



## Full wwPDB EM Validation Report ⓘ

Dec 11, 2022 – 01:27 AM EST

PDB ID : 1M8Q  
EMDB ID : EMD-1001  
Title : Molecular Models of Averaged Rigor Crossbridges from Tomograms of Insect Flight Muscle  
Authors : Chen, L.F.; Winkler, H.; Reedy, M.K.; Reedy, M.C.; Taylor, K.A.  
Deposited on : 2002-07-25  
Resolution : 70.00 Å (reported)  
Based on initial models : 2MYS, 1ATN

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev43  
Mogul : 1.8.5 (274361), CSD as541be (2020)  
MolProbity : 4.02b-467  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
MapQ : 1.9.9  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.31.2

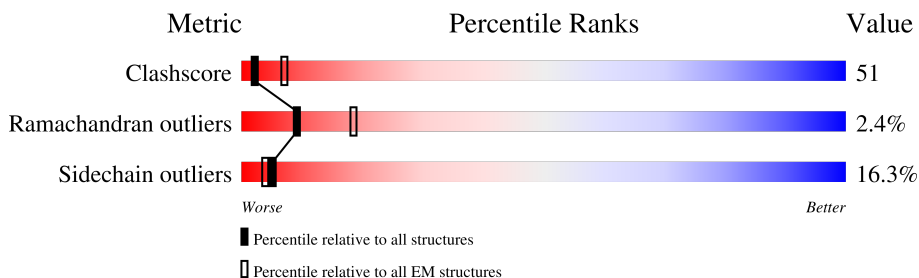
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 70.00 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)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion  $< 40\%$ ). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	840	100% 25% 51% 20% .
1	D	840	99% 26% 50% 20% .
1	G	840	100% 25% 51% 20% .
1	P	840	100% 26% 50% 20% .
2	B	145	100% 63% 28% 6% .
2	E	145	97% 66% 26% 6% .
2	H	145	100% 63% 28% 6% .
2	Q	145	100% 66% 25% 6% .

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Mol	Chain	Length	Quality of chain		
3	C	147	100%	61%	36%
3	F	147	84%	62%	36%
3	I	147	100%	60%	38%
3	R	147	100%	62%	36%
4	0	375	99%	58%	31%
4	1	375	99%	61%	31%
4	2	375	99%	62%	29%
4	3	375	99%	63%	28%
4	4	375	99%	63%	28%
4	5	375	99%	64%	27%
4	7	375	99%	64%	27%
4	8	375	99%	59%	31%
4	9	375	99%	58%	31%
4	V	375	99%	55%	33%
4	W	375	99%	61%	30%
4	X	375	95%	61%	30%
4	Y	375	99%	63%	29%
4	Z	375	99%	63%	28%

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
1	MLY	A	504	-	-	X	-
1	MLY	A	505	-	-	X	-
1	MLY	A	553	-	-	X	-
1	MLY	A	764	-	-	X	-
1	MLY	A	768	-	-	X	-
1	MLY	A	839	-	-	X	-
1	MLY	D	553	-	-	X	-

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<b>Mol</b>	<b>Type</b>	<b>Chain</b>	<b>Res</b>	<b>Chirality</b>	<b>Geometry</b>	<b>Clashes</b>	<b>Electron density</b>
1	MLY	D	764	-	-	X	-
1	MLY	D	782	-	-	X	-
1	MLY	D	839	-	-	X	-
1	MLY	G	553	-	-	X	-
1	MLY	G	768	-	-	X	-
1	MLY	P	764	-	-	X	-
1	MLY	P	839	-	-	X	-

## 2 Entry composition i

There are 4 unique types of molecules in this entry. The entry contains 76872 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 Skeletal muscle Myosin II.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	840	6797	4382	1135	1243	37	0	0
1	D	840	6797	4382	1135	1243	37	0	0
1	G	840	6797	4382	1135	1243	37	0	0
1	P	840	6797	4382	1135	1243	37	0	0

