:A:448:ILE:HD13	2.15	0.46
1:A:145:SER:O	1:A:148:VAL:HG23	2.15	0.46
4:D:496:HIS:O	4:D:498:LEU:HD12	2.15	0.46
4:D:521:ILE:CD1	7:G:62:ILE:HD12	2.44	0.46
6:F:395:VAL:O	6:F:399:LEU:HB3	2.14	0.46
7:G:17:THR:HG22	7:G:526:ASN:HD22	1.80	0.46
7:G:115:PHE:CE1	7:G:437:MET:HB3	2.49	0.46
7:G:354:GLU:HA	7:G:363:ASN:HA	1.97	0.46
8:H:442:PRO:HA	8:H:446:GLN:HE21	1.80	0.46
1:I:480:TYR:O	1:I:483:ALA:CB	2.63	0.46
2:J:30:GLY:HA2	2:J:33:VAL:HG21	1.97	0.46
3:K:202:ARG:O	3:K:204:VAL:O	2.32	0.46
5:M:84:THR:CG2	5:M:85:ASN:N	2.78	0.46
7:O:204:ILE:O	7:O:379:ARG:HD3	2.14	0.46
7:O:235:LYS:CB	7:O:353:GLU:HA	2.44	0.46
1:A:16:GLY:HA3	1:A:548:ASP:CB	2.44	0.46
1:A:143:VAL:HG12	1:A:419:VAL:HG22	1.97	0.46
2:B:26:ALA:HB1	2:B:77:LEU:HD11	1.98	0.46
2:B:42:MET:HE3	6:F:529:LEU:O	2.15	0.46
2:B:444:LEU:HD21	9:B:601:ADP:C1'	2.46	0.46
2:B:513:ASN:O	2:B:514:ILE:CD1	2.46	0.46
3:C:175:ALA:O	3:C:179:VAL:HG23	2.15	0.46
3:C:250:LEU:CG	3:C:301:VAL:CB	2.92	0.46
5:E:103:LEU:HA	5:E:106:GLN:HE21	1.81	0.46
5:E:301:TYR:HA	5:E:304:ASP:OD2	2.15	0.46
6:F:76:ILE:HG21	6:F:95:VAL:HG13	1.96	0.46
6:F:332:THR:HB	6:F:350:PHE:O	2.15	0.46
6:F:422:LEU:HD13	6:F:517:ILE:HD11	1.98	0.46
6:F:454:ILE:N	6:F:455:PRO:HD2	2.29	0.46
7:G:304:THR:HA	7:G:307:PHE:CE2	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:202:ARG:HH21	3:K:323:SER:HB3	1.81	0.46
3:K:229:VAL:HG12	3:K:230:VAL:H	1.80	0.46
4:L:194:ILE:O	4:L:194:ILE:HG12	2.15	0.46
5:M:176:PHE:O	5:M:180:LEU:HD23	2.15	0.46
6:N:143:LEU:HD13	6:N:145:ASN:CG	2.36	0.46
6:N:143:LEU:HD21	6:N:145:ASN:HB3	1.97	0.46
6:N:515:ASN:HD22	6:N:515:ASN:C	2.18	0.46
7:O:60:THR:O	7:O:60:THR:HG23	2.15	0.46
7:O:83:LEU:HD23	7:O:86:ILE:CD1	2.45	0.46
7:O:208:ALA:O	7:O:211:GLU:HB2	2.14	0.46
8:P:167:ILE:HD11	8:P:182:VAL:HG21	1.96	0.46
2:B:408:GLU:CD	2:B:440:LEU:HD23	2.36	0.46
2:B:469:THR:CG2	2:B:481:ASP:HB2	2.44	0.46
3:C:170:LYS:HD3	3:C:170:LYS:O	2.14	0.46
4:D:77:MET:HE1	7:G:384:GLN:HB2	1.97	0.46
6:F:195:GLU:OE1	6:F:197:MET:HE2	2.15	0.46
6:F:362:GLU:CG	6:F:364:PHE:CE2	2.93	0.46
8:H:184:GLU:O	8:H:188:HIS:HD2	1.97	0.46
2:J:124:TYR:N	2:J:124:TYR:HD1	2.12	0.46
4:L:147:ARG:O	4:L:151:VAL:HG23	2.16	0.46
4:L:178:VAL:CB	4:L:401:ILE:HD11	2.45	0.46
5:M:114:GLU:HB3	6:N:201:HIS:CE1	2.50	0.46
5:M:301:TYR:HA	5:M:304:ASP:OD2	2.15	0.46
6:N:16:ASP:HA	6:N:19:LEU:CG	2.45	0.46
6:N:166:LEU:HG	6:N:167:THR:OG1	2.15	0.46
6:N:427:ARG:HG2	6:N:448:ALA:CB	2.46	0.46
6:N:454:ILE:HB	6:N:455:PRO:HD3	1.97	0.46
7:O:292:ILE:N	7:O:312:ILE:HG13	2.30	0.46
8:P:442:PRO:HA	8:P:446:GLN:HE21	1.80	0.46
2:B:58:ASN:C	2:B:58:ASN:ND2	2.69	0.46
2:B:242:LYS:HA	3:C:269:TRP:HE1	1.81	0.46
2:B:360:LYS:HA	2:B:361:ALA:HA	1.69	0.46
2:B:477:GLY:O	2:B:478:THR:CB	2.62	0.46
4:D:92:GLY:O	4:D:96:VAL:HG23	2.15	0.46
4:D:134:ILE:HD12	4:D:421:ILE:HD13	1.95	0.46
9:D:601:ADP:C8	9:D:601:ADP:C3'	2.98	0.46
6:F:16:ASP:HA	6:F:19:LEU:CG	2.45	0.46
6:F:143:LEU:HD13	6:F:145:ASN:CG	2.36	0.46
6:F:370:ASN:HD22	6:F:370:ASN:N	2.14	0.46
7:G:51:ILE:HB	7:G:69:ILE:HD11	1.96	0.46
7:G:144:ALA:HA	7:G:409:ILE:O	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:92:ARG:HG2	5:M:388:THR:CB	2.46	0.46
2:J:162:SER:O	2:J:163:SER:CB	2.64	0.46
2:J:165:ILE:HD13	6:N:526:ASN:HB2	1.98	0.46
2:J:328:THR:O	2:J:329:PHE:CB	2.62	0.46
4:L:254:VAL:HG22	8:P:264:THR:O	2.16	0.46
5:M:114:GLU:HG2	6:N:201:HIS:ND1	2.31	0.46
7:O:80:ALA:O	7:O:84:VAL:HG23	2.16	0.46
7:O:217:GLY:O	7:O:375:THR:HG22	2.15	0.46
8:P:164:LYS:HB3	8:P:165:PRO:HD3	1.96	0.46
8:P:487:PRO:HA	8:P:488:GLY:HA3	1.69	0.46
1:A:351:GLU:C	1:A:353:SER:H	2.17	0.46
4:D:234:ILE:HG22	4:D:236:LEU:HD22	1.97	0.46
4:D:461:ASN:HD22	4:D:462:SER:N	2.13	0.46
7:G:80:ALA:O	7:G:84:VAL:HG23	2.16	0.46
7:G:83:LEU:HD23	7:G:86:ILE:CD1	2.45	0.46
7:G:454:CYS:HB3	7:G:461:ALA:HA	1.98	0.46
8:H:32:ILE:HD13	8:H:32:ILE:O	2.16	0.46
2:J:164:LYS:O	2:J:167:SER:N	2.40	0.46
2:J:331:GLU:HA	2:J:332:PRO:HD3	1.79	0.46
3:K:47:MET:HG2	3:K:48:LEU:N	2.30	0.46
3:K:51:PRO:O	3:K:52:MET:CG	2.63	0.46
3:K:402:VAL:HG13	3:K:502:PRO:CG	2.45	0.46
4:L:239:PHE:C	4:L:290:LYS:HG3	2.36	0.46
4:L:284:ASN:O	4:L:310:ILE:CG2	2.63	0.46
5:M:74:LEU:HD12	5:M:93:GLN:HB3	1.96	0.46
7:O:236:PHE:O	7:O:239:PRO:CG	2.64	0.46
7:O:454:CYS:HB3	7:O:461:ALA:HA	1.98	0.46
8:P:6:PRO:CB	8:P:7:GLN:CA	2.93	0.46
8:P:184:GLU:O	8:P:188:HIS:HD2	1.97	0.46
1:A:29:ASN:HD22	1:A:538:ILE:HG23	1.81	0.46
2:B:224:LYS:O	2:B:343:ILE:HA	2.16	0.46
2:B:286:ASN:HD22	2:B:287:ARG:N	2.14	0.46
3:C:229:VAL:HG12	3:C:230:VAL:H	1.80	0.46
4:D:291:SER:HA	4:D:315:ASP:CA	2.44	0.46
6:F:166:LEU:HG	6:F:167:THR:OG1	2.15	0.46
6:F:343:LEU:HA	6:F:344:SER:HA	1.48	0.46
6:F:420:ILE:HB	6:F:482:ASP:OD1	2.16	0.46
2:J:40:LYS:HZ1	6:N:117:ILE:HG13	1.80	0.46
2:J:411:MET:CE	2:J:498:VAL:HG21	2.45	0.46
4:L:77:MET:CE	7:O:384:GLN:HB2	2.45	0.46
4:L:496:HIS:O	4:L:498:LEU:HD12	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:5:LEU:CA	6:N:6:LEU:HB2	2.35	0.46
7:O:17:THR:HG22	7:O:526:ASN:HD22	1.80	0.46
7:O:144:ALA:HA	7:O:409:ILE:O	2.15	0.46
7:O:200:GLY:O	7:O:375:THR:HA	2.16	0.46
2:B:60:GLY:O	2:B:63:ILE:HG22	2.15	0.46
2:B:63:ILE:CG2	2:B:64:LEU:HG	2.44	0.46
3:C:129:LEU:HD23	3:C:510:VAL:HG12	1.96	0.46
7:G:60:THR:O	7:G:60:THR:HG23	2.15	0.46
7:G:207:GLY:HA3	7:G:379:ARG:HH11	1.81	0.46
7:G:491:ASN:OD1	7:G:496:VAL:CG2	2.64	0.46
8:H:94:ILE:H	8:H:94:ILE:HG13	1.50	0.46
2:J:4:GLN:C	2:J:5:ILE:CG2	2.73	0.46
2:J:242:LYS:HD3	3:K:269:TRP:CZ2	2.50	0.46
4:L:392:ARG:HD3	4:L:393:SER:N	2.31	0.46
6:N:233:VAL:HG13	6:N:351:SER:CB	2.43	0.46
8:P:32:ILE:HD13	8:P:32:ILE:O	2.16	0.46
8:P:457:GLU:C	8:P:460:PRO:HD2	2.36	0.46
4:D:182:SER:HB2	4:D:187:LYS:CE	2.46	0.46
5:E:84:THR:HG22	5:E:85:ASN:N	2.31	0.46
5:E:269:LEU:HD22	5:E:269:LEU:N	2.31	0.46
6:F:233:VAL:HG13	6:F:351:SER:CB	2.43	0.46
6:F:427:ARG:HG2	6:F:448:ALA:CB	2.46	0.46
6:F:458:LEU:HG	6:F:459:VAL:HG23	1.97	0.46
7:G:33:CYS:SG	7:G:106:GLY:HA2	2.56	0.46
7:G:200:GLY:O	7:G:375:THR:HA	2.15	0.46
7:G:296:LYS:HA	7:G:318:VAL:HG23	1.97	0.46
8:H:457:GLU:C	8:H:460:PRO:HD2	2.36	0.46
8:H:464:ALA:HB1	8:H:474:VAL:HG21	1.98	0.46
1:I:351:GLU:C	1:I:353:SER:H	2.17	0.46
2:J:408:GLU:CD	2:J:440:LEU:HD23	2.36	0.46
3:K:298:GLU:HA	3:K:320:VAL:H	1.81	0.46
3:K:407:MET:HE1	3:K:408:LEU:HD23	1.97	0.46
4:L:234:ILE:HG22	4:L:236:LEU:HD22	1.97	0.46
6:N:122:PHE:HD1	6:N:447:PHE:HD1	1.63	0.46
6:N:332:THR:HB	6:N:350:PHE:O	2.15	0.46
6:N:458:LEU:HG	6:N:459:VAL:HG23	1.97	0.46
7:O:33:CYS:SG	7:O:106:GLY:HA2	2.56	0.46
7:O:234:LYS:HA	7:O:234:LYS:HD3	1.34	0.46
7:O:491:ASN:OD1	7:O:496:VAL:CG2	2.64	0.46
1:A:486:MET:CB	1:A:487:ALA:HB2	2.46	0.46
2:B:162:SER:O	2:B:163:SER:CB	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:246:LEU:O	3:C:247:ASP:HB3	2.15	0.46
4:D:344:LEU:O	4:D:345:ASP:OD1	2.33	0.46
4:D:392:ARG:HD3	4:D:393:SER:N	2.31	0.46
4:D:417:PRO:O	4:D:421:ILE:HG12	2.16	0.46
4:D:469:LEU:C	4:D:471:SER:H	2.19	0.46
5:E:239:LEU:HD23	5:E:240:ILE:N	2.31	0.46
6:F:330:LEU:O	6:F:372:ASP:O	2.34	0.46
1:I:143:VAL:HG12	1:I:419:VAL:HG22	1.97	0.46
2:J:26:ALA:HB1	2:J:77:LEU:HD11	1.97	0.46
2:J:242:LYS:HA	3:K:269:TRP:HE1	1.80	0.46
2:J:295:GLU:HB2	6:N:337:GLN:CD	2.35	0.46
3:K:142:PRO:HB3	3:K:410:PRO:O	2.15	0.46
4:L:144:LEU:HD23	4:L:144:LEU:N	2.31	0.46
5:M:184:ALA:O	5:M:188:LEU:CB	2.64	0.46
1:A:210:GLY:O	1:A:211:LYS:CB	2.64	0.46
1:A:218:LEU:HD23	1:A:385:ILE:HG12	1.98	0.46
3:C:95:THR:HG23	9:C:1101:ADP:O1A	2.15	0.46
9:C:1101:ADP:C8	9:C:1101:ADP:O3'	2.69	0.46
4:D:144:LEU:N	4:D:144:LEU:HD23	2.31	0.46
4:D:161:LYS:HA	4:D:161:LYS:HD2	1.66	0.46
4:D:284:ASN:O	4:D:310:ILE:CG2	2.63	0.46
6:F:454:ILE:O	6:F:457:THR:OG1	2.30	0.46
7:G:236:PHE:O	7:G:239:PRO:CG	2.64	0.46
7:G:291:ASN:HA	7:G:312:ILE:HB	1.97	0.46
8:H:175:GLU:H	8:H:175:GLU:HG3	1.45	0.46
8:H:291:ILE:HD12	8:H:347:PRO:HG3	1.97	0.46
1:I:224:LEU:CD1	1:I:226:CYS:CB	2.90	0.46
2:J:286:ASN:HD22	2:J:287:ARG:N	2.14	0.46
4:L:9:ALA:CB	7:O:76:VAL:H	2.27	0.46
4:L:120:ILE:CG1	4:L:439:ILE:HG21	2.44	0.46
4:L:241:ILE:HD12	4:L:241:ILE:N	2.30	0.46
6:N:141:THR:CG2	6:N:142:ASN:N	2.78	0.46
7:O:396:ALA:O	7:O:397:ILE:C	2.55	0.46
7:O:418:MET:HE3	7:O:447:GLU:HG2	1.98	0.46
4:D:185:ASN:H	4:D:187:LYS:N	2.14	0.45
4:D:521:ILE:CG2	7:G:51:ILE:HA	2.40	0.45
6:F:72:THR:O	6:F:75:LEU:HB3	2.16	0.45
6:F:243:GLU:OE2	6:F:243:GLU:CA	2.52	0.45
6:F:296:ILE:HD12	6:F:328:LEU:HD22	1.99	0.45
6:F:540:THR:CB	6:F:541:LEU:HD22	2.44	0.45
7:G:452:GLN:HA	7:G:455:GLU:HB2	1.96	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:386:LEU:H	8:H:386:LEU:HD12	1.81	0.45
1:I:12:THR:HA	1:I:13:LEU:HA	1.69	0.45
1:I:66:GLY:CA	1:I:99:THR:HG22	2.47	0.45
2:J:58:ASN:C	2:J:58:ASN:ND2	2.69	0.45
2:J:203:LEU:O	2:J:204:SER:OG	2.30	0.45
2:J:219:GLY:HA3	2:J:304:ASN:ND2	2.31	0.45
4:L:24:ASN:ND2	4:L:524:ILE:HD11	2.30	0.45
5:M:103:LEU:HA	5:M:106:GLN:HE21	1.80	0.45
5:M:239:LEU:HD23	5:M:240:ILE:N	2.31	0.45
6:N:153:VAL:CB	6:N:507:TRP:CB	2.94	0.45
8:P:169:SER:HB2	9:P:601:ADP:O2A	2.15	0.45
1:A:256:MET:HE3	1:A:261:GLN:HA	1.97	0.45
1:A:420:PRO:O	1:A:424:CYS:HB3	2.16	0.45
2:B:116:HIS:CE1	2:B:118:GLN:CB	2.99	0.45
2:B:116:HIS:HA	2:B:117:PRO:HD3	1.74	0.45
2:B:210:GLU:CB	2:B:357:SER:O	2.65	0.45
3:C:335:THR:HB	8:H:237:LYS:CE	2.34	0.45
4:D:50:THR:HG22	4:D:54:GLU:N	2.31	0.45
4:D:98:ILE:HG12	4:D:98:ILE:H	1.57	0.45
4:D:239:PHE:C	4:D:290:LYS:HG3	2.36	0.45
4:D:325:SER:O	4:D:329:GLY:N	2.47	0.45
4:D:418:GLU:HG2	4:D:451:PRO:HD3	1.98	0.45
6:F:43:LEU:HD21	6:F:161:LYS:CA	2.42	0.45
6:F:160:THR:N	6:F:164:ALA:HB3	2.31	0.45
1:I:336:THR:HB	1:I:354:TYR:HD1	1.80	0.45
1:I:420:PRO:O	1:I:424:CYS:HB3	2.16	0.45
1:I:433:LEU:O	1:I:437:ALA:CA	2.65	0.45
2:J:27:ILE:O	2:J:27:ILE:HG12	2.15	0.45
4:L:50:THR:HG22	4:L:54:GLU:N	2.30	0.45
4:L:182:SER:HB2	4:L:187:LYS:CE	2.46	0.45
4:L:499:GLN:HA	4:L:500:PRO:HD3	1.86	0.45
5:M:396:GLU:HA	5:M:397:GLN:HA	1.53	0.45
6:N:296:ILE:HG12	6:N:317:LEU:HB2	1.98	0.45
6:N:337:GLN:HG2	6:N:347:ILE:CD1	2.46	0.45
7:O:296:LYS:HA	7:O:318:VAL:HG23	1.97	0.45
7:O:329:ALA:HA	7:O:371:ALA:HB1	1.98	0.45
8:P:426:THR:HG23	8:P:427:GLU:N	2.31	0.45
1:A:69:ILE:O	1:A:73:LEU:HD13	2.15	0.45
2:B:411:MET:CE	2:B:498:VAL:HG21	2.46	0.45
2:B:492:LYS:H	2:B:492:LYS:HZ1	1.63	0.45
3:C:142:PRO:HB3	3:C:410:PRO:O	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:174:LEU:HG	3:C:219:VAL:CG2	2.47	0.45
4:D:194:ILE:O	4:D:194:ILE:HG12	2.15	0.45
6:F:159:LEU:CA	6:F:164:ALA:HB2	2.41	0.45
6:F:167:THR:CB	6:F:168:GLU:HB3	2.47	0.45
6:F:489:VAL:O	6:F:490:GLY:C	2.41	0.45
8:H:426:THR:HG23	8:H:427:GLU:N	2.31	0.45
1:I:128:GLY:O	1:I:448:ILE:HD13	2.15	0.45
1:I:210:GLY:O	1:I:211:LYS:CB	2.64	0.45
2:J:293:TYR:O	2:J:297:LEU:HD23	2.17	0.45
3:K:471:LEU:HD12	3:K:491:ILE:HG21	1.98	0.45
6:N:79:ALA:HB1	6:N:523:ILE:HD11	1.98	0.45
6:N:221:HIS:HB2	6:N:224:MET:CG	2.43	0.45
6:N:415:ALA:HA	9:N:601:ADP:H1'	1.97	0.45
6:N:420:ILE:HB	6:N:482:ASP:OD1	2.15	0.45
8:P:252:CYS:HB2	8:P:343:ARG:N	2.32	0.45
3:C:64:ILE:HG22	3:C:65:LEU:N	2.31	0.45
6:F:122:PHE:HD1	6:F:447:PHE:HD1	1.63	0.45
1:I:120:ILE:HD13	1:I:120:ILE:O	2.16	0.45
1:I:205:VAL:C	1:I:206:LEU:HD23	2.36	0.45
1:I:419:VAL:HG13	1:I:425:VAL:HG21	1.98	0.45
1:I:458:ILE:HD12	1:I:458:ILE:H	1.82	0.45
2:J:210:GLU:CB	2:J:357:SER:O	2.64	0.45
3:K:230:VAL:HG21	3:K:303:ASP:H	1.80	0.45
3:K:508:GLN:CG	8:P:215:GLY:HA2	2.46	0.45
4:L:30:SER:HA	4:L:33:ASP:CG	2.37	0.45
5:M:269:LEU:HD22	5:M:269:LEU:N	2.31	0.45
6:N:221:HIS:CD2	6:N:224:MET:SD	3.09	0.45
7:O:241:ILE:HD12	7:O:330:VAL:HG21	1.98	0.45
7:O:400:VAL:O	7:O:404:LEU:HB2	2.17	0.45
8:P:386:LEU:HD12	8:P:386:LEU:H	1.81	0.45
1:A:66:GLY:CA	1:A:99:THR:HG22	2.47	0.45
3:C:202:ARG:HH21	3:C:323:SER:HB3	1.81	0.45
4:D:292:ILE:CG1	4:D:293:LEU:HA	2.47	0.45
5:E:297:LYS:HD2	5:E:297:LYS:HA	1.66	0.45
6:F:337:GLN:HG2	6:F:347:ILE:CD1	2.46	0.45
7:G:165:ALA:CB	7:G:399:ILE:HG21	2.46	0.45
7:G:282:LEU:HD23	7:G:303:ALA:O	2.17	0.45
8:H:101:ASN:N	9:H:601:ADP:O2B	2.43	0.45
8:H:291:ILE:HD12	8:H:347:PRO:HG2	1.96	0.45
8:H:329:LEU:HD23	8:H:329:LEU:O	2.17	0.45
1:I:86:LEU:HD21	1:I:101:VAL:HG12	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:88:VAL:HG12	2:J:89:GLY:N	2.32	0.45
2:J:234:ALA:HA	2:J:325:VAL:HB	1.99	0.45
2:J:386:ASP:O	2:J:390:VAL:HG23	2.17	0.45
3:K:64:ILE:HG22	3:K:65:LEU:N	2.32	0.45
4:L:185:ASN:H	4:L:187:LYS:N	2.14	0.45
8:P:247:VAL:HG22	8:P:248:ALA:N	2.32	0.45
1:A:55:ASP:O	1:A:57:ILE:N	2.50	0.45
1:A:86:LEU:HD21	1:A:101:VAL:HG12	1.99	0.45
1:A:205:VAL:C	1:A:206:LEU:HD23	2.36	0.45
1:A:336:THR:HB	1:A:354:TYR:HD1	1.80	0.45
2:B:4:GLN:CB	3:C:71:ALA:HB3	2.45	0.45
3:C:298:GLU:HA	3:C:320:VAL:H	1.81	0.45
4:D:226:PRO:CG	4:D:311:MET:HG2	2.47	0.45
5:E:189:GLY:O	5:E:190:SER:HB2	2.17	0.45
5:E:439:VAL:HB	5:E:528:VAL:HG13	1.99	0.45
6:F:141:THR:CG2	6:F:142:ASN:N	2.78	0.45
6:F:173:ILE:HD11	6:F:209:PHE:N	2.32	0.45
6:F:238:VAL:HG22	6:F:239:SER:N	2.32	0.45
7:G:317:ARG:O	7:G:317:ARG:HD2	2.16	0.45
8:H:96:MET:CB	8:H:515:GLU:OE1	2.65	0.45
1:I:69:ILE:O	1:I:73:LEU:HD13	2.16	0.45
1:I:486:MET:CB	1:I:487:ALA:HB2	2.46	0.45
2:J:232:LEU:HD22	2:J:233:ILE:H	1.80	0.45
2:J:456:VAL:HG13	2:J:457:SER:N	2.32	0.45
4:L:226:PRO:CG	4:L:311:MET:HG2	2.47	0.45
5:M:84:THR:HG22	5:M:85:ASN:N	2.31	0.45
5:M:439:VAL:HB	5:M:528:VAL:HG13	1.99	0.45
6:N:108:PHE:C	6:N:108:PHE:CD1	2.90	0.45
6:N:238:VAL:HG22	6:N:239:SER:N	2.32	0.45
6:N:399:LEU:O	6:N:399:LEU:HD12	2.17	0.45
7:O:207:GLY:HA3	7:O:379:ARG:HH11	1.81	0.45
7:O:317:ARG:O	7:O:317:ARG:HD2	2.16	0.45
8:P:96:MET:CB	8:P:515:GLU:OE1	2.65	0.45
8:P:464:ALA:HB1	8:P:474:VAL:HG21	1.98	0.45
1:A:532:LEU:O	1:A:536:VAL:HG23	2.16	0.45
2:B:30:GLY:HA2	2:B:33:VAL:HG21	1.97	0.45
2:B:386:ASP:O	2:B:390:VAL:HG23	2.17	0.45
3:C:222:GLY:HA3	3:C:368:LEU:O	2.17	0.45
3:C:230:VAL:HG21	3:C:303:ASP:H	1.80	0.45
9:C:1101:ADP:O1A	10:C:1102:BEF:F3	2.24	0.45
4:D:103:LEU:HD22	4:D:515:VAL:HG21	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:108:PHE:CE1	6:F:118:ILE:HG13	2.50	0.45
6:F:296:ILE:HG12	6:F:317:LEU:HB2	1.98	0.45
1:I:164:MET:HE3	1:I:169:ILE:HB	1.99	0.45
2:J:45:LEU:HB2	6:N:533:LEU:HB3	1.95	0.45
4:L:299:ASP:OD1	4:L:301:ALA:HB3	2.16	0.45
4:L:469:LEU:C	4:L:471:SER:H	2.19	0.45
9:L:601:ADP:N3	9:L:601:ADP:H2'	2.31	0.45
6:N:72:THR:O	6:N:75:LEU:HB3	2.16	0.45
6:N:173:ILE:HD11	6:N:209:PHE:N	2.32	0.45
7:O:226:TYR:CE1	7:O:229:PHE:CB	3.00	0.45
7:O:291:ASN:HA	7:O:312:ILE:HB	1.97	0.45
8:P:63:ILE:HD12	8:P:74:GLU:CG	2.45	0.45
8:P:71:MET:O	8:P:75:LEU:HG	2.17	0.45
2:B:219:GLY:HA3	2:B:304:ASN:ND2	2.31	0.45
2:B:293:TYR:O	2:B:297:LEU:HD23	2.17	0.45
3:C:414:PRO:HG2	3:C:481:THR:CG2	2.47	0.45
3:C:471:LEU:HD12	3:C:491:ILE:HG21	1.98	0.45
6:F:207:THR:HB	6:F:380:ILE:HA	1.99	0.45
6:F:436:ALA:HA	6:F:437:LYS:HA	1.66	0.45
6:F:515:ASN:HD22	6:F:515:ASN:C	2.18	0.45
7:G:249:GLU:O	7:G:250:LEU:C	2.55	0.45
8:H:247:VAL:HG22	8:H:248:ALA:N	2.32	0.45
1:I:55:ASP:O	1:I:57:ILE:N	2.50	0.45
2:J:469:THR:O	2:J:470:SER:CB	2.59	0.45
3:K:10:ALA:HA	3:K:11:SER:HA	1.59	0.45
4:L:313:VAL:HG11	4:L:361:VAL:HG21	1.99	0.45
6:N:491:VAL:HG12	6:N:492:ASP:H	1.82	0.45
6:N:540:THR:CB	6:N:541:LEU:HD22	2.44	0.45
1:A:25:ILE:HG22	1:A:26:ARG:N	2.32	0.45
1:A:129:PHE:N	1:A:129:PHE:CD2	2.84	0.45
2:B:74:ALA:O	2:B:78:VAL:HG23	2.17	0.45
2:B:222:GLN:HB3	2:B:223:PRO:HD2	1.98	0.45
3:C:219:VAL:HG13	3:C:379:ILE:HD12	1.99	0.45
5:E:500:SER:O	5:E:504:LYS:HG2	2.17	0.45
6:F:92:THR:OG1	9:F:601:ADP:PB	2.74	0.45
6:F:117:ILE:HG12	5:M:33:LYS:CE	2.39	0.45
7:G:170:LEU:O	7:G:170:LEU:CD2	2.58	0.45
1:I:62:VAL:O	1:I:397:GLU:HG3	2.17	0.45
2:J:40:LYS:HA	6:N:116:ARG:HG3	1.99	0.45
2:J:88:VAL:CG1	2:J:393:GLN:HE22	2.22	0.45
3:K:229:VAL:HG11	3:K:234:MET:HE2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:267:VAL:HG12	5:M:268:LYS:N	2.32	0.45
5:M:456:GLU:HA	5:M:456:GLU:OE2	2.17	0.45
5:M:500:SER:O	5:M:504:LYS:HG2	2.17	0.45
6:N:166:LEU:CD2	6:N:205:LYS:HA	2.47	0.45
6:N:167:THR:CA	6:N:168:GLU:CB	2.95	0.45
6:N:178:VAL:HG21	6:N:402:VAL:CG1	2.47	0.45
6:N:207:THR:HB	6:N:380:ILE:HA	1.99	0.45
6:N:296:ILE:HD12	6:N:328:LEU:HD22	1.99	0.45
6:N:330:LEU:O	6:N:372:ASP:O	2.34	0.45
7:O:438:ILE:N	7:O:438:ILE:HD12	2.32	0.45
1:A:120:ILE:HD13	1:A:120:ILE:O	2.16	0.45
2:B:368:VAL:O	2:B:377:LEU:HD23	2.17	0.45
2:B:456:VAL:HG13	2:B:457:SER:N	2.32	0.45
3:C:402:VAL:HG13	3:C:502:PRO:CG	2.45	0.45
5:E:84:THR:HA	5:E:418:GLU:OE1	2.17	0.45
5:E:150:PHE:CD1	5:E:472:PHE:HE2	2.35	0.45
5:E:255:PRO:HG3	5:E:336:LEU:CB	2.47	0.45
6:F:342:ASP:CG	6:F:345:PRO:HG2	2.38	0.45
6:F:399:LEU:O	6:F:399:LEU:HD12	2.17	0.45
6:F:491:VAL:HG12	6:F:492:ASP:H	1.82	0.45
7:G:159:GLU:O	7:G:179:VAL:HG11	2.17	0.45
8:H:62:ILE:HD13	8:H:63:ILE:N	2.32	0.45
8:H:252:CYS:HB2	8:H:343:ARG:N	2.32	0.45
8:H:332:LEU:O	8:H:335:VAL:HB	2.17	0.45
8:H:335:VAL:HG13	8:H:379:SER:CB	2.46	0.45
1:I:129:PHE:N	1:I:129:PHE:CD2	2.84	0.45
1:I:218:LEU:HD23	1:I:385:ILE:HG12	1.98	0.45
2:J:32:LEU:HD12	6:N:532:GLU:OE2	2.17	0.45
2:J:222:GLN:HB3	2:J:223:PRO:HD2	1.98	0.45
3:K:222:GLY:HA3	3:K:368:LEU:O	2.17	0.45
4:L:418:GLU:HG2	4:L:451:PRO:HD3	1.98	0.45
6:N:539:SER:HB2	6:N:542:LYS:HD3	1.99	0.45
7:O:204:ILE:HA	7:O:205:PRO:HD3	1.79	0.45
8:P:134:ALA:O	8:P:138:THR:HG23	2.17	0.45
1:A:120:ILE:HG21	1:A:125:ILE:CG1	2.47	0.44
2:B:203:LEU:O	2:B:204:SER:OG	2.30	0.44
2:B:411:MET:HG2	2:B:411:MET:H	1.53	0.44
3:C:495:VAL:HG23	3:C:500:TRP:CH2	2.49	0.44
4:D:147:ARG:O	4:D:151:VAL:HG23	2.16	0.44
4:D:238:GLN:HE22	4:D:318:ARG:NH1	2.15	0.44
4:D:299:ASP:OD1	4:D:301:ALA:HB3	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:84:THR:O	5:E:90:ILE:HD11	2.18	0.44
5:E:184:ALA:O	5:E:188:LEU:CB	2.64	0.44
6:F:83:GLN:OE1	6:F:515:ASN:ND2	2.50	0.44
6:F:122:PHE:CD1	6:F:447:PHE:HD1	2.35	0.44
6:F:231:ALA:O	6:F:351:SER:OG	2.22	0.44
6:F:539:SER:HB2	6:F:542:LYS:HD3	2.00	0.44
7:G:438:ILE:N	7:G:438:ILE:HD12	2.32	0.44
3:K:250:LEU:CG	3:K:301:VAL:CB	2.92	0.44
4:L:181:ILE:HD11	4:L:375:VAL:HG23	1.98	0.44
4:L:524:ILE:CB	7:O:52:LEU:O	2.64	0.44
6:N:122:PHE:CD1	6:N:447:PHE:HD1	2.35	0.44
6:N:167:THR:CB	6:N:168:GLU:HB3	2.47	0.44
6:N:422:LEU:HD13	6:N:517:ILE:HD11	1.98	0.44
7:O:109:MET:SD	7:O:514:THR:CB	3.05	0.44
7:O:123:HIS:ND1	7:O:123:HIS:N	2.65	0.44
8:P:428:ILE:CD1	8:P:478:LEU:HD13	2.48	0.44
1:A:221:GLY:HA2	1:A:382:SER:CB	2.42	0.44
1:A:419:VAL:HG13	1:A:425:VAL:HG21	1.98	0.44
1:A:433:LEU:O	1:A:437:ALA:CA	2.64	0.44
2:B:37:LEU:CB	2:B:444:LEU:HD13	2.47	0.44
5:E:271:ILE:CB	5:E:362:ILE:HA	2.48	0.44
5:E:387:THR:HA	5:E:388:THR:HA	1.61	0.44
6:F:153:VAL:CB	6:F:507:TRP:CB	2.94	0.44
6:F:433:LYS:HG3	6:F:444:ILE:CG2	2.46	0.44
7:G:109:MET:SD	7:G:514:THR:CB	3.05	0.44
7:G:241:ILE:HD12	7:G:330:VAL:HG21	1.98	0.44
8:H:256:ILE:HD13	8:H:280:GLU:OE1	2.17	0.44
1:I:112:ALA:HB1	1:I:539:LEU:HD21	1.98	0.44
2:J:370:ARG:O	2:J:372:ALA:N	2.50	0.44
3:K:414:PRO:HG2	3:K:481:THR:CG2	2.47	0.44
4:L:521:ILE:CG2	7:O:52:LEU:N	2.78	0.44
5:M:73:ILE:O	5:M:74:LEU:HD22	2.17	0.44
5:M:84:THR:HA	5:M:418:GLU:OE1	2.17	0.44
6:N:90:GLY:O	6:N:94:VAL:CG2	2.34	0.44
6:N:214:VAL:HG22	6:N:377:THR:OG1	2.18	0.44
7:O:159:GLU:O	7:O:179:VAL:HG11	2.17	0.44
7:O:241:ILE:HD12	7:O:330:VAL:CG2	2.48	0.44
8:P:62:ILE:HD13	8:P:63:ILE:N	2.32	0.44
4:D:370:ASN:O	4:D:373:PRO:HD3	2.18	0.44
5:E:267:VAL:HG12	5:E:268:LYS:N	2.32	0.44
5:E:351:LEU:HD22	5:E:352:GLU:H	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:108:PHE:C	6:F:108:PHE:CD1	2.90	0.44
7:G:329:ALA:HA	7:G:371:ALA:HB1	1.98	0.44
7:G:452:GLN:CD	7:G:452:GLN:H	2.21	0.44
8:H:428:ILE:CD1	8:H:478:LEU:HD13	2.48	0.44
2:J:224:LYS:O	2:J:343:ILE:HA	2.16	0.44
3:K:457:ILE:HD13	3:K:467:LEU:CD1	2.19	0.44
5:M:189:GLY:O	5:M:190:SER:HB2	2.17	0.44
5:M:340:LEU:HD23	5:M:340:LEU:H	1.81	0.44
5:M:450:MET:HE3	5:M:454:VAL:CG2	2.47	0.44
6:N:330:LEU:HB3	6:N:375:SER:OG	2.17	0.44
7:O:244:LEU:HB3	7:O:246:VAL:HG22	1.99	0.44
1:A:90:GLN:HE21	1:A:527:SER:HB3	1.83	0.44
2:B:42:MET:HE3	2:B:42:MET:HA	2.00	0.44
2:B:417:THR:HG23	2:B:418:GLU:N	2.33	0.44
3:C:515:GLU:CD	8:H:389:ALA:HB3	2.38	0.44
4:D:12:LYS:HZ2	7:G:73:LEU:HD22	1.82	0.44
4:D:209:MET:HE3	4:D:375:VAL:HG11	2.00	0.44
4:D:313:VAL:HG11	4:D:361:VAL:HG21	1.99	0.44
5:E:37:ASN:HB2	6:N:114:HIS:HA	2.00	0.44
5:E:340:LEU:HD23	5:E:340:LEU:H	1.81	0.44
6:F:101:LEU:O	6:F:101:LEU:HD23	2.17	0.44
8:H:134:ALA:O	8:H:138:THR:HG23	2.17	0.44
1:I:54:VAL:HG12	1:I:56:ASP:N	2.29	0.44
1:I:91:ASP:HA	1:I:95:GLY:HA2	2.00	0.44
4:L:417:PRO:O	4:L:421:ILE:HG12	2.16	0.44
6:N:101:LEU:O	6:N:101:LEU:HD23	2.17	0.44
6:N:159:LEU:CA	6:N:164:ALA:HB2	2.41	0.44
8:P:101:ASN:N	8:P:101:ASN:HD22	2.16	0.44
8:P:209:VAL:CG2	8:P:386:LEU:HD11	2.35	0.44
8:P:332:LEU:O	8:P:335:VAL:HB	2.17	0.44
1:A:62:VAL:O	1:A:397:GLU:HG3	2.17	0.44
1:A:120:ILE:CG2	1:A:121:HIS:N	2.81	0.44
3:C:463:ASP:O	3:C:467:LEU:HB2	2.18	0.44
4:D:181:ILE:HD11	4:D:375:VAL:HG23	1.98	0.44
5:E:276:PHE:HB3	5:E:327:PHE:HA	2.00	0.44
5:E:456:GLU:HA	5:E:456:GLU:OE2	2.17	0.44
6:F:36:ASN:HB3	6:F:57:LYS:HZ3	0.68	0.44
6:F:89:ASP:OD1	9:F:601:ADP:O1B	2.35	0.44
6:F:114:HIS:CD2	5:M:37:ASN:HD22	2.35	0.44
6:F:330:LEU:HB3	6:F:375:SER:OG	2.17	0.44
7:G:226:TYR:CE1	7:G:229:PHE:CB	3.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:241:ILE:HD12	7:G:330:VAL:CG2	2.48	0.44
7:G:244:LEU:HB3	7:G:246:VAL:HG22	1.99	0.44
8:H:6:PRO:CB	8:H:7:GLN:CA	2.93	0.44
8:H:424:GLY:O	8:H:428:ILE:HG13	2.18	0.44
1:I:183:ALA:CB	1:I:383:SER:HB2	2.47	0.44
2:J:74:ALA:O	2:J:78:VAL:HG23	2.17	0.44
2:J:243:VAL:HG12	2:J:245:ILE:N	2.29	0.44
4:L:134:ILE:HB	4:L:421:ILE:CD1	2.48	0.44
4:L:219:ALA:HB1	4:L:221:LYS:HZ3	1.83	0.44
4:L:238:GLN:HE22	4:L:318:ARG:NH1	2.15	0.44
4:L:370:ASN:O	4:L:373:PRO:HD3	2.18	0.44
5:M:340:LEU:HA	5:M:341:PRO:HD3	1.83	0.44
5:M:373:LYS:HE2	6:N:311:LYS:NZ	2.31	0.44
6:N:141:THR:CB	6:N:409:LYS:HG3	2.45	0.44
6:N:503:ILE:O	6:N:503:ILE:HG22	2.18	0.44
7:O:170:LEU:O	7:O:170:LEU:CD2	2.58	0.44
7:O:186:VAL:HG21	7:O:400:VAL:HG22	1.98	0.44
8:P:113:VAL:CG1	8:P:451:GLN:HG3	2.37	0.44
8:P:155:ASP:HB3	8:P:156:LYS:H	1.48	0.44
8:P:256:ILE:HD13	8:P:280:GLU:OE1	2.17	0.44
8:P:329:LEU:HD23	8:P:329:LEU:O	2.17	0.44
1:A:17:GLY:HA2	1:A:546:THR:O	2.18	0.44
1:A:112:ALA:HB1	1:A:539:LEU:HD21	1.98	0.44
2:B:36:THR:HG22	2:B:42:MET:O	2.18	0.44
2:B:186:GLY:HA2	2:B:187:SER:HA	1.47	0.44
2:B:389:SER:O	2:B:393:GLN:HG3	2.17	0.44
4:D:7:SER:HA	7:G:35:ALA:HB1	2.00	0.44
4:D:273:ASN:ND2	7:G:268:GLN:HE22	2.15	0.44
5:E:429:VAL:O	5:E:432:ASN:HB2	2.18	0.44
6:F:166:LEU:CD2	6:F:205:LYS:HA	2.47	0.44
8:H:113:VAL:CG1	8:H:451:GLN:HG3	2.37	0.44
1:I:16:GLY:CA	1:I:548:ASP:HB3	2.44	0.44
1:I:17:GLY:HA2	1:I:546:THR:O	2.18	0.44
1:I:90:GLN:HE21	1:I:527:SER:HB3	1.83	0.44
1:I:120:ILE:CG2	1:I:121:HIS:N	2.81	0.44
1:I:532:LEU:O	1:I:536:VAL:HG23	2.16	0.44
1:I:538:ILE:HA	1:I:541:ILE:HD12	2.00	0.44
2:J:8:ASP:N	2:J:8:ASP:OD1	2.51	0.44
2:J:250:PHE:CB	6:N:250:GLY:O	2.65	0.44
3:K:219:VAL:HG13	3:K:379:ILE:HD12	1.99	0.44
5:M:314:LYS:HZ1	5:M:338:ASN:HA	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:209:PHE:CE2	6:N:376:CYS:SG	2.97	0.44
6:N:430:ASN:CA	6:N:433:LYS:HB2	2.48	0.44
7:O:454:CYS:HB2	7:O:461:ALA:HB1	1.98	0.44
1:A:120:ILE:HG21	1:A:125:ILE:HG12	2.00	0.44
2:B:482:MET:SD	2:B:487:ILE:HB	2.58	0.44
3:C:114:LYS:CA	3:C:115:ASN:CB	2.94	0.44
3:C:306:GLN:C	3:C:310:LEU:HG	2.37	0.44
5:E:535:LYS:HD2	5:E:535:LYS:C	2.38	0.44
6:F:79:ALA:HB1	6:F:523:ILE:HD11	1.98	0.44
7:G:396:ALA:O	7:G:397:ILE:C	2.55	0.44
1:I:120:ILE:HG21	1:I:125:ILE:CG1	2.48	0.44
1:I:419:VAL:HA	1:I:420:PRO:HD3	1.86	0.44
2:J:231:ILE:H	2:J:231:ILE:HG12	1.60	0.44
5:M:351:LEU:HD22	5:M:352:GLU:H	1.83	0.44
6:N:83:GLN:OE1	6:N:515:ASN:ND2	2.51	0.44
6:N:195:GLU:HG2	6:N:197:MET:CE	2.48	0.44
8:P:15:LYS:HG3	8:P:16:GLN:H	1.83	0.44
1:A:350:PHE:HE2	1:A:354:TYR:CB	2.16	0.44
1:A:458:ILE:HD12	1:A:458:ILE:H	1.82	0.44
3:C:28:ALA:HB2	3:C:74:ALA:O	2.18	0.44
4:D:134:ILE:HB	4:D:421:ILE:CD1	2.48	0.44
4:D:234:ILE:HB	4:D:345:ASP:HB2	2.00	0.44
5:E:492:ILE:CD1	2:J:115:ILE:HG12	2.45	0.44
6:F:174:VAL:O	6:F:178:VAL:HG23	2.18	0.44
7:G:123:HIS:ND1	7:G:123:HIS:N	2.65	0.44
8:H:243:LYS:HD3	8:H:243:LYS:HA	1.87	0.44
8:H:393:ASN:O	8:H:397:ILE:HG13	2.18	0.44
2:J:37:LEU:CB	2:J:444:LEU:HD13	2.47	0.44
2:J:92:THR:HA	2:J:95:VAL:HG23	2.00	0.44
2:J:482:MET:SD	2:J:487:ILE:HB	2.57	0.44
5:M:255:PRO:HG3	5:M:336:LEU:CB	2.47	0.44
6:N:124:ILE:HB	6:N:444:ILE:CD1	2.48	0.44
6:N:370:ASN:N	6:N:370:ASN:HD22	2.14	0.44
6:N:422:LEU:O	6:N:426:LEU:HB2	2.17	0.44
7:O:162:ALA:CB	7:O:179:VAL:HG13	2.47	0.44
7:O:282:LEU:HD23	7:O:303:ALA:O	2.17	0.44
1:A:129:PHE:CB	1:A:532:LEU:HD21	2.48	0.44
1:A:143:VAL:HG11	1:A:425:VAL:HG22	1.99	0.44
1:A:185:LEU:HD23	1:A:185:LEU:HA	1.85	0.44
1:A:267:PRO:CA	1:A:268:GLU:CB	2.95	0.44
2:B:231:ILE:HG22	2:B:232:LEU:H	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:234:ALA:HA	2:B:325:VAL:HB	1.99	0.44
2:B:237:THR:N	2:B:287:ARG:HD2	2.28	0.44
2:B:459:LEU:HD13	2:B:472:LEU:HD23	2.00	0.44
4:D:485:ARG:H	4:D:485:ARG:CD	2.27	0.44
5:E:107:LEU:CD2	5:E:544:LEU:HG	2.35	0.44
6:F:167:THR:CA	6:F:168:GLU:CB	2.95	0.44
6:F:178:VAL:HG21	6:F:402:VAL:CG1	2.47	0.44
6:F:190:ASP:O	6:F:193:MET:HG2	2.18	0.44
6:F:238:VAL:HG22	6:F:239:SER:H	1.83	0.44
6:F:451:LEU:O	6:F:455:PRO:CG	2.66	0.44
7:G:400:VAL:O	7:G:404:LEU:HB2	2.17	0.44
1:I:16:GLY:HA3	1:I:548:ASP:CB	2.45	0.44
1:I:267:PRO:CA	1:I:268:GLU:CB	2.95	0.44
2:J:100:ALA:O	2:J:104:ARG:HG3	2.18	0.44
2:J:389:SER:O	2:J:393:GLN:HG3	2.17	0.44
2:J:401:VAL:HG22	2:J:402:LEU:N	2.33	0.44
3:K:50:ASP:OD1	3:K:54:GLY:HA3	2.18	0.44
3:K:350:THR:O	3:K:350:THR:HG22	2.18	0.44
3:K:483:GLY:O	3:K:491:ILE:HB	2.18	0.44
4:L:379:ILE:HD12	4:L:379:ILE:N	2.33	0.44
5:M:150:PHE:CD1	5:M:472:PHE:HE2	2.35	0.44
6:N:143:LEU:CD1	6:N:145:ASN:CB	2.96	0.44
6:N:280:LEU:CD1	6:N:343:LEU:HD11	2.48	0.44
7:O:382:ALA:O	7:O:386:ILE:HG13	2.18	0.44
7:O:454:CYS:CB	7:O:461:ALA:HA	2.48	0.44
2:B:100:ALA:O	2:B:104:ARG:HG3	2.18	0.43
2:B:102:LEU:HD23	2:B:102:LEU:C	2.39	0.43
3:C:467:LEU:HD21	3:C:491:ILE:CG2	2.46	0.43
3:C:523:VAL:HG22	8:H:54:ILE:CD1	2.48	0.43
4:D:125:GLN:HB2	7:G:173:ASN:ND2	2.32	0.43
5:E:142:HIS:CD2	5:E:144:ILE:HB	2.53	0.43
5:E:314:LYS:HZ1	5:E:338:ASN:HA	1.83	0.43
5:E:346:VAL:O	5:E:347:GLY:C	2.57	0.43
6:F:105:ALA:HA	6:F:108:PHE:CE2	2.54	0.43
6:F:195:GLU:OE1	6:F:197:MET:CE	2.65	0.43
6:F:422:LEU:O	6:F:426:LEU:HB2	2.17	0.43
7:G:62:ILE:O	7:G:62:ILE:HG23	2.17	0.43
7:G:303:ALA:O	7:G:307:PHE:CD2	2.70	0.43
7:G:454:CYS:HB2	7:G:461:ALA:HB1	1.98	0.43
8:H:71:MET:O	8:H:75:LEU:HG	2.17	0.43
1:I:120:ILE:HG21	1:I:125:ILE:HG12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:143:VAL:HG11	1:I:425:VAL:HG22	1.99	0.43
3:K:28:ALA:HB2	3:K:74:ALA:O	2.18	0.43
3:K:35:ILE:C	3:K:37:THR:H	2.21	0.43
3:K:174:LEU:HG	3:K:219:VAL:CG2	2.47	0.43
5:M:132:GLN:HA	5:M:132:GLN:NE2	2.32	0.43
6:N:342:ASP:CG	6:N:345:PRO:HG2	2.38	0.43
7:O:62:ILE:O	7:O:62:ILE:HG23	2.17	0.43
7:O:249:GLU:O	7:O:250:LEU:C	2.55	0.43
8:P:6:PRO:CB	8:P:7:GLN:HG3	2.38	0.43
8:P:291:ILE:HD12	8:P:347:PRO:HG2	1.96	0.43
1:A:12:THR:CG2	5:E:97:ASP:H	2.24	0.43
2:B:88:VAL:HG12	2:B:89:GLY:N	2.32	0.43
2:B:370:ARG:O	2:B:372:ALA:N	2.50	0.43
3:C:35:ILE:C	3:C:37:THR:H	2.22	0.43
3:C:51:PRO:O	3:C:52:MET:CG	2.63	0.43
3:C:219:VAL:O	3:C:219:VAL:HG12	2.18	0.43
3:C:441:PRO:O	3:C:444:ALA:HB3	2.18	0.43
5:E:396:GLU:HA	5:E:397:GLN:HA	1.53	0.43
5:E:450:MET:HE3	5:E:454:VAL:CG2	2.47	0.43
6:F:538:ARG:CG	6:F:538:ARG:NH1	2.72	0.43
7:G:30:ILE:O	7:G:33:CYS:HB3	2.19	0.43
7:G:346:LEU:HD23	7:G:346:LEU:N	2.33	0.43
8:H:15:LYS:HG3	8:H:16:GLN:H	1.83	0.43
1:I:25:ILE:HG22	1:I:26:ARG:N	2.32	0.43
3:K:48:LEU:HD21	3:K:64:ILE:HD13	1.99	0.43
3:K:114:LYS:CA	3:K:115:ASN:CB	2.94	0.43
3:K:467:LEU:HD21	3:K:491:ILE:CG2	2.46	0.43
4:L:94:THR:HG23	9:L:601:ADP:O3B	2.18	0.43
4:L:236:LEU:O	4:L:332:PRO:HA	2.18	0.43
5:M:276:PHE:HB3	5:M:327:PHE:HA	2.00	0.43
9:M:601:ADP:C8	9:M:601:ADP:C4'	3.01	0.43
6:N:190:ASP:O	6:N:193:MET:HG2	2.18	0.43
6:N:234:LEU:HD12	6:N:280:LEU:HD11	2.00	0.43
7:O:492:PHE:CB	7:O:497:TRP:HZ2	2.31	0.43
1:A:532:LEU:HD22	1:A:536:VAL:CG2	2.48	0.43
9:B:601:ADP:O1A	9:B:601:ADP:O3'	2.29	0.43
3:C:10:ALA:HA	3:C:11:SER:HA	1.59	0.43
3:C:48:LEU:HD21	3:C:64:ILE:HD13	1.99	0.43
3:C:162:LYS:C	3:C:164:VAL:H	2.22	0.43
3:C:318:ARG:O	3:C:319:ARG:C	2.56	0.43
3:C:457:ILE:HD13	3:C:467:LEU:CD1	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:508:GLN:CG	8:H:215:GLY:HA2	2.46	0.43
4:D:146:ASP:HB2	4:D:149:GLN:HB2	2.00	0.43
4:D:184:GLU:HA	4:D:187:LYS:HG2	2.00	0.43
6:F:147:ARG:HH22	6:F:409:LYS:HA	1.84	0.43
6:F:280:LEU:CD1	6:F:343:LEU:HD11	2.48	0.43
7:G:448:VAL:HA	7:G:451:ARG:HB2	2.00	0.43
1:I:494:ARG:CB	1:I:496:SER:H	2.21	0.43
2:J:36:THR:HG22	2:J:42:MET:O	2.18	0.43
2:J:146:LYS:HD3	2:J:146:LYS:N	2.33	0.43
3:K:209:ILE:HG23	3:K:382:ARG:HA	1.99	0.43
3:K:463:ASP:O	3:K:467:LEU:HB2	2.18	0.43
4:L:517:SER:O	4:L:521:ILE:HG13	2.19	0.43
5:M:346:VAL:O	5:M:347:GLY:C	2.57	0.43
6:N:11:GLU:N	6:N:11:GLU:OE2	2.52	0.43
6:N:83:GLN:HB2	6:N:91:THR:HG22	2.00	0.43
6:N:105:ALA:HA	6:N:108:PHE:CE2	2.54	0.43
6:N:362:GLU:CG	6:N:364:PHE:CE2	2.93	0.43
7:O:165:ALA:CB	7:O:399:ILE:HG21	2.46	0.43
7:O:409:ILE:CG2	7:O:410:VAL:H	2.28	0.43
7:O:452:GLN:CD	7:O:452:GLN:H	2.21	0.43
8:P:250:PHE:N	8:P:250:PHE:CD2	2.86	0.43
8:P:311:HIS:CG	8:P:312:TYR:N	2.86	0.43
8:P:338:ALA:N	8:P:353:GLY:HA3	2.33	0.43
8:P:393:ASN:O	8:P:397:ILE:HG13	2.18	0.43
1:A:118:ASN:O	1:A:119:LYS:CG	2.65	0.43
1:A:538:ILE:HA	1:A:541:ILE:HD12	2.00	0.43
2:B:5:ILE:O	3:C:70:VAL:HA	2.18	0.43
2:B:146:LYS:HD3	2:B:146:LYS:N	2.33	0.43
3:C:129:LEU:HD21	3:C:511:LYS:HA	2.00	0.43
4:D:242:SER:HB3	4:D:298:ASN:HB2	2.00	0.43
4:D:518:ILE:HA	4:D:521:ILE:HD12	2.01	0.43
6:F:171:THR:CB	6:F:172:PRO:HD3	2.48	0.43
6:F:209:PHE:HZ	6:F:211:LYS:HD2	1.83	0.43
6:F:214:VAL:HG22	6:F:377:THR:OG1	2.18	0.43
7:G:82:THR:HG21	7:G:517:ILE:HD11	1.99	0.43
7:G:454:CYS:CB	7:G:461:ALA:HA	2.48	0.43
7:G:492:PHE:CB	7:G:497:TRP:HZ2	2.31	0.43
8:H:311:HIS:CG	8:H:312:TYR:N	2.86	0.43
1:I:351:GLU:N	1:I:351:GLU:OE2	2.51	0.43
2:J:32:LEU:HG	6:N:532:GLU:CD	2.37	0.43
3:K:310:LEU:HD21	3:K:316:VAL:HG22	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:318:ARG:O	3:K:319:ARG:C	2.56	0.43
4:L:72:HIS:CD2	8:P:15:LYS:HZ2	2.37	0.43
4:L:161:LYS:HA	4:L:161:LYS:HD2	1.66	0.43
5:M:142:HIS:CD2	5:M:144:ILE:HB	2.53	0.43
5:M:271:ILE:CB	5:M:362:ILE:HA	2.48	0.43
6:N:171:THR:CB	6:N:172:PRO:HD3	2.48	0.43
6:N:185:GLN:HB3	6:N:407:LYS:HD3	2.00	0.43
6:N:195:GLU:OE1	6:N:197:MET:CE	2.65	0.43
6:N:195:GLU:CD	6:N:197:MET:SD	2.97	0.43
6:N:221:HIS:HA	6:N:222:PRO:HD3	1.92	0.43
8:P:467:ALA:HB2	8:P:493:ASP:CB	2.49	0.43
1:A:177:SER:O	1:A:181:VAL:HG23	2.19	0.43
2:B:169:ASP:HB2	2:B:172:HIS:HB2	2.00	0.43
2:B:226:ILE:HG13	2:B:282:ASN:OD1	2.18	0.43
3:C:61:GLY:CA	3:C:94:THR:HG22	2.49	0.43
3:C:152:LYS:HG2	3:C:176:LEU:HG	2.01	0.43
4:D:30:SER:HA	4:D:33:ASP:CG	2.37	0.43
4:D:66:LYS:HA	4:D:66:LYS:HD2	1.62	0.43
4:D:248:THR:O	4:D:250:ASN:OD1	2.37	0.43
4:D:461:ASN:CB	4:D:464:LYS:HG2	2.47	0.43
5:E:373:LYS:HE2	6:F:311:LYS:HZ3	1.83	0.43
6:F:324:ASN:HA	6:F:327:ARG:HB2	2.00	0.43
8:H:250:PHE:N	8:H:250:PHE:CD2	2.86	0.43
8:H:333:CYS:SG	8:H:339:THR:HA	2.59	0.43
8:H:464:ALA:HB2	8:H:474:VAL:HG11	2.00	0.43
1:I:54:VAL:HB	7:O:525:THR:HA	2.00	0.43
1:I:73:LEU:O	1:I:74:ASP:OD1	2.36	0.43
1:I:86:LEU:HD23	1:I:86:LEU:C	2.39	0.43
1:I:187:VAL:CG1	1:I:382:SER:H	2.31	0.43
1:I:460:LYS:O	1:I:464:VAL:HG23	2.18	0.43
2:J:102:LEU:HD23	2:J:102:LEU:C	2.39	0.43
2:J:422:ILE:CB	2:J:427:SER:CB	2.79	0.43
2:J:459:LEU:HD13	2:J:472:LEU:HD23	2.00	0.43
2:J:515:ILE:O	3:K:48:LEU:HA	2.19	0.43
3:K:9:ASN:HB2	8:P:78:VAL:HG13	2.00	0.43
4:L:22:LYS:O	4:L:26:ILE:HG13	2.19	0.43
5:M:73:ILE:HG12	5:M:83:ILE:CG1	2.44	0.43
7:O:51:ILE:HD12	7:O:69:ILE:HD11	2.01	0.43
7:O:130:ARG:HA	7:O:130:ARG:HE	1.84	0.43
7:O:452:GLN:O	7:O:456:ASN:N	2.49	0.43
1:A:54:VAL:HG12	1:A:56:ASP:N	2.30	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:187:VAL:CG1	1:A:382:SER:H	2.30	0.43
1:A:224:LEU:CD1	1:A:226:CYS:CB	2.90	0.43
1:A:460:LYS:O	1:A:464:VAL:HG23	2.18	0.43
2:B:45:LEU:HD12	6:F:533:LEU:HD13	2.00	0.43
2:B:401:VAL:HG22	2:B:402:LEU:N	2.33	0.43
3:C:209:ILE:HG23	3:C:382:ARG:HA	2.00	0.43
3:C:229:VAL:HG11	3:C:234:MET:CE	2.49	0.43
5:E:33:LYS:O	5:E:33:LYS:HG2	2.19	0.43
5:E:73:ILE:O	5:E:74:LEU:HD22	2.18	0.43
5:E:127:SER:O	5:E:128:ALA:C	2.57	0.43
6:F:114:HIS:ND1	6:F:115:PRO:HD2	2.34	0.43
6:F:221:HIS:CD2	6:F:224:MET:SD	3.09	0.43
6:F:430:ASN:C	6:F:432:ASN:H	2.22	0.43
7:G:130:ARG:HA	7:G:130:ARG:HE	1.84	0.43
7:G:162:ALA:CB	7:G:179:VAL:HG13	2.47	0.43
7:G:166:MET:O	7:G:171:ILE:HB	2.18	0.43
7:G:382:ALA:O	7:G:386:ILE:HG13	2.18	0.43
8:H:155:ASP:HB3	8:H:156:LYS:H	1.48	0.43
2:J:329:PHE:CD2	2:J:329:PHE:O	2.53	0.43
3:K:152:LYS:HG2	3:K:176:LEU:HG	2.01	0.43
4:L:146:ASP:HB2	4:L:149:GLN:HB2	2.01	0.43
5:M:262:GLU:HA	5:M:263:GLY:HA2	1.67	0.43
5:M:431:ARG:HA	5:M:434:VAL:HG12	2.01	0.43
6:N:527:LEU:HA	6:N:527:LEU:HD23	1.71	0.43
7:O:83:LEU:HA	7:O:86:ILE:HD11	2.01	0.43
8:P:35:ILE:HG23	8:P:85:LEU:HD12	2.01	0.43
8:P:333:CYS:SG	8:P:339:THR:HA	2.59	0.43
8:P:420:LEU:HD23	8:P:421:PRO:HD2	2.01	0.43
8:P:424:GLY:O	8:P:428:ILE:HG13	2.18	0.43
1:A:86:LEU:HD23	1:A:86:LEU:C	2.39	0.43
1:A:90:GLN:HG3	1:A:101:VAL:CG2	2.19	0.43
1:A:350:PHE:O	1:A:351:GLU:OE2	2.36	0.43
1:A:396:ASP:O	1:A:399:GLU:HB3	2.19	0.43
1:A:434:ASP:O	1:A:438:THR:HG23	2.19	0.43
2:B:8:ASP:N	2:B:8:ASP:OD1	2.51	0.43
2:B:490:SER:HB2	2:B:492:LYS:CE	2.49	0.43
3:C:174:LEU:HD21	3:C:379:ILE:HG21	2.01	0.43
3:C:341:GLU:OE2	8:H:281:GLU:OE2	2.37	0.43
4:D:461:ASN:HB3	4:D:464:LYS:CG	2.48	0.43
6:F:390:GLN:HE21	6:F:390:GLN:HA	1.84	0.43
6:F:419:TYR:O	6:F:422:LEU:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:516:LEU:CD2	7:G:517:ILE:N	2.68	0.43
8:H:101:ASN:N	8:H:101:ASN:HD22	2.16	0.43
8:H:467:ALA:HB2	8:H:493:ASP:CB	2.49	0.43
8:H:523:THR:HA	8:H:526:PHE:HD2	1.83	0.43
2:J:417:THR:HG23	2:J:418:GLU:N	2.33	0.43
3:K:306:GLN:C	3:K:310:LEU:HG	2.37	0.43
4:L:58:SER:HA	4:L:392:ARG:HH12	1.84	0.43
4:L:469:LEU:HD23	4:L:469:LEU:HA	1.87	0.43
5:M:429:VAL:O	5:M:432:ASN:HB2	2.18	0.43
7:O:55:THR:HG21	7:O:72:LEU:HD23	2.01	0.43
7:O:132:ALA:HB2	7:O:439:ILE:HD13	2.01	0.43
7:O:139:LYS:CB	7:O:420:VAL:HG12	2.49	0.43
1:A:66:GLY:HA3	1:A:99:THR:HG22	2.01	0.43
1:A:431:ILE:HG21	1:A:482:ALA:HA	2.01	0.43
2:B:243:VAL:HG12	2:B:245:ILE:N	2.29	0.43
2:B:326:VAL:HG13	3:C:304:LEU:CD2	2.48	0.43
3:C:310:LEU:HD21	3:C:316:VAL:HG22	1.99	0.43
4:D:55:ILE:HD12	8:H:80:PRO:HB3	2.01	0.43
4:D:58:SER:HA	4:D:392:ARG:HH12	1.84	0.43
5:E:364:PRO:HG3	6:F:307:ASP:CB	2.49	0.43
6:F:195:GLU:HG2	6:F:197:MET:CE	2.48	0.43
6:F:420:ILE:CG2	6:F:482:ASP:CG	2.86	0.43
7:G:234:LYS:HA	7:G:234:LYS:HD3	1.34	0.43
8:H:335:VAL:HG23	8:H:381:THR:OG1	2.19	0.43
1:I:129:PHE:CB	1:I:532:LEU:HD21	2.48	0.43
1:I:187:VAL:O	1:I:381:SER:CA	2.67	0.43
1:I:256:MET:HE3	1:I:260:VAL:O	2.19	0.43
1:I:267:PRO:HB2	1:I:269:GLN:CB	2.49	0.43
2:J:60:GLY:H	2:J:93:THR:HG22	1.83	0.43
2:J:350:GLU:H	2:J:350:GLU:HG2	1.37	0.43
4:L:523:ASP:C	7:O:51:ILE:HG23	2.37	0.43
5:M:33:LYS:O	5:M:33:LYS:HG2	2.19	0.43
5:M:87:GLY:HA3	5:M:120:THR:HG22	2.01	0.43
5:M:447:GLU:HG2	5:M:479:ILE:HB	2.01	0.43
6:N:32:VAL:HA	6:N:44:LYS:HZ2	1.84	0.43
6:N:114:HIS:ND1	6:N:115:PRO:HD2	2.34	0.43
6:N:160:THR:N	6:N:164:ALA:HB3	2.31	0.43
7:O:101:VAL:HG22	7:O:506:ALA:HA	2.01	0.43
8:P:335:VAL:HG23	8:P:381:THR:OG1	2.19	0.43
1:A:129:PHE:N	1:A:129:PHE:HD2	2.17	0.43
1:A:345:GLU:HA	1:A:346:GLY:HA2	1.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:351:GLU:N	1:A:351:GLU:OE2	2.52	0.43
2:B:92:THR:HA	2:B:95:VAL:HG23	2.00	0.43
3:C:35:ILE:CD1	3:C:65:LEU:HG	2.47	0.43
3:C:108:ALA:N	3:C:109:PRO:CD	2.81	0.43
4:D:22:LYS:O	4:D:26:ILE:HG13	2.19	0.43
4:D:134:ILE:HB	4:D:421:ILE:HD13	2.01	0.43
4:D:325:SER:HB3	4:D:332:PRO:CG	2.49	0.43
5:E:87:GLY:HA3	5:E:120:THR:HG22	2.01	0.43
5:E:245:LEU:HD22	5:E:245:LEU:HA	1.80	0.43
5:E:447:GLU:HG2	5:E:479:ILE:HB	2.01	0.43
6:F:81:ALA:O	6:F:82:ALA:C	2.57	0.43
6:F:83:GLN:HB2	6:F:91:THR:HG22	2.00	0.43
6:F:185:GLN:HB3	6:F:407:LYS:HD3	2.00	0.43
6:F:234:LEU:HD12	6:F:280:LEU:HD11	2.00	0.43
6:F:429:ALA:O	6:F:432:ASN:HB2	2.19	0.43
6:F:433:LYS:HB3	6:F:444:ILE:HG13	2.00	0.43
6:F:503:ILE:O	6:F:503:ILE:HG22	2.18	0.43
7:G:17:THR:HG21	7:G:525:THR:O	2.19	0.43
7:G:51:ILE:HD12	7:G:69:ILE:HD11	2.01	0.43
7:G:55:THR:HG21	7:G:72:LEU:HD23	2.01	0.43
7:G:113:LYS:O	7:G:116:LEU:HB2	2.19	0.43
1:I:177:SER:O	1:I:181:VAL:HG23	2.19	0.43
2:J:58:ASN:HD21	2:J:93:THR:HG21	1.84	0.43
2:J:243:VAL:CG1	2:J:245:ILE:HG13	2.49	0.43
3:K:219:VAL:O	3:K:219:VAL:HG12	2.18	0.43
3:K:282:LEU:O	3:K:286:GLN:HG3	2.19	0.43
4:L:103:LEU:HD22	4:L:515:VAL:HG21	1.99	0.43
4:L:461:ASN:HB3	4:L:464:LYS:CG	2.48	0.43
5:M:84:THR:O	5:M:90:ILE:HD11	2.18	0.43
5:M:483:LEU:HD21	9:M:601:ADP:H1'	2.00	0.43
6:N:81:ALA:O	6:N:82:ALA:C	2.57	0.43
6:N:113:VAL:CB	6:N:118:ILE:HD11	2.47	0.43
6:N:324:ASN:HA	6:N:327:ARG:HB2	2.00	0.43
6:N:451:LEU:O	6:N:455:PRO:CG	2.66	0.43
7:O:82:THR:HG21	7:O:517:ILE:HD11	1.99	0.43
8:P:482:HIS:C	8:P:484:VAL:N	2.65	0.43
2:B:32:LEU:HD11	6:F:532:GLU:OE2	2.17	0.43
2:B:308:HIS:CE1	2:B:313:GLY:HA3	2.54	0.43
3:C:50:ASP:OD1	3:C:54:GLY:HA3	2.18	0.43
3:C:350:THR:O	3:C:350:THR:HG22	2.18	0.43
3:C:483:GLY:O	3:C:491:ILE:HB	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:241:ILE:HD12	4:D:241:ILE:N	2.30	0.43
4:D:253:ILE:H	4:D:253:ILE:HG12	1.64	0.43
4:D:328:LEU:O	4:D:345:ASP:CG	2.57	0.43
6:F:5:LEU:HB3	6:F:6:LEU:C	2.39	0.43
6:F:28:GLY:C	6:F:30:GLN:H	2.22	0.43
6:F:221:HIS:HB2	6:F:224:MET:CG	2.43	0.43
8:H:77:ILE:H	8:H:77:ILE:CD1	2.26	0.43
8:H:420:LEU:HD23	8:H:421:PRO:HD2	2.01	0.43
1:I:281:VAL:O	1:I:285:VAL:HG23	2.19	0.43
1:I:434:ASP:O	1:I:438:THR:HG23	2.19	0.43
2:J:47:GLN:HE22	2:J:53:THR:N	2.17	0.43
2:J:165:ILE:HG12	6:N:529:LEU:CD1	2.43	0.43
2:J:169:ASP:HB2	2:J:172:HIS:HB2	2.00	0.43
2:J:294:PRO:HA	2:J:297:LEU:HB2	2.00	0.43
2:J:440:LEU:N	2:J:441:PRO:HD2	2.33	0.43
2:J:467:ILE:HA	2:J:468:SER:HA	1.59	0.43
3:K:441:PRO:O	3:K:444:ALA:HB3	2.18	0.43
4:L:184:GLU:HA	4:L:187:LYS:HG2	2.00	0.43
4:L:221:LYS:HE3	4:L:306:SER:CB	2.49	0.43
4:L:226:PRO:HD2	4:L:311:MET:HG2	2.01	0.43
4:L:389:GLU:O	4:L:392:ARG:HD3	2.19	0.43
4:L:423:ARG:O	4:L:427:LYS:HG2	2.19	0.43
5:M:310:ILE:HG23	5:M:335:LEU:HD23	2.01	0.43
6:N:151:LEU:O	6:N:171:THR:HG21	2.19	0.43
6:N:174:VAL:O	6:N:178:VAL:HG23	2.18	0.43
6:N:420:ILE:O	6:N:424:ARG:N	2.40	0.43
6:N:426:LEU:HD22	6:N:426:LEU:HA	1.86	0.43
7:O:17:THR:HG21	7:O:525:THR:O	2.19	0.43
8:P:464:ALA:HB2	8:P:474:VAL:HG11	2.00	0.43
1:A:546:THR:HA	5:E:75:ILE:HB	2.01	0.42
2:B:294:PRO:HA	2:B:297:LEU:HB2	2.00	0.42
2:B:319:LEU:HD23	2:B:319:LEU:O	2.19	0.42
2:B:440:LEU:N	2:B:441:PRO:HD2	2.33	0.42
3:C:282:LEU:O	3:C:286:GLN:HG3	2.19	0.42
5:E:132:GLN:HA	5:E:132:GLN:NE2	2.33	0.42
5:E:431:ARG:HA	5:E:434:VAL:HG12	2.00	0.42
6:F:143:LEU:CD1	6:F:145:ASN:CB	2.96	0.42
7:G:101:VAL:HG22	7:G:506:ALA:HA	2.01	0.42
7:G:178:PHE:CZ	7:G:389:VAL:HG13	2.53	0.42
7:G:282:LEU:HD12	7:G:283:ARG:N	2.34	0.42
8:H:35:ILE:HG23	8:H:85:LEU:HD12	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:302:GLY:HA2	8:H:324:PRO:HD2	2.01	0.42
1:I:543:THR:O	5:M:72:LYS:HB3	2.19	0.42
2:J:218:PHE:HA	2:J:304:ASN:O	2.19	0.42
2:J:319:LEU:HD23	2:J:319:LEU:O	2.19	0.42
3:K:162:LYS:C	3:K:164:VAL:H	2.22	0.42
3:K:237:HIS:C	3:K:238:ILE:HG13	2.40	0.42
4:L:77:MET:O	4:L:81:VAL:HG23	2.18	0.42
4:L:134:ILE:HB	4:L:421:ILE:HD13	2.01	0.42
4:L:138:MET:HE1	4:L:416:ALA:HB1	2.01	0.42
5:M:477:ASP:O	5:M:480:PRO:HD2	2.19	0.42
6:N:92:THR:OG1	9:N:601:ADP:O2B	2.35	0.42
6:N:147:ARG:HH22	6:N:409:LYS:HA	1.84	0.42
7:O:236:PHE:O	7:O:239:PRO:HG3	2.19	0.42
8:P:137:PHE:HE2	8:P:434:ILE:HA	1.84	0.42
8:P:318:ILE:HG22	8:P:319:LEU:O	2.19	0.42
2:B:494:LYS:HA	2:B:494:LYS:HD2	1.79	0.42
4:D:200:VAL:HA	4:D:381:GLY:O	2.18	0.42
4:D:236:LEU:O	4:D:332:PRO:HA	2.18	0.42
4:D:423:ARG:O	4:D:427:LYS:HG2	2.19	0.42
4:D:436:GLN:H	4:D:436:GLN:CD	2.22	0.42
4:D:517:SER:O	4:D:521:ILE:HG13	2.19	0.42
5:E:263:GLY:HA3	5:E:380:ILE:O	2.19	0.42
5:E:466:GLN:HG3	5:E:467:TYR:CD2	2.54	0.42
5:E:485:GLU:HB2	5:E:491:PRO:HG3	2.01	0.42
6:F:143:LEU:HD21	6:F:145:ASN:HB3	1.97	0.42
6:F:430:ASN:CA	6:F:433:LYS:HB2	2.48	0.42
7:G:117:GLU:CD	7:G:117:GLU:N	2.73	0.42
1:I:66:GLY:HA3	1:I:99:THR:HG22	2.01	0.42
2:J:120:ILE:HG23	2:J:124:TYR:CE1	2.54	0.42
2:J:287:ARG:H	2:J:287:ARG:HG2	1.58	0.42
4:L:200:VAL:HA	4:L:381:GLY:O	2.18	0.42
4:L:436:GLN:H	4:L:436:GLN:CD	2.22	0.42
4:L:518:ILE:HA	4:L:521:ILE:HD12	2.01	0.42
5:M:127:SER:O	5:M:128:ALA:C	2.57	0.42
6:N:16:ASP:O	6:N:20:LYS:N	2.46	0.42
6:N:233:VAL:HG12	6:N:294:VAL:CG2	2.49	0.42
6:N:352:GLY:CA	6:N:369:GLU:C	2.48	0.42
6:N:352:GLY:C	6:N:367:VAL:HG12	2.40	0.42
6:N:419:TYR:O	6:N:422:LEU:HB2	2.19	0.42
7:O:36:VAL:CG2	7:O:37:GLN:N	2.83	0.42
7:O:178:PHE:CZ	7:O:389:VAL:HG13	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:P:48:PRO:HG3	8:P:169:SER:HA	2.02	0.42
1:A:17:GLY:HA2	1:A:547:VAL:HA	2.01	0.42
1:A:482:ALA:O	1:A:485:GLN:O	2.37	0.42
2:B:236:THR:HA	2:B:287:ARG:CD	2.50	0.42
3:C:228:ASP:OD2	3:C:229:VAL:N	2.53	0.42
3:C:291:ARG:N	3:C:292:PRO:CD	2.80	0.42
4:D:72:HIS:CD2	8:H:15:LYS:NZ	2.87	0.42
4:D:232:ALA:O	4:D:234:ILE:HD12	2.19	0.42
4:D:254:VAL:HG22	8:H:265:VAL:CA	2.34	0.42
5:E:273:THR:HG21	5:E:364:PRO:CA	2.47	0.42
6:F:195:GLU:CD	6:F:197:MET:SD	2.97	0.42
6:F:527:LEU:HD23	6:F:527:LEU:HA	1.71	0.42
7:G:236:PHE:O	7:G:239:PRO:HD3	2.19	0.42
7:G:236:PHE:O	7:G:239:PRO:HG3	2.19	0.42
8:H:35:ILE:CD1	8:H:82:VAL:HA	2.49	0.42
8:H:338:ALA:N	8:H:353:GLY:HA3	2.33	0.42
1:I:363:GLN:HE21	1:I:363:GLN:HB2	1.66	0.42
2:J:226:ILE:HG13	2:J:282:ASN:OD1	2.18	0.42
2:J:490:SER:HB2	2:J:492:LYS:CE	2.49	0.42
2:J:513:ASN:O	2:J:514:ILE:CD1	2.46	0.42
3:K:61:GLY:CA	3:K:94:THR:HG22	2.49	0.42
5:M:297:LYS:HA	5:M:297:LYS:HD2	1.66	0.42
5:M:320:VAL:HG22	5:M:341:PRO:CD	2.40	0.42
5:M:477:ASP:C	5:M:480:PRO:HD2	2.39	0.42
6:N:430:ASN:C	6:N:432:ASN:H	2.22	0.42
7:O:86:ILE:HG13	7:O:86:ILE:H	1.58	0.42
7:O:346:LEU:HD23	7:O:346:LEU:N	2.33	0.42
8:P:35:ILE:HD13	8:P:82:VAL:HG22	2.00	0.42
8:P:177:ILE:O	8:P:181:LEU:HD12	2.19	0.42
8:P:486:GLU:N	8:P:487:PRO:HA	2.34	0.42
1:A:178:ASN:HD21	1:A:182:ASP:CG	2.23	0.42
1:A:183:ALA:CB	1:A:383:SER:HB2	2.47	0.42
1:A:281:VAL:O	1:A:285:VAL:HG23	2.19	0.42
1:A:301:GLY:HA2	1:A:320:ARG:H	1.84	0.42
2:B:218:PHE:HA	2:B:304:ASN:O	2.19	0.42
2:B:326:VAL:HG11	3:C:304:LEU:HD13	2.01	0.42
2:B:372:ALA:HA	6:F:519:GLY:HA2	2.01	0.42
4:D:77:MET:O	4:D:81:VAL:HG23	2.18	0.42
5:E:477:ASP:C	5:E:480:PRO:HD2	2.39	0.42
6:F:6:LEU:HD12	6:F:7:ASN:H	1.85	0.42
6:F:136:PHE:O	6:F:138:ILE:HG13	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:209:PHE:CE2	6:F:376:CYS:SG	2.97	0.42
6:F:433:LYS:CG	6:F:444:ILE:HG13	2.48	0.42
6:F:485:GLU:O	6:F:488:TYR:N	2.53	0.42
8:H:137:PHE:HE2	8:H:434:ILE:HA	1.84	0.42
8:H:306:GLY:O	8:H:310:LEU:HB2	2.20	0.42
1:I:17:GLY:HA2	1:I:547:VAL:HA	2.01	0.42
1:I:133:LEU:HG	1:I:532:LEU:HD12	2.01	0.42
1:I:296:VAL:O	1:I:297:LEU:HD23	2.19	0.42
1:I:301:GLY:HA2	1:I:320:ARG:H	1.84	0.42
2:J:3:VAL:HB	2:J:4:GLN:CD	2.40	0.42
2:J:76:VAL:O	2:J:79:ASN:HB2	2.20	0.42
3:K:228:ASP:OD2	3:K:229:VAL:N	2.52	0.42
3:K:229:VAL:HG11	3:K:234:MET:CE	2.49	0.42
3:K:320:VAL:HG12	3:K:324:ASP:HB3	2.01	0.42
4:L:94:THR:O	4:L:96:VAL:N	2.52	0.42
4:L:242:SER:HB3	4:L:298:ASN:HB2	2.00	0.42
4:L:248:THR:O	4:L:250:ASN:OD1	2.37	0.42
4:L:325:SER:HB3	4:L:332:PRO:CG	2.49	0.42
5:M:535:LYS:HD2	5:M:535:LYS:C	2.38	0.42
6:N:238:VAL:HG22	6:N:239:SER:H	1.83	0.42
6:N:433:LYS:HB3	6:N:444:ILE:HG13	2.00	0.42
7:O:448:VAL:HA	7:O:451:ARG:HB2	2.00	0.42
8:P:296:VAL:HG11	8:P:299:ILE:HD11	2.01	0.42
8:P:335:VAL:HG13	8:P:379:SER:CB	2.46	0.42
1:A:187:VAL:O	1:A:381:SER:CA	2.67	0.42
1:A:296:VAL:O	1:A:297:LEU:HD23	2.19	0.42
2:B:159:THR:CG2	2:B:487:ILE:HA	2.50	0.42
2:B:415:VAL:HB	2:B:434:ALA:HB2	2.02	0.42
3:C:243:VAL:O	3:C:348:VAL:HG13	2.19	0.42
3:C:298:GLU:HG3	3:C:325:ASN:HD22	1.84	0.42
3:C:332:THR:HB	3:C:349:GLY:CA	2.49	0.42
3:C:415:GLY:HA3	3:C:501:GLU:OE1	2.20	0.42
4:D:389:GLU:O	4:D:392:ARG:HD3	2.19	0.42
5:E:269:LEU:HD22	5:E:269:LEU:H	1.84	0.42
5:E:350:GLU:O	5:E:353:HIS:N	2.52	0.42
5:E:445:ALA:CB	5:E:510:ILE:O	2.67	0.42
6:F:124:ILE:HB	6:F:444:ILE:CD1	2.48	0.42
6:F:147:ARG:HG3	6:F:147:ARG:O	2.20	0.42
1:I:178:ASN:HD21	1:I:182:ASP:CG	2.23	0.42
1:I:431:ILE:HG21	1:I:482:ALA:HA	2.01	0.42
1:I:476:LYS:C	1:I:509:ILE:HD11	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:532:LEU:HD22	1:I:536:VAL:CG2	2.48	0.42
2:J:132:LEU:HD21	2:J:495:ARG:CG	2.43	0.42
2:J:213:ILE:HG23	2:J:354:LEU:HD21	2.02	0.42
2:J:404:GLY:HA2	9:J:601:ADP:N3	2.34	0.42
3:K:129:LEU:HD21	3:K:511:LYS:HA	2.00	0.42
3:K:243:VAL:O	3:K:348:VAL:HG13	2.19	0.42
3:K:286:GLN:OE1	3:K:340:VAL:HG22	2.19	0.42
4:L:439:ILE:O	4:L:439:ILE:HG22	2.19	0.42
6:N:5:LEU:HB3	6:N:6:LEU:C	2.39	0.42
6:N:147:ARG:HG3	6:N:147:ARG:O	2.20	0.42
6:N:171:THR:N	6:N:172:PRO:HD2	2.33	0.42
7:O:41:LYS:N	7:O:42:PRO:HD2	2.34	0.42
7:O:455:GLU:CG	7:O:461:ALA:HB2	2.49	0.42
8:P:77:ILE:H	8:P:77:ILE:CD1	2.26	0.42
8:P:269:ASN:O	8:P:272:GLU:HB2	2.19	0.42
1:A:550:GLU:HA	1:A:551:PRO:HD3	1.88	0.42
3:C:47:MET:CE	3:C:49:LEU:HD21	2.49	0.42
3:C:140:SER:HB2	3:C:411:SER:HB2	2.02	0.42
4:D:94:THR:O	4:D:96:VAL:N	2.52	0.42
5:E:476:LEU:HD13	5:E:476:LEU:HA	1.89	0.42
6:F:11:GLU:N	6:F:11:GLU:OE2	2.52	0.42
6:F:230:ASN:N	6:F:353:LEU:HD23	2.35	0.42
7:G:83:LEU:HA	7:G:86:ILE:HD11	2.01	0.42
8:H:177:ILE:O	8:H:181:LEU:HD12	2.20	0.42
8:H:296:VAL:HG11	8:H:299:ILE:HD11	2.01	0.42
8:H:318:ILE:HG22	8:H:319:LEU:O	2.19	0.42
1:I:115:LEU:HA	1:I:115:LEU:HD23	1.80	0.42
1:I:351:GLU:H	1:I:354:TYR:HD2	1.68	0.42
2:J:116:HIS:CE1	2:J:118:GLN:CB	2.99	0.42
2:J:231:ILE:HG22	2:J:232:LEU:H	1.83	0.42
2:J:415:VAL:HB	2:J:434:ALA:HB2	2.02	0.42
3:K:9:ASN:HB2	8:P:78:VAL:CG1	2.50	0.42
4:L:178:VAL:HG11	4:L:401:ILE:CD1	2.48	0.42
4:L:234:ILE:N	4:L:234:ILE:HD12	2.35	0.42
4:L:521:ILE:HD13	7:O:52:LEU:HB2	2.00	0.42
5:M:263:GLY:HA3	5:M:380:ILE:O	2.20	0.42
5:M:269:LEU:HD22	5:M:269:LEU:H	1.85	0.42
5:M:280:LYS:HA	5:M:281:PRO:HD3	1.80	0.42
5:M:445:ALA:CB	5:M:510:ILE:O	2.67	0.42
5:M:466:GLN:HG3	5:M:467:TYR:CD2	2.54	0.42
6:N:6:LEU:HD13	6:N:7:ASN:H	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:O:113:LYS:O	7:O:116:LEU:HB2	2.19	0.42
7:O:117:GLU:CD	7:O:117:GLU:N	2.73	0.42
7:O:282:LEU:HD12	7:O:283:ARG:N	2.34	0.42
8:P:94:ILE:H	8:P:94:ILE:HG13	1.50	0.42
8:P:163:ILE:HD11	8:P:404:GLY:CA	2.50	0.42
1:A:12:THR:HA	1:A:13:LEU:HA	1.69	0.42
2:B:3:VAL:HB	2:B:4:GLN:CD	2.40	0.42
2:B:49:ALA:HB2	6:F:536:ALA:O	2.20	0.42
2:B:60:GLY:H	2:B:93:THR:HG22	1.84	0.42
3:C:34:VAL:HG12	3:C:35:ILE:N	2.35	0.42
3:C:104:LEU:CD2	3:C:517:ALA:HA	2.49	0.42
3:C:320:VAL:HG12	3:C:324:ASP:HB3	2.02	0.42
4:D:138:MET:HE1	4:D:416:ALA:HB1	2.01	0.42
4:D:221:LYS:HE2	4:D:221:LYS:HB2	1.94	0.42
4:D:221:LYS:HE3	4:D:306:SER:CB	2.49	0.42
4:D:499:GLN:HA	4:D:500:PRO:HD3	1.86	0.42
5:E:116:GLY:HA3	5:E:428:CYS:CB	2.50	0.42
6:F:53:ILE:O	6:F:53:ILE:CG1	2.68	0.42
6:F:456:LYS:O	6:F:460:LYS:N	2.53	0.42
7:G:450:PRO:O	7:G:453:LEU:HB2	2.20	0.42
8:H:24:ALA:HB2	8:H:531:ALA:O	2.20	0.42
1:I:129:PHE:N	1:I:129:PHE:HD2	2.17	0.42
2:J:27:ILE:HG21	2:J:104:ARG:HD2	2.02	0.42
2:J:232:LEU:CD1	2:J:234:ALA:HB2	2.50	0.42
2:J:236:THR:HA	2:J:287:ARG:CD	2.50	0.42
2:J:511:VAL:O	2:J:513:ASN:N	2.49	0.42
3:K:47:MET:CE	3:K:49:LEU:HD21	2.49	0.42
3:K:104:LEU:CD2	3:K:517:ALA:HA	2.49	0.42
3:K:207:GLU:HB2	3:K:380:MET:HA	2.02	0.42
5:M:362:ILE:N	5:M:362:ILE:HD12	2.34	0.42
6:N:56:THR:HB	6:N:390:GLN:HE22	1.79	0.42
7:O:30:ILE:O	7:O:33:CYS:HB3	2.19	0.42
8:P:291:ILE:HD12	8:P:347:PRO:HG3	1.97	0.42
8:P:420:LEU:HD23	8:P:421:PRO:CD	2.50	0.42
8:P:459:VAL:O	8:P:462:THR:HG22	2.20	0.42
1:A:91:ASP:HA	1:A:95:GLY:HA2	2.00	0.42
1:A:143:VAL:CG1	1:A:420:PRO:HD2	2.50	0.42
1:A:335:ALA:HB2	1:A:356:GLY:CA	2.49	0.42
2:B:120:ILE:HG23	2:B:124:TYR:CE1	2.54	0.42
2:B:243:VAL:CG1	2:B:245:ILE:HG13	2.49	0.42
2:B:507:VAL:HG21	3:C:388:ILE:HG12	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:182:VAL:HG23	3:C:184:LYS:HG3	2.02	0.42
3:C:207:GLU:HB2	3:C:380:MET:HA	2.02	0.42
3:C:286:GLN:OE1	3:C:340:VAL:HG22	2.19	0.42
4:D:81:VAL:HG22	7:G:382:ALA:CB	2.49	0.42
4:D:99:LEU:HA	4:D:449:VAL:HG11	2.02	0.42
4:D:439:ILE:O	4:D:439:ILE:HG22	2.19	0.42
6:F:117:ILE:HD12	5:M:34:ASP:CA	2.31	0.42
8:H:35:ILE:HD13	8:H:82:VAL:HG22	2.00	0.42
8:H:420:LEU:HD23	8:H:421:PRO:CD	2.50	0.42
1:I:396:ASP:O	1:I:399:GLU:HB3	2.19	0.42
2:J:161:LEU:HD22	2:J:166:LEU:HD11	2.01	0.42
2:J:424:GLY:O	2:J:427:SER:OG	2.33	0.42
3:K:456:LEU:HD22	3:K:456:LEU:HA	1.79	0.42
3:K:527:VAL:HG11	8:P:75:LEU:HD21	2.02	0.42
5:M:170:ALA:N	5:M:523:LYS:HZ1	2.18	0.42
6:N:422:LEU:CD1	6:N:517:ILE:HD11	2.50	0.42
7:O:507:LEU:C	7:O:507:LEU:HD13	2.40	0.42
8:P:302:GLY:HA2	8:P:324:PRO:HD2	2.01	0.42
8:P:523:THR:HA	8:P:526:PHE:HD2	1.83	0.42
1:A:256:MET:H	7:G:255:ASP:CB	2.32	0.42
2:B:155:HIS:O	2:B:159:THR:HG23	2.20	0.42
3:C:103:ILE:CG2	3:C:517:ALA:HB1	2.50	0.42
3:C:237:HIS:C	3:C:238:ILE:HG13	2.39	0.42
3:C:241:PRO:O	3:C:350:THR:HA	2.20	0.42
4:D:9:ALA:HB1	7:G:76:VAL:H	1.85	0.42
4:D:60:ASP:N	4:D:392:ARG:NH2	2.68	0.42
4:D:226:PRO:HD2	4:D:311:MET:HG2	2.01	0.42
5:E:477:ASP:O	5:E:480:PRO:HD2	2.19	0.42
6:F:171:THR:N	6:F:172:PRO:HD2	2.33	0.42
6:F:356:GLN:HA	6:F:365:THR:HA	2.02	0.42
7:G:109:MET:SD	7:G:514:THR:HG21	2.59	0.42
7:G:132:ALA:HB2	7:G:439:ILE:HD13	2.01	0.42
7:G:455:GLU:CG	7:G:461:ALA:HB2	2.49	0.42
1:I:54:VAL:C	1:I:56:ASP:H	2.23	0.42
1:I:335:ALA:HB2	1:I:356:GLY:CA	2.50	0.42
2:J:308:HIS:CE1	2:J:313:GLY:HA3	2.54	0.42
2:J:424:GLY:H	2:J:427:SER:HB3	1.85	0.42
2:J:459:LEU:HD11	2:J:471:GLY:C	2.40	0.42
4:L:60:ASP:N	4:L:392:ARG:NH2	2.68	0.42
4:L:113:LYS:HB2	4:L:113:LYS:HE3	1.86	0.42
5:M:268:LYS:O	5:M:319:ASP:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:350:GLU:O	5:M:353:HIS:N	2.52	0.42
6:N:243:GLU:OE2	6:N:243:GLU:CA	2.52	0.42
6:N:356:GLN:HA	6:N:365:THR:HA	2.02	0.42
7:O:104:LEU:O	7:O:108:LEU:HB2	2.20	0.42
7:O:409:ILE:CG2	7:O:410:VAL:N	2.82	0.42
8:P:256:ILE:HD11	8:P:308:LEU:HD13	2.02	0.42
1:A:73:LEU:O	1:A:74:ASP:OD1	2.36	0.42
1:A:118:ASN:C	1:A:119:LYS:CD	2.88	0.42
1:A:543:THR:O	5:E:72:LYS:HB3	2.20	0.42
2:B:47:GLN:HE22	2:B:53:THR:N	2.17	0.42
2:B:232:LEU:CD1	2:B:234:ALA:HB2	2.50	0.42
2:B:422:ILE:HG22	2:B:424:GLY:CA	2.50	0.42
2:B:459:LEU:HD11	2:B:471:GLY:C	2.40	0.42
2:B:459:LEU:CD1	2:B:471:GLY:O	2.68	0.42
5:E:362:ILE:N	5:E:362:ILE:HD12	2.34	0.42
6:F:68:ILE:HD13	6:F:74:VAL:HG13	2.02	0.42
6:F:133:LEU:HD12	6:F:422:LEU:HD11	2.02	0.42
6:F:309:PHE:HB3	6:F:314:ILE:O	2.20	0.42
6:F:332:THR:O	6:F:333:GLY:C	2.58	0.42
6:F:422:LEU:CD1	6:F:517:ILE:HD11	2.50	0.42
7:G:83:LEU:HA	7:G:86:ILE:CD1	2.50	0.42
7:G:139:LYS:CB	7:G:420:VAL:HG12	2.49	0.42
8:H:48:PRO:HG3	8:H:169:SER:HA	2.01	0.42
8:H:256:ILE:HD11	8:H:308:LEU:HD13	2.02	0.42
1:I:250:ASN:HD21	1:I:252:GLN:HG2	1.85	0.42
1:I:350:PHE:O	1:I:351:GLU:OE2	2.36	0.42
1:I:549:PRO:HA	5:M:77:PRO:O	2.20	0.42
2:J:57:THR:HG21	2:J:382:ARG:CD	2.46	0.42
2:J:245:ILE:O	2:J:246:PHE:HB3	2.19	0.42
3:K:85:GLN:NE2	3:K:508:GLN:OE1	2.53	0.42
4:L:226:PRO:CD	4:L:311:MET:HG2	2.50	0.42
4:L:232:ALA:O	4:L:234:ILE:HD12	2.19	0.42
4:L:485:ARG:H	4:L:485:ARG:CD	2.27	0.42
5:M:273:THR:HG21	5:M:364:PRO:CA	2.47	0.42
5:M:332:ASN:HA	5:M:335:LEU:HD12	2.02	0.42
6:N:53:ILE:O	6:N:53:ILE:CG1	2.68	0.42
6:N:230:ASN:N	6:N:353:LEU:HD23	2.35	0.42
6:N:309:PHE:HB3	6:N:314:ILE:O	2.20	0.42
7:O:166:MET:O	7:O:171:ILE:HB	2.18	0.42
7:O:182:CYS:SG	7:O:183:VAL:N	2.93	0.42
1:A:54:VAL:C	1:A:56:ASP:H	2.23	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:219:VAL:HG12	1:A:221:GLY:N	2.34	0.41
1:A:267:PRO:HB2	1:A:269:GLN:CB	2.49	0.41
2:B:15:ALA:O	2:B:19:ARG:HG2	2.20	0.41
2:B:58:ASN:HD21	2:B:93:THR:HG21	1.84	0.41
2:B:162:SER:O	2:B:163:SER:OG	2.30	0.41
2:B:197:LYS:C	2:B:198:ILE:HD12	2.41	0.41
3:C:303:ASP:HB3	3:C:304:LEU:H	1.46	0.41
4:D:234:ILE:HD12	4:D:234:ILE:N	2.35	0.41
4:D:379:ILE:HD12	4:D:379:ILE:N	2.33	0.41
7:G:507:LEU:C	7:G:507:LEU:HD13	2.40	0.41
8:H:186:VAL:HA	8:H:207:ILE:HD11	2.02	0.41
1:I:143:VAL:CG1	1:I:420:PRO:HD2	2.50	0.41
1:I:219:VAL:HG12	1:I:221:GLY:N	2.35	0.41
2:J:474:LEU:HG	9:J:601:ADP:C2	2.55	0.41
3:K:298:GLU:HG3	3:K:325:ASN:HD22	1.84	0.41
4:L:265:LYS:NZ	8:P:343:ARG:HD3	2.36	0.41
6:N:433:LYS:HG3	6:N:444:ILE:CG2	2.46	0.41
6:N:434:LEU:HD23	6:N:441:LYS:CB	2.40	0.41
7:O:145:VAL:O	7:O:409:ILE:N	2.52	0.41
7:O:450:PRO:O	7:O:453:LEU:HB2	2.20	0.41
8:P:163:ILE:HG12	8:P:182:VAL:HG11	2.01	0.41
1:A:476:LYS:C	1:A:509:ILE:HD11	2.40	0.41
2:B:72:PRO:CG	3:C:47:MET:HE1	2.50	0.41
2:B:424:GLY:H	2:B:427:SER:HB3	1.85	0.41
4:D:65:LEU:HD23	4:D:65:LEU:HA	1.84	0.41
5:E:38:LYS:HD2	5:E:38:LYS:HA	1.70	0.41
5:E:81:ILE:HD12	5:E:81:ILE:N	2.35	0.41
5:E:268:LYS:O	5:E:319:ASP:N	2.53	0.41
6:F:63:LEU:HD11	6:F:95:VAL:HG21	2.03	0.41
6:F:533:LEU:HD23	6:F:533:LEU:N	2.35	0.41
7:G:23:LYS:O	7:G:26:ILE:HG22	2.20	0.41
7:G:104:LEU:O	7:G:108:LEU:HB2	2.20	0.41
7:G:182:CYS:SG	7:G:183:VAL:N	2.93	0.41
7:G:396:ALA:O	7:G:400:VAL:HG13	2.20	0.41
7:G:528:GLY:HA3	7:G:529:SER:C	2.41	0.41
8:H:32:ILE:HD11	8:H:111:LEU:C	2.41	0.41
1:I:482:ALA:O	1:I:485:GLN:O	2.37	0.41
2:J:38:GLY:HA3	2:J:474:LEU:HD12	2.02	0.41
2:J:105:GLU:O	2:J:109:LEU:HD23	2.21	0.41
3:K:174:LEU:HD21	3:K:379:ILE:HG21	2.01	0.41
3:K:355:PHE:HE2	3:K:366:SER:HB3	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:81:ILE:N	5:M:81:ILE:HD12	2.35	0.41
5:M:418:GLU:OE2	5:M:418:GLU:HA	2.20	0.41
6:N:196:ILE:HG22	6:N:378:ILE:HG23	2.02	0.41
6:N:429:ALA:O	6:N:432:ASN:HB2	2.19	0.41
6:N:456:LYS:O	6:N:460:LYS:N	2.53	0.41
6:N:485:GLU:O	6:N:488:TYR:N	2.53	0.41
7:O:109:MET:SD	7:O:514:THR:HG21	2.59	0.41
1:A:273:ILE:HG21	5:E:295:TYR:CE2	2.54	0.41
1:A:351:GLU:H	1:A:354:TYR:HD2	1.68	0.41
1:A:498:ARG:O	1:A:499:ASN:HB3	2.20	0.41
2:B:27:ILE:HG21	2:B:104:ARG:HD2	2.02	0.41
2:B:57:THR:HG21	2:B:382:ARG:CD	2.46	0.41
2:B:320:VAL:HG21	2:B:337:LEU:CA	2.51	0.41
2:B:492:LYS:O	2:B:495:ARG:HB3	2.20	0.41
3:C:229:VAL:CG1	3:C:230:VAL:N	2.84	0.41
4:D:411:ILE:O	4:D:498:LEU:HB3	2.21	0.41
4:D:521:ILE:HG23	7:G:50:ASP:C	2.40	0.41
5:E:73:ILE:HG12	5:E:83:ILE:CG1	2.44	0.41
5:E:167:ASP:HB3	5:E:168:ILE:H	1.58	0.41
6:F:221:HIS:HA	6:F:222:PRO:HD3	1.92	0.41
6:F:524:ALA:O	6:F:528:LEU:HG	2.21	0.41
8:H:54:ILE:CG2	8:H:55:ILE:N	2.83	0.41
8:H:269:ASN:O	8:H:272:GLU:HB2	2.19	0.41
2:J:45:LEU:HD23	2:J:56:VAL:HG13	2.02	0.41
2:J:159:THR:CG2	2:J:487:ILE:HA	2.49	0.41
2:J:160:THR:HG21	2:J:390:VAL:HG11	2.01	0.41
2:J:197:LYS:C	2:J:198:ILE:HD12	2.41	0.41
2:J:263:LYS:NZ	3:K:266:GLU:HG2	2.35	0.41
2:J:422:ILE:HG22	2:J:424:GLY:CA	2.50	0.41
2:J:474:LEU:HD23	2:J:474:LEU:N	2.35	0.41
2:J:492:LYS:H	2:J:492:LYS:HZ3	1.65	0.41
2:J:492:LYS:O	2:J:495:ARG:HB3	2.21	0.41
3:K:103:ILE:CG2	3:K:517:ALA:HB1	2.50	0.41
3:K:140:SER:HB2	3:K:411:SER:HB2	2.02	0.41
3:K:244:VAL:HG22	3:K:348:VAL:HG22	2.03	0.41
3:K:415:GLY:HA3	3:K:501:GLU:OE1	2.20	0.41
4:L:263:ILE:C	4:L:265:LYS:H	2.23	0.41
5:M:423:LEU:C	5:M:425:ASP:N	2.73	0.41
5:M:485:GLU:HB2	5:M:491:PRO:HG3	2.01	0.41
6:N:133:LEU:HD12	6:N:422:LEU:HD11	2.02	0.41
6:N:539:SER:O	6:N:540:THR:C	2.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:O:23:LYS:O	7:O:26:ILE:HG22	2.20	0.41
7:O:236:PHE:O	7:O:239:PRO:HD3	2.19	0.41
7:O:303:ALA:O	7:O:307:PHE:CD2	2.70	0.41
8:P:24:ALA:HB2	8:P:531:ALA:O	2.20	0.41
8:P:62:ILE:HG23	8:P:392:ASN:OD1	2.20	0.41
8:P:92:GLN:HE21	8:P:92:GLN:HB3	1.63	0.41
1:A:541:ILE:HD11	5:E:83:ILE:HD13	2.02	0.41
2:B:76:VAL:O	2:B:79:ASN:HB2	2.20	0.41
2:B:127:ALA:HB1	2:B:430:VAL:HG13	2.02	0.41
2:B:161:LEU:HD22	2:B:166:LEU:HD11	2.01	0.41
2:B:246:PHE:CD1	2:B:247:GLY:N	2.89	0.41
2:B:326:VAL:O	2:B:327:SER:HB3	2.21	0.41
3:C:230:VAL:O	3:C:231:HIS:CG	2.74	0.41
5:E:99:GLU:O	5:E:102:LYS:HB2	2.20	0.41
6:F:137:LYS:O	6:F:138:ILE:CB	2.68	0.41
8:H:146:VAL:HG22	8:H:147:VAL:N	2.35	0.41
1:I:345:GLU:HA	1:I:346:GLY:HA2	1.67	0.41
2:J:162:SER:O	2:J:163:SER:OG	2.30	0.41
2:J:246:PHE:CD1	2:J:247:GLY:N	2.89	0.41
2:J:466:GLY:C	2:J:467:ILE:HG13	2.41	0.41
5:M:86:ASP:O	5:M:90:ILE:HG13	2.20	0.41
5:M:99:GLU:O	5:M:102:LYS:HB2	2.20	0.41
5:M:451:SER:O	5:M:455:SER:HB2	2.20	0.41
6:N:28:GLY:C	6:N:30:GLN:H	2.22	0.41
6:N:89:ASP:OD1	9:N:601:ADP:O3B	2.38	0.41
6:N:89:ASP:OD1	6:N:90:GLY:N	2.43	0.41
6:N:136:PHE:O	6:N:138:ILE:HG13	2.19	0.41
6:N:167:THR:CB	6:N:169:VAL:N	2.64	0.41
6:N:181:VAL:O	6:N:184:ALA:HB3	2.20	0.41
6:N:415:ALA:HB2	6:N:506:ILE:HD13	2.03	0.41
8:P:35:ILE:CD1	8:P:82:VAL:HA	2.50	0.41
8:P:213:MET:CE	8:P:391:GLN:HG3	2.51	0.41
1:A:94:ILE:HG22	1:A:95:GLY:N	2.36	0.41
1:A:156:LEU:HD21	1:A:409:VAL:HG13	2.02	0.41
2:B:45:LEU:HB2	6:F:533:LEU:HB2	2.03	0.41
4:D:305:LEU:HD23	4:D:305:LEU:C	2.41	0.41
5:E:310:ILE:HG23	5:E:335:LEU:HD23	2.01	0.41
5:E:352:GLU:H	5:E:352:GLU:HG3	1.59	0.41
5:E:412:ASN:C	5:E:414:MET:H	2.24	0.41
6:F:171:THR:O	6:F:175:THR:N	2.45	0.41
6:F:178:VAL:HG11	6:F:402:VAL:HG12	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:212:GLY:HA2	6:F:370:ASN:OD1	2.21	0.41
6:F:466:PRO:O	6:F:468:ASP:N	2.54	0.41
7:G:452:GLN:O	7:G:456:ASN:N	2.49	0.41
8:H:163:ILE:HG12	8:H:182:VAL:HG11	2.01	0.41
8:H:213:MET:CE	8:H:391:GLN:HG3	2.51	0.41
2:J:217:LYS:HB3	2:J:217:LYS:HE2	1.75	0.41
2:J:242:LYS:HD2	2:J:243:VAL:N	2.35	0.41
3:K:182:VAL:HG23	3:K:184:LYS:HG3	2.02	0.41
5:M:116:GLY:HA3	5:M:428:CYS:CB	2.50	0.41
5:M:120:THR:O	5:M:124:VAL:HG23	2.20	0.41
6:N:154:ALA:HB3	6:N:402:VAL:CG2	2.47	0.41
6:N:182:TYR:C	6:N:184:ALA:N	2.73	0.41
6:N:390:GLN:HE21	6:N:390:GLN:HA	1.84	0.41
8:P:32:ILE:HD11	8:P:111:LEU:C	2.41	0.41
2:B:45:LEU:HD23	2:B:56:VAL:HG13	2.02	0.41
2:B:57:THR:HB	2:B:379:GLU:HG3	2.03	0.41
2:B:105:GLU:O	2:B:109:LEU:HD23	2.21	0.41
2:B:459:LEU:HD22	2:B:472:LEU:CD1	2.51	0.41
3:C:184:LYS:HA	3:C:198:ILE:CA	2.51	0.41
3:C:355:PHE:HE2	3:C:366:SER:HB3	1.84	0.41
4:D:183:ASP:O	4:D:187:LYS:HA	2.21	0.41
4:D:273:ASN:HD22	7:G:268:GLN:NE2	2.17	0.41
5:E:250:SER:O	5:E:251:HIS:O	2.38	0.41
5:E:423:LEU:C	5:E:425:ASP:N	2.73	0.41
5:E:497:THR:O	5:E:501:LYS:HG2	2.20	0.41
6:F:488:TYR:O	6:F:489:VAL:CG1	2.69	0.41
7:G:28:SER:HA	7:G:31:ASN:OD1	2.21	0.41
8:H:63:ILE:HD12	8:H:74:GLU:CG	2.45	0.41
2:J:116:HIS:HA	2:J:117:PRO:HD3	1.74	0.41
2:J:155:HIS:O	2:J:159:THR:HG23	2.20	0.41
2:J:196:ILE:N	2:J:196:ILE:HD12	2.36	0.41
2:J:459:LEU:CD1	2:J:471:GLY:O	2.68	0.41
3:K:184:LYS:HA	3:K:198:ILE:CA	2.51	0.41
4:L:85:GLN:O	4:L:89:ALA:HB3	2.21	0.41
4:L:183:ASP:O	4:L:187:LYS:HA	2.21	0.41
4:L:198:LYS:H	4:L:198:LYS:CD	2.33	0.41
4:L:305:LEU:C	4:L:305:LEU:HD23	2.41	0.41
4:L:461:ASN:HD22	4:L:462:SER:H	1.68	0.41
5:M:38:LYS:HA	5:M:38:LYS:HD2	1.70	0.41
6:N:137:LYS:O	6:N:138:ILE:CB	2.69	0.41
7:O:33:CYS:HA	7:O:83:LEU:CD1	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:O:488:ILE:H	7:O:488:ILE:CD1	2.21	0.41
8:P:455:ALA:O	8:P:458:VAL:HG23	2.21	0.41
1:A:233:MET:HE1	1:A:317:GLY:N	2.35	0.41
1:A:344:LEU:HD12	1:A:345:GLU:H	1.85	0.41
2:B:88:VAL:HG12	2:B:90:ASP:H	1.85	0.41
2:B:160:THR:HG21	2:B:390:VAL:HG11	2.01	0.41
2:B:213:ILE:HG23	2:B:354:LEU:HD21	2.01	0.41
3:C:244:VAL:HG22	3:C:348:VAL:HG22	2.03	0.41
5:E:158:ILE:CB	5:E:539:LEU:HD21	2.51	0.41
5:E:338:ASN:HB2	5:E:340:LEU:HD22	2.02	0.41
5:E:418:GLU:OE2	5:E:418:GLU:HA	2.20	0.41
6:F:105:ALA:O	6:F:107:ARG:N	2.54	0.41
6:F:233:VAL:HG12	6:F:294:VAL:CG2	2.49	0.41
6:F:497:ASP:CG	6:F:498:SER:N	2.74	0.41
7:G:36:VAL:CG2	7:G:37:GLN:N	2.83	0.41
7:G:41:LYS:N	7:G:42:PRO:HD2	2.34	0.41
7:G:356:GLN:HG2	7:G:361:ARG:HD3	2.03	0.41
7:G:449:ILE:CB	7:G:450:PRO:HD3	2.50	0.41
8:H:62:ILE:HG23	8:H:392:ASN:OD1	2.20	0.41
8:H:92:GLN:HE21	8:H:92:GLN:HB3	1.63	0.41
8:H:251:THR:O	8:H:252:CYS:C	2.59	0.41
8:H:459:VAL:HB	8:H:460:PRO:HD3	2.02	0.41
8:H:487:PRO:HA	8:H:488:GLY:HA3	1.69	0.41
1:I:498:ARG:O	1:I:499:ASN:HB3	2.20	0.41
2:J:109:LEU:C	2:J:111:ASP:H	2.24	0.41
3:K:230:VAL:O	3:K:231:HIS:CG	2.74	0.41
4:L:464:LYS:O	4:L:468:GLU:HG3	2.20	0.41
5:M:84:THR:HG21	5:M:421:ARG:HD3	2.03	0.41
5:M:107:LEU:CD2	5:M:544:LEU:HG	2.34	0.41
6:N:63:LEU:HD11	6:N:95:VAL:HG21	2.02	0.41
6:N:207:THR:O	6:N:208:THR:HG23	2.21	0.41
6:N:420:ILE:CG2	6:N:482:ASP:CG	2.86	0.41
6:N:447:PHE:CE1	6:N:521:THR:HG22	2.56	0.41
7:O:356:GLN:HG2	7:O:361:ARG:HD3	2.03	0.41
1:A:133:LEU:HG	1:A:532:LEU:HD12	2.02	0.41
2:B:242:LYS:HD2	2:B:243:VAL:N	2.35	0.41
3:C:85:GLN:NE2	3:C:508:GLN:OE1	2.53	0.41
3:C:129:LEU:HD13	3:C:130:THR:N	2.36	0.41
4:D:72:HIS:HA	4:D:73:PRO:HD3	1.96	0.41
5:E:557:SER:OG	6:F:67:GLN:N	2.53	0.41
6:F:141:THR:HG23	6:F:142:ASN:N	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:182:CYS:O	7:G:186:VAL:HG23	2.21	0.41
7:G:399:ILE:HD13	7:G:399:ILE:O	2.21	0.41
8:H:486:GLU:N	8:H:487:PRO:HA	2.34	0.41
2:J:422:ILE:HD13	2:J:422:ILE:HA	1.93	0.41
3:K:321:LYS:O	3:K:324:ASP:HB2	2.21	0.41
4:L:66:LYS:HA	4:L:66:LYS:HD2	1.62	0.41
4:L:185:ASN:CB	4:L:186:SER:CB	2.92	0.41
5:M:497:THR:O	5:M:501:LYS:HG2	2.20	0.41
6:N:6:LEU:HD12	6:N:7:ASN:H	1.85	0.41
6:N:212:GLY:HA2	6:N:370:ASN:OD1	2.21	0.41
6:N:524:ALA:O	6:N:528:LEU:HG	2.21	0.41
6:N:533:LEU:N	6:N:533:LEU:HD23	2.35	0.41
8:P:386:LEU:HD12	8:P:386:LEU:N	2.36	0.41
1:A:51:LYS:O	1:A:62:VAL:HA	2.20	0.41
1:A:209:HIS:HE1	7:G:89:ALA:CB	2.34	0.41
1:A:250:ASN:HD21	1:A:252:GLN:HG2	1.85	0.41
2:B:5:ILE:CD1	2:B:7:GLY:H	2.34	0.41
2:B:142:ASN:CB	2:B:143:SER:CA	2.95	0.41
2:B:397:GLU:HG2	2:B:492:LYS:HZ3	1.86	0.41
4:D:48:ILE:CD1	8:H:534:ALA:HB3	2.51	0.41
4:D:108:GLU:O	4:D:112:ASN:N	2.50	0.41
4:D:385:MET:HA	4:D:388:ASP:OD2	2.21	0.41
5:E:225:LYS:HG3	5:E:225:LYS:O	2.21	0.41
5:E:250:SER:O	5:E:251:HIS:CG	2.74	0.41
5:E:412:ASN:O	5:E:413:LYS:CB	2.69	0.41
6:F:16:ASP:HA	6:F:19:LEU:HB2	2.02	0.41
6:F:16:ASP:O	6:F:20:LYS:N	2.46	0.41
6:F:151:LEU:O	6:F:171:THR:HG21	2.19	0.41
6:F:152:GLN:HG2	6:F:153:VAL:N	2.32	0.41
6:F:181:VAL:O	6:F:184:ALA:HB3	2.20	0.41
6:F:182:TYR:C	6:F:184:ALA:N	2.73	0.41
6:F:207:THR:O	6:F:208:THR:HG23	2.21	0.41
6:F:447:PHE:CE1	6:F:521:THR:HG22	2.56	0.41
8:H:38:LEU:HD23	8:H:38:LEU:HA	1.92	0.41
8:H:75:LEU:HD23	8:H:75:LEU:HA	1.93	0.41
8:H:146:VAL:HG22	8:H:148:GLY:H	1.86	0.41
8:H:163:ILE:HD11	8:H:404:GLY:CA	2.50	0.41
1:I:51:LYS:O	1:I:62:VAL:HA	2.20	0.41
1:I:118:ASN:O	1:I:119:LYS:CG	2.65	0.41
1:I:344:LEU:HD12	1:I:345:GLU:H	1.85	0.41
2:J:5:ILE:CD1	2:J:7:GLY:H	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:14:ARG:O	2:J:15:ALA:HB3	2.21	0.41
2:J:45:LEU:HD12	6:N:533:LEU:HB3	2.02	0.41
2:J:127:ALA:HB1	2:J:430:VAL:HG13	2.02	0.41
2:J:320:VAL:HG21	2:J:337:LEU:CA	2.51	0.41
2:J:326:VAL:O	2:J:327:SER:HB3	2.21	0.41
3:K:223:VAL:HG11	3:K:328:ILE:HG12	2.03	0.41
3:K:241:PRO:O	3:K:350:THR:HA	2.20	0.41
4:L:35:ILE:HG22	4:L:98:ILE:HD11	2.03	0.41
4:L:99:LEU:HA	4:L:449:VAL:HG11	2.02	0.41
4:L:157:SER:C	4:L:159:SER:H	2.24	0.41
4:L:454:LEU:CD1	9:L:601:ADP:H8	2.34	0.41
5:M:158:ILE:CB	5:M:539:LEU:HD21	2.51	0.41
5:M:338:ASN:HB2	5:M:340:LEU:HD22	2.02	0.41
5:M:472:PHE:HZ	5:M:542:THR:HG22	1.86	0.41
6:N:56:THR:HB	6:N:390:GLN:CD	2.42	0.41
6:N:75:LEU:HD23	6:N:76:ILE:N	2.36	0.41
6:N:105:ALA:O	6:N:108:PHE:CD2	2.74	0.41
6:N:331:VAL:O	6:N:332:THR:CB	2.68	0.41
6:N:444:ILE:HG12	6:N:444:ILE:H	1.66	0.41
6:N:466:PRO:O	6:N:468:ASP:N	2.54	0.41
6:N:488:TYR:O	6:N:489:VAL:CG1	2.69	0.41
7:O:182:CYS:O	7:O:186:VAL:HG23	2.21	0.41
7:O:396:ALA:O	7:O:400:VAL:HG13	2.20	0.41
7:O:399:ILE:O	7:O:399:ILE:HD13	2.21	0.41
8:P:8:ASN:HA	8:P:9:PRO:HD3	1.90	0.41
8:P:48:PRO:CA	8:P:169:SER:O	2.68	0.41
8:P:253:PRO:HA	8:P:303:ALA:O	2.21	0.41
8:P:267:LEU:N	8:P:267:LEU:HD23	2.36	0.41
8:P:306:GLY:O	8:P:310:LEU:HB2	2.20	0.41
1:A:397:GLU:HA	1:A:400:ARG:HH11	1.86	0.41
2:B:245:ILE:O	2:B:246:PHE:HB3	2.19	0.41
3:C:240:ASN:HA	3:C:352:CYS:O	2.21	0.41
4:D:123:SER:OG	4:D:440:TRP:HA	2.21	0.41
4:D:226:PRO:CD	4:D:311:MET:HG2	2.50	0.41
5:E:120:THR:O	5:E:124:VAL:HG23	2.20	0.41
5:E:451:SER:O	5:E:455:SER:HB2	2.20	0.41
6:F:23:VAL:O	6:F:25:SER:N	2.54	0.41
6:F:113:VAL:CB	6:F:118:ILE:HD11	2.47	0.41
6:F:331:VAL:O	6:F:332:THR:CB	2.68	0.41
6:F:352:GLY:C	6:F:367:VAL:HG12	2.40	0.41
7:G:43:THR:HG23	7:G:64:ASN:HB3	2.00	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:145:VAL:O	7:G:409:ILE:N	2.52	0.41
7:G:214:PHE:O	7:G:214:PHE:CD2	2.74	0.41
8:H:48:PRO:CA	8:H:169:SER:O	2.68	0.41
8:H:253:PRO:HA	8:H:303:ALA:O	2.21	0.41
8:H:386:LEU:HD12	8:H:386:LEU:N	2.36	0.41
8:H:414:PRO:HA	8:H:415:SER:HA	1.60	0.41
8:H:437:TYR:CD2	8:H:437:TYR:C	2.95	0.41
8:H:459:VAL:O	8:H:462:THR:HG22	2.20	0.41
1:I:94:ILE:HG22	1:I:95:GLY:N	2.36	0.41
1:I:191:ASN:HA	1:I:195:GLU:O	2.21	0.41
1:I:203:VAL:O	1:I:205:VAL:HG23	2.21	0.41
2:J:186:GLY:HA2	2:J:187:SER:HA	1.47	0.41
2:J:242:LYS:HB2	3:K:269:TRP:CZ2	2.45	0.41
2:J:459:LEU:HD22	2:J:472:LEU:CD1	2.51	0.41
3:K:129:LEU:HD13	3:K:130:THR:N	2.36	0.41
3:K:238:ILE:O	3:K:241:PRO:HG3	2.21	0.41
3:K:240:ASN:HA	3:K:352:CYS:O	2.21	0.41
4:L:219:ALA:HB1	4:L:221:LYS:HZ1	1.85	0.41
5:M:355:ALA:HB2	5:M:362:ILE:CD1	2.51	0.41
6:N:105:ALA:O	6:N:107:ARG:N	2.54	0.41
6:N:178:VAL:HG11	6:N:402:VAL:HG12	2.03	0.41
6:N:332:THR:O	6:N:333:GLY:C	2.58	0.41
6:N:539:SER:HB2	6:N:542:LYS:CG	2.51	0.41
7:O:83:LEU:HA	7:O:86:ILE:CD1	2.50	0.41
7:O:191:ARG:NE	7:O:191:ARG:C	2.75	0.41
7:O:214:PHE:O	7:O:214:PHE:CD2	2.74	0.41
7:O:516:LEU:HD11	7:O:517:ILE:CG1	2.48	0.41
8:P:54:ILE:CG2	8:P:55:ILE:N	2.83	0.41
8:P:141:GLU:O	8:P:145:MET:HG2	2.21	0.41
8:P:146:VAL:HG22	8:P:148:GLY:N	2.36	0.41
1:A:431:ILE:CG2	1:A:432:TYR:N	2.84	0.40
2:B:109:LEU:C	2:B:111:ASP:H	2.24	0.40
3:C:306:GLN:O	3:C:307:HIS:C	2.59	0.40
4:D:292:ILE:HG13	4:D:294:ARG:N	2.36	0.40
4:D:425:LEU:HD12	4:D:444:ALA:HA	2.03	0.40
6:F:6:LEU:HD13	6:F:7:ASN:H	1.85	0.40
6:F:105:ALA:O	6:F:108:PHE:CD2	2.74	0.40
6:F:420:ILE:HG22	6:F:482:ASP:CG	2.41	0.40
7:G:33:CYS:HA	7:G:83:LEU:CD1	2.51	0.40
1:I:431:ILE:CG2	1:I:432:TYR:N	2.84	0.40
2:J:88:VAL:HG12	2:J:90:ASP:H	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:245:LEU:HA	3:K:296:ILE:O	2.21	0.40
4:L:411:ILE:O	4:L:498:LEU:HB3	2.21	0.40
4:L:425:LEU:HD12	4:L:444:ALA:HA	2.03	0.40
5:M:71:ASP:OD2	5:M:85:ASN:HB2	2.21	0.40
5:M:250:SER:O	5:M:251:HIS:O	2.38	0.40
6:N:68:ILE:HD13	6:N:74:VAL:HG13	2.02	0.40
7:O:28:SER:HA	7:O:31:ASN:OD1	2.21	0.40
8:P:122:LEU:HD23	8:P:126:GLU:OE1	2.21	0.40
8:P:146:VAL:HG22	8:P:147:VAL:N	2.35	0.40
8:P:186:VAL:HA	8:P:207:ILE:HD11	2.02	0.40
8:P:459:VAL:HB	8:P:460:PRO:HD3	2.02	0.40
1:A:115:LEU:HA	1:A:115:LEU:HD23	1.80	0.40
1:A:191:ASN:HA	1:A:195:GLU:O	2.21	0.40
1:A:198:TYR:CE2	1:A:413:LEU:CB	3.05	0.40
2:B:317:LEU:O	2:B:321:THR:N	2.50	0.40
4:D:94:THR:C	4:D:96:VAL:H	2.25	0.40
5:E:35:GLN:CD	5:E:36:GLY:CA	2.86	0.40
5:E:115:ILE:CB	5:E:432:ASN:HD21	2.35	0.40
5:E:332:ASN:HA	5:E:335:LEU:HD12	2.02	0.40
5:E:355:ALA:HB2	5:E:362:ILE:CD1	2.51	0.40
6:F:56:THR:HB	6:F:390:GLN:CD	2.42	0.40
6:F:56:THR:HB	6:F:390:GLN:HE22	1.79	0.40
6:F:75:LEU:HD23	6:F:76:ILE:N	2.36	0.40
6:F:158:LEU:O	6:F:158:LEU:CG	2.69	0.40
6:F:459:VAL:O	6:F:463:GLY:N	2.54	0.40
7:G:94:VAL:CG1	7:G:95:GLY:H	2.28	0.40
7:G:129:TYR:O	7:G:132:ALA:HB3	2.21	0.40
1:I:397:GLU:HA	1:I:400:ARG:HH11	1.86	0.40
2:J:15:ALA:O	2:J:19:ARG:HG2	2.21	0.40
2:J:140:VAL:HG23	2:J:483:ARG:NH2	2.36	0.40
2:J:372:ALA:HA	6:N:519:GLY:HA2	2.02	0.40
4:L:94:THR:C	4:L:96:VAL:H	2.25	0.40
4:L:123:SER:OG	4:L:440:TRP:HA	2.21	0.40
4:L:292:ILE:HG13	4:L:294:ARG:N	2.36	0.40
4:L:454:LEU:HD13	9:L:601:ADP:H8	1.86	0.40
5:M:338:ASN:HD22	5:M:338:ASN:N	2.16	0.40
6:N:158:LEU:O	6:N:158:LEU:CG	2.69	0.40
6:N:411:ILE:CG2	6:N:412:ILE:N	2.75	0.40
7:O:528:GLY:HA3	7:O:529:SER:C	2.41	0.40
8:P:437:TYR:C	8:P:437:TYR:CD2	2.95	0.40
1:A:555:ASP:HA	1:A:556:PRO:HD3	1.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:164:LYS:O	2:B:166:LEU:HD23	2.22	0.40
2:B:474:LEU:N	2:B:474:LEU:HD23	2.35	0.40
3:C:56:VAL:CA	3:C:57:LEU:HD23	2.50	0.40
4:D:47:MET:O	8:H:534:ALA:N	2.53	0.40
4:D:120:ILE:CG1	4:D:439:ILE:HG21	2.43	0.40
4:D:135:LEU:HD22	4:D:135:LEU:HA	1.87	0.40
5:E:86:ASP:O	5:E:90:ILE:HG13	2.20	0.40
5:E:88:ALA:CB	5:E:109:LYS:HZ1	2.32	0.40
5:E:170:ALA:N	5:E:523:LYS:HZ1	2.19	0.40
5:E:261:LYS:O	5:E:341:PRO:HG3	2.21	0.40
5:E:557:SER:CB	6:F:66:MET:HA	2.52	0.40
6:F:146:ASP:O	6:F:147:ARG:C	2.59	0.40
6:F:196:ILE:HG22	6:F:378:ILE:HG23	2.02	0.40
6:F:198:GLN:HE21	6:F:198:GLN:H	1.66	0.40
8:H:49:CYS:O	8:H:466:THR:CG2	2.69	0.40
8:H:141:GLU:O	8:H:145:MET:HG2	2.21	0.40
8:H:209:VAL:CG2	8:H:386:LEU:HD11	2.36	0.40
1:I:156:LEU:HD21	1:I:409:VAL:HG13	2.02	0.40
1:I:198:TYR:CE2	1:I:413:LEU:CB	3.05	0.40
2:J:24:VAL:HA	2:J:27:ILE:CG2	2.51	0.40
2:J:61:ALA:HB2	2:J:85:ASP:HB2	2.02	0.40
2:J:181:ILE:HG21	2:J:391:LEU:O	2.21	0.40
4:L:65:LEU:HB3	4:L:79:VAL:HG13	2.04	0.40
4:L:72:HIS:HA	4:L:73:PRO:HD3	1.96	0.40
5:M:162:GLU:OE2	5:M:162:GLU:N	2.55	0.40
5:M:261:LYS:O	5:M:341:PRO:HG3	2.21	0.40
5:M:276:PHE:HZ	5:M:310:ILE:HG12	1.86	0.40
5:M:387:THR:HA	5:M:388:THR:HA	1.61	0.40
6:N:342:ASP:O	6:N:343:LEU:C	2.59	0.40
6:N:370:ASN:N	6:N:370:ASN:ND2	2.70	0.40
8:P:75:LEU:HD23	8:P:75:LEU:HA	1.94	0.40
8:P:146:VAL:HG22	8:P:148:GLY:H	1.86	0.40
8:P:251:THR:O	8:P:252:CYS:C	2.59	0.40
2:B:14:ARG:O	2:B:15:ALA:HB3	2.21	0.40
2:B:88:VAL:HG11	2:B:493:LEU:HB2	2.04	0.40
2:B:140:VAL:HG23	2:B:483:ARG:NH2	2.36	0.40
2:B:196:ILE:HD12	2:B:196:ILE:N	2.36	0.40
2:B:295:GLU:CB	6:F:337:GLN:NE2	2.79	0.40
2:B:354:LEU:HD13	2:B:356:PHE:CE2	2.56	0.40
3:C:41:PRO:HD3	9:C:1101:ADP:N3	2.36	0.40
3:C:113:GLU:OE1	1:I:460:LYS:NZ	2.47	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:245:LEU:HA	3:C:296:ILE:O	2.21	0.40
4:D:292:ILE:HG13	4:D:293:LEU:C	2.42	0.40
5:E:107:LEU:O	5:E:107:LEU:HD12	2.21	0.40
5:E:245:LEU:CD1	5:E:247:LYS:H	2.25	0.40
5:E:276:PHE:HZ	5:E:310:ILE:HG12	1.86	0.40
5:E:297:LYS:HB3	6:F:256:ALA:CB	2.52	0.40
5:E:428:CYS:HA	5:E:431:ARG:CG	2.52	0.40
6:F:118:ILE:HG22	6:F:122:PHE:CD2	2.57	0.40
7:G:191:ARG:NE	7:G:191:ARG:C	2.75	0.40
7:G:413:GLY:HA2	9:G:601:ADP:C2	2.57	0.40
8:H:5:LEU:HA	8:H:6:PRO:HD3	1.87	0.40
8:H:111:LEU:HD21	8:H:524:LYS:HA	2.04	0.40
8:H:122:LEU:HD23	8:H:126:GLU:OE1	2.22	0.40
2:J:201:GLY:O	2:J:202:LYS:CB	2.69	0.40
2:J:360:LYS:HA	2:J:361:ALA:HA	1.70	0.40
3:K:112:ILE:C	3:K:114:LYS:N	2.74	0.40
4:L:86:ASP:HB2	4:L:93:THR:HG22	2.03	0.40
4:L:292:ILE:CG1	4:L:293:LEU:HA	2.47	0.40
5:M:412:ASN:O	5:M:413:LYS:CB	2.69	0.40
6:N:16:ASP:HA	6:N:19:LEU:HB2	2.02	0.40
7:O:129:TYR:O	7:O:132:ALA:HB3	2.21	0.40
7:O:449:ILE:CB	7:O:450:PRO:HD3	2.50	0.40
7:O:478:TRP:O	7:O:479:TYR:CB	2.69	0.40
8:P:414:PRO:HA	8:P:415:SER:HA	1.60	0.40
1:A:307:LEU:O	1:A:311:VAL:N	2.53	0.40
2:B:201:GLY:O	2:B:202:LYS:CB	2.69	0.40
2:B:354:LEU:HD13	2:B:356:PHE:HE2	1.87	0.40
3:C:112:ILE:C	3:C:114:LYS:N	2.74	0.40
3:C:210:PRO:HB2	3:C:211:GLY:H	1.63	0.40
3:C:413:SER:HA	3:C:414:PRO:HD3	1.90	0.40
4:D:157:SER:C	4:D:159:SER:H	2.24	0.40
4:D:263:ILE:C	4:D:265:LYS:H	2.23	0.40
5:E:237:SER:HB3	5:E:408:VAL:HA	2.04	0.40
5:E:472:PHE:HZ	5:E:542:THR:HG22	1.86	0.40
6:F:331:VAL:HG23	6:F:375:SER:OG	2.21	0.40
6:F:342:ASP:O	6:F:343:LEU:C	2.59	0.40
7:G:204:ILE:HA	7:G:205:PRO:HD3	1.79	0.40
8:H:208:ARG:O	8:H:383:THR:HA	2.22	0.40
1:I:303:ASP:OD1	1:I:304:ASP:N	2.55	0.40
2:J:164:LYS:O	2:J:166:LEU:HD23	2.22	0.40
2:J:320:VAL:HB	2:J:338:GLY:H	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:402:LEU:CD2	2:J:483:ARG:HG3	2.46	0.40
3:K:34:VAL:HG12	3:K:35:ILE:N	2.35	0.40
4:L:20:VAL:HG21	4:L:522:ASP:O	2.22	0.40
4:L:65:LEU:HA	4:L:65:LEU:HD23	1.83	0.40
4:L:116:HIS:HA	4:L:117:PRO:HD3	1.99	0.40
5:M:412:ASN:C	5:M:414:MET:H	2.24	0.40
6:N:331:VAL:HG23	6:N:375:SER:OG	2.21	0.40
7:O:94:VAL:CG1	7:O:95:GLY:N	2.83	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	538/559 (96%)	441 (82%)	78 (14%)	19 (4%)	3	31
1	I	538/559 (96%)	441 (82%)	78 (14%)	19 (4%)	3	31
1	a	538/559 (96%)	441 (82%)	78 (14%)	19 (4%)	3	31
1	i	538/559 (96%)	441 (82%)	78 (14%)	19 (4%)	3	31
2	B	509/527 (97%)	417 (82%)	67 (13%)	25 (5%)	2	24
2	J	509/527 (97%)	417 (82%)	67 (13%)	25 (5%)	2	24
2	b	509/527 (97%)	417 (82%)	68 (13%)	24 (5%)	2	24
2	j	509/527 (97%)	417 (82%)	67 (13%)	25 (5%)	2	24
3	C	508/590 (86%)	420 (83%)	68 (13%)	20 (4%)	3	28
3	K	508/590 (86%)	421 (83%)	67 (13%)	20 (4%)	3	28
3	c	508/590 (86%)	419 (82%)	70 (14%)	19 (4%)	3	29
3	k	508/590 (86%)	420 (83%)	68 (13%)	20 (4%)	3	28
4	D	520/528 (98%)	429 (82%)	79 (15%)	12 (2%)	6	38