There are 228 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	19	MLY	LYS	modified residue	UNP P13538
A	30	MLY	LYS	modified residue	UNP P13538
A	35	MLY	LYS	modified residue	UNP P13538
A	45	GLN	GLU	conflict	UNP P13538
A	49	MLY	LYS	modified residue	UNP P13538
A	55	MLY	LYS	modified residue	UNP P13538
A	59	MLY	LYS	modified residue	UNP P13538
A	63	MLY	LYS	modified residue	UNP P13538
A	84	MLY	LYS	modified residue	UNP P13538
A	87	MLY	LYS	modified residue	UNP P13538
A	107	MLY	LYS	modified residue	UNP P13538
A	130	MLY	LYS	modified residue	UNP P13538
A	138	MLY	GLU	modified residue	UNP P13538
A	190	MLY	LYS	modified residue	UNP P13538
A	236	MLY	LYS	modified residue	UNP P13538
A	248	MLY	LYS	modified residue	UNP P13538
A	272	MLY	LYS	modified residue	UNP P13538
A	295	MLY	LYS	modified residue	UNP P13538
A	296	MLY	LYS	modified residue	UNP P13538
A	317	GLU	GLN	conflict	UNP P13538
A	348	MLY	LYS	modified residue	UNP P13538
A	353	MLY	LYS	modified residue	UNP P13538

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Chain	Residue	Modelled	Actual	Comment	Reference
A	367	MLY	LYS	modified residue	UNP P13538
A	369	MLY	LYS	modified residue	UNP P13538
A	385	MLY	LYS	modified residue	UNP P13538
A	407	GLY	LYS	conflict	UNP P13538
A	412	ALA	PHE	conflict	UNP P13538
A	415	MLY	LYS	modified residue	UNP P13538
A	417	GLU	GLN	conflict	UNP P13538
A	421	GLU	GLN	conflict	UNP P13538
A	431	MLY	LYS	modified residue	UNP P13538
A	436	MLY	LYS	modified residue	UNP P13538
A	486	MLY	LYS	modified residue	UNP P13538
A	504	MLY	LYS	modified residue	UNP P13538
A	505	MLY	LYS	modified residue	UNP P13538
A	528	MLY	LYS	modified residue	UNP P13538
A	551	MLY	LYS	modified residue	UNP P13538
A	553	MLY	LYS	modified residue	UNP P13538
A	557	GLU	GLN	conflict	UNP P13538
A	598	MLY	LYS	modified residue	UNP P13538
A	600	MLY	LYS	modified residue	UNP P13538
A	613	MLY	LYS	modified residue	UNP P13538
A	617	MLY	LYS	modified residue	UNP P13538
A	659	MLY	LYS	modified residue	UNP P13538
A	681	MLY	LYS	modified residue	UNP P13538
A	750	GLY	SER	conflict	UNP P13538
A	751	GLY	ILE	conflict	UNP P13538
A	759	ALA	ARG	conflict	UNP P13538
A	764	MLY	LYS	modified residue	UNP P13538
A	768	MLY	LYS	modified residue	UNP P13538
A	782	MLY	LYS	modified residue	UNP P13538
A	789	ALA	ARG	modified residue	UNP P13538
A	805	ALA	ARG	conflict	UNP P13538
A	827	MLY	LYS	modified residue	UNP P13538
A	833	MLY	LYS	modified residue	UNP P13538
A	837	MLY	LYS	modified residue	UNP P13538
A	839	MLY	LYS	modified residue	UNP P13538
D	19	MLY	LYS	modified residue	UNP P13538
D	30	MLY	LYS	modified residue	UNP P13538
D	35	MLY	LYS	modified residue	UNP P13538
D	45	GLN	GLU	conflict	UNP P13538
D	49	MLY	LYS	modified residue	UNP P13538
D	55	MLY	LYS	modified residue	UNP P13538
D	59	MLY	LYS	modified residue	UNP P13538