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	L	520/528 (98%)	429 (82%)	79 (15%)	12 (2%)	6	38
4	d	520/528 (98%)	429 (82%)	79 (15%)	12 (2%)	6	38
4	l	520/528 (98%)	429 (82%)	79 (15%)	12 (2%)	6	38
5	E	521/562 (93%)	443 (85%)	59 (11%)	19 (4%)	3	30
5	M	521/562 (93%)	443 (85%)	59 (11%)	19 (4%)	3	30
5	e	521/562 (93%)	442 (85%)	60 (12%)	19 (4%)	3	30
5	m	521/562 (93%)	443 (85%)	59 (11%)	19 (4%)	3	30
6	F	529/546 (97%)	429 (81%)	82 (16%)	18 (3%)	3	31
6	N	529/546 (97%)	429 (81%)	82 (16%)	18 (3%)	3	31
6	f	529/546 (97%)	429 (81%)	82 (16%)	18 (3%)	3	31
6	n	529/546 (97%)	429 (81%)	82 (16%)	18 (3%)	3	31
7	G	505/550 (92%)	424 (84%)	60 (12%)	21 (4%)	3	26
7	O	505/550 (92%)	424 (84%)	60 (12%)	21 (4%)	3	26
7	g	505/550 (92%)	424 (84%)	60 (12%)	21 (4%)	3	26
7	o	505/550 (92%)	424 (84%)	60 (12%)	21 (4%)	3	26
8	H	521/568 (92%)	439 (84%)	58 (11%)	24 (5%)	2	24
8	P	521/568 (92%)	439 (84%)	58 (11%)	24 (5%)	2	24
8	h	521/568 (92%)	439 (84%)	58 (11%)	24 (5%)	2	24
8	p	521/568 (92%)	439 (84%)	58 (11%)	24 (5%)	2	24
All	All	16604/17720 (94%)	13767 (83%)	2207 (13%)	630 (4%)	3	29