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Chain	Residue	Modelled	Actual	Comment	Reference
D	63	MLY	LYS	modified residue	UNP P13538
D	84	MLY	LYS	modified residue	UNP P13538
D	87	MLY	LYS	modified residue	UNP P13538
D	107	MLY	LYS	modified residue	UNP P13538
D	130	MLY	LYS	modified residue	UNP P13538
D	138	MLY	GLU	modified residue	UNP P13538
D	190	MLY	LYS	modified residue	UNP P13538
D	236	MLY	LYS	modified residue	UNP P13538
D	248	MLY	LYS	modified residue	UNP P13538
D	272	MLY	LYS	modified residue	UNP P13538
D	295	MLY	LYS	modified residue	UNP P13538
D	296	MLY	LYS	modified residue	UNP P13538
D	317	GLU	GLN	conflict	UNP P13538
D	348	MLY	LYS	modified residue	UNP P13538
D	353	MLY	LYS	modified residue	UNP P13538
D	367	MLY	LYS	modified residue	UNP P13538
D	369	MLY	LYS	modified residue	UNP P13538
D	385	MLY	LYS	modified residue	UNP P13538
D	407	GLY	LYS	conflict	UNP P13538
D	412	ALA	PHE	conflict	UNP P13538
D	415	MLY	LYS	modified residue	UNP P13538
D	417	GLU	GLN	conflict	UNP P13538
D	421	GLU	GLN	conflict	UNP P13538
D	431	MLY	LYS	modified residue	UNP P13538
D	436	MLY	LYS	modified residue	UNP P13538
D	486	MLY	LYS	modified residue	UNP P13538
D	504	MLY	LYS	modified residue	UNP P13538
D	505	MLY	LYS	modified residue	UNP P13538
D	528	MLY	LYS	modified residue	UNP P13538
D	551	MLY	LYS	modified residue	UNP P13538
D	553	MLY	LYS	modified residue	UNP P13538
D	557	GLU	GLN	conflict	UNP P13538
D	598	MLY	LYS	modified residue	UNP P13538
D	600	MLY	LYS	modified residue	UNP P13538
D	613	MLY	LYS	modified residue	UNP P13538
D	617	MLY	LYS	modified residue	UNP P13538
D	659	MLY	LYS	modified residue	UNP P13538
D	681	MLY	LYS	modified residue	UNP P13538
D	750	GLY	SER	conflict	UNP P13538
D	751	GLY	ILE	conflict	UNP P13538
D	759	ALA	ARG	conflict	UNP P13538
D	764	MLY	LYS	modified residue	UNP P13538

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Chain	Residue	Modelled	Actual	Comment	Reference
D	768	MLY	LYS	modified residue	UNP P13538
D	782	MLY	LYS	modified residue	UNP P13538
D	789	ALA	ARG	conflict	UNP P13538
D	805	ALA	ARG	conflict	UNP P13538
D	827	MLY	LYS	modified residue	UNP P13538
D	833	MLY	LYS	modified residue	UNP P13538
D	837	MLY	LYS	modified residue	UNP P13538
D	839	MLY	LYS	modified residue	UNP P13538
G	19	MLY	LYS	modified residue	UNP P13538
G	30	MLY	LYS	modified residue	UNP P13538
G	35	MLY	LYS	modified residue	UNP P13538
G	45	GLN	GLU	conflict	UNP P13538
G	49	MLY	LYS	modified residue	UNP P13538
G	55	MLY	LYS	modified residue	UNP P13538
G	59	MLY	LYS	modified residue	UNP P13538
G	63	MLY	LYS	modified residue	UNP P13538
G	84	MLY	LYS	modified residue	UNP P13538
G	87	MLY	LYS	modified residue	UNP P13538
G	107	MLY	LYS	modified residue	UNP P13538
G	130	MLY	LYS	modified residue	UNP P13538
G	138	MLY	GLU	modified residue	UNP P13538
G	190	MLY	LYS	modified residue	UNP P13538
G	236	MLY	LYS	modified residue	UNP P13538
G	248	MLY	LYS	modified residue	UNP P13538
G	272	MLY	LYS	modified residue	UNP P13538
G	295	MLY	LYS	modified residue	UNP P13538
G	296	MLY	LYS	modified residue	UNP P13538
G	317	GLU	GLN	conflict	UNP P13538
G	348	MLY	LYS	modified residue	UNP P13538
G	353	MLY	LYS	modified residue	UNP P13538
G	367	MLY	LYS	modified residue	UNP P13538
G	369	MLY	LYS	modified residue	UNP P13538
G	385	MLY	LYS	modified residue	UNP P13538
G	407	GLY	LYS	conflict	UNP P13538
G	412	ALA	PHE	conflict	UNP P13538
G	415	MLY	LYS	modified residue	UNP P13538
G	417	GLU	GLN	conflict	UNP P13538
G	421	GLU	GLN	conflict	UNP P13538
G	431	MLY	LYS	modified residue	UNP P13538
G	436	MLY	LYS	modified residue	UNP P13538
G	486	MLY	LYS	modified residue	UNP P13538
G	504	MLY	LYS	modified residue	UNP P13538

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Chain	Residue	Modelled	Actual	Comment	Reference
G	505	MLY	LYS	modified residue	UNP P13538
G	528	MLY	LYS	modified residue	UNP P13538
G	551	MLY	LYS	modified residue	UNP P13538
G	553	MLY	LYS	modified residue	UNP P13538
G	557	GLU	GLN	conflict	UNP P13538
G	598	MLY	LYS	modified residue	UNP P13538
G	600	MLY	LYS	modified residue	UNP P13538
G	613	MLY	LYS	modified residue	UNP P13538
G	617	MLY	LYS	modified residue	UNP P13538
G	659	MLY	LYS	modified residue	UNP P13538
G	681	MLY	LYS	modified residue	UNP P13538
G	750	GLY	SER	conflict	UNP P13538
G	751	GLY	ILE	conflict	UNP P13538
G	759	ALA	ARG	conflict	UNP P13538
G	764	MLY	LYS	modified residue	UNP P13538
G	768	MLY	LYS	modified residue	UNP P13538
G	782	MLY	LYS	modified residue	UNP P13538
G	789	ALA	ARG	conflict	UNP P13538
G	805	ALA	ARG	conflict	UNP P13538
G	827	MLY	LYS	modified residue	UNP P13538
G	833	MLY	LYS	modified residue	UNP P13538
G	837	MLY	LYS	modified residue	UNP P13538
G	839	MLY	LYS	modified residue	UNP P13538
P	19	MLY	LYS	modified residue	UNP P13538
P	30	MLY	LYS	modified residue	UNP P13538
P	35	MLY	LYS	modified residue	UNP P13538
P	45	GLN	GLU	conflict	UNP P13538
P	49	MLY	LYS	modified residue	UNP P13538
P	55	MLY	LYS	modified residue	UNP P13538
P	59	MLY	LYS	modified residue	UNP P13538
P	63	MLY	LYS	modified residue	UNP P13538
P	84	MLY	LYS	modified residue	UNP P13538
P	87	MLY	LYS	modified residue	UNP P13538
P	107	MLY	LYS	modified residue	UNP P13538
P	130	MLY	LYS	modified residue	UNP P13538
P	138	MLY	GLU	modified residue	UNP P13538
P	190	MLY	LYS	modified residue	UNP P13538
P	236	MLY	LYS	modified residue	UNP P13538
P	248	MLY	LYS	modified residue	UNP P13538
P	272	MLY	LYS	modified residue	UNP P13538
P	295	MLY	LYS	modified residue	UNP P13538
P	296	MLY	LYS	modified residue	UNP P13538

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Chain	Residue	Modelled	Actual	Comment	Reference
P	317	GLU	GLN	conflict	UNP P13538
P	348	MLY	LYS	modified residue	UNP P13538
P	353	MLY	LYS	modified residue	UNP P13538
P	367	MLY	LYS	modified residue	UNP P13538
P	369	MLY	LYS	modified residue	UNP P13538
P	385	MLY	LYS	modified residue	UNP P13538
P	407	GLY	LYS	conflict	UNP P13538
P	412	ALA	PHE	conflict	UNP P13538
P	415	MLY	LYS	modified residue	UNP P13538
P	417	GLU	GLN	conflict	UNP P13538
P	421	GLU	GLN	conflict	UNP P13538
P	431	MLY	LYS	modified residue	UNP P13538
P	436	MLY	LYS	modified residue	UNP P13538
P	486	MLY	LYS	modified residue	UNP P13538
P	504	MLY	LYS	modified residue	UNP P13538
P	505	MLY	LYS	modified residue	UNP P13538
P	528	MLY	LYS	modified residue	UNP P13538
P	551	MLY	LYS	modified residue	UNP P13538
P	553	MLY	LYS	modified residue	UNP P13538
P	557	GLU	GLN	conflict	UNP P13538
P	598	MLY	LYS	modified residue	UNP P13538
P	600	MLY	LYS	modified residue	UNP P13538
P	613	MLY	LYS	modified residue	UNP P13538
P	617	MLY	LYS	modified residue	UNP P13538
P	659	MLY	LYS	modified residue	UNP P13538
P	681	MLY	LYS	modified residue	UNP P13538
P	750	GLY	SER	conflict	UNP P13538
P	751	GLY	ILE	conflict	UNP P13538
P	759	ALA	ARG	conflict	UNP P13538
P	764	MLY	LYS	modified residue	UNP P13538
P	768	MLY	LYS	modified residue	UNP P13538
P	782	MLY	LYS	modified residue	UNP P13538
P	789	ALA	ARG	conflict	UNP P13538
P	805	ALA	ARG	conflict	UNP P13538
P	827	MLY	LYS	modified residue	UNP P13538
P	833	MLY	LYS	modified residue	UNP P13538
P	837	MLY	LYS	modified residue	UNP P13538
P	839	MLY	LYS	modified residue	UNP P13538