All (630) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	B	5	ILE
2	B	165	ILE
2	B	184	LEU
2	B	185	LYS
2	B	307	GLU
2	B	370	ARG
2	B	470	SER
3	C	16	THR
3	C	210	PRO
3	C	252	TYR
3	C	303	ASP

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Mol	Chain	Res	Type
4	D	205	ASP
4	D	427	LYS
5	E	167	ASP
5	E	351	LEU
5	E	369	LEU
6	F	160	THR
6	F	353	LEU
6	F	460	LYS
6	F	489	VAL
6	F	490	GLY
7	G	46	PRO
7	G	190	ASP
7	G	213	LEU
7	G	487	ASN
7	G	495	PHE
8	H	147	VAL
8	H	483	ASN
8	H	490	VAL
2	J	5	ILE
2	J	165	ILE
2	J	184	LEU
2	J	185	LYS
2	J	307	GLU
2	J	370	ARG
2	J	470	SER
3	K	16	THR
3	K	210	PRO
3	K	252	TYR
3	K	303	ASP
4	L	205	ASP
4	L	427	LYS
5	M	167	ASP
5	M	351	LEU
5	M	369	LEU
6	N	160	THR
6	N	353	LEU
6	N	460	LYS
6	N	489	VAL
6	N	490	GLY
7	O	46	PRO
7	O	190	ASP
7	O	213	LEU

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Mol	Chain	Res	Type
7	O	487	ASN
7	O	495	PHE
8	P	147	VAL
8	P	483	ASN
8	P	490	VAL
2	b	1005	ILE
2	b	1165	ILE
2	b	1184	LEU
2	b	1185	LYS
2	b	1307	GLU
2	b	1370	ARG
2	b	1470	SER
3	c	1016	THR
3	c	1210	PRO
3	c	1252	TYR
3	c	1303	ASP
4	d	1205	ASP
4	d	1427	LYS
5	e	1167	ASP
5	e	1351	LEU
5	e	1369	LEU
6	f	1160	THR
6	f	1353	LEU
6	f	1460	LYS
6	f	1489	VAL
6	f	1490	GLY
7	g	1046	PRO
7	g	1190	ASP
7	g	1213	LEU
7	g	1487	ASN
7	g	1495	PHE
8	h	1006	PRO
8	h	1147	VAL
8	h	1483	ASN
8	h	1490	VAL
2	j	1005	ILE
2	j	1165	ILE
2	j	1184	LEU
2	j	1185	LYS
2	j	1307	GLU
2	j	1370	ARG
2	j	1470	SER

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Mol	Chain	Res	Type
3	k	1016	THR
3	k	1210	PRO
3	k	1252	TYR
3	k	1303	ASP
4	l	1205	ASP
4	l	1427	LYS
5	m	1167	ASP
5	m	1351	LEU
5	m	1369	LEU
6	n	1160	THR
6	n	1353	LEU
6	n	1460	LYS
6	n	1489	VAL
6	n	1490	GLY
7	o	1046	PRO
7	o	1190	ASP
7	o	1213	LEU
7	o	1487	ASN
7	o	1495	PHE
8	p	1147	VAL
8	p	1483	ASN
8	p	1490	VAL
1	A	11	ASP
1	A	56	ASP
1	A	94	ILE
1	A	265	ASP
1	A	508	LYS
2	B	35	SER
2	B	50	SER
2	B	142	ASN
2	B	220	ASN
2	B	323	GLY
2	B	371	GLY
3	C	19	GLN
3	C	36	ARG
3	C	144	ASP
3	C	258	GLN
3	C	321	LYS
3	C	454	ARG
4	D	188	ASN
4	D	485	ARG
5	E	251	HIS

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Mol	Chain	Res	Type
5	E	347	GLY
5	E	402	LYS
5	E	438	ARG
6	F	138	ILE
6	F	298	GLN
6	F	333	GLY
6	F	467	LEU
6	F	486	THR
7	G	45	GLY
7	G	224	PHE
7	G	256	ASN
7	G	478	TRP
7	G	502	VAL
1	I	11	ASP
1	I	56	ASP
1	I	94	ILE
1	I	265	ASP
1	I	508	LYS
2	J	35	SER
2	J	50	SER
2	J	142	ASN
2	J	220	ASN
2	J	323	GLY
2	J	371	GLY
3	K	19	GLN
3	K	36	ARG
3	K	144	ASP
3	K	258	GLN
3	K	321	LYS
3	K	454	ARG
4	L	188	ASN
4	L	485	ARG
5	M	251	HIS
5	M	347	GLY
5	M	402	LYS
5	M	438	ARG
6	N	138	ILE
6	N	298	GLN
6	N	333	GLY
6	N	467	LEU
6	N	486	THR
7	O	45	GLY

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Mol	Chain	Res	Type
7	O	224	PHE
7	O	256	ASN
7	O	478	TRP
7	O	502	VAL
1	a	1011	ASP
1	a	1056	ASP
1	a	1094	ILE
1	a	1265	ASP
1	a	1508	LYS
2	b	1035	SER
2	b	1050	SER
2	b	1142	ASN
2	b	1220	ASN
2	b	1323	GLY
2	b	1371	GLY
3	c	1019	GLN
3	c	1036	ARG
3	c	1144	ASP
3	c	1258	GLN
3	c	1321	LYS
3	c	1454	ARG
4	d	1188	ASN
4	d	1485	ARG
5	e	1251	HIS
5	e	1347	GLY
5	e	1402	LYS
5	e	1438	ARG
6	f	1138	ILE
6	f	1298	GLN
6	f	1333	GLY
6	f	1467	LEU
6	f	1486	THR
7	g	1045	GLY
7	g	1224	PHE
7	g	1256	ASN
7	g	1478	TRP
7	g	1502	VAL
1	i	1011	ASP
1	i	1056	ASP
1	i	1094	ILE
1	i	1265	ASP
1	i	1508	LYS

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Mol	Chain	Res	Type
2	j	1035	SER
2	j	1050	SER
2	j	1142	ASN
2	j	1220	ASN
2	j	1323	GLY
2	j	1371	GLY
3	k	1019	GLN
3	k	1036	ARG
3	k	1144	ASP
3	k	1258	GLN
3	k	1321	LYS
3	k	1454	ARG
4	l	1188	ASN
4	l	1485	ARG
5	m	1251	HIS
5	m	1347	GLY
5	m	1402	LYS
5	m	1438	ARG
6	n	1138	ILE
6	n	1298	GLN
6	n	1333	GLY
6	n	1467	LEU
6	n	1486	THR
7	o	1045	GLY
7	o	1224	PHE
7	o	1256	ASN
7	o	1478	TRP
7	o	1502	VAL
1	A	335	ALA
1	A	337	LEU
2	B	15	ALA
2	B	301	LEU
2	B	467	ILE
2	B	478	THR
3	C	52	MET
3	C	256	GLU
3	C	460	ALA
3	C	490	LYS
4	D	17	PRO
4	D	143	SER
4	D	474	GLU
5	E	36	GLY