- Molecule 2 is a protein called Skeletal muscle Myosin II Regulatory Light Chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	145	Total	C	N	O	S	0	0
			1127	717	177	227	6		
2	E	145	Total	C	N	O	S	0	0
			1127	717	177	227	6		
2	H	145	Total	C	N	O	S	0	0
			1127	717	177	227	6		
2	Q	145	Total	C	N	O	S	0	0
			1127	717	177	227	6		

There are 36 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	21	GLU	GLN	conflict	UNP P02609
B	23	GLU	GLN	conflict	UNP P02609
B	25	GLU	GLN	conflict	UNP P02609
B	26	ASP	GLU	conflict	UNP P02609
B	38	ALA	ARG	conflict	UNP P02609
B	124	GLY	GLN	conflict	UNP P02609
B	125	GLY	CYS	conflict	UNP P02609
B	126	GLY	ASP	conflict	UNP P02609
B	163	ALA	LYS	conflict	UNP P02609
E	21	GLU	GLN	conflict	UNP P02609
E	23	GLU	GLN	conflict	UNP P02609
E	25	GLU	GLN	conflict	UNP P02609
E	26	ASP	GLU	conflict	UNP P02609
E	38	ALA	ARG	conflict	UNP P02609
E	124	GLY	GLN	conflict	UNP P02609
E	125	GLY	CYS	conflict	UNP P02609
E	126	GLY	ASP	conflict	UNP P02609
E	163	ALA	LYS	conflict	UNP P02609
H	21	GLU	GLN	conflict	UNP P02609
H	23	GLU	GLN	conflict	UNP P02609
H	25	GLU	GLN	conflict	UNP P02609
H	26	ASP	GLU	conflict	UNP P02609
H	38	ALA	ARG	conflict	UNP P02609
H	124	GLY	GLN	conflict	UNP P02609
H	125	GLY	CYS	conflict	UNP P02609
H	126	GLY	ASP	conflict	UNP P02609
H	163	ALA	LYS	conflict	UNP P02609
Q	21	GLU	GLN	conflict	UNP P02609
Q	23	GLU	GLN	conflict	UNP P02609
Q	25	GLU	GLN	conflict	UNP P02609
Q	26	ASP	GLU	conflict	UNP P02609

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Chain	Residue	Modelled	Actual	Comment	Reference
Q	38	ALA	ARG	conflict	UNP P02609
Q	124	GLY	GLN	conflict	UNP P02609
Q	125	GLY	CYS	conflict	UNP P02609
Q	126	GLY	ASP	conflict	UNP P02609
Q	163	ALA	LYS	conflict	UNP P02609

- Molecule 3 is a protein called Skeletal muscle Myosin II Essential Light Chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	C	147	1123	698	188	230	7	0	0
3	F	147	1123	698	188	230	7	0	0
3	I	147	1123	698	188	230	7	0	0
3	R	147	1123	698	188	230	7	0	0

There are 28 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C	5	ALA	GLU	conflict	UNP P02604
C	6	ALA	GLN	conflict	UNP P02604
C	7	ALA	GLN	conflict	UNP P02604
C	27	ALA	LEU	conflict	UNP P02604
C	34	ALA	VAL	conflict	UNP P02604
C	61	ALA	LYS	conflict	UNP P02604
C	105	ALA	LYS	conflict	UNP P02604
F	5	ALA	GLU	conflict	UNP P02604
F	6	ALA	GLN	conflict	UNP P02604
F	7	ALA	GLN	conflict	UNP P02604
F	27	ALA	LEU	conflict	UNP P02604
F	34	ALA	VAL	conflict	UNP P02604
F	61	ALA	LYS	conflict	UNP P02604
F	105	ALA	LYS	conflict	UNP P02604
I	5	ALA	GLU	conflict	UNP P02604
I	6	ALA	GLN	conflict	UNP P02604
I	7	ALA	GLN	conflict	UNP P02604
I	27	ALA	LEU	conflict	UNP P02604
I	34	ALA	VAL	conflict	UNP P02604
I	61	ALA	LYS	conflict	UNP P02604
I	105	ALA	LYS	conflict	UNP P02604

*Continued on next page...*

*Continued from previous page...*

Chain	Residue	Modelled	Actual	Comment	Reference
R	5	ALA	GLU	conflict	UNP P02604
R	6	ALA	GLN	conflict	UNP P02604
R	7	ALA	GLN	conflict	UNP P02604
R	27	ALA	LEU	conflict	UNP P02604
R	34	ALA	VAL	conflict	UNP P02604
R	61	ALA	LYS	conflict	UNP P02604
R	105	ALA	LYS	conflict	UNP P02604

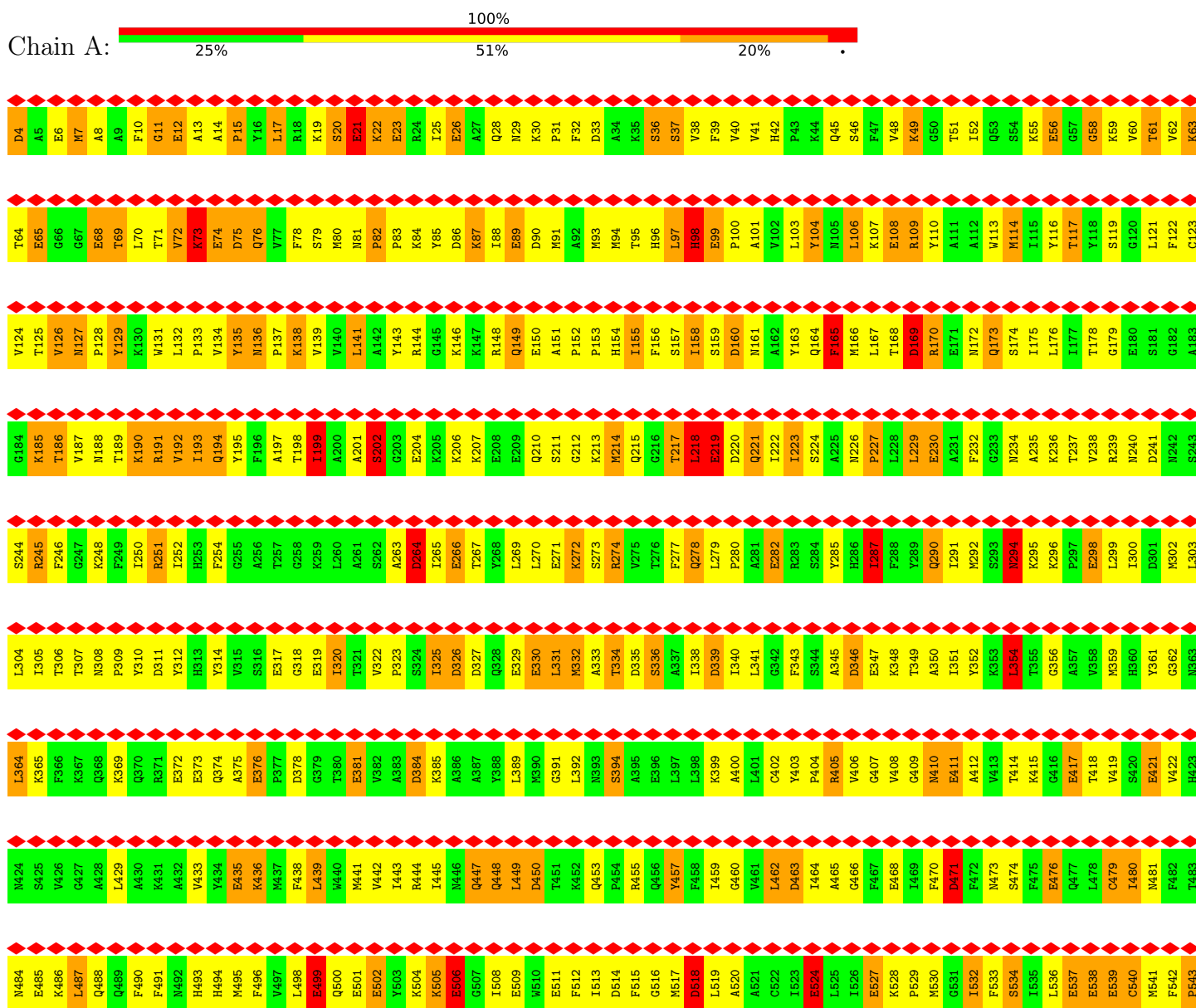
- Molecule 4 is a protein called Skeletal muscle Actin.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	7	372	2906	1836	489	561	20	0	0
4	8	372	2906	1836	489	561	20	0	0
4	9	372	2906	1836	489	561	20	0	0
4	V	372	2906	1836	489	561	20	0	0
4	W	372	2906	1836	489	561	20	0	0
4	X	372	2906	1836	489	561	20	0	0
4	Y	372	2906	1836	489	561	20	0	0
4	Z	372	2906	1836	489	561	20	0	0
4	0	372	2906	1836	489	561	20	0	0
4	1	372	2906	1836	489	561	20	0	0
4	2	372	2906	1836	489	561	20	0	0
4	3	372	2906	1836	489	561	20	0	0
4	4	372	2906	1836	489	561	20	0	0
4	5	372	2906	1836	489	561	20	0	0