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Mol	Chain	Res	Type
5	E	190	SER
6	F	204	PRO
7	G	63	SER
7	G	250	LEU
7	G	362	TYR
8	H	6	PRO
8	H	13	LEU
8	H	48	PRO
8	H	146	VAL
8	H	150	ILE
8	H	178	LEU
8	H	343	ARG
8	H	378	ILE
8	H	458	VAL
8	H	460	PRO
8	H	486	GLU
1	I	335	ALA
1	I	337	LEU
2	J	15	ALA
2	J	301	LEU
2	J	467	ILE
2	J	478	THR
3	K	52	MET
3	K	256	GLU
3	K	460	ALA
3	K	490	LYS
4	L	17	PRO
4	L	143	SER
4	L	474	GLU
5	M	36	GLY
5	M	190	SER
6	N	204	PRO
7	O	63	SER
7	O	250	LEU
7	O	362	TYR
8	P	6	PRO
8	P	13	LEU
8	P	48	PRO
8	P	146	VAL
8	P	150	ILE
8	P	178	LEU
8	P	343	ARG

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Mol	Chain	Res	Type
8	P	378	ILE
8	P	458	VAL
8	P	460	PRO
8	P	486	GLU
1	a	1335	ALA
1	a	1337	LEU
2	b	1015	ALA
2	b	1301	LEU
2	b	1467	ILE
2	b	1478	THR
3	c	1052	MET
3	c	1256	GLU
3	c	1460	ALA
3	c	1490	LYS
4	d	1017	PRO
4	d	1143	SER
4	d	1474	GLU
5	e	1036	GLY
5	e	1190	SER
6	f	1204	PRO
7	g	1063	SER
7	g	1250	LEU
7	g	1362	TYR
8	h	1013	LEU
8	h	1048	PRO
8	h	1146	VAL
8	h	1150	ILE
8	h	1178	LEU
8	h	1343	ARG
8	h	1378	ILE
8	h	1458	VAL
8	h	1460	PRO
8	h	1486	GLU
1	i	1335	ALA
1	i	1337	LEU
2	j	1015	ALA
2	j	1301	LEU
2	j	1467	ILE
2	j	1478	THR
3	k	1052	MET
3	k	1256	GLU
3	k	1460	ALA

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Mol	Chain	Res	Type
3	k	1490	LYS
4	l	1017	PRO
4	l	1143	SER
4	l	1474	GLU
5	m	1036	GLY
5	m	1190	SER
6	n	1204	PRO
7	o	1063	SER
7	o	1250	LEU
7	o	1362	TYR
8	p	1006	PRO
8	p	1013	LEU
8	p	1048	PRO
8	p	1146	VAL
8	p	1150	ILE
8	p	1178	LEU
8	p	1343	ARG
8	p	1378	ILE
8	p	1458	VAL
8	p	1460	PRO
8	p	1486	GLU
1	A	74	ASP
1	A	121	HIS
1	A	267	PRO
1	A	518	LEU
2	B	16	GLU
2	B	202	LYS
2	B	246	PHE
2	B	327	SER
3	C	265	LYS
4	D	9	ALA
4	D	95	SER
4	D	382	ALA
5	E	274	CYS
5	E	462	ARG
6	F	167	THR
6	F	343	LEU
7	G	368	CYS
7	G	428	SER
8	H	122	LEU
8	H	233	GLU
8	H	356	GLU

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Mol	Chain	Res	Type
8	H	373	GLN
1	I	74	ASP
1	I	121	HIS
1	I	267	PRO
1	I	518	LEU
2	J	16	GLU
2	J	202	LYS
2	J	246	PHE
2	J	327	SER
3	K	265	LYS
4	L	9	ALA
4	L	95	SER
4	L	382	ALA
5	M	274	CYS
5	M	462	ARG
6	N	167	THR
6	N	343	LEU
7	O	368	CYS
7	O	428	SER
8	P	122	LEU
8	P	233	GLU
8	P	356	GLU
8	P	373	GLN
1	a	1074	ASP
1	a	1121	HIS
1	a	1267	PRO
1	a	1518	LEU
2	b	1016	GLU
2	b	1202	LYS
2	b	1246	PHE
2	b	1327	SER
3	c	1265	LYS
4	d	1009	ALA
4	d	1095	SER
4	d	1382	ALA
5	e	1274	CYS
5	e	1462	ARG
6	f	1167	THR
6	f	1343	LEU
7	g	1368	CYS
7	g	1428	SER
8	h	1122	LEU

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Mol	Chain	Res	Type
8	h	1233	GLU
8	h	1356	GLU
8	h	1373	GLN
1	i	1074	ASP
1	i	1121	HIS
1	i	1267	PRO
1	i	1518	LEU
2	j	1016	GLU
2	j	1202	LYS
2	j	1246	PHE
2	j	1327	SER
3	k	1265	LYS
4	l	1009	ALA
4	l	1095	SER
4	l	1382	ALA
5	m	1274	CYS
5	m	1462	ARG
6	n	1167	THR
6	n	1343	LEU
7	o	1368	CYS
7	o	1428	SER
8	p	1122	LEU
8	p	1233	GLU
8	p	1356	GLU
8	p	1373	GLN
1	A	199	PRO
1	A	367	SER
2	B	293	TYR
3	C	30	ALA
3	C	249	PRO
4	D	294	ARG
4	D	431	SER
5	E	147	ALA
5	E	279	PRO
5	E	376	THR
6	F	24	THR
6	F	188	ASN
7	G	337	THR
8	H	49	CYS
8	H	322	LYS
1	I	199	PRO
1	I	367	SER

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Mol	Chain	Res	Type
2	J	293	TYR
3	K	30	ALA
3	K	249	PRO
4	L	294	ARG
4	L	431	SER
5	M	147	ALA
5	M	279	PRO
5	M	376	THR
6	N	24	THR
6	N	188	ASN
7	O	337	THR
8	P	49	CYS
8	P	322	LYS
1	a	1199	PRO
1	a	1367	SER
2	b	1293	TYR
3	c	1030	ALA
3	c	1249	PRO
4	d	1294	ARG
4	d	1431	SER
5	e	1147	ALA
5	e	1279	PRO
5	e	1376	THR
6	f	1024	THR
6	f	1188	ASN
7	g	1337	THR
8	h	1049	CYS
8	h	1322	LYS
1	i	1199	PRO
1	i	1367	SER
2	j	1293	TYR
3	k	1030	ALA
3	k	1249	PRO
4	l	1294	ARG
4	l	1431	SER
5	m	1147	ALA
5	m	1279	PRO
5	m	1376	THR
6	n	1024	THR
6	n	1188	ASN
7	o	1337	THR
8	p	1049	CYS

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Mol	Chain	Res	Type
8	p	1322	LYS
1	A	55	ASP
1	A	77	HIS
2	B	372	ALA
5	E	254	MET
6	F	183	ASP
7	G	67	ALA
7	G	479	TYR
8	H	187	SER
8	H	484	VAL
1	I	55	ASP
1	I	77	HIS
2	J	372	ALA
5	M	254	MET
6	N	183	ASP
7	O	67	ALA
7	O	479	TYR
8	P	187	SER
8	P	484	VAL
1	a	1055	ASP
1	a	1077	HIS
5	e	1254	MET
6	f	1183	ASP
7	g	1067	ALA
7	g	1479	TYR
8	h	1187	SER
8	h	1484	VAL
1	i	1055	ASP
1	i	1077	HIS
2	j	1372	ALA
5	m	1254	MET
6	n	1183	ASP
7	o	1067	ALA
7	o	1479	TYR
8	p	1187	SER
8	p	1484	VAL
1	A	22	GLY
1	A	376	GLY
1	A	549	PRO
2	B	117	PRO
3	C	410	PRO
5	E	493	GLY

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Mol	Chain	Res	Type
8	H	284	ILE
8	H	324	PRO
1	I	22	GLY
1	I	376	GLY
1	I	549	PRO
2	J	117	PRO
3	K	410	PRO
5	M	493	GLY
8	P	284	ILE
8	P	324	PRO
1	a	1022	GLY
1	a	1376	GLY
1	a	1549	PRO
2	b	1117	PRO
3	c	1410	PRO
5	e	1493	GLY
8	h	1284	ILE
8	h	1324	PRO
1	i	1022	GLY
1	i	1376	GLY
1	i	1549	PRO
2	j	1117	PRO
3	k	1410	PRO
5	m	1493	GLY
8	p	1284	ILE
8	p	1324	PRO
1	A	292	GLY
2	B	88	VAL
5	E	440	VAL
1	I	292	GLY
2	J	88	VAL
5	M	440	VAL
1	a	1292	GLY
2	b	1088	VAL
5	e	1440	VAL
1	i	1292	GLY
2	j	1088	VAL
5	m	1440	VAL
7	G	412	GLY
7	G	528	GLY
7	O	412	GLY
7	O	528	GLY

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Mol	Chain	Res	Type
7	g	1412	GLY
7	g	1528	GLY
7	o	1412	GLY
7	o	1528	GLY
3	C	142	PRO
5	E	386	GLY
6	F	412	ILE
7	G	62	ILE
3	K	142	PRO
5	M	386	GLY
6	N	412	ILE
6	N	512	VAL
7	O	62	ILE
3	c	1142	PRO
5	e	1386	GLY
6	f	1412	ILE
7	g	1062	ILE
3	k	1142	PRO
5	m	1386	GLY
6	n	1412	ILE
7	o	1062	ILE
3	C	50	ASP
5	E	507	ILE
6	F	512	VAL
3	K	50	ASP
5	M	507	ILE
5	e	1507	ILE
6	f	1512	VAL
3	k	1050	ASP
5	m	1507	ILE
6	n	1512	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.

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	301/471 (64%)	274 (91%)	27 (9%)	9	37
1	I	301/471 (64%)	274 (91%)	27 (9%)	9	37
1	a	301/471 (64%)	274 (91%)	27 (9%)	9	37
1	i	301/471 (64%)	274 (91%)	27 (9%)	9	37
2	B	320/441 (73%)	263 (82%)	57 (18%)	2	12
2	J	320/441 (73%)	263 (82%)	57 (18%)	2	12
2	b	320/441 (73%)	262 (82%)	58 (18%)	1	12
2	j	319/441 (72%)	262 (82%)	57 (18%)	2	12
3	C	295/497 (59%)	268 (91%)	27 (9%)	9	35
3	K	296/497 (60%)	269 (91%)	27 (9%)	9	36
3	c	297/497 (60%)	270 (91%)	27 (9%)	9	36
3	k	297/497 (60%)	270 (91%)	27 (9%)	9	36
4	D	290/454 (64%)	261 (90%)	29 (10%)	7	32
4	L	290/454 (64%)	261 (90%)	29 (10%)	7	32
4	d	290/454 (64%)	261 (90%)	29 (10%)	7	32
4	l	290/454 (64%)	261 (90%)	29 (10%)	7	32
5	E	293/483 (61%)	257 (88%)	36 (12%)	4	24
5	M	293/483 (61%)	257 (88%)	36 (12%)	4	24
5	e	293/483 (61%)	257 (88%)	36 (12%)	4	24
5	m	293/483 (61%)	257 (88%)	36 (12%)	4	24
6	F	334/463 (72%)	273 (82%)	61 (18%)	1	11
6	N	333/463 (72%)	273 (82%)	60 (18%)	1	12
6	f	334/463 (72%)	272 (81%)	62 (19%)	1	11
6	n	333/463 (72%)	272 (82%)	61 (18%)	1	11
7	G	275/454 (61%)	241 (88%)	34 (12%)	4	24
7	O	274/454 (60%)	240 (88%)	34 (12%)	4	24
7	g	274/454 (60%)	240 (88%)	34 (12%)	4	24
7	o	274/454 (60%)	240 (88%)	34 (12%)	4	24
8	H	307/473 (65%)	276 (90%)	31 (10%)	7	32
8	P	307/473 (65%)	276 (90%)	31 (10%)	7	32

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	h	306/473 (65%)	275 (90%)	31 (10%)	7	32
8	p	307/473 (65%)	276 (90%)	31 (10%)	7	32
All	All	9658/14944 (65%)	8449 (88%)	1209 (12%)	4	24

All (1209) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	8	SER
1	A	13	LEU
1	A	44	LEU
1	A	50	ASP
1	A	74	ASP
1	A	76	GLN
1	A	90	GLN
1	A	91	ASP
1	A	119	LYS
1	A	120	ILE
1	A	187	VAL
1	A	204	ASN
1	A	225	ASN
1	A	226	CYS
1	A	228	VAL
1	A	248	ASP
1	A	255	ARG
1	A	344	LEU
1	A	350	PHE
1	A	402	LEU
1	A	404	ASP
1	A	419	VAL
1	A	446	LEU
1	A	484	SER
1	A	496	SER
1	A	532	LEU
1	A	548	ASP
2	B	4	GLN
2	B	5	ILE
2	B	8	ASP
2	B	19	ARG
2	B	27	ILE
2	B	31	ASP
2	B	32	LEU

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Mol	Chain	Res	Type
2	B	33	VAL
2	B	43	ASP
2	B	57	THR
2	B	58	ASN
2	B	66	SER
2	B	80	ILE
2	B	92	THR
2	B	145	ASP
2	B	146	LYS
2	B	149	PHE
2	B	166	LEU
2	B	176	LEU
2	B	197	LYS
2	B	203	LEU
2	B	213	ILE
2	B	217	LYS
2	B	228	ASN
2	B	231	ILE
2	B	233	ILE
2	B	238	LEU
2	B	239	ASP
2	B	245	ILE
2	B	246	PHE
2	B	268	LYS
2	B	285	ILE
2	B	287	ARG
2	B	289	LEU
2	B	307	GLU
2	B	329	PHE
2	B	331	GLU
2	B	350	GLU
2	B	357	SER
2	B	375	GLN
2	B	379	GLU
2	B	382	ARG
2	B	399	ARG
2	B	406	CYS
2	B	409	MET
2	B	427	SER
2	B	444	LEU
2	B	462	SER
2	B	463	ILE

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Mol	Chain	Res	Type
2	B	465	ASN
2	B	468	SER
2	B	474	LEU
2	B	475	ASN
2	B	490	SER
2	B	492	LYS
2	B	508	LEU
2	B	512	ASP
3	C	8	MET
3	C	25	ILE
3	C	26	THR
3	C	44	MET
3	C	48	LEU
3	C	57	LEU
3	C	64	ILE
3	C	143	VAL
3	C	165	ILE
3	C	170	LYS
3	C	182	VAL
3	C	184	LYS
3	C	209	ILE
3	C	225	LEU
3	C	226	ASN
3	C	239	GLU
3	C	248	CYS
3	C	250	LEU
3	C	259	THR
3	C	265	LYS
3	C	297	THR
3	C	302	SER
3	C	433	GLN
3	C	456	LEU
3	C	491	ILE
3	C	492	VAL
3	C	519	LEU
4	D	70	ILE
4	D	94	THR
4	D	98	ILE
4	D	100	THR
4	D	135	LEU
4	D	139	CYS
4	D	144	LEU

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Mol	Chain	Res	Type
4	D	146	ASP
4	D	147	ARG
4	D	161	LYS
4	D	175	VAL
4	D	187	LYS
4	D	193	ASP
4	D	194	ILE
4	D	198	LYS
4	D	209	MET
4	D	210	ILE
4	D	231	LYS
4	D	241	ILE
4	D	253	ILE
4	D	263	ILE
4	D	385	MET
4	D	392	ARG
4	D	410	LEU
4	D	424	ARG
4	D	461	ASN
4	D	482	ILE
4	D	502	LEU
4	D	528	ARG
5	E	61	ILE
5	E	82	THR
5	E	86	ASP
5	E	93	GLN
5	E	103	LEU
5	E	106	GLN
5	E	107	LEU
5	E	108	SER
5	E	109	LYS
5	E	148	ASN
5	E	150	PHE
5	E	165	CYS
5	E	169	SER
5	E	175	LEU
5	E	187	SER
5	E	210	ASN
5	E	222	ASP
5	E	236	ASP
5	E	241	ASN
5	E	245	LEU

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Mol	Chain	Res	Type
5	E	273	THR
5	E	296	GLN
5	E	324	GLN
5	E	325	TRP
5	E	351	LEU
5	E	352	GLU
5	E	368	ASP
5	E	382	GLU
5	E	396	GLU
5	E	431	ARG
5	E	440	VAL
5	E	469	PHE
5	E	492	ILE
5	E	507	ILE
5	E	535	LYS
5	E	547	MET
6	F	1	MET
6	F	3	LEU
6	F	4	GLN
6	F	5	LEU
6	F	6	LEU
6	F	16	ASP
6	F	27	GLU
6	F	37	LEU
6	F	43	LEU
6	F	53	ILE
6	F	68	ILE
6	F	93	THR
6	F	102	LEU
6	F	113	VAL
6	F	117	ILE
6	F	133	LEU
6	F	142	ASN
6	F	143	LEU
6	F	152	GLN
6	F	158	LEU
6	F	171	THR
6	F	183	ASP
6	F	196	ILE
6	F	197	MET
6	F	198	GLN
6	F	209	PHE

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Mol	Chain	Res	Type
6	F	213	LEU
6	F	243	GLU
6	F	294	VAL
6	F	295	ILE
6	F	321	LYS
6	F	323	ARG
6	F	328	LEU
6	F	330	LEU
6	F	370	ASN
6	F	376	CYS
6	F	378	ILE
6	F	390	GLN
6	F	407	LYS
6	F	409	LYS
6	F	424	ARG
6	F	433	LYS
6	F	434	LEU
6	F	437	LYS
6	F	440	THR
6	F	442	THR
6	F	454	ILE
6	F	457	THR
6	F	458	LEU
6	F	483	SER
6	F	484	ASP
6	F	486	THR
6	F	489	VAL
6	F	513	LEU
6	F	515	ASN
6	F	518	THR
6	F	538	ARG
6	F	540	THR
6	F	541	LEU
6	F	542	LYS
6	F	544	THR
7	G	36	VAL
7	G	37	GLN
7	G	43	THR
7	G	52	LEU
7	G	58	GLN
7	G	64	ASN
7	G	71	LYS

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Mol	Chain	Res	Type
7	G	82	THR
7	G	86	ILE
7	G	100	SER
7	G	120	ILE
7	G	123	HIS
7	G	156	GLU
7	G	157	LEU
7	G	174	ASN
7	G	191	ARG
7	G	232	GLN
7	G	234	LYS
7	G	282	LEU
7	G	285	VAL
7	G	305	GLN
7	G	312	ILE
7	G	346	LEU
7	G	376	LEU
7	G	377	LEU
7	G	393	LEU
7	G	399	ILE
7	G	408	LEU
7	G	410	VAL
7	G	418	MET
7	G	488	ILE
7	G	514	THR
7	G	516	LEU
7	G	527	LYS
8	H	15	LYS
8	H	27	GLN
8	H	28	ILE
8	H	29	ILE
8	H	32	ILE
8	H	62	ILE
8	H	66	ASN
8	H	74	GLU
8	H	76	ASP
8	H	77	ILE
8	H	92	GLN
8	H	153	LYS
8	H	175	GLU
8	H	209	VAL
8	H	237	LYS

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Mol	Chain	Res	Type
8	H	244	LYS
8	H	267	LEU
8	H	314	ASN
8	H	316	TYR
8	H	320	VAL
8	H	343	ARG
8	H	352	LEU
8	H	386	LEU
8	H	390	THR
8	H	408	VAL
8	H	430	LEU
8	H	451	GLN
8	H	466	THR
8	H	473	GLU
8	H	494	HIS
8	H	532	THR
1	I	8	SER
1	I	13	LEU
1	I	44	LEU
1	I	50	ASP
1	I	74	ASP
1	I	76	GLN
1	I	90	GLN
1	I	91	ASP
1	I	119	LYS
1	I	120	ILE
1	I	187	VAL
1	I	204	ASN
1	I	225	ASN
1	I	226	CYS
1	I	228	VAL
1	I	248	ASP
1	I	255	ARG
1	I	344	LEU
1	I	350	PHE
1	I	402	LEU
1	I	404	ASP
1	I	419	VAL
1	I	446	LEU
1	I	484	SER
1	I	496	SER
1	I	532	LEU

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Mol	Chain	Res	Type
1	I	548	ASP
2	J	4	GLN
2	J	5	ILE
2	J	8	ASP
2	J	19	ARG
2	J	27	ILE
2	J	31	ASP
2	J	32	LEU
2	J	33	VAL
2	J	43	ASP
2	J	57	THR
2	J	58	ASN
2	J	66	SER
2	J	80	ILE
2	J	92	THR
2	J	145	ASP
2	J	146	LYS
2	J	149	PHE
2	J	166	LEU
2	J	176	LEU
2	J	197	LYS
2	J	203	LEU
2	J	213	ILE
2	J	217	LYS
2	J	228	ASN
2	J	231	ILE
2	J	233	ILE
2	J	238	LEU
2	J	239	ASP
2	J	245	ILE
2	J	246	PHE
2	J	268	LYS
2	J	285	ILE
2	J	287	ARG
2	J	289	LEU
2	J	307	GLU
2	J	329	PHE
2	J	331	GLU
2	J	350	GLU
2	J	357	SER
2	J	375	GLN
2	J	379	GLU

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Mol	Chain	Res	Type
2	J	382	ARG
2	J	399	ARG
2	J	406	CYS
2	J	409	MET
2	J	427	SER
2	J	444	LEU
2	J	462	SER
2	J	463	ILE
2	J	465	ASN
2	J	468	SER
2	J	474	LEU
2	J	475	ASN
2	J	490	SER
2	J	492	LYS
2	J	508	LEU
2	J	512	ASP
3	K	8	MET
3	K	25	ILE
3	K	26	THR
3	K	44	MET
3	K	48	LEU
3	K	57	LEU
3	K	64	ILE
3	K	143	VAL
3	K	165	ILE
3	K	170	LYS
3	K	182	VAL
3	K	184	LYS
3	K	209	ILE
3	K	225	LEU
3	K	226	ASN
3	K	239	GLU
3	K	248	CYS
3	K	250	LEU
3	K	259	THR
3	K	265	LYS
3	K	297	THR
3	K	302	SER
3	K	433	GLN
3	K	456	LEU
3	K	491	ILE
3	K	492	VAL

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Mol	Chain	Res	Type
3	K	519	LEU
4	L	70	ILE
4	L	94	THR
4	L	98	ILE
4	L	100	THR
4	L	135	LEU
4	L	139	CYS
4	L	144	LEU
4	L	146	ASP
4	L	147	ARG
4	L	161	LYS
4	L	175	VAL
4	L	187	LYS
4	L	193	ASP
4	L	194	ILE
4	L	198	LYS
4	L	209	MET
4	L	210	ILE
4	L	231	LYS
4	L	241	ILE
4	L	253	ILE
4	L	263	ILE
4	L	385	MET
4	L	392	ARG
4	L	410	LEU
4	L	424	ARG
4	L	461	ASN
4	L	482	ILE
4	L	502	LEU
4	L	528	ARG
5	M	61	ILE
5	M	82	THR
5	M	86	ASP
5	M	93	GLN
5	M	103	LEU
5	M	106	GLN
5	M	107	LEU
5	M	108	SER
5	M	109	LYS
5	M	148	ASN
5	M	150	PHE
5	M	165	CYS

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Mol	Chain	Res	Type
5	M	169	SER
5	M	175	LEU
5	M	187	SER
5	M	210	ASN
5	M	222	ASP
5	M	236	ASP
5	M	241	ASN
5	M	245	LEU
5	M	273	THR
5	M	296	GLN
5	M	324	GLN
5	M	325	TRP
5	M	351	LEU
5	M	352	GLU
5	M	368	ASP
5	M	382	GLU
5	M	396	GLU
5	M	431	ARG
5	M	440	VAL
5	M	469	PHE
5	M	492	ILE
5	M	507	ILE
5	M	535	LYS
5	M	547	MET
6	N	1	MET
6	N	3	LEU
6	N	4	GLN
6	N	5	LEU
6	N	6	LEU
6	N	16	ASP
6	N	27	GLU
6	N	37	LEU
6	N	53	ILE
6	N	68	ILE
6	N	93	THR
6	N	102	LEU
6	N	113	VAL
6	N	117	ILE
6	N	133	LEU
6	N	142	ASN
6	N	143	LEU
6	N	152	GLN

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Mol	Chain	Res	Type
6	N	158	LEU
6	N	171	THR
6	N	183	ASP
6	N	196	ILE
6	N	197	MET
6	N	198	GLN
6	N	209	PHE
6	N	213	LEU
6	N	243	GLU
6	N	294	VAL
6	N	295	ILE
6	N	321	LYS
6	N	323	ARG
6	N	328	LEU
6	N	330	LEU
6	N	370	ASN
6	N	376	CYS
6	N	378	ILE
6	N	390	GLN
6	N	407	LYS
6	N	409	LYS
6	N	424	ARG
6	N	433	LYS
6	N	434	LEU
6	N	437	LYS
6	N	440	THR
6	N	442	THR
6	N	454	ILE
6	N	457	THR
6	N	458	LEU
6	N	483	SER
6	N	484	ASP
6	N	486	THR
6	N	489	VAL
6	N	513	LEU
6	N	515	ASN
6	N	518	THR
6	N	538	ARG
6	N	540	THR
6	N	541	LEU
6	N	542	LYS
6	N	544	THR

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Mol	Chain	Res	Type
7	O	36	VAL
7	O	37	GLN
7	O	43	THR
7	O	52	LEU
7	O	58	GLN
7	O	64	ASN
7	O	71	LYS
7	O	82	THR
7	O	86	ILE
7	O	100	SER
7	O	120	ILE
7	O	123	HIS
7	O	156	GLU
7	O	157	LEU
7	O	174	ASN
7	O	191	ARG
7	O	232	GLN
7	O	234	LYS
7	O	282	LEU
7	O	285	VAL
7	O	305	GLN
7	O	312	ILE
7	O	346	LEU
7	O	376	LEU
7	O	377	LEU
7	O	393	LEU
7	O	399	ILE
7	O	408	LEU
7	O	410	VAL
7	O	418	MET
7	O	488	ILE
7	O	514	THR
7	O	516	LEU
7	O	527	LYS
8	P	15	LYS
8	P	27	GLN
8	P	28	ILE
8	P	29	ILE
8	P	32	ILE
8	P	62	ILE
8	P	66	ASN
8	P	74	GLU

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Mol	Chain	Res	Type
8	P	76	ASP
8	P	77	ILE
8	P	92	GLN
8	P	153	LYS
8	P	175	GLU
8	P	209	VAL
8	P	237	LYS
8	P	244	LYS
8	P	267	LEU
8	P	314	ASN
8	P	316	TYR
8	P	320	VAL
8	P	343	ARG
8	P	352	LEU
8	P	386	LEU
8	P	390	THR
8	P	408	VAL
8	P	430	LEU
8	P	451	GLN
8	P	466	THR
8	P	473	GLU
8	P	494	HIS
8	P	532	THR
1	a	1008	SER
1	a	1013	LEU
1	a	1044	LEU
1	a	1050	ASP
1	a	1074	ASP
1	a	1076	GLN
1	a	1090	GLN
1	a	1091	ASP
1	a	1119	LYS
1	a	1120	ILE
1	a	1187	VAL
1	a	1204	ASN
1	a	1225	ASN
1	a	1226	CYS
1	a	1228	VAL
1	a	1248	ASP
1	a	1255	ARG
1	a	1344	LEU
1	a	1350	PHE

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Mol	Chain	Res	Type
1	a	1402	LEU
1	a	1404	ASP
1	a	1419	VAL
1	a	1446	LEU
1	a	1484	SER
1	a	1496	SER
1	a	1532	LEU
1	a	1548	ASP
2	b	1004	GLN
2	b	1005	ILE
2	b	1008	ASP
2	b	1019	ARG
2	b	1027	ILE
2	b	1031	ASP
2	b	1032	LEU
2	b	1033	VAL
2	b	1043	ASP
2	b	1057	THR
2	b	1058	ASN
2	b	1066	SER
2	b	1080	ILE
2	b	1092	THR
2	b	1145	ASP
2	b	1146	LYS
2	b	1149	PHE
2	b	1166	LEU
2	b	1176	LEU
2	b	1197	LYS
2	b	1203	LEU
2	b	1213	ILE
2	b	1217	LYS
2	b	1228	ASN
2	b	1231	ILE
2	b	1233	ILE
2	b	1238	LEU
2	b	1239	ASP
2	b	1245	ILE
2	b	1246	PHE
2	b	1268	LYS
2	b	1285	ILE
2	b	1287	ARG
2	b	1289	LEU

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Mol	Chain	Res	Type
2	b	1307	GLU
2	b	1329	PHE
2	b	1331	GLU
2	b	1348	LEU
2	b	1350	GLU
2	b	1357	SER
2	b	1375	GLN
2	b	1379	GLU
2	b	1382	ARG
2	b	1399	ARG
2	b	1406	CYS
2	b	1409	MET
2	b	1427	SER
2	b	1444	LEU
2	b	1462	SER
2	b	1463	ILE
2	b	1465	ASN
2	b	1468	SER
2	b	1474	LEU
2	b	1475	ASN
2	b	1490	SER
2	b	1492	LYS
2	b	1508	LEU
2	b	1512	ASP
3	c	1008	MET
3	c	1025	ILE
3	c	1026	THR
3	c	1044	MET
3	c	1048	LEU
3	c	1057	LEU
3	c	1064	ILE
3	c	1143	VAL
3	c	1165	ILE
3	c	1170	LYS
3	c	1182	VAL
3	c	1184	LYS
3	c	1209	ILE
3	c	1225	LEU
3	c	1226	ASN
3	c	1239	GLU
3	c	1248	CYS
3	c	1250	LEU

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Mol	Chain	Res	Type
3	c	1259	THR
3	c	1265	LYS
3	c	1297	THR
3	c	1302	SER
3	c	1433	GLN
3	c	1456	LEU
3	c	1491	ILE
3	c	1492	VAL
3	c	1519	LEU
4	d	1070	ILE
4	d	1094	THR
4	d	1098	ILE
4	d	1100	THR
4	d	1135	LEU
4	d	1139	CYS
4	d	1144	LEU
4	d	1146	ASP
4	d	1147	ARG
4	d	1161	LYS
4	d	1175	VAL
4	d	1187	LYS
4	d	1193	ASP
4	d	1194	ILE
4	d	1198	LYS
4	d	1209	MET
4	d	1210	ILE
4	d	1231	LYS
4	d	1241	ILE
4	d	1253	ILE
4	d	1263	ILE
4	d	1385	MET
4	d	1392	ARG
4	d	1410	LEU
4	d	1424	ARG
4	d	1461	ASN
4	d	1482	ILE
4	d	1502	LEU
4	d	1528	ARG
5	e	1061	ILE
5	e	1082	THR
5	e	1086	ASP
5	e	1093	GLN

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Mol	Chain	Res	Type
5	e	1103	LEU
5	e	1106	GLN
5	e	1107	LEU
5	e	1108	SER
5	e	1109	LYS
5	e	1148	ASN
5	e	1150	PHE
5	e	1165	CYS
5	e	1169	SER
5	e	1175	LEU
5	e	1187	SER
5	e	1210	ASN
5	e	1222	ASP
5	e	1236	ASP
5	e	1241	ASN
5	e	1245	LEU
5	e	1273	THR
5	e	1296	GLN
5	e	1324	GLN
5	e	1325	TRP
5	e	1351	LEU
5	e	1352	GLU
5	e	1368	ASP
5	e	1382	GLU
5	e	1396	GLU
5	e	1431	ARG
5	e	1440	VAL
5	e	1469	PHE
5	e	1492	ILE
5	e	1507	ILE
5	e	1535	LYS
5	e	1547	MET
6	f	1001	MET
6	f	1003	LEU
6	f	1004	GLN
6	f	1005	LEU
6	f	1006	LEU
6	f	1016	ASP
6	f	1027	GLU
6	f	1037	LEU
6	f	1043	LEU
6	f	1053	ILE

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Mol	Chain	Res	Type
6	f	1068	ILE
6	f	1093	THR
6	f	1102	LEU
6	f	1113	VAL
6	f	1117	ILE
6	f	1133	LEU
6	f	1142	ASN
6	f	1143	LEU
6	f	1152	GLN
6	f	1158	LEU
6	f	1171	THR
6	f	1183	ASP
6	f	1196	ILE
6	f	1197	MET
6	f	1198	GLN
6	f	1209	PHE
6	f	1213	LEU
6	f	1243	GLU
6	f	1294	VAL
6	f	1295	ILE
6	f	1321	LYS
6	f	1323	ARG
6	f	1328	LEU
6	f	1330	LEU
6	f	1370	ASN
6	f	1376	CYS
6	f	1378	ILE
6	f	1390	GLN
6	f	1407	LYS
6	f	1409	LYS
6	f	1424	ARG
6	f	1433	LYS
6	f	1434	LEU
6	f	1437	LYS
6	f	1439	LYS
6	f	1440	THR
6	f	1442	THR
6	f	1454	ILE
6	f	1457	THR
6	f	1458	LEU
6	f	1483	SER
6	f	1484	ASP

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Mol	Chain	Res	Type
6	f	1486	THR
6	f	1489	VAL
6	f	1513	LEU
6	f	1515	ASN
6	f	1518	THR
6	f	1538	ARG
6	f	1540	THR
6	f	1541	LEU
6	f	1542	LYS
6	f	1544	THR
7	g	1036	VAL
7	g	1037	GLN
7	g	1043	THR
7	g	1052	LEU
7	g	1058	GLN
7	g	1064	ASN
7	g	1071	LYS
7	g	1082	THR
7	g	1086	ILE
7	g	1100	SER
7	g	1120	ILE
7	g	1123	HIS
7	g	1156	GLU
7	g	1157	LEU
7	g	1174	ASN
7	g	1191	ARG
7	g	1232	GLN
7	g	1234	LYS
7	g	1282	LEU
7	g	1285	VAL
7	g	1305	GLN
7	g	1312	ILE
7	g	1346	LEU
7	g	1376	LEU
7	g	1377	LEU
7	g	1393	LEU
7	g	1399	ILE
7	g	1408	LEU
7	g	1410	VAL
7	g	1418	MET
7	g	1488	ILE
7	g	1514	THR

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Mol	Chain	Res	Type
7	g	1516	LEU
7	g	1527	LYS
8	h	1015	LYS
8	h	1027	GLN
8	h	1028	ILE
8	h	1029	ILE
8	h	1032	ILE
8	h	1062	ILE
8	h	1066	ASN
8	h	1074	GLU
8	h	1076	ASP
8	h	1077	ILE
8	h	1092	GLN
8	h	1153	LYS
8	h	1175	GLU
8	h	1209	VAL
8	h	1237	LYS
8	h	1244	LYS
8	h	1267	LEU
8	h	1314	ASN
8	h	1316	TYR
8	h	1320	VAL
8	h	1343	ARG
8	h	1352	LEU
8	h	1386	LEU
8	h	1390	THR
8	h	1408	VAL
8	h	1430	LEU
8	h	1451	GLN
8	h	1466	THR
8	h	1473	GLU
8	h	1494	HIS
8	h	1532	THR
1	i	1008	SER
1	i	1013	LEU
1	i	1044	LEU
1	i	1050	ASP
1	i	1074	ASP
1	i	1076	GLN
1	i	1090	GLN
1	i	1091	ASP
1	i	1119	LYS

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Mol	Chain	Res	Type
1	i	1120	ILE
1	i	1187	VAL
1	i	1204	ASN
1	i	1225	ASN
1	i	1226	CYS
1	i	1228	VAL
1	i	1248	ASP
1	i	1255	ARG
1	i	1344	LEU
1	i	1350	PHE
1	i	1402	LEU
1	i	1404	ASP
1	i	1419	VAL
1	i	1446	LEU
1	i	1484	SER
1	i	1496	SER
1	i	1532	LEU
1	i	1548	ASP
2	j	1004	GLN
2	j	1005	ILE
2	j	1008	ASP
2	j	1019	ARG
2	j	1027	ILE
2	j	1031	ASP
2	j	1032	LEU
2	j	1033	VAL
2	j	1043	ASP
2	j	1057	THR
2	j	1058	ASN
2	j	1066	SER
2	j	1080	ILE
2	j	1092	THR
2	j	1145	ASP
2	j	1146	LYS
2	j	1149	PHE
2	j	1166	LEU
2	j	1176	LEU
2	j	1197	LYS
2	j	1203	LEU
2	j	1213	ILE
2	j	1217	LYS
2	j	1228	ASN

Continued on next page...

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Mol	Chain	Res	Type
2	j	1231	ILE
2	j	1233	ILE
2	j	1238	LEU
2	j	1239	ASP
2	j	1245	ILE
2	j	1246	PHE
2	j	1268	LYS
2	j	1285	ILE
2	j	1287	ARG
2	j	1289	LEU
2	j	1307	GLU
2	j	1329	PHE
2	j	1331	GLU
2	j	1350	GLU
2	j	1357	SER
2	j	1375	GLN
2	j	1379	GLU
2	j	1382	ARG
2	j	1399	ARG
2	j	1406	CYS
2	j	1409	MET
2	j	1427	SER
2	j	1444	LEU
2	j	1462	SER
2	j	1463	ILE
2	j	1465	ASN
2	j	1468	SER
2	j	1474	LEU
2	j	1475	ASN
2	j	1490	SER
2	j	1492	LYS
2	j	1508	LEU
2	j	1512	ASP
3	k	1008	MET
3	k	1025	ILE
3	k	1026	THR
3	k	1044	MET
3	k	1048	LEU
3	k	1057	LEU
3	k	1064	ILE
3	k	1143	VAL
3	k	1165	ILE

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Mol	Chain	Res	Type
3	k	1170	LYS
3	k	1182	VAL
3	k	1184	LYS
3	k	1209	ILE
3	k	1225	LEU
3	k	1226	ASN
3	k	1239	GLU
3	k	1248	CYS
3	k	1250	LEU
3	k	1259	THR
3	k	1265	LYS
3	k	1297	THR
3	k	1302	SER
3	k	1433	GLN
3	k	1456	LEU
3	k	1491	ILE
3	k	1492	VAL
3	k	1519	LEU
4	l	1070	ILE
4	l	1094	THR
4	l	1098	ILE
4	l	1100	THR
4	l	1135	LEU
4	l	1139	CYS
4	l	1144	LEU
4	l	1146	ASP
4	l	1147	ARG
4	l	1161	LYS
4	l	1175	VAL
4	l	1187	LYS
4	l	1193	ASP
4	l	1194	ILE
4	l	1198	LYS
4	l	1209	MET
4	l	1210	ILE
4	l	1231	LYS
4	l	1241	ILE
4	l	1253	ILE
4	l	1263	ILE
4	l	1385	MET
4	l	1392	ARG
4	l	1410	LEU

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Mol	Chain	Res	Type
4	l	1424	ARG
4	l	1461	ASN
4	l	1482	ILE
4	l	1502	LEU
4	l	1528	ARG
5	m	1061	ILE
5	m	1082	THR
5	m	1086	ASP
5	m	1093	GLN
5	m	1103	LEU
5	m	1106	GLN
5	m	1107	LEU
5	m	1108	SER
5	m	1109	LYS
5	m	1148	ASN
5	m	1150	PHE
5	m	1165	CYS
5	m	1169	SER
5	m	1175	LEU
5	m	1187	SER
5	m	1210	ASN
5	m	1222	ASP
5	m	1236	ASP
5	m	1241	ASN
5	m	1245	LEU
5	m	1273	THR
5	m	1296	GLN
5	m	1324	GLN
5	m	1325	TRP
5	m	1351	LEU
5	m	1352	GLU
5	m	1368	ASP
5	m	1382	GLU
5	m	1396	GLU
5	m	1431	ARG
5	m	1440	VAL
5	m	1469	PHE
5	m	1492	ILE
5	m	1507	ILE
5	m	1535	LYS
5	m	1547	MET
6	n	1001	MET

Continued on next page...

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Mol	Chain	Res	Type
6	n	1003	LEU
6	n	1004	GLN
6	n	1005	LEU
6	n	1006	LEU
6	n	1016	ASP
6	n	1027	GLU
6	n	1037	LEU
6	n	1043	LEU
6	n	1053	ILE
6	n	1068	ILE
6	n	1093	THR
6	n	1102	LEU
6	n	1113	VAL
6	n	1117	ILE
6	n	1133	LEU
6	n	1142	ASN
6	n	1143	LEU
6	n	1152	GLN
6	n	1158	LEU
6	n	1171	THR
6	n	1183	ASP
6	n	1196	ILE
6	n	1197	MET
6	n	1198	GLN
6	n	1209	PHE
6	n	1213	LEU
6	n	1243	GLU
6	n	1294	VAL
6	n	1295	ILE
6	n	1321	LYS
6	n	1323	ARG
6	n	1328	LEU
6	n	1330	LEU
6	n	1370	ASN
6	n	1376	CYS
6	n	1378	ILE
6	n	1390	GLN
6	n	1407	LYS
6	n	1409	LYS
6	n	1424	ARG
6	n	1433	LYS
6	n	1434	LEU

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Mol	Chain	Res	Type
6	n	1437	LYS
6	n	1440	THR
6	n	1442	THR
6	n	1454	ILE
6	n	1457	THR
6	n	1458	LEU
6	n	1483	SER
6	n	1484	ASP
6	n	1486	THR
6	n	1489	VAL
6	n	1513	LEU
6	n	1515	ASN
6	n	1518	THR
6	n	1538	ARG
6	n	1540	THR
6	n	1541	LEU
6	n	1542	LYS
6	n	1544	THR
7	o	1036	VAL
7	o	1037	GLN
7	o	1043	THR
7	o	1052	LEU
7	o	1058	GLN
7	o	1064	ASN
7	o	1071	LYS
7	o	1082	THR
7	o	1086	ILE
7	o	1100	SER
7	o	1120	ILE
7	o	1123	HIS
7	o	1156	GLU
7	o	1157	LEU
7	o	1174	ASN
7	o	1191	ARG
7	o	1232	GLN
7	o	1234	LYS
7	o	1282	LEU
7	o	1285	VAL
7	o	1305	GLN
7	o	1312	ILE
7	o	1346	LEU
7	o	1376	LEU

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Mol	Chain	Res	Type
7	o	1377	LEU
7	o	1393	LEU
7	o	1399	ILE
7	o	1408	LEU
7	o	1410	VAL
7	o	1418	MET
7	o	1488	ILE
7	o	1514	THR
7	o	1516	LEU
7	o	1527	LYS
8	p	1015	LYS
8	p	1027	GLN
8	p	1028	ILE
8	p	1029	ILE
8	p	1032	ILE
8	p	1062	ILE
8	p	1066	ASN
8	p	1074	GLU
8	p	1076	ASP
8	p	1077	ILE
8	p	1092	GLN
8	p	1153	LYS
8	p	1175	GLU
8	p	1209	VAL
8	p	1237	LYS
8	p	1244	LYS
8	p	1267	LEU
8	p	1314	ASN
8	p	1316	TYR
8	p	1320	VAL
8	p	1343	ARG
8	p	1352	LEU
8	p	1386	LEU
8	p	1390	THR
8	p	1408	VAL
8	p	1430	LEU
8	p	1451	GLN
8	p	1466	THR
8	p	1473	GLU
8	p	1494	HIS
8	p	1532	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (306)

such sidechains are listed below:

Mol	Chain	Res	Type
1	A	64	ASN
1	A	90	GLN
1	A	121	HIS
1	A	178	ASN
1	A	204	ASN
1	A	209	HIS
1	A	250	ASN
1	A	252	GLN
1	A	363	GLN
1	A	391	ASN
1	A	435	ASN
2	B	4	GLN
2	B	9	GLN
2	B	58	ASN
2	B	116	HIS
2	B	228	ASN
2	B	260	GLN
2	B	271	ASN
2	B	286	ASN
2	B	375	GLN
2	B	385	HIS
2	B	393	GLN
2	B	439	GLN
2	B	475	ASN
3	C	9	ASN
3	C	59	ASN
3	C	85	GLN
3	C	166	HIS
3	C	281	GLN
3	C	325	ASN
3	C	433	GLN
3	C	439	GLN
3	C	508	GLN
4	D	59	ASN
4	D	72	HIS
4	D	217	GLN
4	D	238	GLN
4	D	259	GLN
4	D	384	ASN
4	D	461	ASN
4	D	499	GLN
5	E	37	ASN

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Mol	Chain	Res	Type
5	E	50	HIS
5	E	93	GLN
5	E	106	GLN
5	E	132	GLN
5	E	210	ASN
5	E	324	GLN
5	E	338	ASN
5	E	466	GLN
5	E	553	ASN
6	F	104	GLN
6	F	110	GLN
6	F	198	GLN
6	F	200	GLN
6	F	217	HIS
6	F	221	HIS
6	F	312	HIS
6	F	515	ASN
7	G	37	GLN
7	G	58	GLN
7	G	232	GLN
7	G	268	GLN
7	G	305	GLN
7	G	491	ASN
8	H	27	GLN
8	H	66	ASN
8	H	79	HIS
8	H	92	GLN
8	H	101	ASN
8	H	188	HIS
8	H	283	GLN
8	H	373	GLN
8	H	446	GLN
8	H	451	GLN
1	I	64	ASN
1	I	90	GLN
1	I	121	HIS
1	I	178	ASN
1	I	204	ASN
1	I	209	HIS
1	I	225	ASN
1	I	250	ASN
1	I	252	GLN

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Mol	Chain	Res	Type
1	I	363	GLN
1	I	391	ASN
1	I	435	ASN
2	J	4	GLN
2	J	9	GLN
2	J	58	ASN
2	J	116	HIS
2	J	228	ASN
2	J	235	ASN
2	J	260	GLN
2	J	271	ASN
2	J	286	ASN
2	J	375	GLN
2	J	393	GLN
2	J	439	GLN
2	J	475	ASN
3	K	9	ASN
3	K	12	GLN
3	K	59	ASN
3	K	85	GLN
3	K	117	HIS
3	K	166	HIS
3	K	270	ASN
3	K	281	GLN
3	K	325	ASN
3	K	433	GLN
3	K	439	GLN
3	K	508	GLN
4	L	59	ASN
4	L	72	HIS
4	L	217	GLN
4	L	238	GLN
4	L	259	GLN
4	L	384	ASN
4	L	461	ASN
4	L	499	GLN
5	M	37	ASN
5	M	50	HIS
5	M	93	GLN
5	M	132	GLN
5	M	142	HIS
5	M	210	ASN

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Mol	Chain	Res	Type
5	M	324	GLN
5	M	338	ASN
5	M	466	GLN
6	N	104	GLN
6	N	110	GLN
6	N	198	GLN
6	N	200	GLN
6	N	217	HIS
6	N	221	HIS
6	N	312	HIS
6	N	515	ASN
7	O	37	GLN
7	O	58	GLN
7	O	231	GLN
7	O	232	GLN
7	O	305	GLN
7	O	491	ASN
8	P	27	GLN
8	P	66	ASN
8	P	79	HIS
8	P	92	GLN
8	P	101	ASN
8	P	188	HIS
8	P	283	GLN
8	P	373	GLN
8	P	446	GLN
8	P	451	GLN
1	a	1064	ASN
1	a	1090	GLN
1	a	1121	HIS
1	a	1178	ASN
1	a	1204	ASN
1	a	1209	HIS
1	a	1250	ASN
1	a	1252	GLN
1	a	1363	GLN
1	a	1391	ASN
1	a	1435	ASN
2	b	1004	GLN
2	b	1009	GLN
2	b	1058	ASN
2	b	1116	HIS

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Mol	Chain	Res	Type
2	b	1228	ASN
2	b	1235	ASN
2	b	1260	GLN
2	b	1271	ASN
2	b	1286	ASN
2	b	1375	GLN
2	b	1393	GLN
2	b	1439	GLN
2	b	1475	ASN
3	c	1009	ASN
3	c	1012	GLN
3	c	1059	ASN
3	c	1085	GLN
3	c	1117	HIS
3	c	1166	HIS
3	c	1270	ASN
3	c	1281	GLN
3	c	1325	ASN
3	c	1433	GLN
3	c	1439	GLN
3	c	1508	GLN
4	d	1059	ASN
4	d	1072	HIS
4	d	1217	GLN
4	d	1238	GLN
4	d	1259	GLN
4	d	1384	ASN
4	d	1461	ASN
4	d	1499	GLN
5	e	1037	ASN
5	e	1050	HIS
5	e	1093	GLN
5	e	1132	GLN
5	e	1142	HIS
5	e	1210	ASN
5	e	1324	GLN
5	e	1338	ASN
5	e	1466	GLN
6	f	1110	GLN
6	f	1198	GLN
6	f	1200	GLN
6	f	1217	HIS

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Mol	Chain	Res	Type
6	f	1221	HIS
6	f	1312	HIS
6	f	1515	ASN
7	g	1037	GLN
7	g	1058	GLN
7	g	1232	GLN
7	g	1305	GLN
7	g	1356	GLN
7	g	1491	ASN
8	h	1027	GLN
8	h	1066	ASN
8	h	1079	HIS
8	h	1092	GLN
8	h	1101	ASN
8	h	1188	HIS
8	h	1373	GLN
8	h	1446	GLN
8	h	1451	GLN
8	h	1472	ASN
1	i	1064	ASN
1	i	1090	GLN
1	i	1121	HIS
1	i	1178	ASN
1	i	1204	ASN
1	i	1209	HIS
1	i	1250	ASN
1	i	1252	GLN
1	i	1363	GLN
1	i	1391	ASN
1	i	1435	ASN
2	j	1004	GLN
2	j	1009	GLN
2	j	1058	ASN
2	j	1116	HIS
2	j	1228	ASN
2	j	1235	ASN
2	j	1260	GLN
2	j	1271	ASN
2	j	1286	ASN
2	j	1375	GLN
2	j	1393	GLN
2	j	1439	GLN

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Mol	Chain	Res	Type
2	j	1475	ASN
3	k	1009	ASN
3	k	1012	GLN
3	k	1085	GLN
3	k	1117	HIS
3	k	1166	HIS
3	k	1270	ASN
3	k	1281	GLN
3	k	1325	ASN
3	k	1433	GLN
3	k	1439	GLN
3	k	1508	GLN
4	l	1059	ASN
4	l	1072	HIS
4	l	1217	GLN
4	l	1238	GLN
4	l	1259	GLN
4	l	1384	ASN
4	l	1461	ASN
4	l	1499	GLN
5	m	1037	ASN
5	m	1050	HIS
5	m	1093	GLN
5	m	1132	GLN
5	m	1210	ASN
5	m	1296	GLN
5	m	1324	GLN
5	m	1338	ASN
5	m	1466	GLN
5	m	1553	ASN
6	n	1104	GLN
6	n	1110	GLN
6	n	1198	GLN
6	n	1200	GLN
6	n	1217	HIS
6	n	1221	HIS
6	n	1312	HIS
6	n	1515	ASN
7	o	1037	GLN
7	o	1058	GLN
7	o	1231	GLN
7	o	1232	GLN

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Mol	Chain	Res	Type
7	o	1305	GLN
7	o	1491	ASN
8	p	1027	GLN
8	p	1066	ASN
8	p	1079	HIS
8	p	1092	GLN
8	p	1101	ASN
8	p	1188	HIS
8	p	1283	GLN
8	p	1373	GLN
8	p	1446	GLN
8	p	1451	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 monosaccharides in this entry.

5.6 Ligand geometry [i](#)

56 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	$\# Z > 2$
10	BEF	D	602	-	0,3,3	-	-	-		
9	ADP	k	2101	10	24,29,29	2.04	9 (37%)	29,45,45	1.97	9 (31%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
9	ADP	L	601	-	24,29,29	2.06	9 (37%)	29,45,45	1.94	8 (27%)
10	BEF	e	1602	-	0,3,3	-	-	-	-	-
11	SO4	i	1600	-	4,4,4	0.12	0	6,6,6	0.30	0
10	BEF	l	1602	9	0,3,3	-	-	-	-	-
10	BEF	b	1602	9	0,3,3	-	-	-	-	-
10	BEF	L	602	-	0,3,3	-	-	-	-	-
9	ADP	N	601	10	24,29,29	2.07	9 (37%)	29,45,45	2.08	9 (31%)
11	SO4	j	1600	-	4,4,4	0.10	0	6,6,6	0.20	0
9	ADP	m	1601	-	24,29,29	2.08	9 (37%)	29,45,45	2.01	6 (20%)
9	ADP	h	1601	10	24,29,29	2.06	9 (37%)	29,45,45	1.82	8 (27%)
10	BEF	C	1102	-	0,3,3	-	-	-	-	-
11	SO4	d	1600	-	4,4,4	0.13	0	6,6,6	0.13	0
9	ADP	p	1601	10	24,29,29	2.09	9 (37%)	29,45,45	1.92	8 (27%)
9	ADP	e	1601	-	24,29,29	2.05	9 (37%)	29,45,45	2.02	8 (27%)
9	ADP	D	601	-	24,29,29	2.06	9 (37%)	29,45,45	1.96	8 (27%)
11	SO4	c	2101	-	4,4,4	0.18	0	6,6,6	0.18	0
9	ADP	J	601	10	24,29,29	2.06	9 (37%)	29,45,45	2.13	10 (34%)
9	ADP	E	601	10	24,29,29	2.09	9 (37%)	29,45,45	2.15	9 (31%)
11	SO4	o	1600	-	4,4,4	0.14	0	6,6,6	0.10	0
9	ADP	H	601	-	24,29,29	2.05	9 (37%)	29,45,45	1.95	8 (27%)
10	BEF	g	1602	-	0,3,3	-	-	-	-	-
10	BEF	G	602	-	0,3,3	-	-	-	-	-
11	SO4	O	600	-	4,4,4	0.15	0	6,6,6	0.12	0
11	SO4	K	1101	-	4,4,4	0.14	0	6,6,6	0.21	0
9	ADP	B	601	10	24,29,29	2.11	10 (41%)	29,45,45	2.11	9 (31%)
10	BEF	N	602	9	0,3,3	-	-	-	-	-
10	BEF	J	602	9	0,3,3	-	-	-	-	-
9	ADP	M	601	-	24,29,29	2.03	10 (41%)	29,45,45	1.98	6 (20%)
11	SO4	I	600	-	4,4,4	0.16	0	6,6,6	0.17	0
10	BEF	f	1602	-	0,3,3	-	-	-	-	-
10	BEF	F	602	-	0,3,3	-	-	-	-	-
9	ADP	G	601	-	24,29,29	2.11	9 (37%)	29,45,45	2.13	9 (31%)
10	BEF	h	1602	9	0,3,3	-	-	-	-	-
9	ADP	n	1601	-	24,29,29	2.03	8 (33%)	29,45,45	1.93	8 (27%)
10	BEF	A	602	9	0,3,3	-	-	-	-	-
10	BEF	E	602	9	0,3,3	-	-	-	-	-
10	BEF	H	602	-	0,3,3	-	-	-	-	-
10	BEF	n	1602	-	0,3,3	-	-	-	-	-
10	BEF	P	602	-	0,3,3	-	-	-	-	-
10	BEF	m	1602	-	0,3,3	-	-	-	-	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
9	ADP	A	601	10	24,29,29	2.07	9 (37%)	29,45,45	2.09	9 (31%)
9	ADP	a	1601	-	24,29,29	2.06	9 (37%)	29,45,45	2.09	8 (27%)
9	ADP	F	601	-	24,29,29	2.09	9 (37%)	29,45,45	1.98	8 (27%)
9	ADP	l	1601	10	24,29,29	2.10	9 (37%)	29,45,45	2.15	9 (31%)
9	ADP	P	601	-	24,29,29	2.03	9 (37%)	29,45,45	1.92	9 (31%)
10	BEF	a	1602	-	0,3,3	-	-	-	-	-
10	BEF	p	1602	9	0,3,3	-	-	-	-	-
9	ADP	g	1601	-	24,29,29	2.07	9 (37%)	29,45,45	1.92	8 (27%)
10	BEF	k	2102	9	0,3,3	-	-	-	-	-
9	ADP	f	1601	-	24,29,29	2.08	9 (37%)	29,45,45	2.11	8 (27%)
10	BEF	B	602	9	0,3,3	-	-	-	-	-
9	ADP	b	1601	10	24,29,29	2.08	9 (37%)	29,45,45	2.07	8 (27%)
9	ADP	C	1101	-	24,29,29	2.04	9 (37%)	29,45,45	1.94	8 (27%)
10	BEF	M	602	-	0,3,3	-	-	-	-	-

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. '2' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
9	ADP	k	2101	10	2/2/6/6	4/12/32/32	0/3/3/3
9	ADP	L	601	-	-	4/12/32/32	0/3/3/3
9	ADP	N	601	10	2/2/6/6	4/12/32/32	0/3/3/3
9	ADP	m	1601	-	2/2/6/6	5/12/32/32	0/3/3/3
9	ADP	h	1601	10	1/1/6/6	1/12/32/32	0/3/3/3
9	ADP	p	1601	10	1/1/6/6	3/12/32/32	0/3/3/3
9	ADP	e	1601	-	2/2/6/6	5/12/32/32	0/3/3/3
9	ADP	D	601	-	2/2/6/6	3/12/32/32	0/3/3/3
9	ADP	J	601	10	2/2/6/6	6/12/32/32	0/3/3/3
9	ADP	E	601	10	1/1/6/6	5/12/32/32	0/3/3/3
9	ADP	H	601	-	1/1/6/6	4/12/32/32	0/3/3/3
9	ADP	B	601	10	2/2/6/6	3/12/32/32	0/3/3/3
9	ADP	M	601	-	2/2/6/6	7/12/32/32	0/3/3/3
9	ADP	G	601	-	1/1/6/6	3/12/32/32	0/3/3/3
9	ADP	n	1601	-	1/1/6/6	4/12/32/32	0/3/3/3
9	ADP	A	601	10	2/2/6/6	4/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
9	ADP	a	1601	-	2/2/6/6	7/12/32/32	0/3/3/3
9	ADP	F	601	-	-	8/12/32/32	0/3/3/3
9	ADP	l	1601	10	-	3/12/32/32	0/3/3/3
9	ADP	P	601	-	1/1/6/6	1/12/32/32	0/3/3/3
9	ADP	g	1601	-	1/1/6/6	4/12/32/32	0/3/3/3
9	ADP	f	1601	-	2/2/6/6	4/12/32/32	0/3/3/3
9	ADP	b	1601	10	2/2/6/6	8/12/32/32	0/3/3/3
9	ADP	C	1101	-	2/2/6/6	5/12/32/32	0/3/3/3

All (217) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	p	1601	ADP	PB-O1B	4.77	1.65	1.50
9	N	601	ADP	PB-O1B	4.66	1.65	1.50
9	l	1601	ADP	PB-O1B	4.66	1.65	1.50
9	E	601	ADP	PB-O1B	4.66	1.65	1.50
9	h	1601	ADP	PB-O1B	4.65	1.65	1.50
9	k	2101	ADP	PB-O1B	4.65	1.65	1.50
9	f	1601	ADP	PB-O1B	4.63	1.65	1.50
9	F	601	ADP	PB-O1B	4.56	1.65	1.50
9	B	601	ADP	PB-O1B	4.55	1.65	1.50
9	J	601	ADP	PB-O1B	4.55	1.65	1.50
9	g	1601	ADP	PB-O1B	4.54	1.65	1.50
9	A	601	ADP	PB-O1B	4.53	1.65	1.50
9	b	1601	ADP	PB-O1B	4.47	1.65	1.50
9	G	601	ADP	PB-O1B	4.44	1.64	1.50
9	M	601	ADP	PB-O1B	4.43	1.64	1.50
9	H	601	ADP	PB-O1B	4.42	1.64	1.50
9	L	601	ADP	PB-O1B	4.41	1.64	1.50
9	e	1601	ADP	PB-O1B	4.39	1.64	1.50
9	m	1601	ADP	PB-O1B	4.39	1.64	1.50
9	P	601	ADP	PB-O1B	4.38	1.64	1.50
9	G	601	ADP	PA-O1A	4.37	1.66	1.50
9	a	1601	ADP	PB-O1B	4.37	1.64	1.50
9	n	1601	ADP	PB-O1B	4.32	1.64	1.50
9	C	1101	ADP	PB-O1B	4.29	1.64	1.50
9	D	601	ADP	PB-O1B	4.25	1.64	1.50
9	A	601	ADP	PA-O1A	4.21	1.65	1.50
9	k	2101	ADP	PA-O1A	4.11	1.65	1.50
9	F	601	ADP	PA-O1A	4.09	1.65	1.50
9	P	601	ADP	PA-O1A	4.07	1.65	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	g	1601	ADP	PA-O1A	4.07	1.65	1.50
9	H	601	ADP	PA-O1A	4.05	1.65	1.50
9	a	1601	ADP	PA-O1A	4.05	1.65	1.50
9	C	1101	ADP	PA-O1A	4.04	1.65	1.50
9	N	601	ADP	PA-O1A	4.04	1.65	1.50
9	h	1601	ADP	PA-O1A	4.04	1.65	1.50
9	E	601	ADP	PA-O1A	4.01	1.65	1.50
9	f	1601	ADP	PA-O1A	4.00	1.65	1.50
9	n	1601	ADP	PA-O1A	4.00	1.65	1.50
9	b	1601	ADP	PA-O1A	3.97	1.65	1.50
9	m	1601	ADP	PA-O1A	3.97	1.65	1.50
9	e	1601	ADP	PA-O1A	3.96	1.65	1.50
9	l	1601	ADP	PA-O1A	3.95	1.64	1.50
9	B	601	ADP	PA-O1A	3.95	1.64	1.50
9	M	601	ADP	PA-O1A	3.94	1.64	1.50
9	L	601	ADP	PA-O1A	3.93	1.64	1.50
9	p	1601	ADP	PA-O1A	3.91	1.64	1.50
9	J	601	ADP	PA-O1A	3.90	1.64	1.50
9	D	601	ADP	PA-O1A	3.88	1.64	1.50
9	l	1601	ADP	C6-N6	3.27	1.46	1.34
9	p	1601	ADP	C6-N6	3.26	1.45	1.34
9	f	1601	ADP	C6-N6	3.25	1.45	1.34
9	n	1601	ADP	C6-N6	3.23	1.45	1.34
9	k	2101	ADP	C6-N6	3.22	1.45	1.34
9	h	1601	ADP	C6-N6	3.21	1.45	1.34
9	B	601	ADP	C6-N6	3.20	1.45	1.34
9	M	601	ADP	C6-N6	3.19	1.45	1.34
9	P	601	ADP	C6-N6	3.19	1.45	1.34
9	b	1601	ADP	C6-N6	3.18	1.45	1.34
9	m	1601	ADP	C6-N6	3.17	1.45	1.34
9	e	1601	ADP	C6-N6	3.17	1.45	1.34
9	C	1101	ADP	C6-N6	3.17	1.45	1.34
9	J	601	ADP	C6-N6	3.16	1.45	1.34
9	L	601	ADP	C6-N6	3.16	1.45	1.34
9	N	601	ADP	C6-N6	3.16	1.45	1.34
9	H	601	ADP	C6-N6	3.16	1.45	1.34
9	D	601	ADP	C2'-C1'	-3.16	1.49	1.53
9	a	1601	ADP	C6-N6	3.13	1.45	1.34
9	F	601	ADP	C6-N6	3.13	1.45	1.34
9	g	1601	ADP	C6-N6	3.12	1.45	1.34
9	G	601	ADP	C6-N6	3.11	1.45	1.34
9	A	601	ADP	C6-N6	3.11	1.45	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	E	601	ADP	C6-N6	3.10	1.45	1.34
9	l	1601	ADP	C2'-C1'	-3.08	1.49	1.53
9	D	601	ADP	C6-N6	3.05	1.45	1.34
9	G	601	ADP	PB-O2B	2.94	1.66	1.54
9	g	1601	ADP	PB-O2B	2.92	1.66	1.54
9	B	601	ADP	PB-O2B	2.91	1.66	1.54
9	L	601	ADP	C2'-C1'	-2.84	1.49	1.53
9	b	1601	ADP	C2'-C1'	-2.82	1.49	1.53
9	a	1601	ADP	PB-O2B	2.81	1.65	1.54
9	m	1601	ADP	PB-O2B	2.80	1.65	1.54
9	L	601	ADP	PB-O2B	2.78	1.65	1.54
9	e	1601	ADP	PB-O2B	2.77	1.65	1.54
9	f	1601	ADP	C2-N3	2.77	1.36	1.32
9	B	601	ADP	C2'-C1'	-2.77	1.49	1.53
9	k	2101	ADP	PB-O2B	2.77	1.65	1.54
9	l	1601	ADP	PB-O2B	2.76	1.65	1.54
9	F	601	ADP	PB-O2B	2.73	1.65	1.54
9	E	601	ADP	PB-O2B	2.70	1.65	1.54
9	C	1101	ADP	C2'-C1'	-2.70	1.49	1.53
9	m	1601	ADP	C2'-C1'	-2.70	1.49	1.53
9	M	601	ADP	PB-O2B	2.69	1.65	1.54
9	H	601	ADP	PB-O2B	2.69	1.65	1.54
9	G	601	ADP	C2-N3	2.69	1.36	1.32
9	p	1601	ADP	PB-O2B	2.69	1.65	1.54
9	N	601	ADP	PB-O2B	2.67	1.65	1.54
9	n	1601	ADP	PB-O2B	2.67	1.65	1.54
9	P	601	ADP	PB-O2B	2.67	1.65	1.54
9	m	1601	ADP	C2-N3	2.66	1.36	1.32
9	f	1601	ADP	PB-O2B	2.65	1.65	1.54
9	p	1601	ADP	C2'-C1'	-2.65	1.49	1.53
9	J	601	ADP	PB-O2B	2.64	1.65	1.54
9	D	601	ADP	PB-O2B	2.62	1.64	1.54
9	M	601	ADP	C2'-C1'	-2.60	1.49	1.53
9	b	1601	ADP	PB-O2B	2.59	1.64	1.54
9	a	1601	ADP	C2'-C1'	-2.59	1.49	1.53
9	N	601	ADP	C2-N3	2.59	1.36	1.32
9	H	601	ADP	C2'-C1'	-2.59	1.49	1.53
9	h	1601	ADP	PB-O2B	2.58	1.64	1.54
9	A	601	ADP	C2-N3	2.58	1.36	1.32
9	f	1601	ADP	C2'-C1'	-2.58	1.49	1.53
9	n	1601	ADP	C2-N3	2.57	1.36	1.32
9	A	601	ADP	PB-O2B	2.57	1.64	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	p	1601	ADP	C2-N3	2.56	1.36	1.32
9	D	601	ADP	C2-N3	2.55	1.36	1.32
9	n	1601	ADP	C2'-C1'	-2.54	1.49	1.53
9	F	601	ADP	C2'-C1'	-2.54	1.49	1.53
9	N	601	ADP	C2'-C1'	-2.54	1.49	1.53
9	f	1601	ADP	C8-N7	2.53	1.39	1.34
9	E	601	ADP	C2'-C1'	-2.53	1.49	1.53
9	C	1101	ADP	PB-O2B	2.51	1.64	1.54
9	g	1601	ADP	C2-N3	2.51	1.36	1.32
9	J	601	ADP	C2'-C1'	-2.50	1.50	1.53
9	E	601	ADP	C8-N7	2.49	1.39	1.34
9	M	601	ADP	C2-N3	2.48	1.36	1.32
9	A	601	ADP	C8-N7	2.48	1.39	1.34
9	e	1601	ADP	C2'-C1'	-2.47	1.50	1.53
9	C	1101	ADP	C2-N3	2.45	1.36	1.32
9	a	1601	ADP	C2-N3	2.45	1.36	1.32
9	H	601	ADP	C5-C4	-2.45	1.34	1.40
9	B	601	ADP	C2-N3	2.44	1.36	1.32
9	L	601	ADP	C2-N3	2.44	1.36	1.32
9	F	601	ADP	C5-C4	-2.43	1.34	1.40
9	m	1601	ADP	C8-N7	2.43	1.39	1.34
9	F	601	ADP	C2-N3	2.43	1.36	1.32
9	J	601	ADP	C8-N7	2.42	1.39	1.34
9	b	1601	ADP	C2-N3	2.41	1.36	1.32
9	l	1601	ADP	C2-N3	2.41	1.36	1.32
9	n	1601	ADP	C8-N7	2.40	1.39	1.34
9	B	601	ADP	C8-N7	2.40	1.39	1.34
9	C	1101	ADP	C8-N7	2.40	1.39	1.34
9	h	1601	ADP	C2'-C1'	-2.40	1.50	1.53
9	F	601	ADP	C8-N7	2.39	1.39	1.34
9	l	1601	ADP	C8-N7	2.39	1.39	1.34
9	e	1601	ADP	C5-C4	-2.38	1.34	1.40
9	k	2101	ADP	C2-N3	2.38	1.35	1.32
9	g	1601	ADP	C5-C4	-2.38	1.34	1.40
9	e	1601	ADP	C8-N7	2.37	1.38	1.34
9	N	601	ADP	C8-N7	2.37	1.38	1.34
9	M	601	ADP	C8-N7	2.37	1.38	1.34
9	H	601	ADP	C2-N3	2.35	1.35	1.32
9	G	601	ADP	C2'-C1'	-2.35	1.50	1.53
9	P	601	ADP	C2-N3	2.35	1.35	1.32
9	b	1601	ADP	C8-N7	2.35	1.38	1.34
9	a	1601	ADP	C5-C4	-2.35	1.34	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	C	1101	ADP	C5-C4	-2.33	1.34	1.40
9	h	1601	ADP	C2-N3	2.33	1.35	1.32
9	p	1601	ADP	C8-N7	2.33	1.38	1.34
9	E	601	ADP	C5-C4	-2.33	1.34	1.40
9	J	601	ADP	C5-C4	-2.32	1.34	1.40
9	D	601	ADP	C8-N7	2.32	1.38	1.34
9	H	601	ADP	C8-N7	2.32	1.38	1.34
9	h	1601	ADP	C8-N7	2.32	1.38	1.34
9	P	601	ADP	C8-N7	2.31	1.38	1.34
9	g	1601	ADP	C2'-C1'	-2.31	1.50	1.53
9	p	1601	ADP	PB-O3B	-2.31	1.46	1.54
9	P	601	ADP	C5-C4	-2.31	1.34	1.40
9	E	601	ADP	C2-N3	2.30	1.35	1.32
9	E	601	ADP	PB-O3B	-2.30	1.46	1.54
9	h	1601	ADP	C5-C4	-2.30	1.34	1.40
9	J	601	ADP	C2-N3	2.29	1.35	1.32
9	D	601	ADP	C5-C4	-2.29	1.34	1.40
9	k	2101	ADP	C8-N7	2.28	1.38	1.34
9	p	1601	ADP	C5-C4	-2.28	1.34	1.40
9	e	1601	ADP	C2-N3	2.28	1.35	1.32
9	B	601	ADP	C5-C4	-2.28	1.34	1.40
9	L	601	ADP	C8-N7	2.27	1.38	1.34
9	l	1601	ADP	C5-C4	-2.26	1.34	1.40
9	m	1601	ADP	C5-C4	-2.26	1.34	1.40
9	M	601	ADP	C5-C4	-2.25	1.35	1.40
9	A	601	ADP	PB-O3B	-2.25	1.46	1.54
9	l	1601	ADP	PB-O3B	-2.25	1.46	1.54
9	b	1601	ADP	C5-C4	-2.24	1.35	1.40
9	k	2101	ADP	C5-C4	-2.24	1.35	1.40
9	n	1601	ADP	C5-C4	-2.24	1.35	1.40
9	G	601	ADP	C5-C4	-2.24	1.35	1.40
9	N	601	ADP	C5-C4	-2.23	1.35	1.40
9	G	601	ADP	C8-N7	2.23	1.38	1.34
9	k	2101	ADP	PB-O3B	-2.22	1.46	1.54
9	a	1601	ADP	C8-N7	2.22	1.38	1.34
9	P	601	ADP	C2'-C1'	-2.21	1.50	1.53
9	L	601	ADP	PB-O3B	-2.21	1.46	1.54
9	k	2101	ADP	C2'-C1'	-2.21	1.50	1.53
9	A	601	ADP	C2'-C1'	-2.21	1.50	1.53
9	B	601	ADP	PB-O3B	-2.20	1.46	1.54
9	G	601	ADP	PB-O3B	-2.20	1.46	1.54
9	m	1601	ADP	PB-O3B	-2.19	1.46	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	J	601	ADP	PB-O3B	-2.19	1.46	1.54
9	H	601	ADP	PB-O3B	-2.18	1.46	1.54
9	F	601	ADP	PB-O3B	-2.18	1.46	1.54
9	L	601	ADP	C5-C4	-2.17	1.35	1.40
9	C	1101	ADP	PB-O3B	-2.16	1.46	1.54
9	e	1601	ADP	PB-O3B	-2.15	1.46	1.54
9	g	1601	ADP	PB-O3B	-2.14	1.46	1.54
9	P	601	ADP	PB-O3B	-2.14	1.46	1.54
9	A	601	ADP	C5-C4	-2.13	1.35	1.40
9	h	1601	ADP	PB-O3B	-2.13	1.46	1.54
9	g	1601	ADP	C8-N7	2.13	1.38	1.34
9	M	601	ADP	PB-O3B	-2.13	1.46	1.54
9	a	1601	ADP	PB-O3B	-2.12	1.46	1.54
9	b	1601	ADP	PB-O3B	-2.10	1.46	1.54
9	D	601	ADP	PB-O3B	-2.09	1.46	1.54
9	B	601	ADP	PA-O2A	-2.05	1.45	1.55
9	f	1601	ADP	PB-O3B	-2.04	1.47	1.54
9	N	601	ADP	PB-O3B	-2.03	1.47	1.54
9	f	1601	ADP	C5-C4	-2.02	1.35	1.40
9	M	601	ADP	PA-O2A	-2.01	1.45	1.55

All (198) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	G	601	ADP	PA-O3A-PB	-6.32	111.12	132.83
9	J	601	ADP	N3-C2-N1	-5.96	119.36	128.68
9	H	601	ADP	N3-C2-N1	-5.82	119.58	128.68
9	l	1601	ADP	N3-C2-N1	-5.71	119.76	128.68
9	a	1601	ADP	N3-C2-N1	-5.65	119.86	128.68
9	P	601	ADP	N3-C2-N1	-5.58	119.96	128.68
9	E	601	ADP	N3-C2-N1	-5.57	119.97	128.68
9	C	1101	ADP	N3-C2-N1	-5.56	119.99	128.68
9	M	601	ADP	N3-C2-N1	-5.56	119.99	128.68
9	k	2101	ADP	N3-C2-N1	-5.53	120.03	128.68
9	L	601	ADP	N3-C2-N1	-5.53	120.04	128.68
9	p	1601	ADP	N3-C2-N1	-5.52	120.06	128.68
9	F	601	ADP	N3-C2-N1	-5.51	120.06	128.68
9	D	601	ADP	N3-C2-N1	-5.51	120.07	128.68
9	h	1601	ADP	N3-C2-N1	-5.49	120.10	128.68
9	e	1601	ADP	PA-O3A-PB	-5.48	114.03	132.83
9	B	601	ADP	N3-C2-N1	-5.46	120.14	128.68
9	m	1601	ADP	N3-C2-N1	-5.46	120.14	128.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	E	601	ADP	PA-O3A-PB	-5.46	114.09	132.83
9	a	1601	ADP	PA-O3A-PB	-5.44	114.15	132.83
9	e	1601	ADP	N3-C2-N1	-5.44	120.17	128.68
9	A	601	ADP	N3-C2-N1	-5.40	120.23	128.68
9	N	601	ADP	PA-O3A-PB	-5.38	114.36	132.83
9	N	601	ADP	N3-C2-N1	-5.37	120.28	128.68
9	f	1601	ADP	N3-C2-N1	-5.32	120.36	128.68
9	n	1601	ADP	N3-C2-N1	-5.30	120.39	128.68
9	G	601	ADP	N3-C2-N1	-5.24	120.49	128.68
9	g	1601	ADP	N3-C2-N1	-5.22	120.52	128.68
9	b	1601	ADP	N3-C2-N1	-5.21	120.54	128.68
9	m	1601	ADP	PA-O3A-PB	-5.08	115.39	132.83
9	C	1101	ADP	PA-O3A-PB	-4.99	115.70	132.83
9	f	1601	ADP	PA-O3A-PB	-4.90	116.02	132.83
9	b	1601	ADP	PA-O3A-PB	-4.74	116.55	132.83
9	A	601	ADP	PA-O3A-PB	-4.73	116.60	132.83
9	B	601	ADP	PA-O3A-PB	-4.72	116.62	132.83
9	n	1601	ADP	PA-O3A-PB	-4.59	117.06	132.83
9	H	601	ADP	PA-O3A-PB	-4.51	117.35	132.83
9	g	1601	ADP	PA-O3A-PB	-4.49	117.40	132.83
9	l	1601	ADP	PA-O3A-PB	-4.43	117.64	132.83
9	J	601	ADP	PA-O3A-PB	-4.26	118.20	132.83
9	P	601	ADP	PA-O3A-PB	-4.22	118.35	132.83
9	F	601	ADP	PA-O3A-PB	-4.17	118.52	132.83
9	E	601	ADP	O3'-C3'-C4'	4.14	123.03	111.05
9	D	601	ADP	O4'-C4'-C5'	4.11	122.90	109.37
9	L	601	ADP	PA-O3A-PB	-4.11	118.72	132.83
9	D	601	ADP	O5'-C5'-C4'	4.04	122.90	108.99
9	k	2101	ADP	PA-O3A-PB	-4.00	119.11	132.83
9	a	1601	ADP	O4'-C4'-C5'	3.92	122.28	109.37
9	k	2101	ADP	O4'-C4'-C5'	3.91	122.25	109.37
9	f	1601	ADP	O4'-C4'-C5'	3.82	121.95	109.37
9	f	1601	ADP	O5'-C5'-C4'	3.79	122.05	108.99
9	M	601	ADP	O4'-C4'-C5'	3.67	121.45	109.37
9	p	1601	ADP	PA-O3A-PB	-3.66	120.26	132.83
9	A	601	ADP	O3'-C3'-C4'	3.66	121.62	111.05
9	f	1601	ADP	O3'-C3'-C4'	3.65	121.60	111.05
9	B	601	ADP	O3'-C3'-C4'	3.65	121.59	111.05
9	N	601	ADP	O3'-C3'-C4'	3.58	121.39	111.05
9	g	1601	ADP	O4'-C4'-C5'	3.57	121.12	109.37
9	G	601	ADP	O4'-C4'-C5'	3.57	121.10	109.37
9	J	601	ADP	O4'-C4'-C5'	3.56	121.07	109.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	m	1601	ADP	O3'-C3'-C4'	3.52	121.22	111.05
9	n	1601	ADP	O4'-C4'-C5'	3.50	120.89	109.37
9	J	601	ADP	O5'-C5'-C4'	3.49	121.01	108.99
9	h	1601	ADP	PA-O3A-PB	-3.47	120.93	132.83
9	B	601	ADP	O5'-C5'-C4'	3.46	120.90	108.99
9	F	601	ADP	O5'-C5'-C4'	3.44	120.85	108.99
9	b	1601	ADP	O5'-C5'-C4'	3.43	120.78	108.99
9	M	601	ADP	PA-O3A-PB	-3.41	121.12	132.83
9	H	601	ADP	O3'-C3'-C4'	3.40	120.88	111.05
9	D	601	ADP	PA-O3A-PB	-3.40	121.17	132.83
9	p	1601	ADP	O3'-C3'-C4'	3.40	120.87	111.05
9	M	601	ADP	O3'-C3'-C4'	3.36	120.77	111.05
9	l	1601	ADP	O4'-C4'-C5'	3.34	120.37	109.37
9	A	601	ADP	O4'-C4'-C5'	3.34	120.37	109.37
9	B	601	ADP	O4'-C4'-C5'	3.31	120.27	109.37
9	b	1601	ADP	O4'-C4'-C5'	3.28	120.16	109.37
9	m	1601	ADP	O4'-C4'-C5'	3.20	119.92	109.37
9	p	1601	ADP	O3'-C3'-C2'	3.19	122.13	111.82
9	k	2101	ADP	O3'-C3'-C4'	3.18	120.26	111.05
9	l	1601	ADP	O3'-C3'-C4'	3.18	120.25	111.05
9	N	601	ADP	O4'-C4'-C5'	3.15	119.74	109.37
9	A	601	ADP	O5'-C5'-C4'	3.14	119.81	108.99
9	E	601	ADP	O4'-C4'-C5'	3.13	119.67	109.37
9	J	601	ADP	O3'-C3'-C4'	3.12	120.08	111.05
9	N	601	ADP	O5'-C5'-C4'	3.12	119.73	108.99
9	l	1601	ADP	C3'-C2'-C1'	3.12	105.67	100.98
9	P	601	ADP	O3'-C3'-C4'	3.11	120.05	111.05
9	e	1601	ADP	O3'-C3'-C4'	3.11	120.03	111.05
9	e	1601	ADP	O4'-C4'-C5'	3.10	119.56	109.37
9	b	1601	ADP	O3'-C3'-C4'	3.08	119.95	111.05
9	M	601	ADP	O5'-C5'-C4'	3.05	119.50	108.99
9	L	601	ADP	O4'-C4'-C5'	3.04	119.38	109.37
9	F	601	ADP	O4'-C4'-C5'	3.03	119.35	109.37
9	n	1601	ADP	O3'-C3'-C2'	3.02	121.59	111.82
9	l	1601	ADP	O5'-C5'-C4'	3.02	119.37	108.99
9	n	1601	ADP	O3'-C3'-C4'	3.01	119.77	111.05
9	C	1101	ADP	O4'-C4'-C5'	3.01	119.28	109.37
9	h	1601	ADP	O3'-C3'-C4'	3.01	119.75	111.05
9	p	1601	ADP	O4'-C4'-C3'	-2.99	99.20	105.11
9	E	601	ADP	O3'-C3'-C2'	2.97	121.43	111.82
9	P	601	ADP	O4'-C4'-C3'	-2.89	99.40	105.11
9	l	1601	ADP	O2'-C2'-C3'	2.87	121.11	111.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	a	1601	ADP	O5'-C5'-C4'	2.85	118.80	108.99
9	m	1601	ADP	O3'-C3'-C2'	2.83	120.97	111.82
9	D	601	ADP	O3'-C3'-C4'	2.83	119.22	111.05
9	E	601	ADP	O2'-C2'-C3'	2.79	120.85	111.82
9	A	601	ADP	O2'-C2'-C1'	2.79	121.15	110.85
9	F	601	ADP	O2'-C2'-C1'	2.78	121.12	110.85
9	L	601	ADP	O5'-C5'-C4'	2.78	118.55	108.99
9	a	1601	ADP	O3'-C3'-C4'	2.75	118.99	111.05
9	h	1601	ADP	O4'-C4'-C5'	2.74	118.40	109.37
9	l	1601	ADP	O3'-C3'-C2'	2.73	120.64	111.82
9	L	601	ADP	O3'-C3'-C4'	2.71	118.89	111.05
9	L	601	ADP	O2'-C2'-C3'	2.69	120.52	111.82
9	G	601	ADP	O3'-C3'-C4'	2.69	118.82	111.05
9	M	601	ADP	O3'-C3'-C2'	2.67	120.47	111.82
9	h	1601	ADP	O3'-C3'-C2'	2.67	120.47	111.82
9	b	1601	ADP	O4'-C4'-C3'	-2.66	99.84	105.11
9	F	601	ADP	O2'-C2'-C3'	2.66	120.44	111.82
9	f	1601	ADP	O3'-C3'-C2'	2.66	120.42	111.82
9	J	601	ADP	O2'-C2'-C3'	2.66	120.41	111.82
9	h	1601	ADP	O4'-C4'-C3'	-2.65	99.87	105.11
9	N	601	ADP	O3'-C3'-C2'	2.65	120.38	111.82
9	e	1601	ADP	O3'-C3'-C2'	2.63	120.33	111.82
9	p	1601	ADP	O4'-C4'-C5'	2.62	117.98	109.37
9	e	1601	ADP	O2'-C2'-C1'	2.61	120.49	110.85
9	G	601	ADP	O4'-C4'-C3'	-2.61	99.96	105.11
9	g	1601	ADP	O3'-C3'-C4'	2.59	118.55	111.05
9	m	1601	ADP	O5'-C5'-C4'	2.58	117.88	108.99
9	B	601	ADP	O2'-C2'-C1'	2.57	120.36	110.85
9	k	2101	ADP	O2'-C2'-C1'	2.57	120.33	110.85
9	C	1101	ADP	O3'-C3'-C4'	2.57	118.47	111.05
9	G	601	ADP	O2'-C2'-C1'	2.56	120.31	110.85
9	b	1601	ADP	O3'-C3'-C2'	2.54	120.03	111.82
9	k	2101	ADP	C3'-C2'-C1'	2.53	104.79	100.98
9	A	601	ADP	O2'-C2'-C3'	2.53	120.00	111.82
9	P	601	ADP	O3'-C3'-C2'	2.50	119.92	111.82
9	B	601	ADP	C3'-C2'-C1'	2.50	104.75	100.98
9	b	1601	ADP	O2'-C2'-C3'	2.49	119.89	111.82
9	g	1601	ADP	O2'-C2'-C1'	2.48	120.01	110.85
9	P	601	ADP	O4'-C4'-C5'	2.48	117.53	109.37
9	P	601	ADP	O5'-C5'-C4'	2.48	117.52	108.99
9	H	601	ADP	O3'-C3'-C2'	2.47	119.82	111.82
9	N	601	ADP	O2'-C2'-C1'	2.47	119.99	110.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	C	1101	ADP	O3'-C3'-C2'	2.45	119.76	111.82
9	L	601	ADP	O2'-C2'-C1'	2.45	119.91	110.85
9	E	601	ADP	O2'-C2'-C1'	2.44	119.88	110.85
9	k	2101	ADP	O3'-C3'-C2'	2.43	119.68	111.82
9	e	1601	ADP	O2'-C2'-C3'	2.40	119.60	111.82
9	g	1601	ADP	O3'-C3'-C2'	2.40	119.59	111.82
9	J	601	ADP	O3'-C3'-C2'	2.39	119.57	111.82
9	J	601	ADP	O2'-C2'-C1'	2.38	119.65	110.85
9	l	1601	ADP	O2'-C2'-C1'	2.37	119.62	110.85
9	p	1601	ADP	O5'-C5'-C4'	2.36	117.13	108.99
9	a	1601	ADP	O2'-C2'-C3'	2.35	119.42	111.82
9	G	601	ADP	O5'-C5'-C4'	2.35	117.07	108.99
9	a	1601	ADP	O3'-C3'-C2'	2.34	119.41	111.82
9	J	601	ADP	O4'-C4'-C3'	-2.34	100.47	105.11
9	J	601	ADP	C3'-C2'-C1'	2.34	104.50	100.98
9	n	1601	ADP	O5'-C5'-C4'	2.32	116.98	108.99
9	e	1601	ADP	O5'-C5'-C4'	2.31	116.94	108.99
9	H	601	ADP	O4'-C4'-C3'	-2.29	100.58	105.11
9	A	601	ADP	C3'-C2'-C1'	2.29	104.42	100.98
9	D	601	ADP	O2'-C2'-C3'	2.29	119.23	111.82
9	n	1601	ADP	O3B-PB-O3A	2.28	112.29	104.64
9	g	1601	ADP	O4'-C4'-C3'	-2.27	100.61	105.11
9	L	601	ADP	O3'-C3'-C2'	2.27	119.15	111.82
9	g	1601	ADP	O5'-C5'-C4'	2.25	116.73	108.99
9	A	601	ADP	O3'-C3'-C2'	2.25	119.09	111.82
9	E	601	ADP	O5'-C5'-C4'	2.23	116.67	108.99
9	H	601	ADP	O2'-C2'-C1'	2.23	119.09	110.85
9	h	1601	ADP	O5'-C5'-C4'	2.23	116.66	108.99
9	D	601	ADP	O3'-C3'-C2'	2.22	119.02	111.82
9	C	1101	ADP	O2B-PB-O3A	2.22	112.08	104.64
9	H	601	ADP	O2'-C2'-C3'	2.22	119.00	111.82
9	P	601	ADP	O2'-C2'-C1'	2.22	119.04	110.85
9	F	601	ADP	O3'-C3'-C4'	2.21	117.44	111.05
9	P	601	ADP	O2'-C2'-C3'	2.19	118.92	111.82
9	f	1601	ADP	O2'-C2'-C1'	2.19	118.94	110.85
9	p	1601	ADP	O2'-C2'-C3'	2.19	118.90	111.82
9	n	1601	ADP	O2'-C2'-C1'	2.17	118.88	110.85
9	N	601	ADP	O2'-C2'-C3'	2.17	118.84	111.82
9	a	1601	ADP	O2'-C2'-C1'	2.16	118.83	110.85
9	H	601	ADP	O4'-C4'-C5'	2.16	116.47	109.37
9	G	601	ADP	O3'-C3'-C2'	2.14	118.75	111.82
9	F	601	ADP	C2'-C3'-C4'	-2.12	98.52	102.64

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	B	601	ADP	O2'-C2'-C3'	2.11	118.65	111.82
9	C	1101	ADP	O5'-C5'-C4'	2.11	116.24	108.99
9	G	601	ADP	O2'-C2'-C3'	2.08	118.55	111.82
9	k	2101	ADP	O2'-C2'-C3'	2.08	118.55	111.82
9	E	601	ADP	O2B-PB-O3A	2.07	111.58	104.64
9	N	601	ADP	O3B-PB-O3A	2.07	111.57	104.64
9	B	601	ADP	C5'-C4'-C3'	2.03	122.79	115.18
9	D	601	ADP	O2'-C2'-C1'	2.03	118.33	110.85
9	h	1601	ADP	O2'-C2'-C3'	2.02	118.37	111.82
9	f	1601	ADP	C5'-C4'-C3'	2.01	122.71	115.18
9	k	2101	ADP	C5'-C4'-C3'	2.00	122.68	115.18
9	C	1101	ADP	O2'-C2'-C3'	2.00	118.29	111.82

All (34) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
9	A	601	ADP	C4'
9	A	601	ADP	C3'
9	B	601	ADP	C4'
9	B	601	ADP	C3'
9	C	1101	ADP	C4'
9	C	1101	ADP	C3'
9	D	601	ADP	C4'
9	D	601	ADP	C3'
9	E	601	ADP	C4'
9	G	601	ADP	C3'
9	H	601	ADP	C4'
9	J	601	ADP	C4'
9	J	601	ADP	C3'
9	M	601	ADP	C4'
9	M	601	ADP	C3'
9	N	601	ADP	C2'
9	N	601	ADP	C3'
9	P	601	ADP	C4'
9	a	1601	ADP	C4'
9	a	1601	ADP	C3'
9	b	1601	ADP	C4'
9	b	1601	ADP	C3'
9	e	1601	ADP	C4'
9	e	1601	ADP	C3'
9	f	1601	ADP	C2'
9	f	1601	ADP	C3'

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Mol	Chain	Res	Type	Atom
9	g	1601	ADP	C3'
9	h	1601	ADP	C4'
9	k	2101	ADP	C4'
9	k	2101	ADP	C3'
9	m	1601	ADP	C4'
9	m	1601	ADP	C3'
9	n	1601	ADP	C2'
9	p	1601	ADP	C4'

All (105) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
9	A	601	ADP	C5'-O5'-PA-O3A
9	B	601	ADP	PB-O3A-PA-O5'
9	C	1101	ADP	C5'-O5'-PA-O1A
9	C	1101	ADP	C5'-O5'-PA-O3A
9	D	601	ADP	C4'-C5'-O5'-PA
9	E	601	ADP	C5'-O5'-PA-O1A
9	E	601	ADP	C5'-O5'-PA-O2A
9	F	601	ADP	PA-O3A-PB-O3B
9	F	601	ADP	C5'-O5'-PA-O1A
9	F	601	ADP	C5'-O5'-PA-O2A
9	G	601	ADP	C5'-O5'-PA-O1A
9	J	601	ADP	C5'-O5'-PA-O2A
9	L	601	ADP	PA-O3A-PB-O2B
9	L	601	ADP	PA-O3A-PB-O3B
9	M	601	ADP	PA-O3A-PB-O2B
9	M	601	ADP	PA-O3A-PB-O3B
9	M	601	ADP	C5'-O5'-PA-O3A
9	N	601	ADP	C5'-O5'-PA-O1A
9	a	1601	ADP	PA-O3A-PB-O2B
9	a	1601	ADP	PB-O3A-PA-O5'
9	a	1601	ADP	C5'-O5'-PA-O3A
9	b	1601	ADP	PA-O3A-PB-O2B
9	b	1601	ADP	C5'-O5'-PA-O1A
9	b	1601	ADP	C5'-O5'-PA-O3A
9	b	1601	ADP	O4'-C4'-C5'-O5'
9	e	1601	ADP	PA-O3A-PB-O2B
9	e	1601	ADP	C3'-C4'-C5'-O5'
9	f	1601	ADP	PA-O3A-PB-O3B
9	f	1601	ADP	C5'-O5'-PA-O1A
9	k	2101	ADP	C3'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
9	l	1601	ADP	C5'-O5'-PA-O1A
9	l	1601	ADP	C5'-O5'-PA-O2A
9	l	1601	ADP	C5'-O5'-PA-O3A
9	m	1601	ADP	PB-O3A-PA-O5'
9	m	1601	ADP	C5'-O5'-PA-O1A
9	m	1601	ADP	C3'-C4'-C5'-O5'
9	n	1601	ADP	PA-O3A-PB-O3B
9	n	1601	ADP	C5'-O5'-PA-O3A
9	p	1601	ADP	O4'-C4'-C5'-O5'
9	p	1601	ADP	C3'-C4'-C5'-O5'
9	B	601	ADP	O4'-C4'-C5'-O5'
9	C	1101	ADP	C3'-C4'-C5'-O5'
9	J	601	ADP	O4'-C4'-C5'-O5'
9	a	1601	ADP	O4'-C4'-C5'-O5'
9	A	601	ADP	O4'-C4'-C5'-O5'
9	e	1601	ADP	O4'-C4'-C5'-O5'
9	g	1601	ADP	O4'-C4'-C5'-O5'
9	g	1601	ADP	C3'-C4'-C5'-O5'
9	E	601	ADP	C3'-C4'-C5'-O5'
9	G	601	ADP	O4'-C4'-C5'-O5'
9	L	601	ADP	O4'-C4'-C5'-O5'
9	k	2101	ADP	O4'-C4'-C5'-O5'
9	H	601	ADP	O4'-C4'-C5'-O5'
9	k	2101	ADP	C4'-C5'-O5'-PA
9	B	601	ADP	C4'-C5'-O5'-PA
9	F	601	ADP	C4'-C5'-O5'-PA
9	G	601	ADP	C4'-C5'-O5'-PA
9	b	1601	ADP	C4'-C5'-O5'-PA
9	g	1601	ADP	C4'-C5'-O5'-PA
9	m	1601	ADP	C4'-C5'-O5'-PA
9	C	1101	ADP	PB-O3A-PA-O5'
9	D	601	ADP	PB-O3A-PA-O5'
9	E	601	ADP	PB-O3A-PA-O5'
9	J	601	ADP	PB-O3A-PA-O5'
9	M	601	ADP	PB-O3A-PA-O5'
9	b	1601	ADP	PB-O3A-PA-O5'
9	g	1601	ADP	PB-O3A-PA-O5'
9	A	601	ADP	C4'-C5'-O5'-PA
9	J	601	ADP	C4'-C5'-O5'-PA
9	a	1601	ADP	C4'-C5'-O5'-PA
9	D	601	ADP	PA-O3A-PB-O2B
9	H	601	ADP	PA-O3A-PB-O2B

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Mol	Chain	Res	Type	Atoms
9	e	1601	ADP	PA-O3A-PB-O3B
9	k	2101	ADP	PA-O3A-PB-O3B
9	F	601	ADP	C5'-O5'-PA-O3A
9	J	601	ADP	C5'-O5'-PA-O3A
9	N	601	ADP	C5'-O5'-PA-O3A
9	f	1601	ADP	C5'-O5'-PA-O3A
9	m	1601	ADP	C5'-O5'-PA-O3A
9	h	1601	ADP	PB-O3A-PA-O2A
9	A	601	ADP	C5'-O5'-PA-O1A
9	J	601	ADP	C5'-O5'-PA-O1A
9	M	601	ADP	C5'-O5'-PA-O1A
9	a	1601	ADP	C5'-O5'-PA-O1A
9	n	1601	ADP	C5'-O5'-PA-O1A
9	H	601	ADP	C3'-C4'-C5'-O5'
9	N	601	ADP	O4'-C4'-C5'-O5'
9	f	1601	ADP	PA-O3A-PB-O1B
9	F	601	ADP	PB-O3A-PA-O2A
9	F	601	ADP	PA-O3A-PB-O1B
9	b	1601	ADP	C3'-C4'-C5'-O5'
9	H	601	ADP	PB-O3A-PA-O2A
9	P	601	ADP	PB-O3A-PA-O2A
9	p	1601	ADP	PB-O3A-PA-O2A
9	b	1601	ADP	PA-O3A-PB-O1B
9	e	1601	ADP	PA-O3A-PB-O1B
9	n	1601	ADP	PA-O3A-PB-O1B
9	C	1101	ADP	O4'-C4'-C5'-O5'
9	a	1601	ADP	PA-O3A-PB-O3B
9	E	601	ADP	C5'-O5'-PA-O3A
9	M	601	ADP	O4'-C4'-C5'-O5'
9	F	601	ADP	PB-O3A-PA-O1A
9	N	601	ADP	C4'-C5'-O5'-PA
9	L	601	ADP	C5'-O5'-PA-O2A
9	M	601	ADP	PA-O3A-PB-O1B

There are no ring outliers.

17 monomers are involved in 79 short contacts:

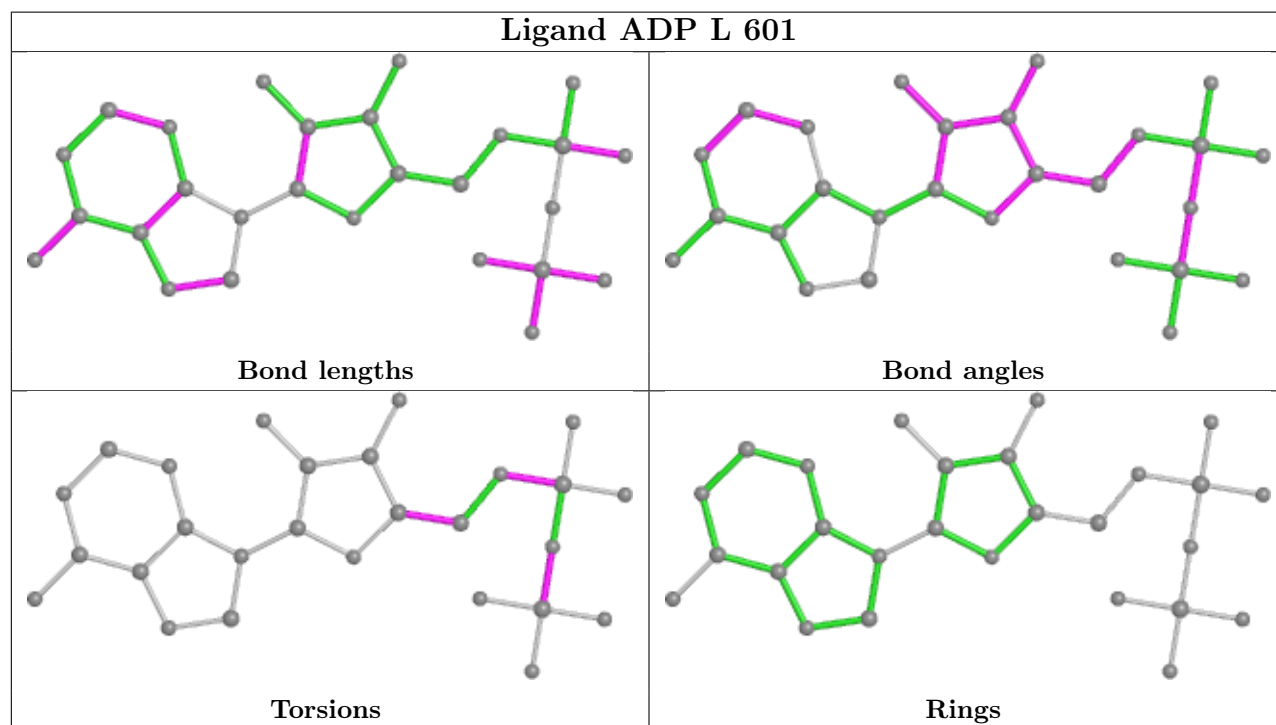
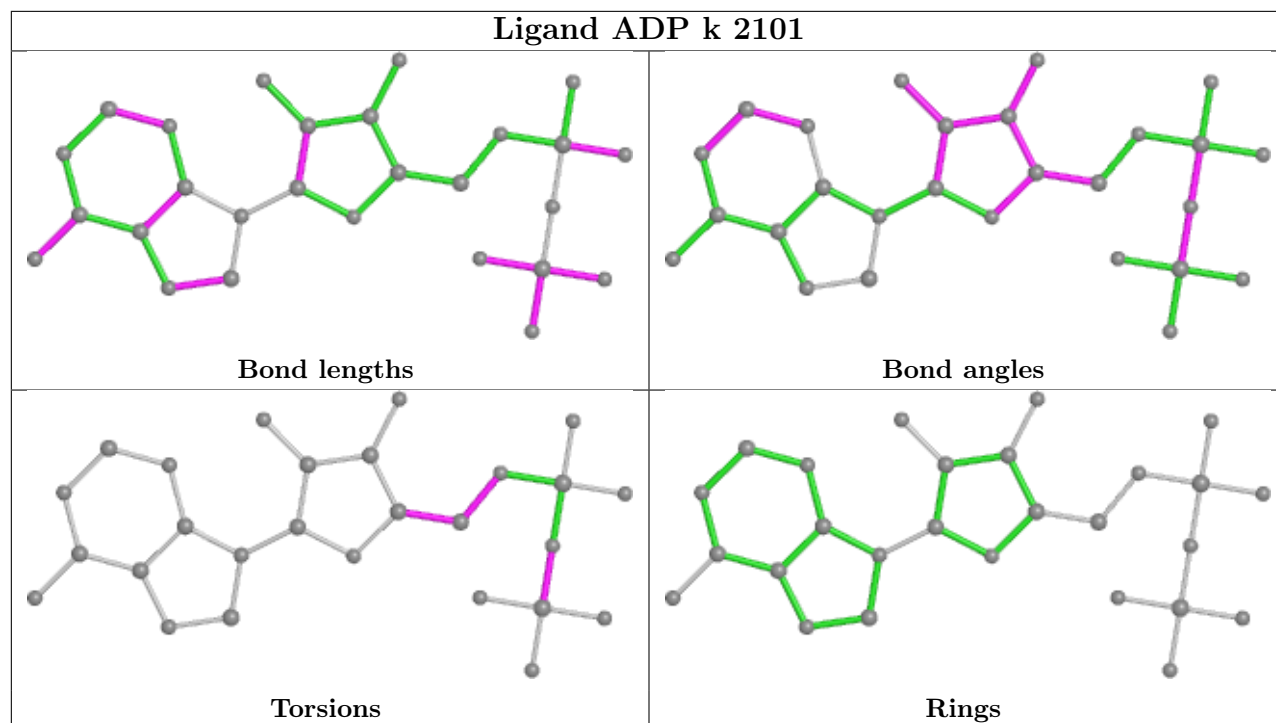
Mol	Chain	Res	Type	Clashes	Symm-Clashes
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10	L	602	BEF	1	0
9	N	601	ADP	6	0
10	C	1102	BEF	3	0

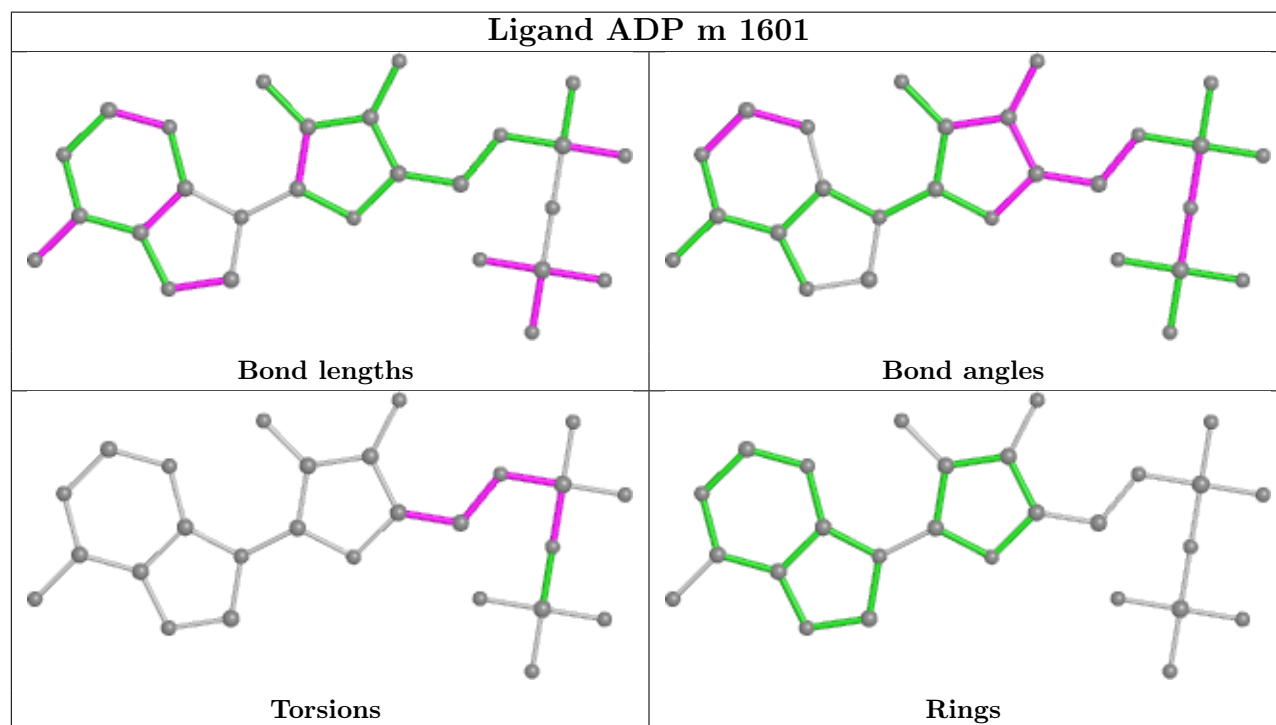
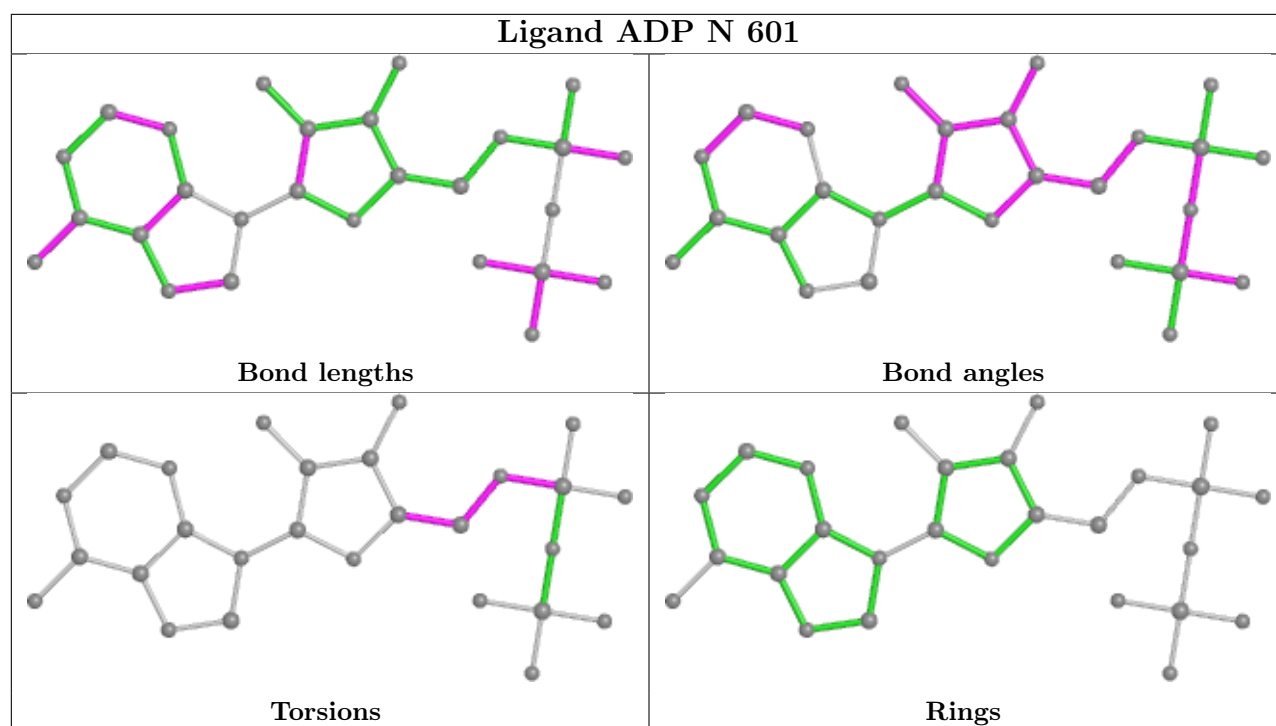
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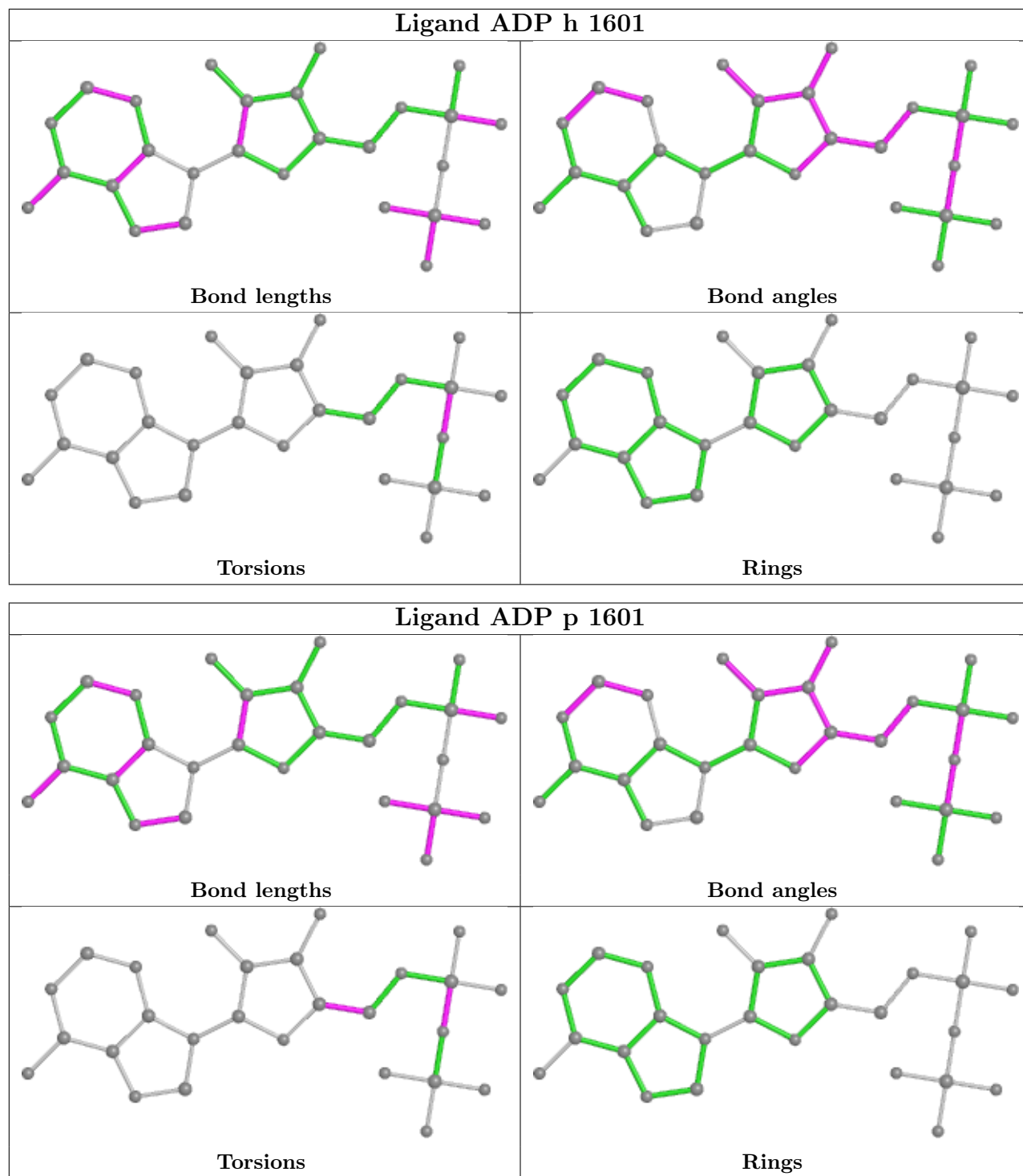
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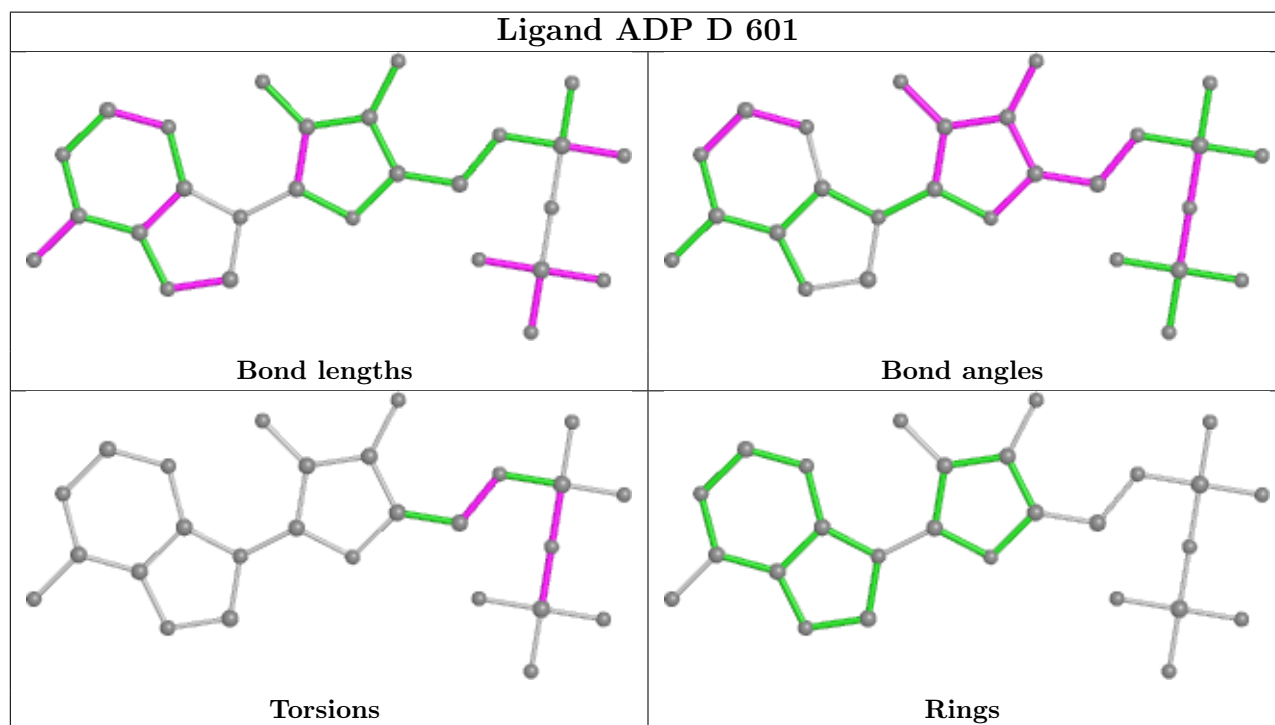
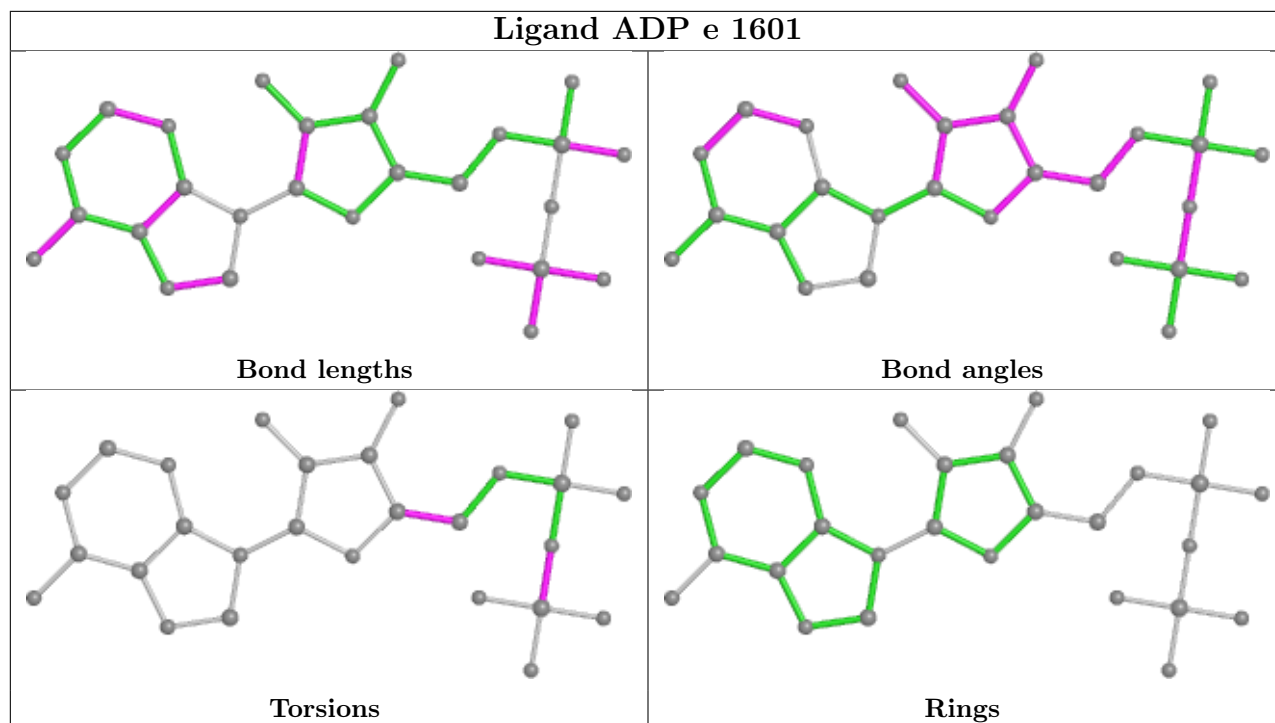
Mol	Chain	Res	Type	Clashes	Symm-Clashes
9	D	601	ADP	8	0
9	J	601	ADP	5	0
9	E	601	ADP	2	0
9	H	601	ADP	3	0
9	B	601	ADP	8	0
10	N	602	BEF	3	0
9	M	601	ADP	6	0
10	F	602	BEF	2	0
9	G	601	ADP	5	0
9	A	601	ADP	3	0
9	F	601	ADP	6	0
9	P	601	ADP	5	0
9	C	1101	ADP	7	0

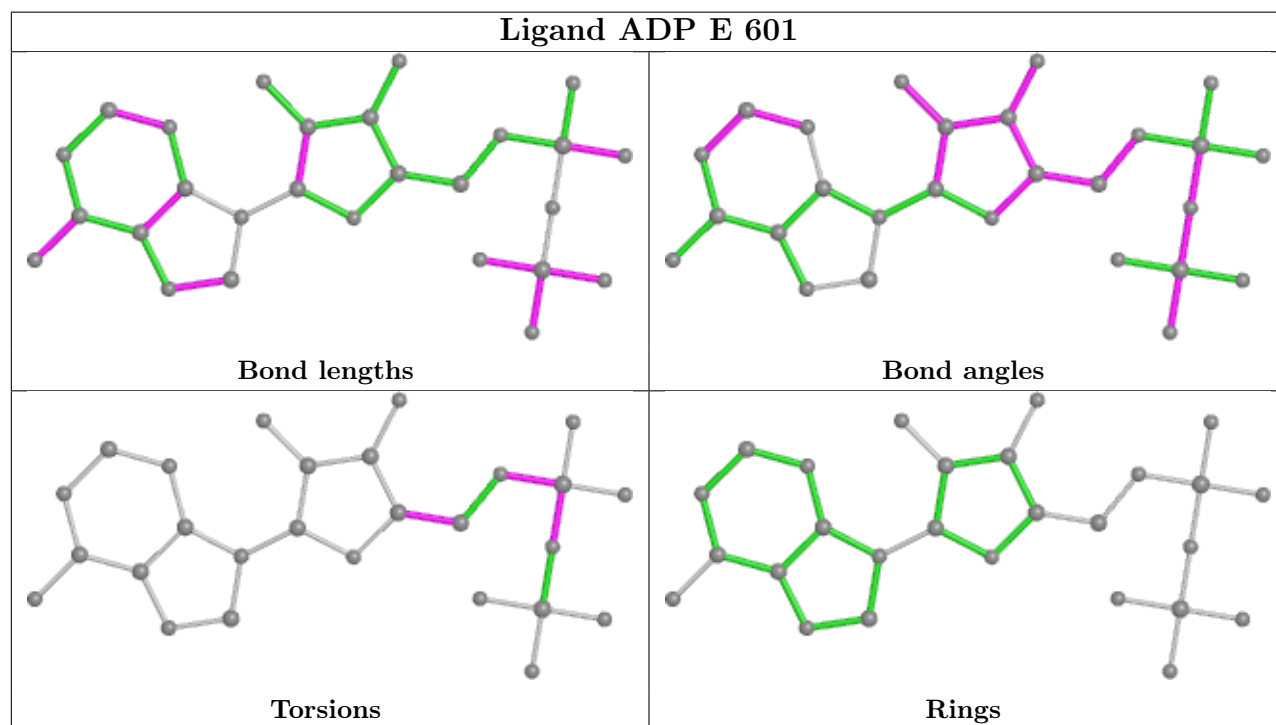
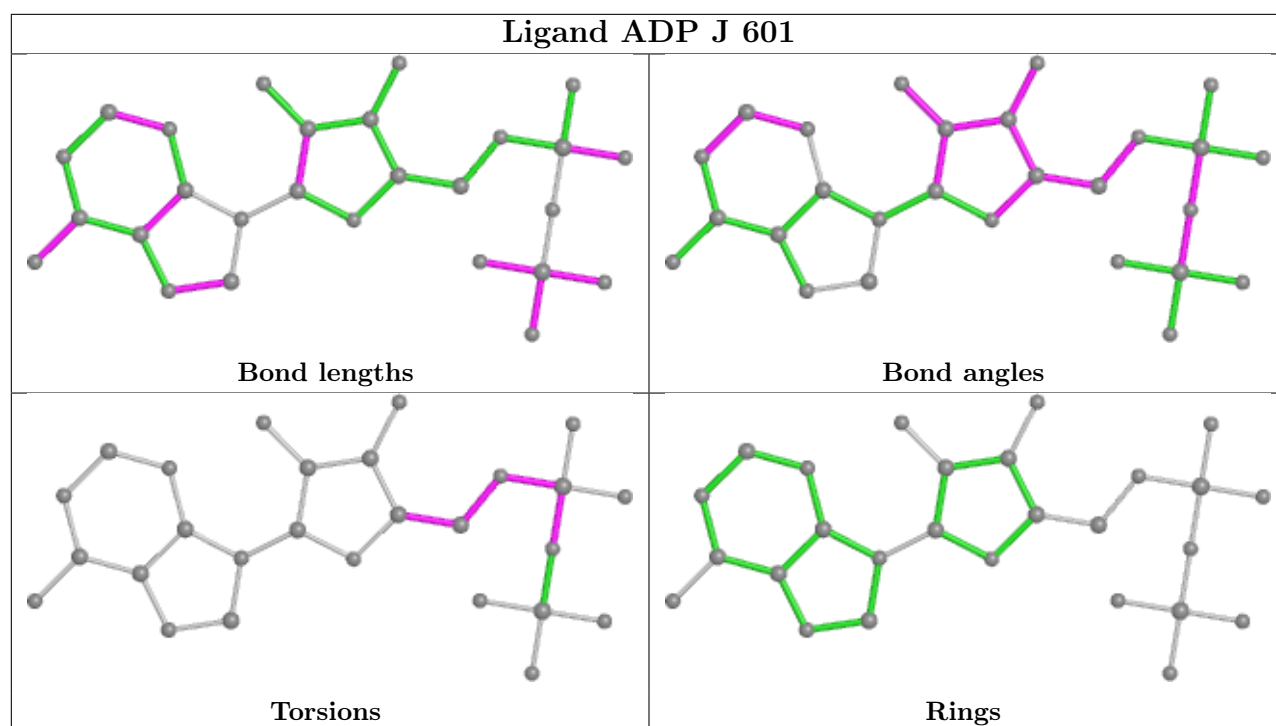
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. 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.

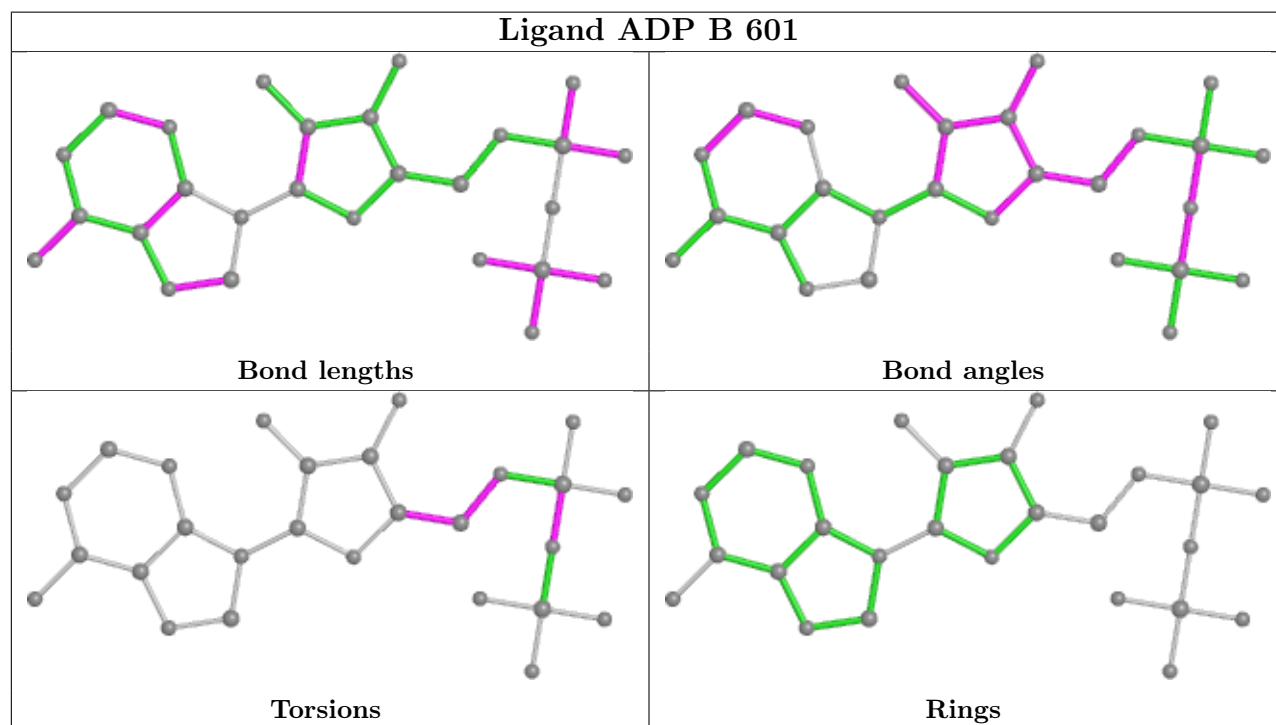
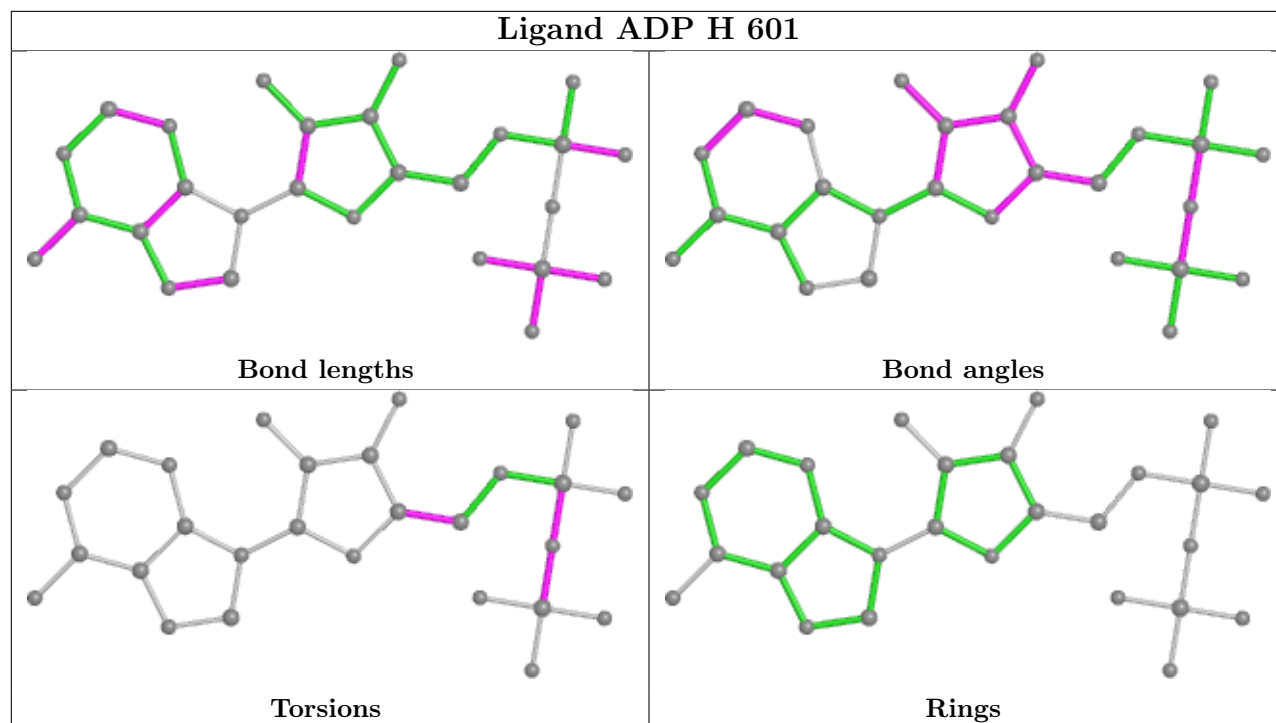


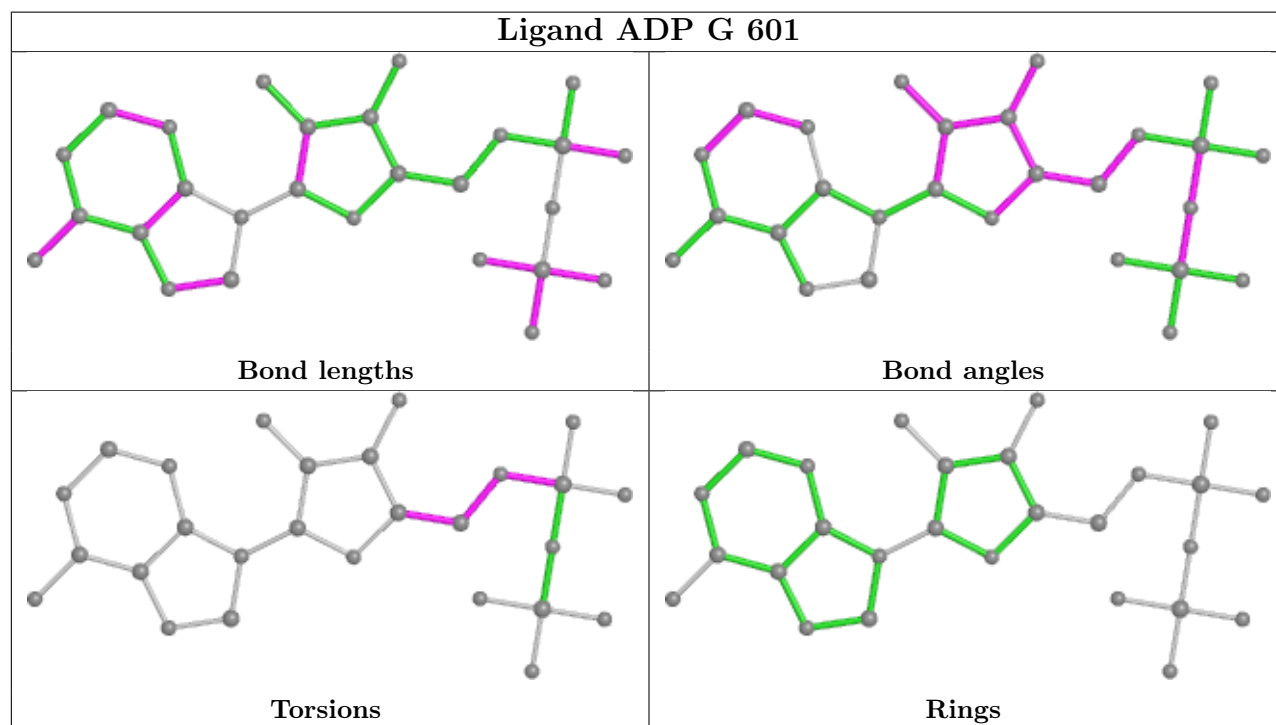
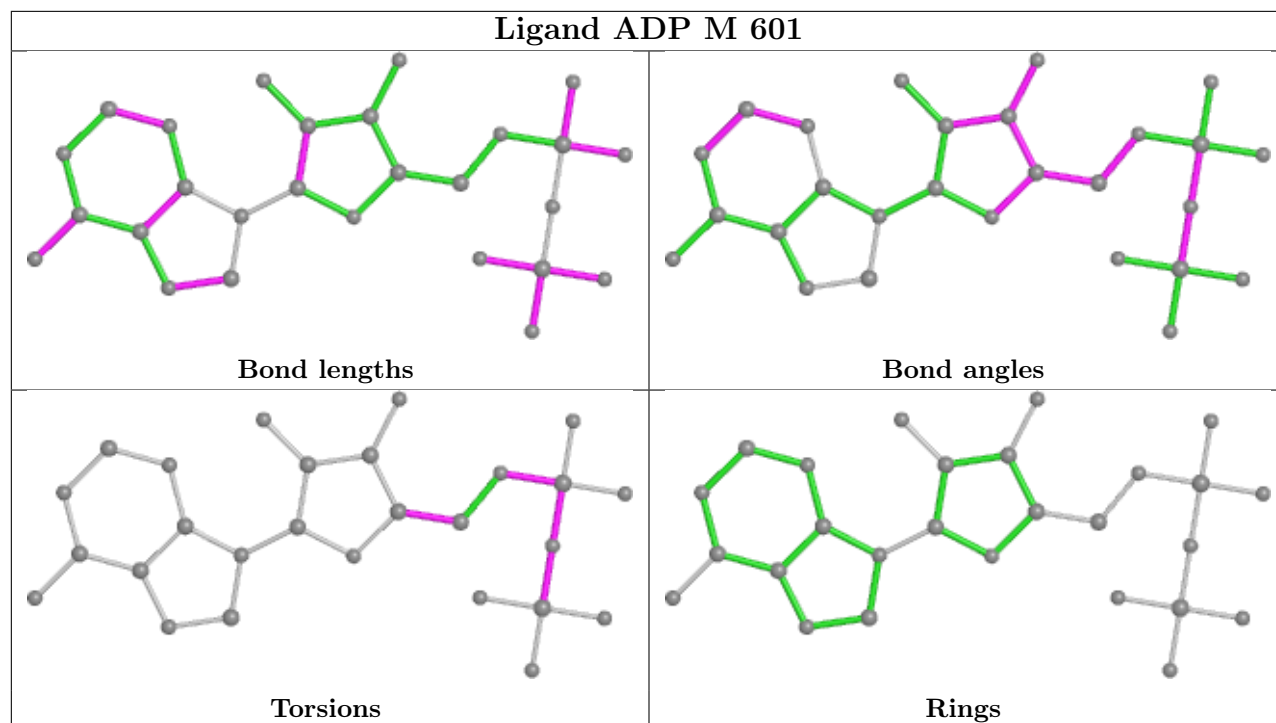


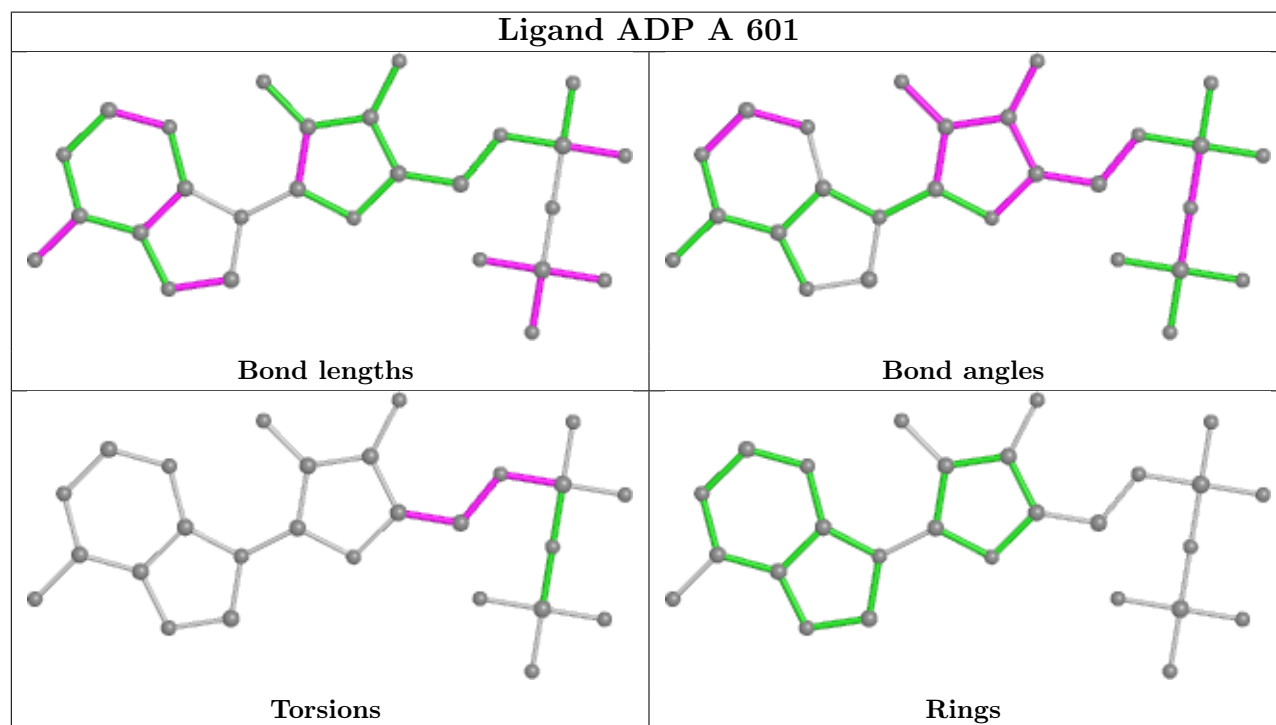
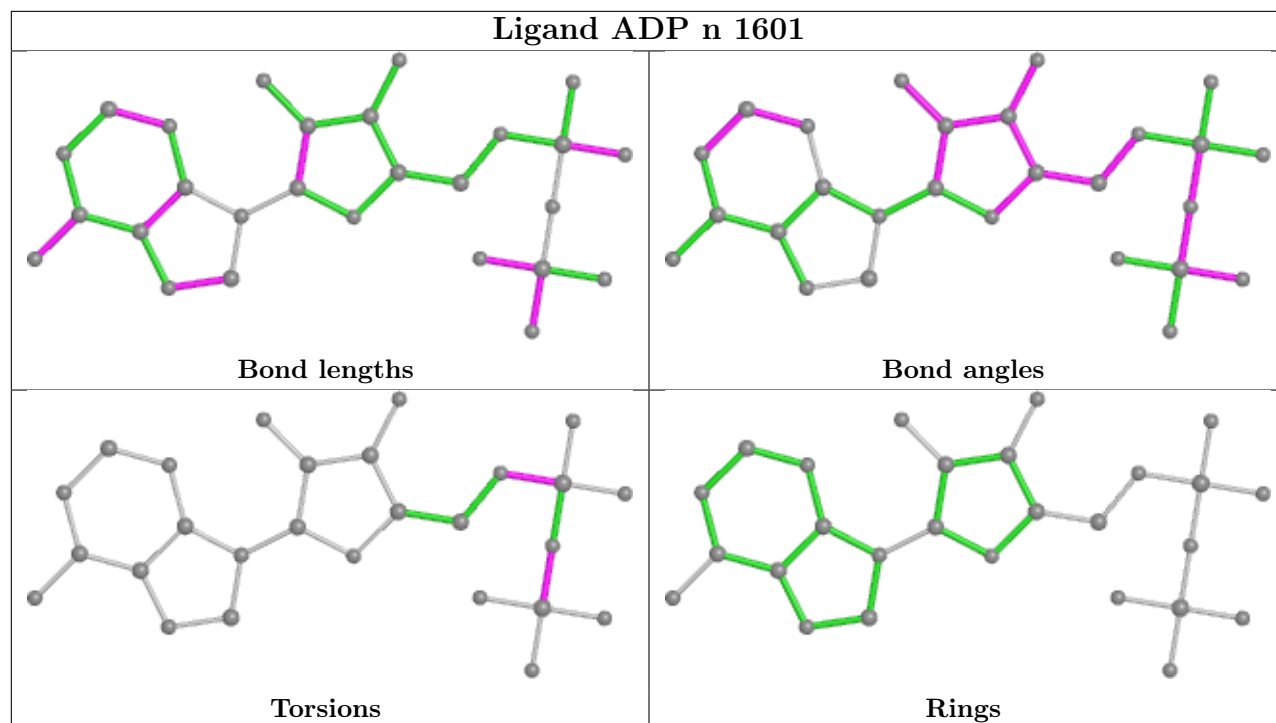


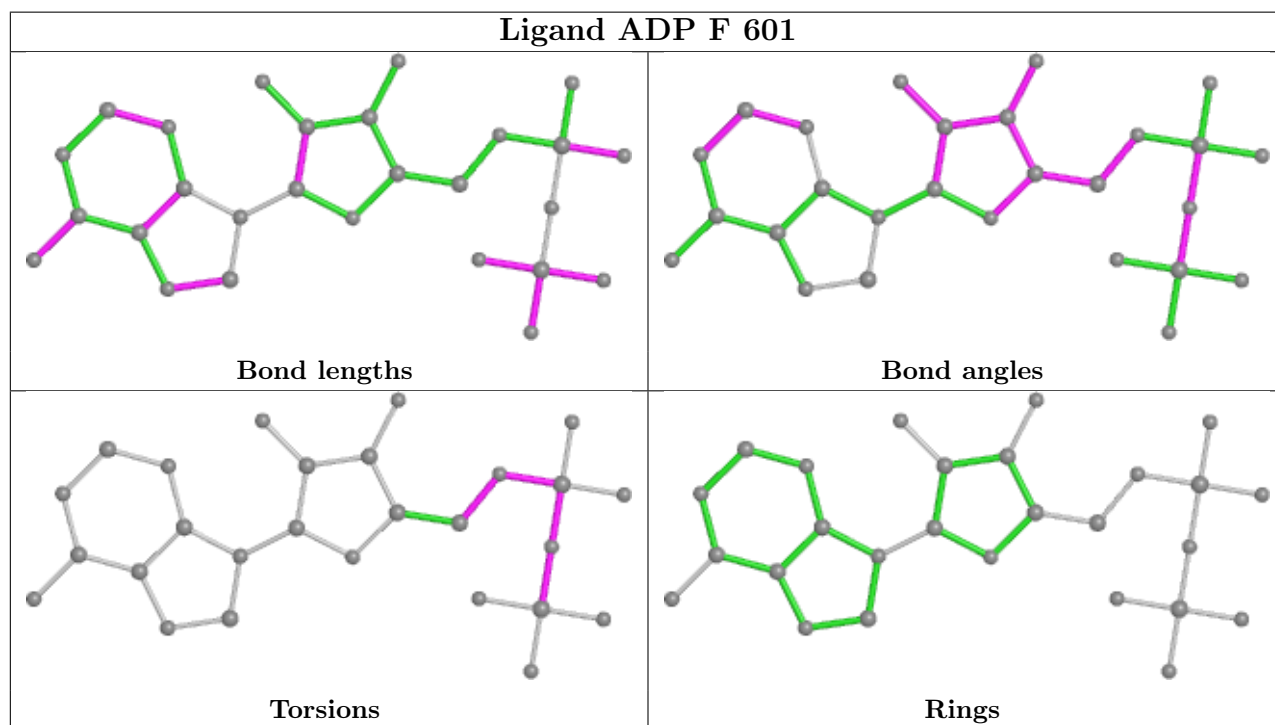
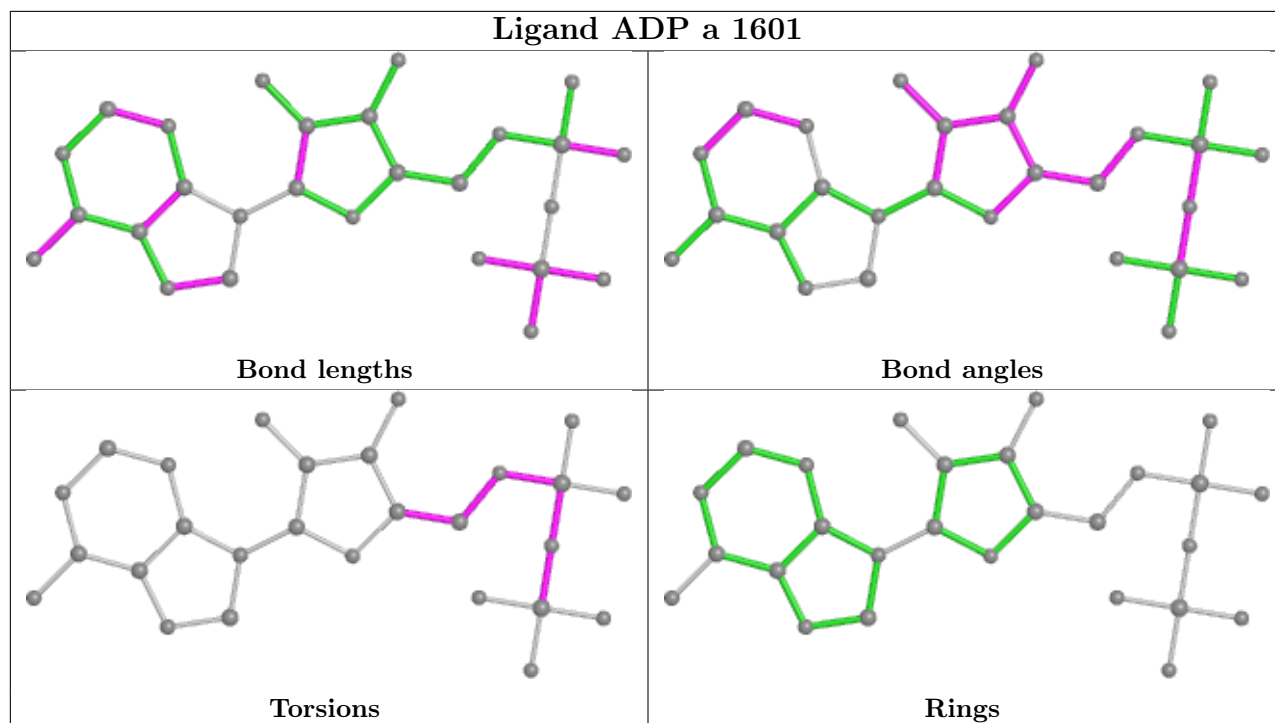


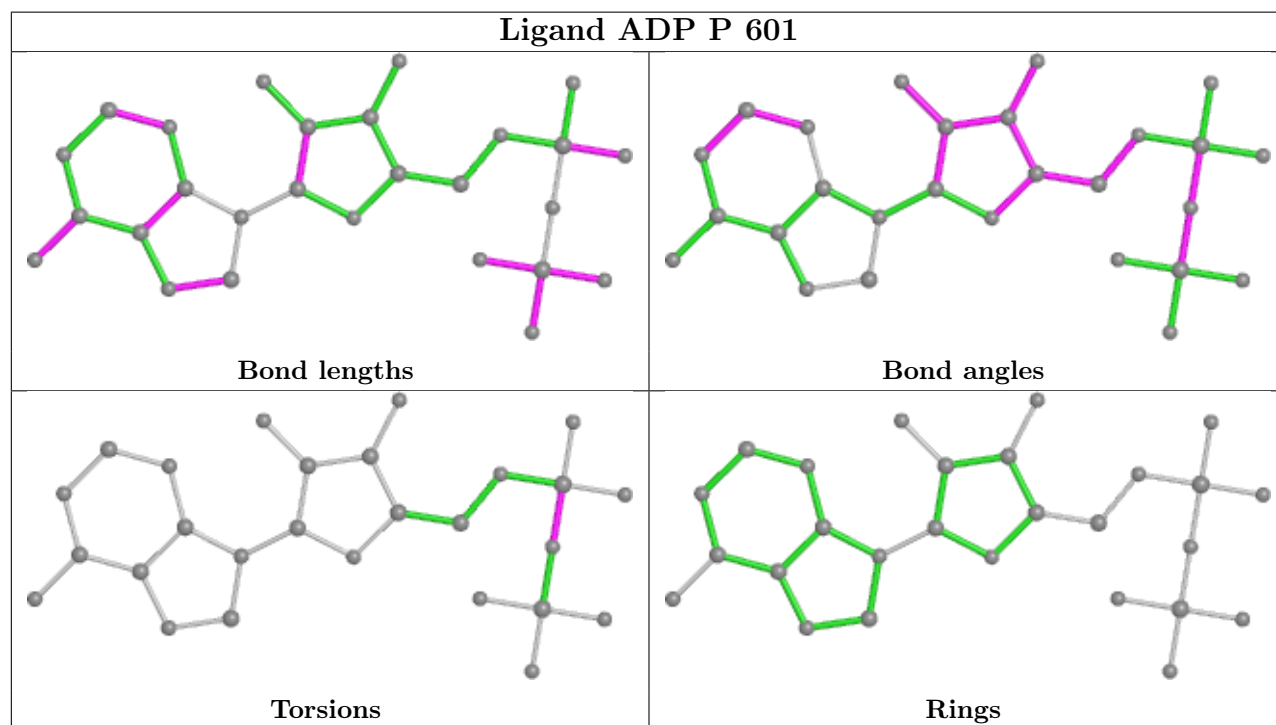
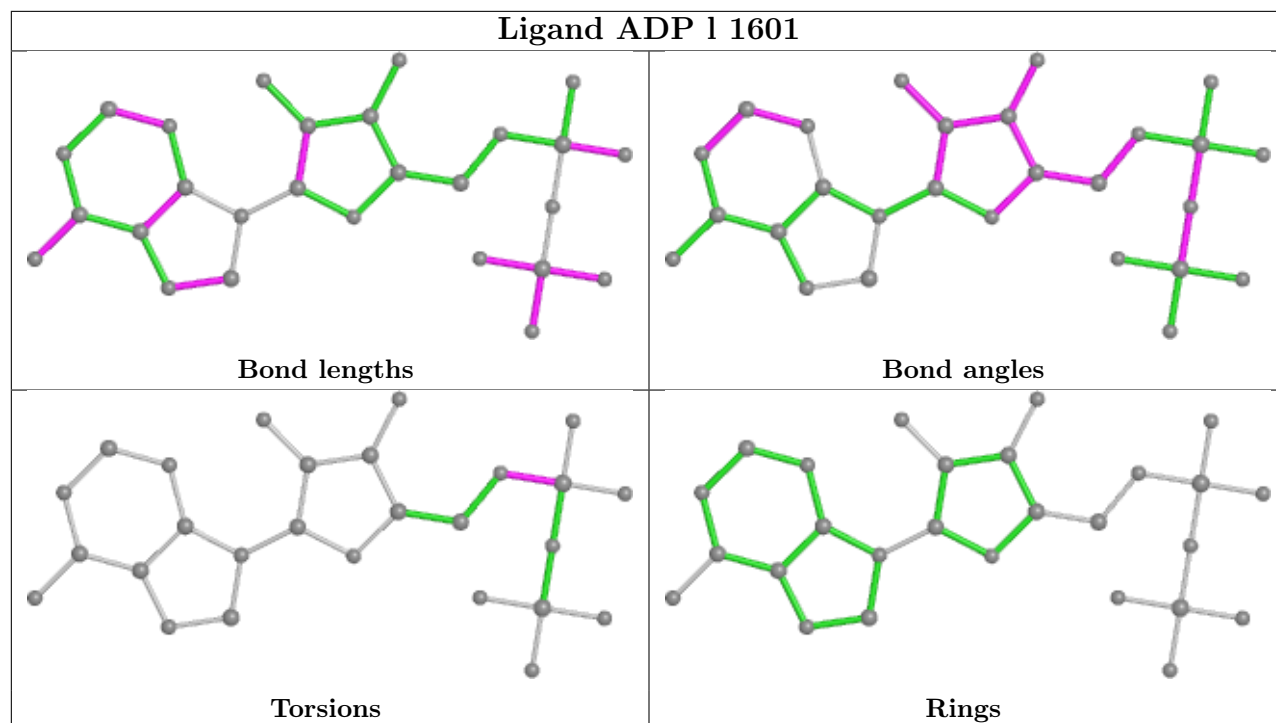


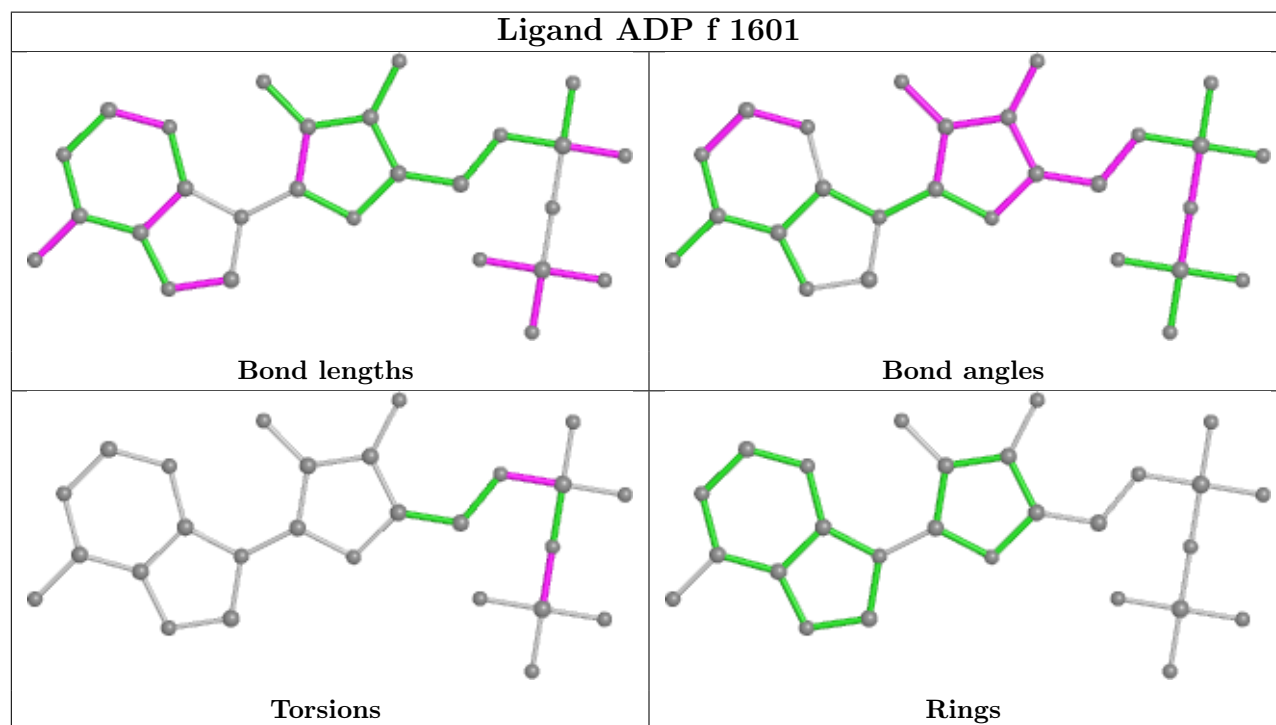
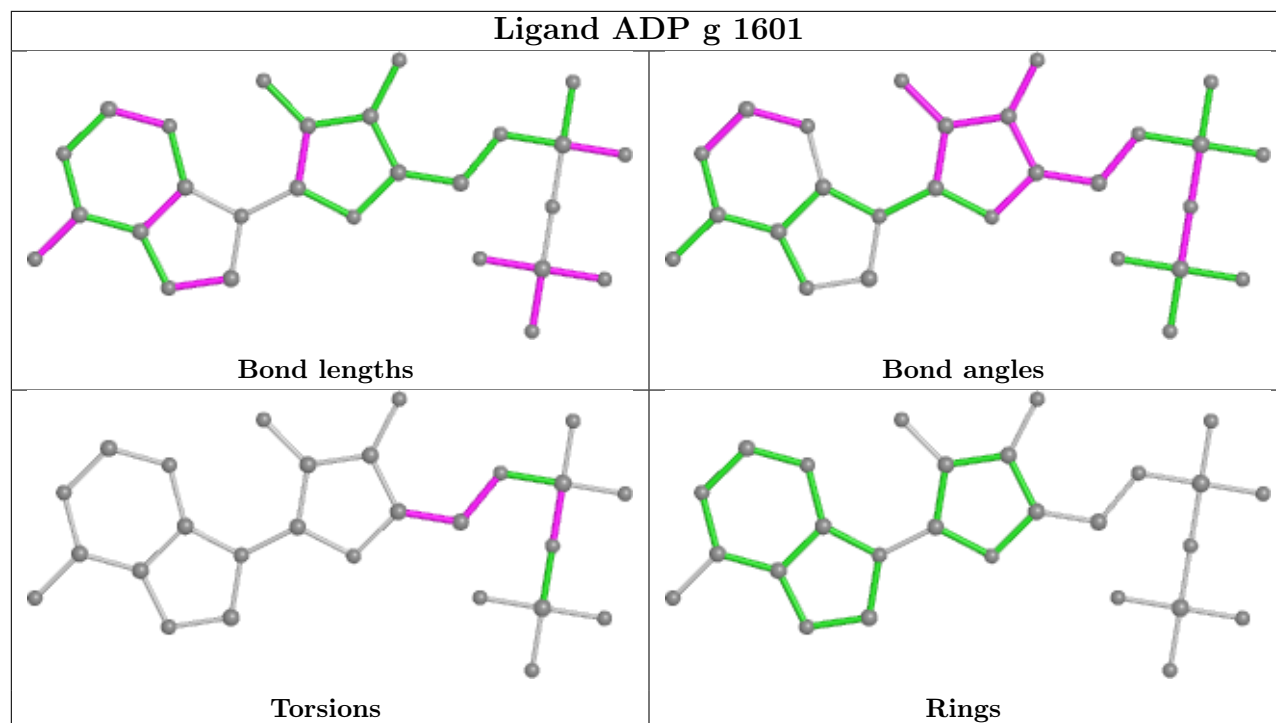


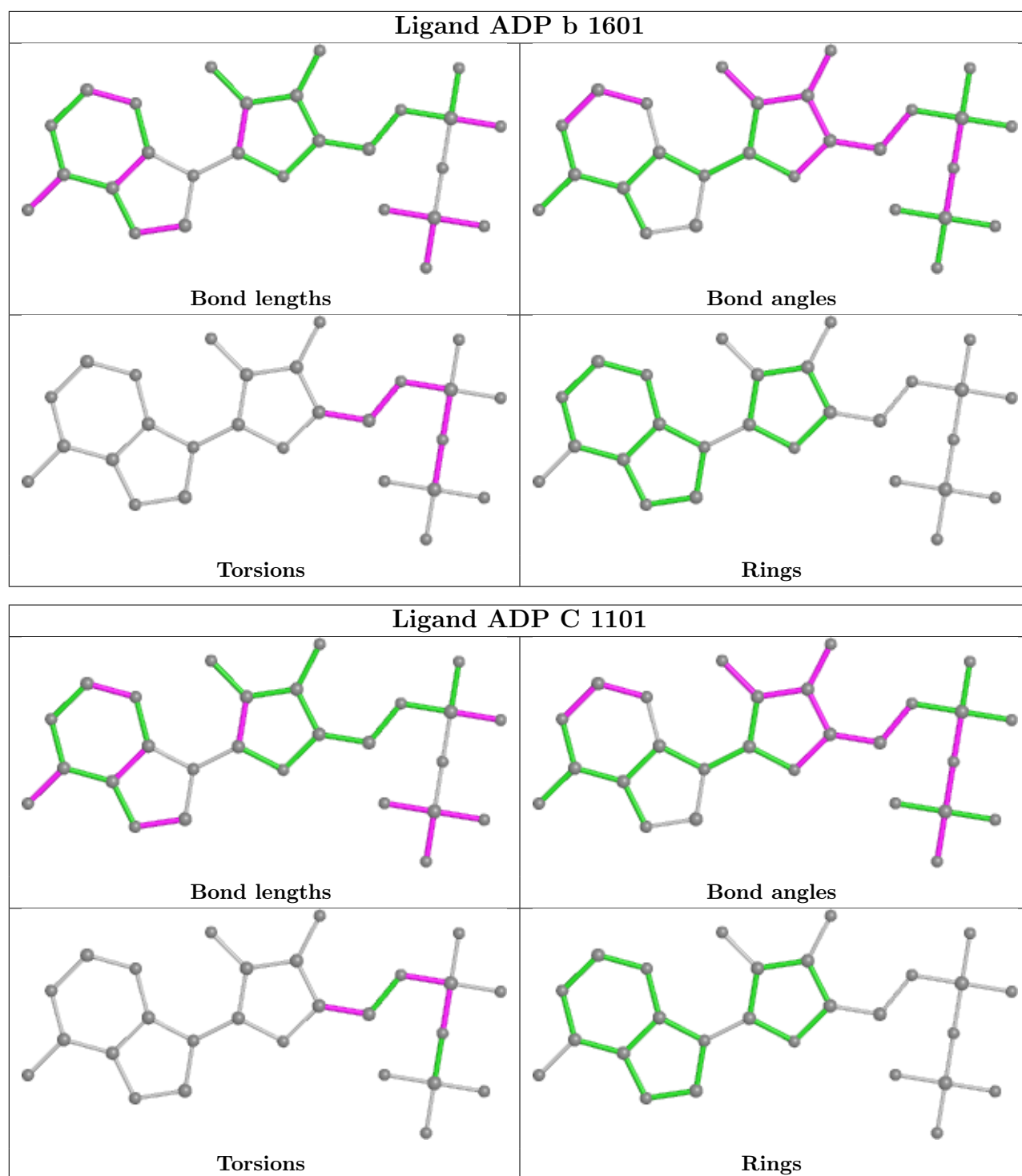












5.7 Other polymers [\(i\)](#)

There are no such residues in this entry.

5.8 Polymer linkage issues

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	544/559 (97%)	-0.00	13 (2%) 59 50	72, 134, 206, 254	0
1	I	544/559 (97%)	0.02	27 (4%) 28 25	72, 134, 206, 254	0
1	a	544/559 (97%)	-0.09	15 (2%) 53 43	72, 134, 206, 254	0
1	i	544/559 (97%)	-0.06	14 (2%) 56 47	72, 134, 206, 254	0
2	B	513/527 (97%)	-0.11	5 (0%) 82 76	47, 120, 192, 236	0
2	J	513/527 (97%)	0.05	18 (3%) 44 36	47, 120, 192, 236	0
2	b	513/527 (97%)	-0.10	8 (1%) 72 64	47, 120, 192, 236	0
2	j	513/527 (97%)	-0.09	7 (1%) 75 68	47, 120, 192, 236	0
3	C	514/590 (87%)	0.06	10 (1%) 66 59	73, 141, 205, 295	0
3	K	514/590 (87%)	0.01	18 (3%) 44 36	73, 141, 205, 295	0
3	c	514/590 (87%)	0.03	18 (3%) 44 36	73, 141, 205, 295	0
3	k	514/590 (87%)	-0.08	10 (1%) 66 59	73, 141, 205, 295	0
4	D	522/528 (98%)	0.00	15 (2%) 51 42	70, 149, 232, 297	0
4	L	522/528 (98%)	0.07	26 (4%) 28 25	70, 149, 232, 297	0
4	d	522/528 (98%)	0.01	15 (2%) 51 42	70, 149, 232, 297	0
4	l	522/528 (98%)	0.09	21 (4%) 38 32	70, 149, 232, 297	0
5	E	525/562 (93%)	0.05	16 (3%) 50 40	56, 138, 238, 297	0
5	M	525/562 (93%)	0.22	31 (5%) 22 18	56, 138, 238, 297	0
5	e	525/562 (93%)	0.02	20 (3%) 40 33	56, 138, 238, 297	0
5	m	525/562 (93%)	-0.06	15 (2%) 51 42	56, 138, 238, 297	0
6	F	533/546 (97%)	0.11	27 (5%) 28 24	42, 116, 214, 301	0
6	N	533/546 (97%)	0.05	18 (3%) 45 37	42, 116, 214, 301	0
6	f	533/546 (97%)	0.07	20 (3%) 40 33	42, 116, 214, 301	0
6	n	533/546 (97%)	0.05	19 (3%) 42 35	42, 116, 214, 301	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
7	G	509/550 (92%)	0.03	13 (2%)	56	47	65, 136, 207, 264	0
7	O	509/550 (92%)	0.13	23 (4%)	33	28	65, 136, 207, 264	0
7	g	509/550 (92%)	-0.05	15 (2%)	51	42	65, 136, 207, 264	0
7	o	509/550 (92%)	0.09	23 (4%)	33	28	65, 136, 207, 264	0
8	H	525/568 (92%)	0.01	11 (2%)	63	55	70, 148, 236, 294	0
8	P	525/568 (92%)	0.26	37 (7%)	16	12	70, 148, 236, 294	0
8	h	525/568 (92%)	0.16	27 (5%)	28	24	70, 148, 236, 294	0
8	p	525/568 (92%)	0.11	26 (4%)	28	25	70, 148, 236, 294	0
All	All	16740/17720 (94%)	0.03	581 (3%)	44	36	42, 136, 217, 301	0

All (581) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
5	e	1387	THR	13.7
5	M	387	THR	12.0
7	o	1228	GLY	11.4
5	m	1387	THR	9.9
1	a	1552	PRO	8.9
6	n	1539	SER	8.5
5	e	1388	THR	7.9
6	F	223	ASP	7.9
5	m	1398	SER	7.7
4	D	283	CYS	7.2
6	n	1001	MET	7.1
6	F	539	SER	6.8
7	O	530	GLU	6.5
6	N	223	ASP	6.2
6	n	1466	PRO	6.0
5	M	388	THR	5.9
1	I	556	PRO	5.9
4	L	251	ASN	5.7
7	o	1207	GLY	5.7
7	G	228	GLY	5.6
6	F	187	ASP	5.6
5	m	1358	THR	5.6
4	L	292	ILE	5.6
7	o	1227	ALA	5.5
6	f	1487	ARG	5.5
5	M	249	PHE	5.4

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Mol	Chain	Res	Type	RSRZ
6	N	487	ARG	5.4
4	L	252	ILE	5.4
6	n	1002	SER	5.4
6	n	1467	LEU	5.4
3	K	258	GLN	5.2
7	O	373	THR	5.2
4	l	1284	ASN	5.2
1	a	1342	SER	5.2
1	I	14	PHE	5.2
1	a	1341	MET	5.1
6	f	1465	ASP	5.1
1	i	1146	THR	5.1
7	O	371	ALA	5.1
6	F	368	THR	5.0
4	l	1374	THR	5.0
7	g	1371	ALA	4.9
8	P	235	HIS	4.9
3	K	257	SER	4.9
7	O	372	LYS	4.8
6	f	1466	PRO	4.8
5	M	169	SER	4.8
1	I	186	ALA	4.8
1	A	15	LEU	4.7
4	D	364	THR	4.7
4	L	298	ASN	4.7
7	O	529	SER	4.7
4	D	374	THR	4.7
6	n	1372	ASP	4.7
3	C	484	ILE	4.6
8	p	1379	SER	4.6
7	g	1370	GLN	4.5
5	e	1509	ASN	4.5
7	G	369	PRO	4.5
5	e	1166	ASP	4.5
7	O	228	GLY	4.5
4	d	1298	ASN	4.5
8	P	138	THR	4.4
6	N	544	THR	4.4
5	M	164	THR	4.4
6	F	540	THR	4.4
3	C	483	GLY	4.3
2	j	1294	PRO	4.3

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Mol	Chain	Res	Type	RSRZ
1	i	1149	ASP	4.3
1	a	1553	LYS	4.3
6	N	252	PHE	4.3
3	c	1351	ASN	4.3
6	F	487	ARG	4.2
4	L	364	THR	4.2
6	n	1544	THR	4.2
3	C	500	TRP	4.2
8	P	355	VAL	4.2
8	p	1006	PRO	4.2
1	I	555	ASP	4.2
5	E	381	TYR	4.2
6	F	467	LEU	4.1
6	F	468	ASP	4.1
5	M	398	SER	4.1
5	m	1388	THR	4.1
7	O	370	GLN	4.1
8	P	321	LEU	4.1
8	h	1370	VAL	4.1
5	M	410	GLY	4.0
4	l	1283	CYS	4.0
4	D	291	SER	4.0
7	G	227	ALA	4.0
8	P	300	VAL	4.0
1	I	380	HIS	4.0
5	e	1290	SER	4.0
8	P	336	CYS	3.9
8	P	248	ALA	3.9
1	I	270	LEU	3.9
1	I	557	HIS	3.9
4	l	1257	TYR	3.9
6	F	466	PRO	3.9
5	m	1217	LYS	3.9
8	P	268	HIS	3.9
3	K	362	ASP	3.9
5	e	1291	SER	3.8
4	L	283	CYS	3.8
4	L	373	PRO	3.8
4	L	253	ILE	3.8
4	L	291	SER	3.8
5	e	1289	ILE	3.8
8	H	370	VAL	3.8

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Mol	Chain	Res	Type	RSRZ
2	J	249	LYS	3.8
8	P	257	ALA	3.7
4	l	1298	ASN	3.7
6	F	225	PRO	3.7
6	n	1223	ASP	3.7
4	L	219	ALA	3.7
2	J	282	ASN	3.7
6	N	1	MET	3.7
4	L	297	VAL	3.7
3	C	485	ASP	3.7
4	d	1480	ASP	3.7
4	L	284	ASN	3.7
6	N	368	THR	3.7
5	M	386	GLY	3.6
3	c	1336	ILE	3.6
7	o	1165	ALA	3.6
1	a	1554	GLU	3.5
5	M	514	CYS	3.5
5	m	1168	ILE	3.5
8	h	1249	VAL	3.5
3	c	1146	GLU	3.5
6	N	539	SER	3.5
8	P	267	LEU	3.5
7	o	1530	GLU	3.5
3	c	1365	PHE	3.5
3	c	1370	ASN	3.5
5	M	349	GLN	3.5
4	D	163	VAL	3.5
1	I	264	ILE	3.5
6	f	1186	ALA	3.5
7	O	263	HIS	3.5
6	N	468	ASP	3.4
6	F	188	ASN	3.4
4	L	293	LEU	3.4
8	H	149	GLU	3.4
4	l	1162	ILE	3.4
4	l	1163	VAL	3.4
4	L	363	VAL	3.4
2	J	490	SER	3.4
2	J	250	PHE	3.4
4	L	528	ARG	3.4
4	l	1297	VAL	3.4

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Mol	Chain	Res	Type	RSRZ
8	p	1322	LYS	3.4
3	K	359	MET	3.4
1	I	16	GLY	3.3
3	k	1500	TRP	3.3
8	h	1329	LEU	3.3
8	p	1455	ALA	3.3
8	P	234	GLY	3.3
8	P	483	ASN	3.3
8	p	1372	LYS	3.3
6	f	1222	PRO	3.3
7	o	1223	THR	3.3
8	h	1258	ASN	3.3
1	I	146	THR	3.3
6	n	1142	ASN	3.3
4	D	222	SER	3.3
6	N	365	THR	3.3
5	e	1231	GLY	3.3
5	e	1386	GLY	3.3
2	J	478	THR	3.3
8	p	1249	VAL	3.3
5	m	1359	ASN	3.3
5	M	451	SER	3.3
7	g	1016	GLY	3.3
5	M	358	THR	3.2
5	m	1167	ASP	3.2
4	L	312	VAL	3.2
6	f	1254	SER	3.2
6	n	1187	ASP	3.2
7	G	368	CYS	3.2
4	d	1188	ASN	3.2
6	f	1248	ASN	3.2
7	O	227	ALA	3.2
1	I	552	PRO	3.2
3	c	1260	ASN	3.2
6	F	372	ASP	3.2
6	f	1223	ASP	3.2
8	p	1321	LEU	3.2
1	I	338	VAL	3.2
1	I	554	GLU	3.2
3	C	186	LEU	3.2
3	c	1264	GLU	3.2
1	a	1557	HIS	3.2

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Mol	Chain	Res	Type	RSRZ
8	p	1336	CYS	3.2
1	I	266	ASP	3.2
1	I	15	LEU	3.2
8	p	1378	ILE	3.2
7	g	1167	SER	3.1
2	b	1282	ASN	3.1
2	j	1419	ALA	3.1
7	o	1166	MET	3.1
4	D	298	ASN	3.1
3	k	1012	GLN	3.1
1	a	1263	ASN	3.1
3	c	1269	TRP	3.1
3	K	218	ARG	3.1
3	c	1369	ASP	3.1
8	h	1155	ASP	3.1
8	h	1330	ARG	3.1
2	J	303	ILE	3.1
1	I	553	LYS	3.1
2	b	1283	THR	3.1
5	M	166	ASP	3.0
8	p	1300	VAL	3.0
3	c	1265	LYS	3.0
4	L	311	MET	3.0
2	J	252	VAL	3.0
4	l	1219	ALA	3.0
7	O	264	VAL	3.0
6	N	355	TYR	3.0
6	F	227	ARG	3.0
3	C	145	VAL	3.0
3	K	331	VAL	3.0
4	l	1296	ALA	3.0
5	E	218	ASP	3.0
1	I	185	LEU	3.0
7	g	1166	MET	3.0
8	h	1372	LYS	3.0
6	f	1187	ASP	3.0
7	o	1017	THR	3.0
8	h	1227	VAL	3.0
8	H	450	LYS	3.0
4	l	1007	SER	3.0
6	f	1461	ASN	3.0
8	P	275	ASP	3.0

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Mol	Chain	Res	Type	RSRZ
7	g	1252	ALA	2.9
5	E	362	ILE	2.9
1	a	1226	CYS	2.9
3	K	223	VAL	2.9
4	d	1255	ASN	2.9
8	P	269	ASN	2.9
3	k	1384	GLY	2.9
1	A	146	THR	2.9
3	k	1184	LYS	2.9
6	n	1465	ASP	2.9
7	o	1220	PHE	2.9
8	p	1236	VAL	2.9
7	g	1223	THR	2.9
8	P	330	ARG	2.9
8	h	1150	ILE	2.9
6	f	1372	ASP	2.9
3	C	41	PRO	2.8
8	h	1490	VAL	2.8
5	E	357	SER	2.8
5	M	512	VAL	2.8
8	H	235	HIS	2.8
1	i	1317	GLY	2.8
6	F	346	GLN	2.8
6	F	541	LEU	2.8
5	E	295	TYR	2.8
7	G	337	THR	2.8
6	F	226	THR	2.8
4	L	348	ASP	2.8
5	e	1288	ASP	2.8
2	J	398	THR	2.8
3	k	1243	VAL	2.8
1	I	340	SER	2.8
7	o	1480	GLY	2.8
2	J	400	THR	2.8
5	m	1215	ASP	2.8
6	f	1001	MET	2.8
2	b	1232	LEU	2.8
4	L	296	ALA	2.8
5	m	1386	GLY	2.8
7	g	1165	ALA	2.8
1	i	1552	PRO	2.8
1	i	1186	ALA	2.8

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Mol	Chain	Res	Type	RSRZ
4	D	330	CYS	2.8
6	F	324	ASN	2.8
8	h	1151	THR	2.8
1	A	380	HIS	2.7
1	I	262	ILE	2.7
7	O	306	PHE	2.7
6	F	375	SER	2.7
1	I	293	ALA	2.7
3	K	256	GLU	2.7
8	H	298	CYS	2.7
7	g	1241	ILE	2.7
4	D	284	ASN	2.7
7	O	259	VAL	2.7
1	a	1555	ASP	2.7
7	G	294	LEU	2.7
4	l	1291	SER	2.7
6	F	544	THR	2.7
1	A	14	PHE	2.7
5	m	1031	ILE	2.7
8	h	1489	ALA	2.7
1	a	1551	PRO	2.7
7	O	461	ALA	2.7
2	B	218	PHE	2.7
2	B	51	SER	2.7
6	n	1461	ASN	2.7
2	B	192	HIS	2.7
8	P	296	VAL	2.7
7	g	1355	MET	2.6
1	I	371	CYS	2.6
5	M	520	ASN	2.6
3	k	1185	ASP	2.6
4	l	1367	ARG	2.6
4	l	1437	ALA	2.6
8	p	1368	VAL	2.6
3	K	159	ILE	2.6
8	h	1373	GLN	2.6
5	e	1230	VAL	2.6
5	m	1323	CYS	2.6
3	K	16	THR	2.6
4	l	1251	ASN	2.6
3	k	1144	ASP	2.6
5	e	1264	SER	2.6

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Mol	Chain	Res	Type	RSRZ
5	e	1398	SER	2.6
6	n	1324	ASN	2.6
4	d	1481	GLY	2.6
6	N	383	SER	2.6
5	M	67	PRO	2.6
8	P	320	VAL	2.6
8	p	1428	ILE	2.6
5	M	403	THR	2.6
3	K	25	ILE	2.6
5	M	170	ALA	2.6
6	f	1249	SER	2.6
8	p	1369	THR	2.6
8	P	427	GLU	2.6
8	h	1389	ALA	2.6
1	i	1342	SER	2.6
6	f	1431	MET	2.5
5	e	1232	GLY	2.5
4	l	1370	ASN	2.5
6	n	1346	GLN	2.5
8	h	1226	MET	2.5
8	P	369	THR	2.5
1	a	1346	GLY	2.5
4	D	370	ASN	2.5
5	M	559	LYS	2.5
6	n	1295	ILE	2.5
3	K	363	GLU	2.5
3	c	1331	VAL	2.5
8	p	1373	GLN	2.5
6	F	465	ASP	2.5
3	c	1350	THR	2.5
7	o	1380	GLY	2.5
3	C	144	ASP	2.5
8	p	1250	PHE	2.5
2	J	251	LYS	2.5
6	N	467	LEU	2.5
3	K	207	GLU	2.5
1	A	304	ASP	2.5
2	j	1190	LEU	2.5
3	K	380	MET	2.5
8	H	267	LEU	2.5
6	F	347	ILE	2.5
1	a	1556	PRO	2.5

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Mol	Chain	Res	Type	RSRZ
8	h	1379	SER	2.5
1	A	208	ALA	2.5
7	G	432	ALA	2.5
8	P	265	VAL	2.5
5	E	387	THR	2.5
6	f	1540	THR	2.5
8	P	382	SER	2.5
8	H	215	GLY	2.5
5	M	497	THR	2.5
4	L	295	ASP	2.4
1	a	1261	GLN	2.4
7	G	111	GLU	2.4
1	i	1239	GLY	2.4
6	N	317	LEU	2.4
3	k	1483	GLY	2.4
8	h	1380	ARG	2.4
8	p	1248	ALA	2.4
1	A	186	ALA	2.4
8	P	25	ASP	2.4
7	O	336	SER	2.4
6	F	355	TYR	2.4
4	D	162	ILE	2.4
6	N	465	ASP	2.4
4	D	363	VAL	2.4
6	f	1227	ARG	2.4
8	P	489	ALA	2.4
7	O	234	LYS	2.4
1	i	1244	ILE	2.4
4	L	527	SER	2.4
2	J	190	LEU	2.4
7	o	1242	LEU	2.4
8	P	354	LEU	2.4
1	a	1264	ILE	2.4
7	o	1325	ARG	2.4
7	O	342	LYS	2.4
1	i	1369	ASP	2.4
4	d	1312	VAL	2.4
5	E	173	ASP	2.4
8	P	298	CYS	2.4
3	c	1263	ILE	2.4
5	M	476	LEU	2.4
7	o	1481	VAL	2.4

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Mol	Chain	Res	Type	RSRZ
6	F	486	THR	2.4
1	A	187	VAL	2.3
5	e	1175	LEU	2.3
1	I	265	ASP	2.3
3	C	159	ILE	2.3
4	L	220	ILE	2.3
7	O	241	ILE	2.3
7	O	341	ILE	2.3
1	A	488	LYS	2.3
5	E	217	LYS	2.3
4	L	255	ASN	2.3
2	b	1198	ILE	2.3
7	O	262	GLU	2.3
8	h	1149	GLU	2.3
3	c	1186	LEU	2.3
4	d	1189	VAL	2.3
4	d	1253	ILE	2.3
5	e	1115	ILE	2.3
8	P	301	ALA	2.3
2	J	189	ASN	2.3
3	c	1248	CYS	2.3
3	C	295	VAL	2.3
6	N	228	VAL	2.3
8	h	1215	GLY	2.3
2	j	1371	GLY	2.3
8	h	1299	ILE	2.3
2	J	325	VAL	2.3
7	o	1016	GLY	2.3
8	H	389	ALA	2.3
5	m	1030	ILE	2.3
1	A	381	SER	2.3
3	k	1229	VAL	2.3
5	M	114	GLU	2.3
5	M	513	ASP	2.3
5	e	1249	PHE	2.3
6	F	221	HIS	2.3
7	o	1178	PHE	2.3
1	a	1293	ALA	2.3
7	G	349	CYS	2.3
6	F	366	TYR	2.3
6	f	1002	SER	2.3
1	A	259	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
4	L	140	HIS	2.3
4	d	1198	LYS	2.3
4	l	1213	VAL	2.3
5	M	255	PRO	2.3
5	E	166	ASP	2.3
8	h	1264	THR	2.3
5	E	509	ASN	2.3
6	N	303	PRO	2.3
7	o	1311	ASN	2.3
1	I	316	MET	2.2
2	J	281	ILE	2.2
6	n	1226	THR	2.2
5	M	264	SER	2.2
6	n	1225	PRO	2.2
8	H	249	VAL	2.2
8	p	1370	VAL	2.2
2	J	248	THR	2.2
7	o	1370	GLN	2.2
3	K	158	SER	2.2
5	e	1214	LYS	2.2
7	g	1230	GLU	2.2
8	P	319	LEU	2.2
2	b	1248	THR	2.2
6	n	1213	LEU	2.2
7	O	335	GLN	2.2
4	D	373	PRO	2.2
2	J	280	GLY	2.2
1	i	1557	HIS	2.2
4	L	443	PHE	2.2
2	J	277	SER	2.2
4	d	1162	ILE	2.2
1	I	90	GLN	2.2
5	E	379	ARG	2.2
7	G	526	ASN	2.2
5	M	353	HIS	2.2
8	h	1280	GLU	2.2
8	h	1382	SER	2.2
6	f	1296	ILE	2.2
1	I	93	GLU	2.2
3	K	328	ILE	2.2
2	B	209	ASP	2.2
2	B	469	THR	2.2

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Mol	Chain	Res	Type	RSRZ
2	b	1478	THR	2.2
2	b	1249	LYS	2.2
4	l	1392	ARG	2.2
5	E	167	ASP	2.2
5	M	261	LYS	2.2
6	F	383	SER	2.2
5	m	1164	THR	2.2
7	O	346	LEU	2.2
4	l	1431	SER	2.2
4	l	1373	PRO	2.2
8	p	1483	ASN	2.2
3	K	12	GLN	2.2
5	E	252	PRO	2.1
2	j	1254	SER	2.1
5	e	1220	ASP	2.1
7	O	243	SER	2.1
7	g	1262	GLU	2.1
7	o	1241	ILE	2.1
3	K	436	GLY	2.1
6	f	1142	ASN	2.1
7	G	216	ASN	2.1
7	O	178	PHE	2.1
5	E	410	GLY	2.1
7	g	1097	GLY	2.1
6	f	1225	PRO	2.1
8	p	1005	LEU	2.1
8	p	1230	ARG	2.1
5	M	250	SER	2.1
7	G	370	GLN	2.1
1	i	1185	LEU	2.1
4	d	1377	VAL	2.1
8	P	247	VAL	2.1
3	c	1500	TRP	2.1
8	p	1380	ARG	2.1
8	h	1475	LEU	2.1
2	b	1276	ILE	2.1
2	j	1121	ILE	2.1
6	N	187	ASP	2.1
8	p	1299	ILE	2.1
8	h	1341	LEU	2.1
8	p	1367	ARG	2.1
8	H	240	SER	2.1

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Mol	Chain	Res	Type	RSRZ
4	D	265	LYS	2.1
8	P	233	GLU	2.1
8	P	504	GLU	2.1
8	h	1321	LEU	2.1
8	P	226	MET	2.1
3	c	1261	ILE	2.1
4	d	1115	ILE	2.1
8	H	247	VAL	2.1
8	P	113	VAL	2.1
4	l	1223	ALA	2.1
4	d	1482	ILE	2.1
5	E	168	ILE	2.1
6	N	295	ILE	2.1
8	P	299	ILE	2.1
4	L	519	LEU	2.1
4	d	1409	GLY	2.1
8	P	169	SER	2.1
1	i	1147	SER	2.1
7	o	1167	SER	2.1
5	m	1514	CYS	2.1
8	P	242	ASP	2.1
2	j	1288	GLN	2.1
1	i	1093	GLU	2.1
7	o	1461	ALA	2.0
5	M	167	ASP	2.0
3	c	1244	VAL	2.0
3	k	1186	LEU	2.0
7	o	1520	VAL	2.0
8	p	1302	GLY	2.0
8	P	256	ILE	2.0
7	G	129	TYR	2.0
8	h	1474	VAL	2.0
2	J	142	ASN	2.0
4	D	168	SER	2.0
1	A	518	LEU	2.0
7	g	1193	ASP	2.0
8	P	372	LYS	2.0
5	M	324	GLN	2.0
6	n	1375	SER	2.0
5	M	352	GLU	2.0
7	o	1018	ASP	2.0
1	I	169	ILE	2.0

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Mol	Chain	Res	Type	RSRZ
1	A	185	LEU	2.0
1	i	1150	THR	2.0
7	g	1381	GLY	2.0
8	p	1427	GLU	2.0
5	e	1380	ILE	2.0
5	E	114	GLU	2.0
1	I	226	CYS	2.0
4	d	1254	VAL	2.0
6	F	345	PRO	2.0

6.2 Non-standard residues in protein, DNA, RNA chains [\(i\)](#)

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

6.3 Carbohydrates [\(i\)](#)

There are no 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.

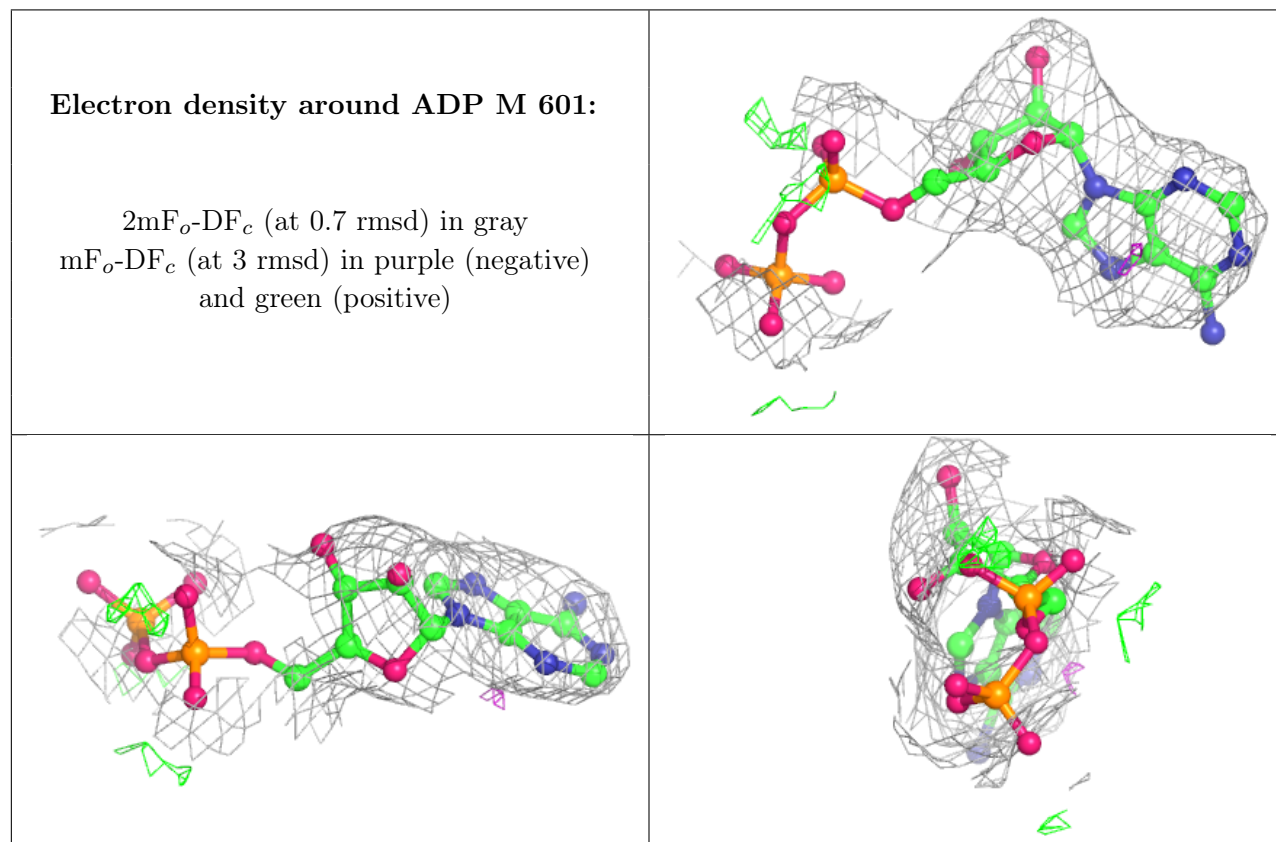
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
10	BEF	M	602	4/4	0.78	0.23	152,158,161,170	0
10	BEF	J	602	4/4	0.80	0.29	235,236,240,246	0
10	BEF	a	1602	4/4	0.85	0.24	235,239,240,241	0
9	ADP	M	601	27/27	0.87	0.26	43,113,256,333	0
9	ADP	l	1601	27/27	0.87	0.29	62,105,189,226	0
10	BEF	E	602	4/4	0.87	0.44	240,241,242,244	0
10	BEF	G	602	4/4	0.89	0.42	236,237,238,239	0
10	BEF	B	602	4/4	0.89	0.33	210,215,215,215	0
9	ADP	L	601	27/27	0.90	0.24	102,157,212,241	0
9	ADP	A	601	27/27	0.90	0.35	46,110,243,330	0
9	ADP	f	1601	27/27	0.90	0.28	13,50,316,499	0
9	ADP	B	601	27/27	0.90	0.27	62,105,202,218	0
9	ADP	m	1601	27/27	0.90	0.24	13,87,195,273	0
10	BEF	A	602	4/4	0.90	0.36	246,247,249,251	0

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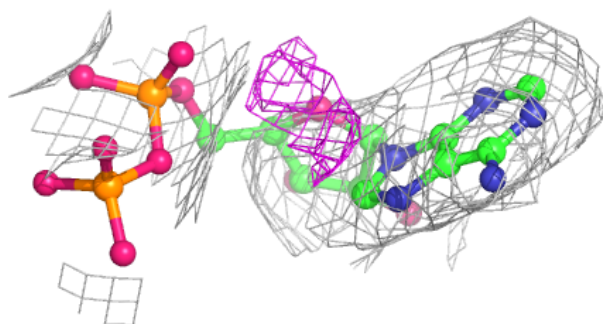
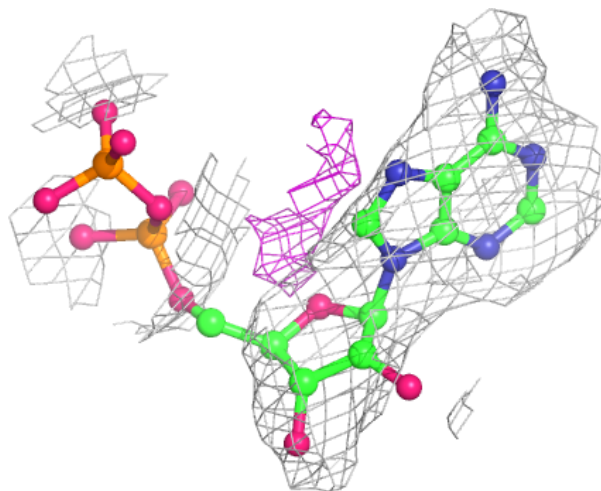
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
10	BEF	C	1102	4/4	0.91	0.21	104,105,105,120	0
9	ADP	E	601	27/27	0.91	0.32	11,102,242,288	0
10	BEF	b	1602	4/4	0.91	0.19	154,158,161,163	0
9	ADP	C	1101	27/27	0.92	0.28	38,135,163,237	0
9	ADP	G	601	27/27	0.92	0.21	12,133,240,248	0
9	ADP	a	1601	27/27	0.92	0.23	50,112,239,328	0
11	SO4	j	1600	5/5	0.92	0.29	79,96,98,100	0
10	BEF	L	602	4/4	0.93	0.17	172,177,177,180	0
9	ADP	J	601	27/27	0.93	0.24	74,85,241,279	0
9	ADP	n	1601	27/27	0.93	0.26	27,94,337,491	0
9	ADP	h	1601	27/27	0.93	0.33	40,139,153,188	0
9	ADP	e	1601	27/27	0.93	0.20	30,116,232,274	0
9	ADP	D	601	27/27	0.94	0.20	41,92,238,264	0
9	ADP	P	601	27/27	0.94	0.24	73,153,161,164	0
9	ADP	g	1601	27/27	0.94	0.19	26,159,211,215	0
9	ADP	p	1601	27/27	0.94	0.21	11,114,136,239	0
10	BEF	k	2102	4/4	0.94	0.09	68,69,80,82	0
11	SO4	I	600	5/5	0.94	0.28	98,103,110,113	0
9	ADP	H	601	27/27	0.94	0.24	11,112,145,153	0
9	ADP	N	601	27/27	0.95	0.24	11,88,232,484	0
9	ADP	b	1601	27/27	0.95	0.20	44,69,220,243	0
10	BEF	f	1602	4/4	0.95	0.23	167,170,171,173	0
9	ADP	F	601	27/27	0.95	0.30	11,105,323,481	0
10	BEF	m	1602	4/4	0.95	0.26	185,193,195,196	0
9	ADP	k	2101	27/27	0.95	0.28	80,131,164,321	0
11	SO4	O	600	5/5	0.95	0.27	78,79,92,100	0
11	SO4	c	2101	5/5	0.95	0.28	82,98,107,111	0
11	SO4	d	1600	5/5	0.95	0.28	106,109,115,118	0
10	BEF	N	602	4/4	0.95	0.31	112,120,121,122	0
11	SO4	o	1600	5/5	0.95	0.23	107,107,115,117	0
11	SO4	K	1101	5/5	0.96	0.35	84,89,97,102	0
11	SO4	i	1600	5/5	0.96	0.28	91,94,103,116	0
10	BEF	e	1602	4/4	0.96	0.21	201,205,207,207	0
10	BEF	l	1602	4/4	0.96	0.13	28,61,73,75	0
10	BEF	n	1602	4/4	0.97	0.23	163,167,167,173	0
10	BEF	p	1602	4/4	0.97	0.13	84,99,102,108	0
10	BEF	F	602	4/4	0.97	0.26	157,163,163,171	0
10	BEF	D	602	4/4	0.97	0.11	81,84,91,92	0
10	BEF	g	1602	4/4	0.97	0.18	162,165,165,166	0
10	BEF	h	1602	4/4	0.98	0.15	85,93,93,106	0
10	BEF	P	602	4/4	0.99	0.12	158,158,158,162	0
10	BEF	H	602	4/4	0.99	0.12	101,103,104,110	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.



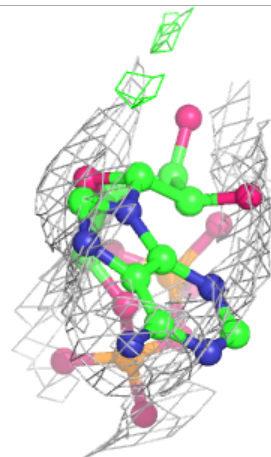
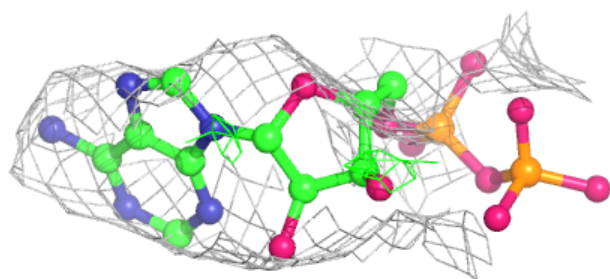
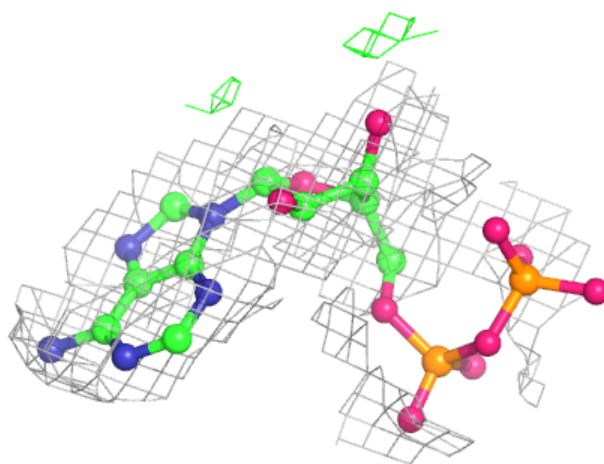
Electron density around ADP 1 1601:

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



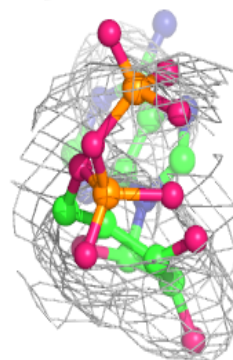
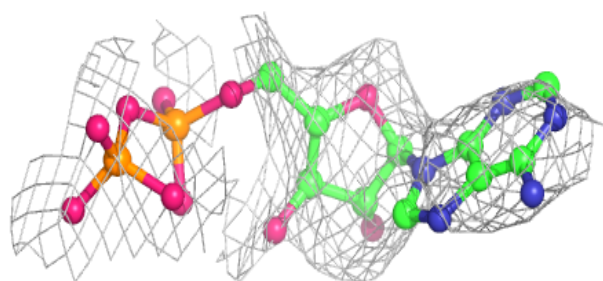
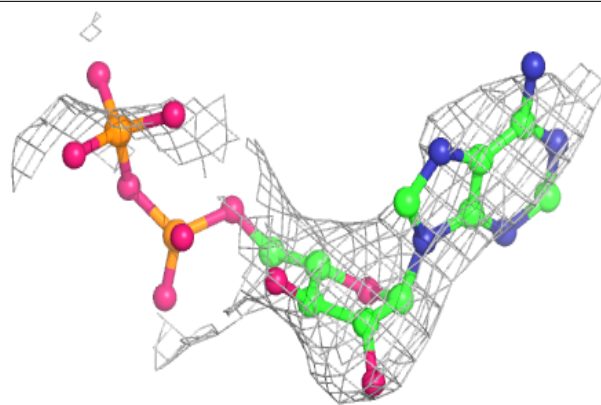
Electron density around ADP L 601:

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

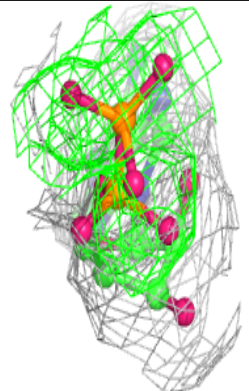
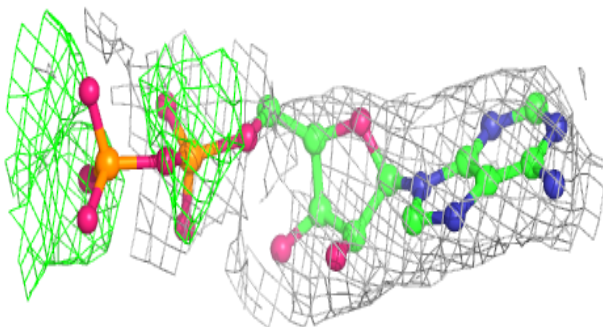
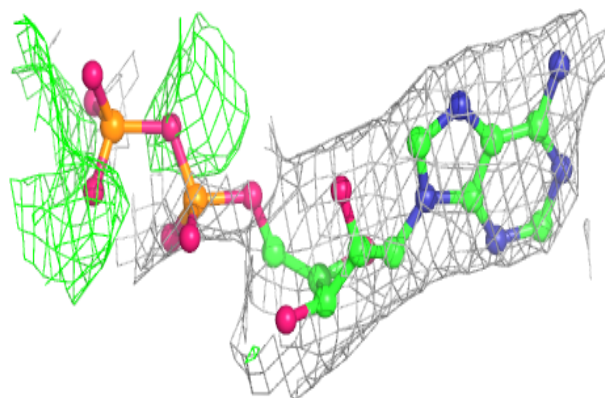


Electron density around ADP A 601:

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

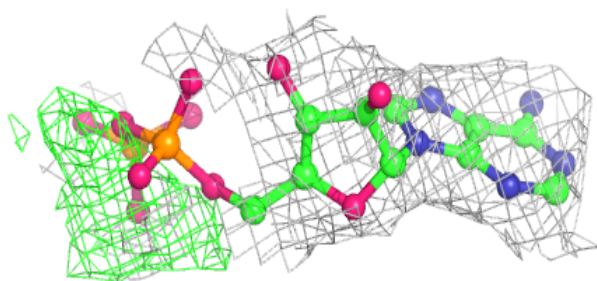
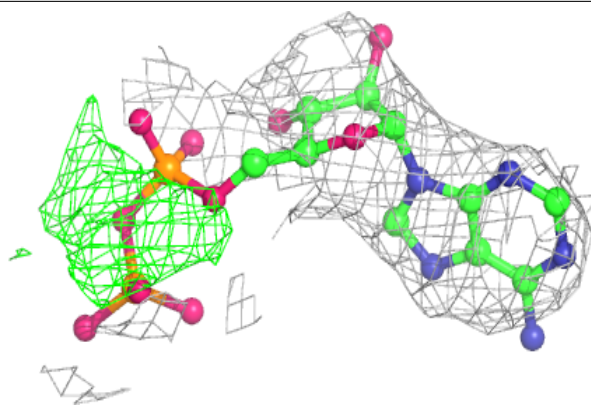
**Electron density around ADP f 1601:**

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

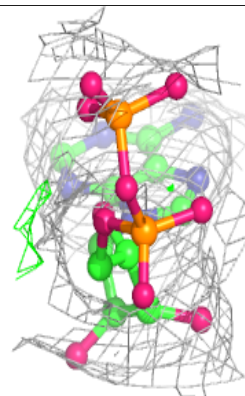
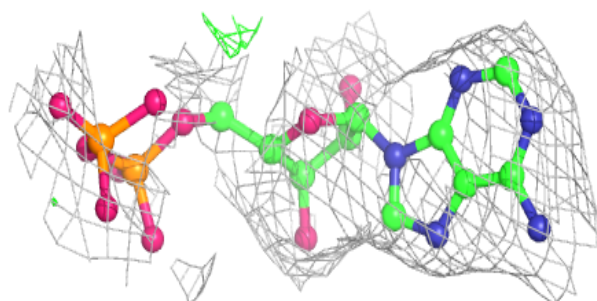
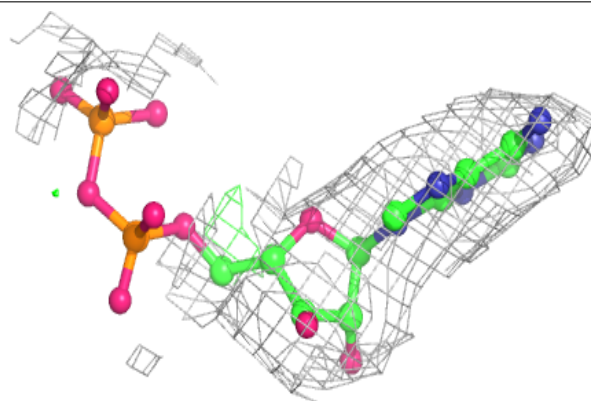


Electron density around ADP B 601:

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

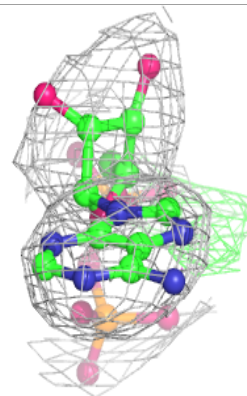
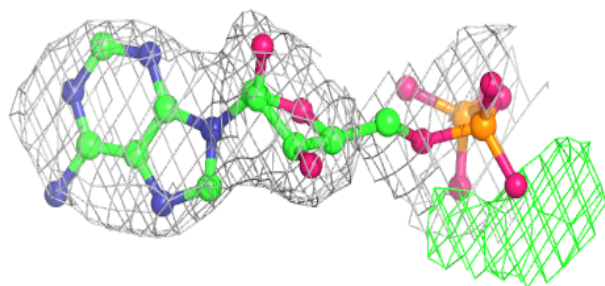
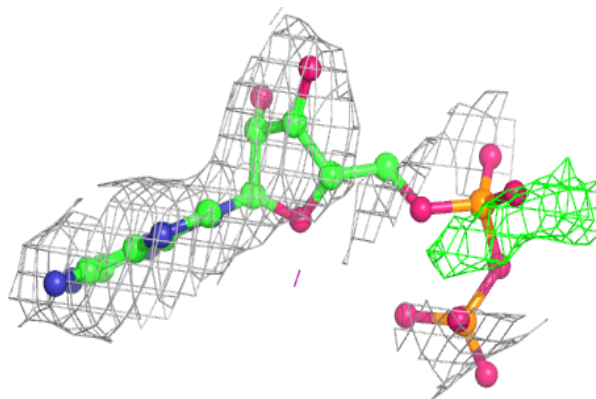
**Electron density around ADP m 1601:**

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

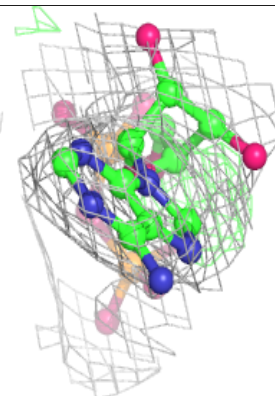
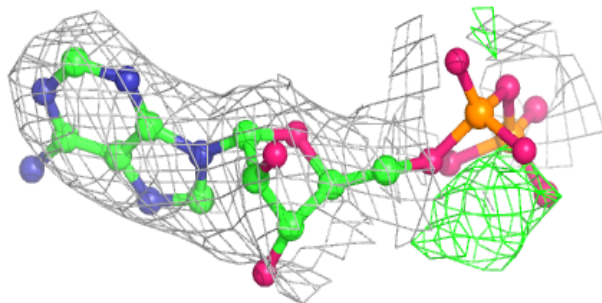
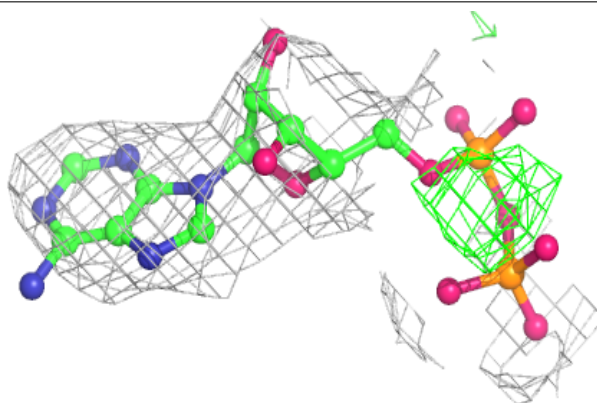


Electron density around ADP E 601:

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

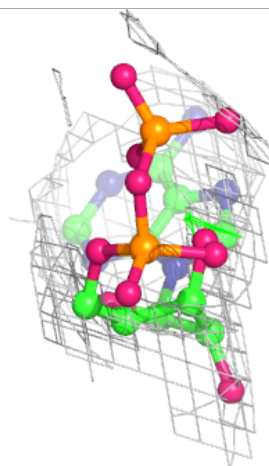
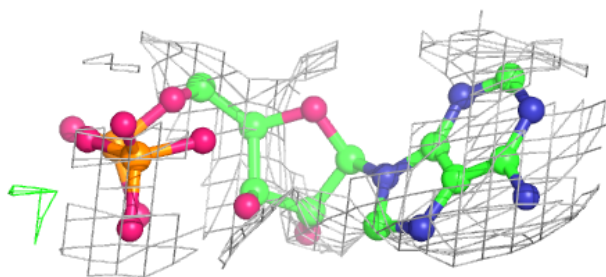
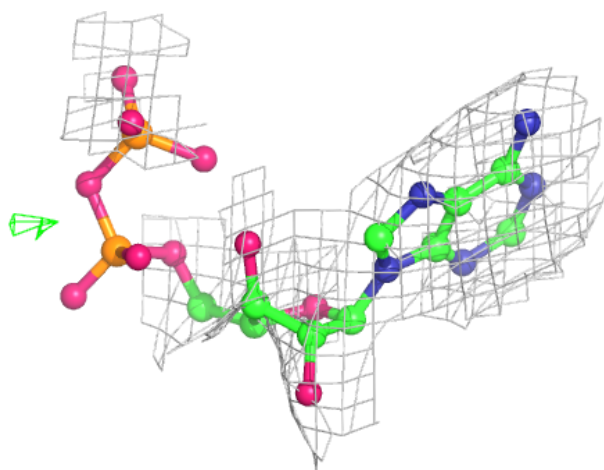
**Electron density around ADP C 1101:**

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



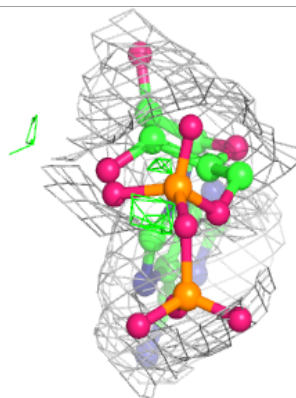
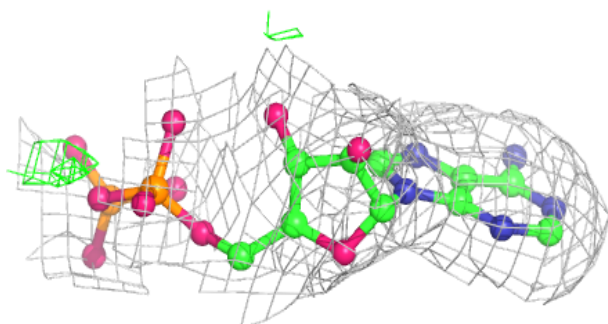
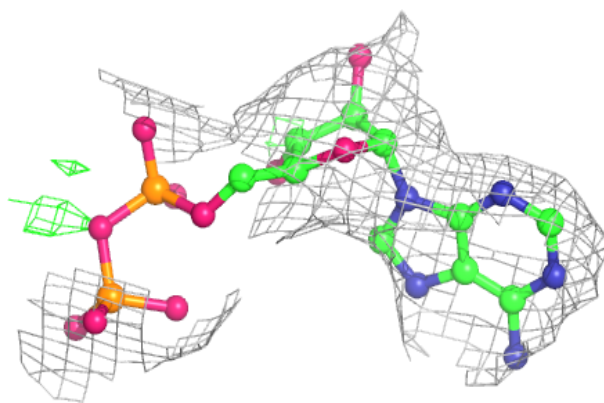
Electron density around ADP G 601:

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

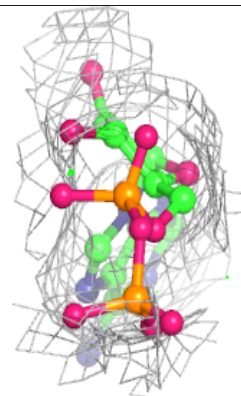
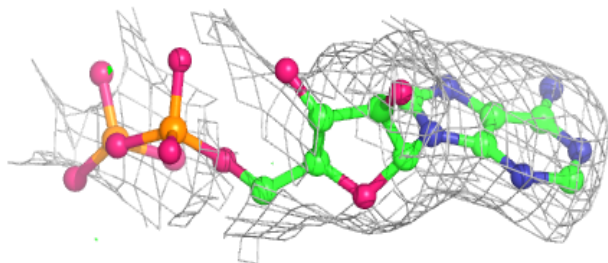
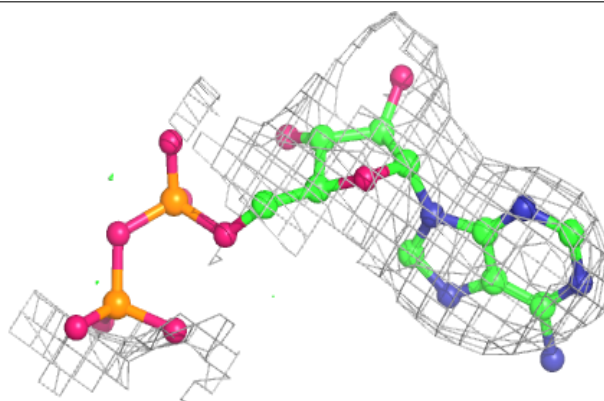


Electron density around ADP a 1601:

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

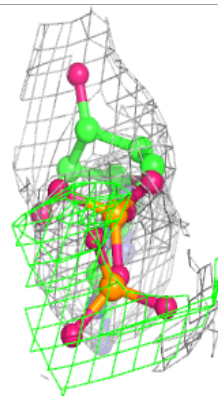
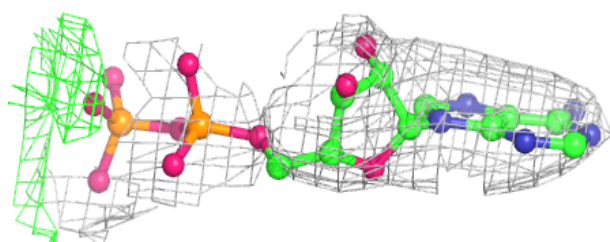
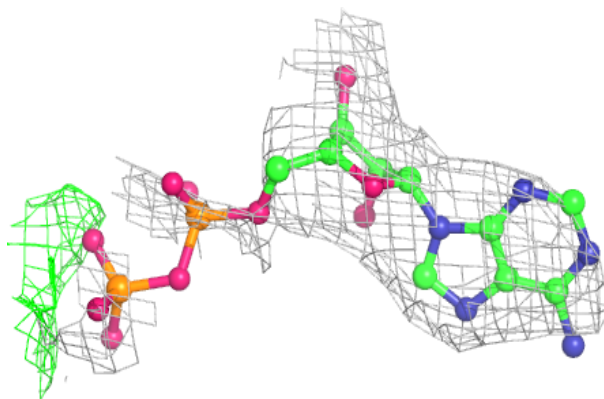
**Electron density around ADP J 601:**

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

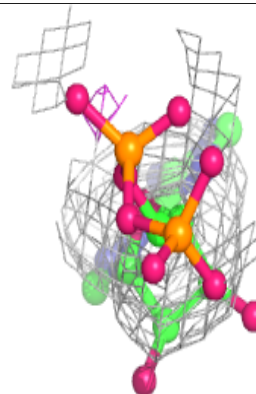
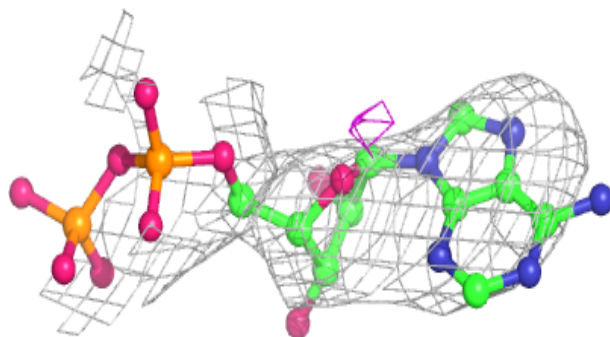
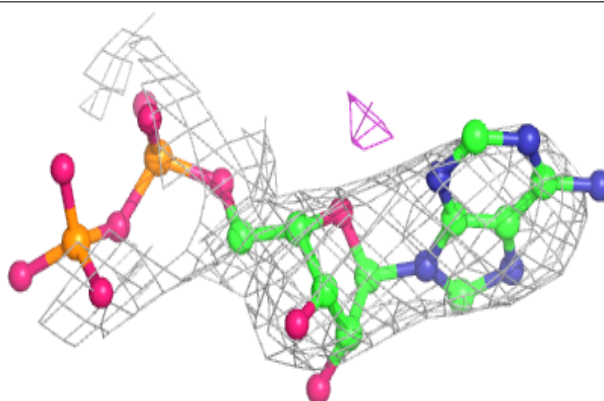


Electron density around ADP n 1601:

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

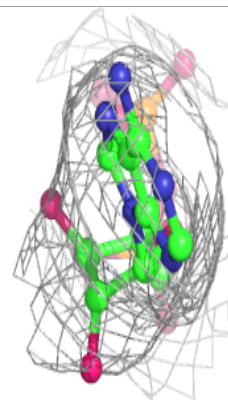
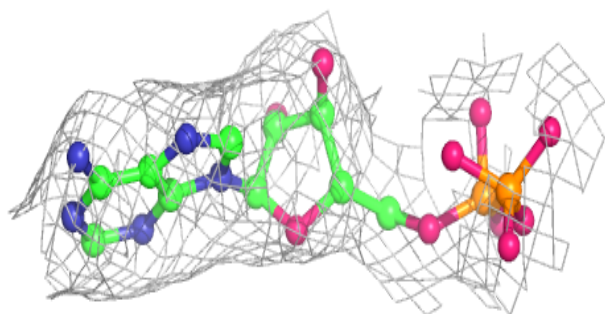
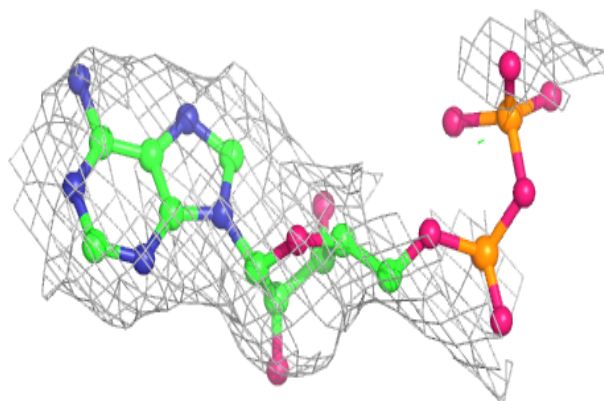
**Electron density around ADP h 1601:**

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

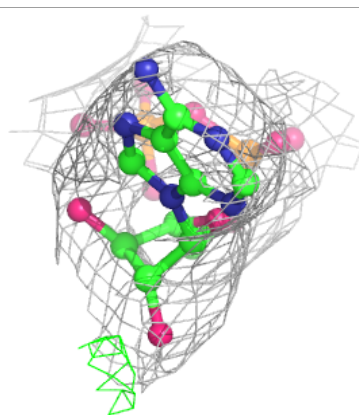
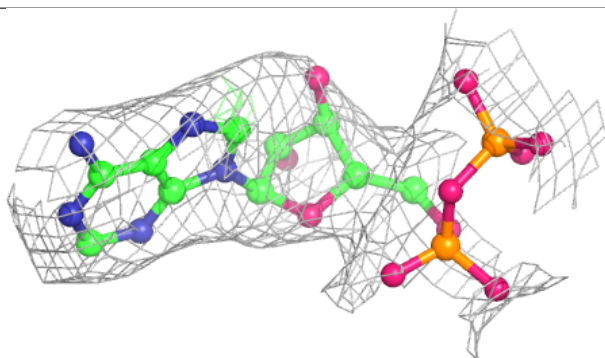
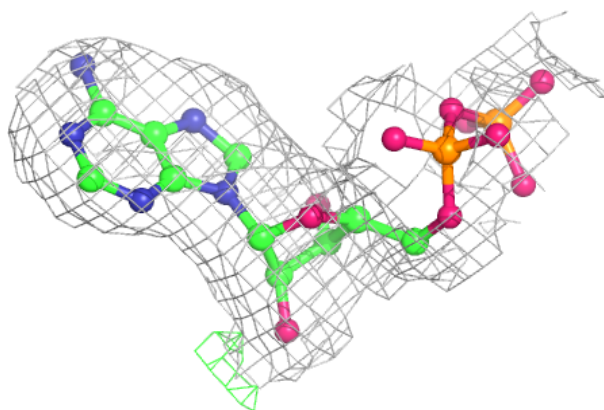


Electron density around ADP e 1601:

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

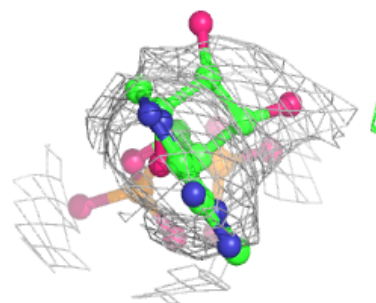
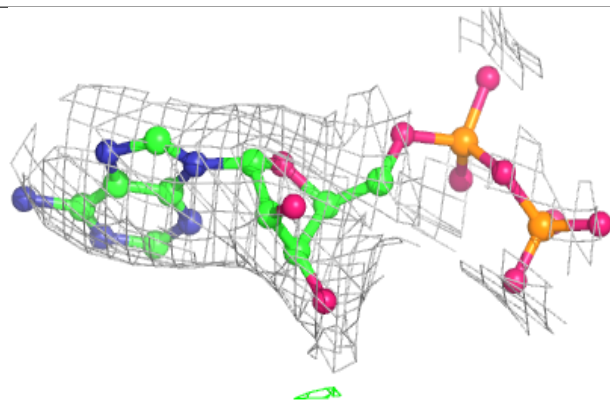
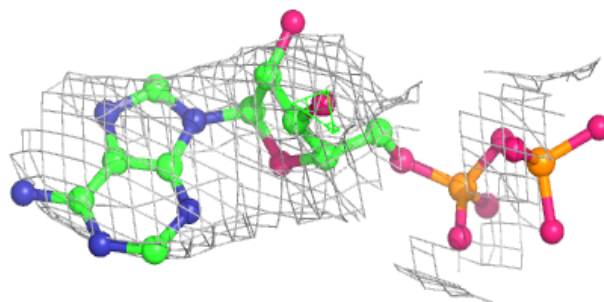
**Electron density around ADP D 601:**

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

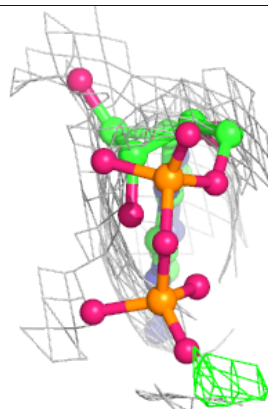
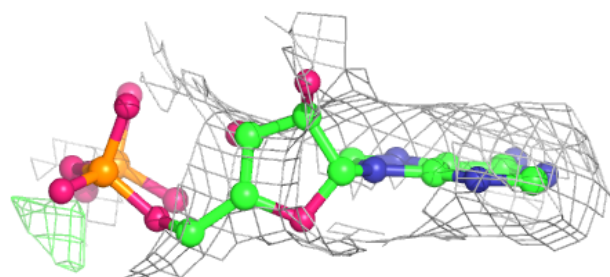
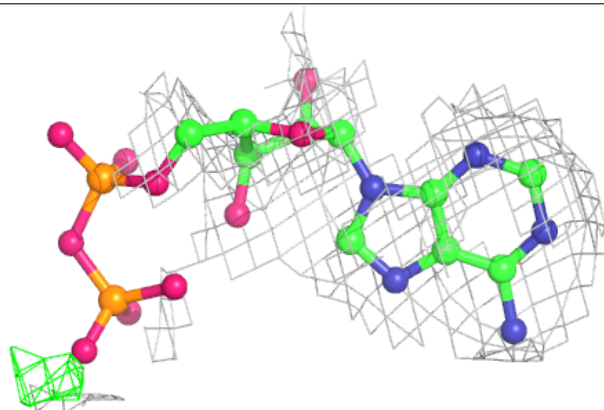


Electron density around ADP P 601:

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

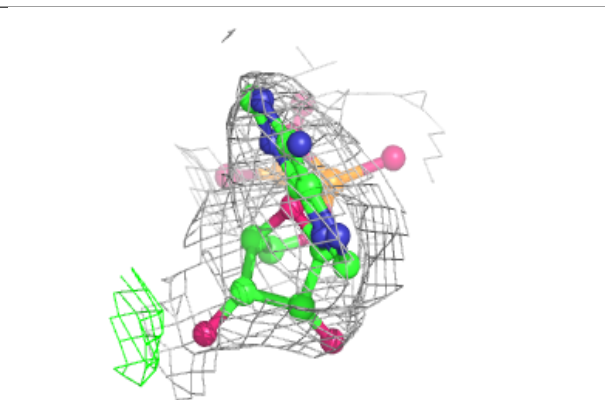
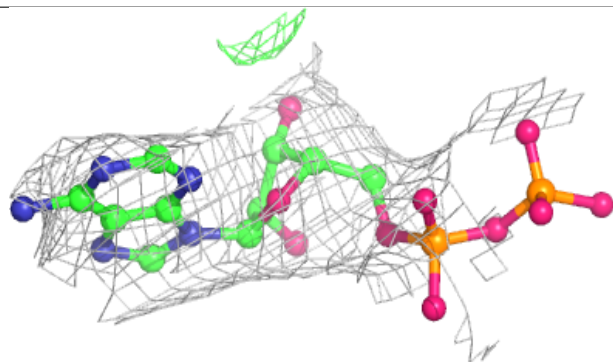
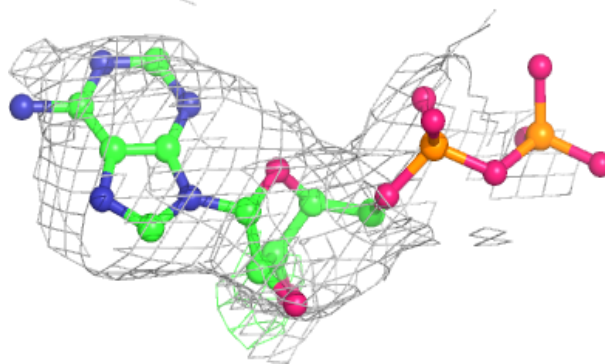
**Electron density around ADP g 1601:**

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

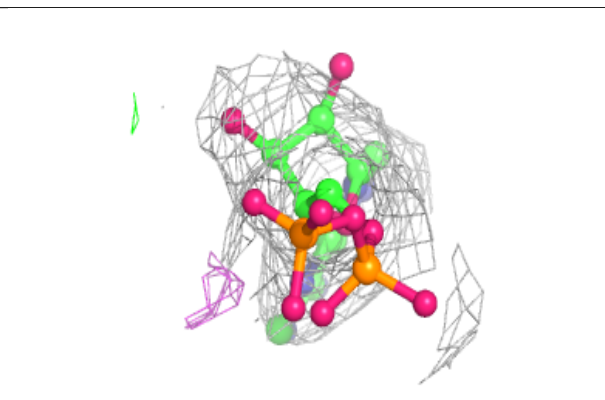
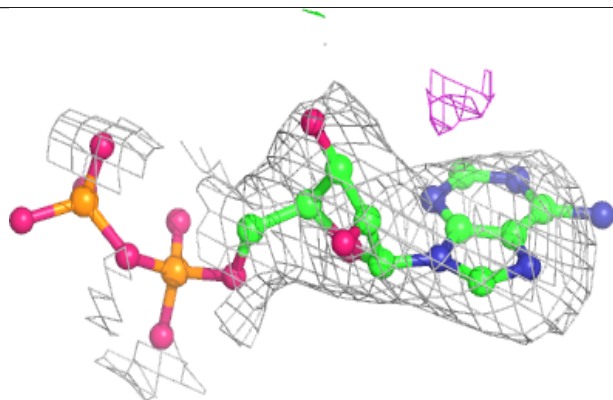
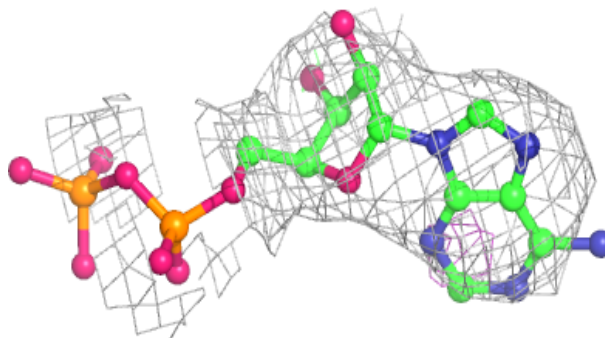


Electron density around ADP p 1601:

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

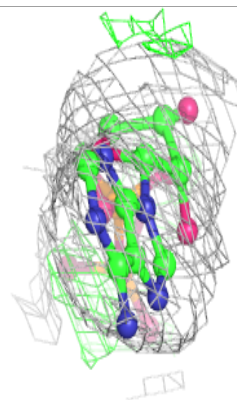
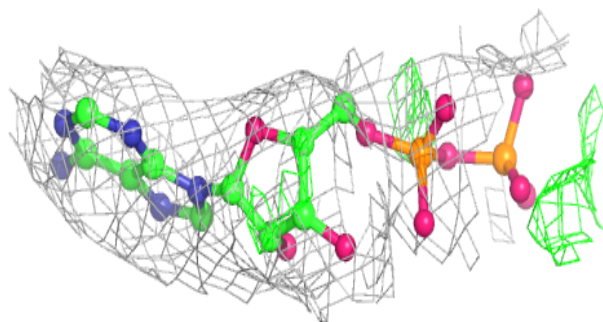
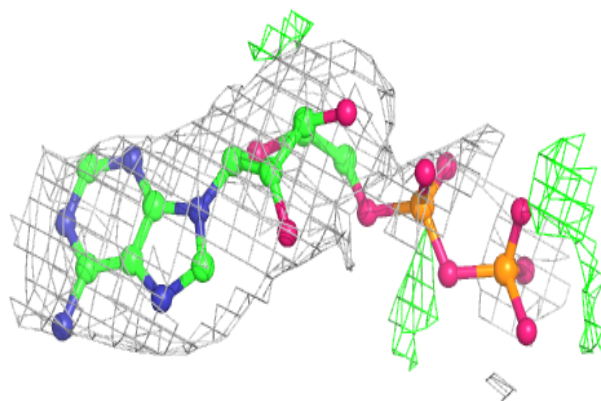
**Electron density around ADP H 601:**

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

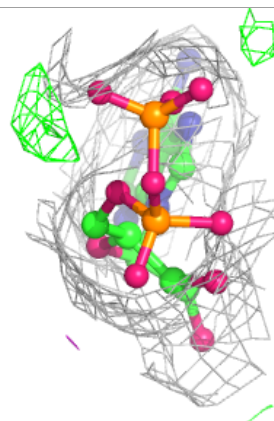
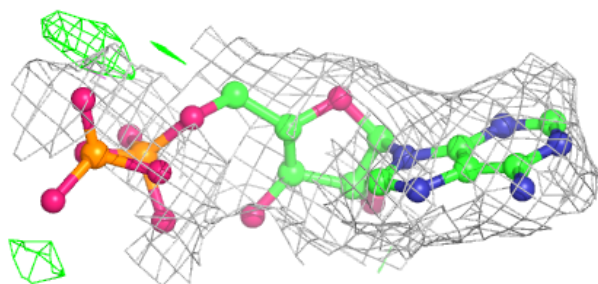
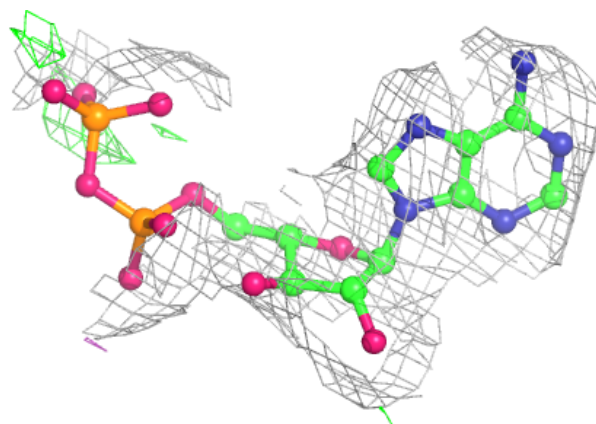


Electron density around ADP N 601:

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

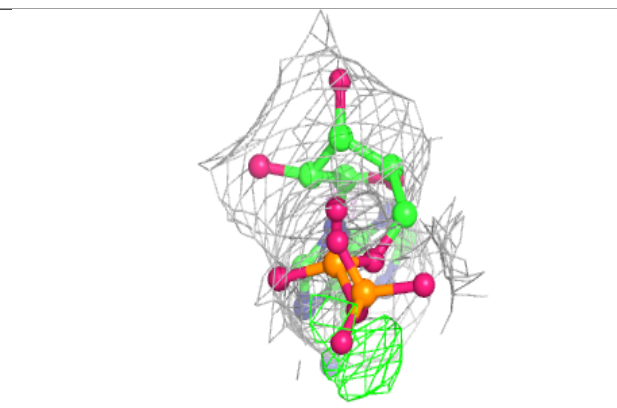
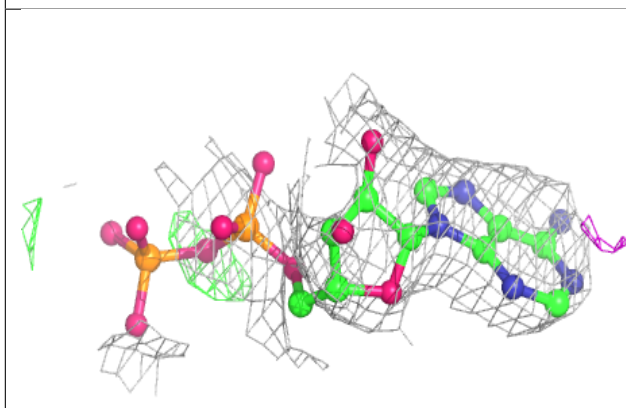
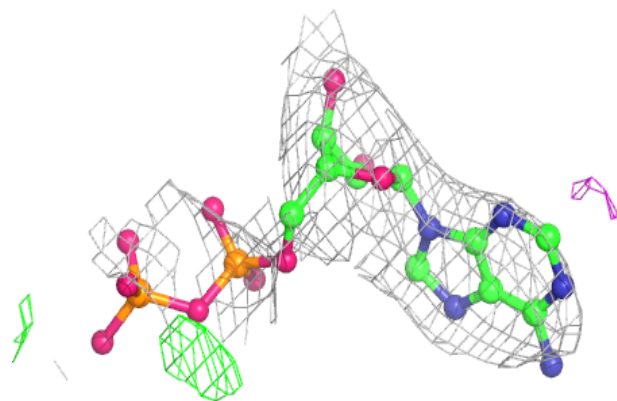
**Electron density around ADP b 1601:**

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

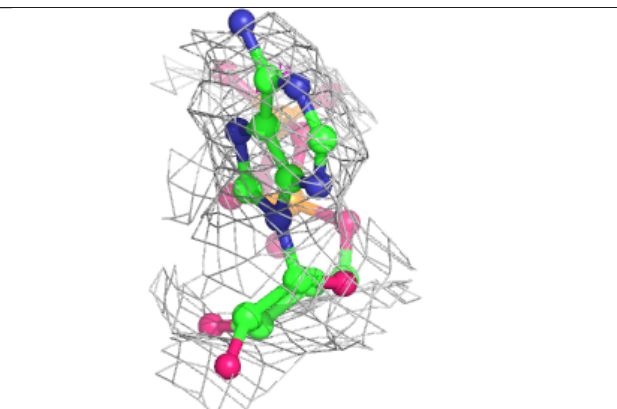
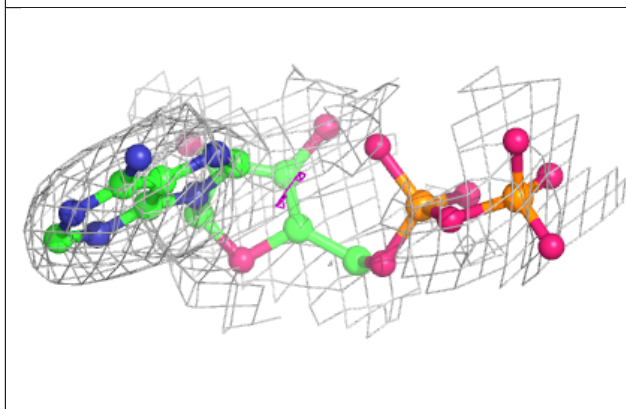
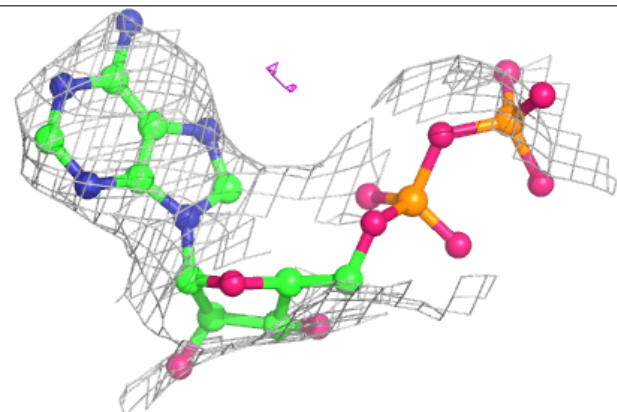


Electron density around ADP F 601:

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

**Electron density around ADP k 2101:**

$2mF_o-DF_c$ (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.