### 3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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: Skeletal muscle Myosin II



K544	K545	T546	D647	T548	S649	F550	K651	N652	K653	L554	Y655	D656	H657	L658	L659	G660	K661	S662	N663	N664	F665	Q666	K667	P668	K669	P570	A571	K572	G573	K574	A575	E576	A577	H578	F579	S580	S581	L582	H583	Y584	G585	T586	L587	V588	D589	Y590	N591	L592	F593	G594	W595	L596	E597	K598	N599	K600	D601	P602	L603
N604	E605	T606	V607	L608	G609	L610	Y611	K612	K613	S614	S615	Y616	K617	T618	L619	A620	L621	L622	F623	A624	T625	Y626	G627	G628	E629	K630	E631	G632	G633	G634	G635	K636	K637	G638	G639	K640	L641	K642	G643	S644	S645	F646	Q647	T648	V649	S650	A651	L652	F653	S654	E655	N656	L657	N658	K659	L660	D661	A662	N663
L664	R665	S666	T667	H668	P669	H670	F671	V672	R673	C674	I675	I676	K617	T618	L619	A620	L621	L622	F623	A624	T625	Y626	G627	G628	E629	K630	E631	G632	G633	G634	G635	K636	K637	G638	G639	K640	L641	K642	G643	S644	S645	F646	Q647	T648	V649	S650	A651	L652	F653	S654	E655	N656	L657	N658	K659	L660	D661	A662	R723
Y724	R725	V726	L727	A728	N729	S730	A731	I732	P733	E734	G735	Q736	F737	M738	D739	S740	K741	K742	A743	S744	E745	K746	L747	L748	G749	G750	G751	D752	V753	D754	H755	T756	T757	Y758	A759	F760	G761	H762	T763	K764	F765	F766	F767	K768	A769	G770	L771	L772	G773	L774	L775	E776	M777	R778	R779	D780	D781	K782	L783
A784	E785	I786	I787	T788	A789	T790	Q791	R792	R793	C794	R795	G796	F797	L798	M799	R800	V801	E802	Y803	R804	A805	M806	V807	E808	R809	R810	E811	S812	I813	F814	C815	I816	Q817	Y818	N819	V820	R821	S822	F823	M824	V825	K827	H828	H829	P830	M831	M832	K833	L834	F835	F836	K837	I838	K839	P840	L842	K843		

● Molecule 1: Skeletal muscle Myosin II



D4	A5	E6	M7	A8	A9	F10	G11	E12	A13	A14	P15	Y16	L17	R18	K19	S20	E21	K22	E23	R24	I25	E26	A27	Q28	N29	K30	P31	F32	D33	A34	K35	S36	S37	V38	F39	V40	R41	H42	P43	K44	Q45	S46	F47	V48	K49	G50	T51	I52	M53	K54	X55	E56	G57	G58	K59	V60	L61	F62	C63
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V124	T125	V126	M127	P128	Y129	K130	W131	L132	P133	V134	Y135	M136	P137	K138	V139	V140	L141	A142	Y143	R144	G145	K146	K147	R148	E149	E150	A151	P152	P153	H154	I155	F156	S157	L158	S159	D160	A162	Y163	Q164	F165	M166	L167	T168	D169	R170	E171	M172	Q173	S174	L175	L176	I177	T178	G179	E180	L182	A183		
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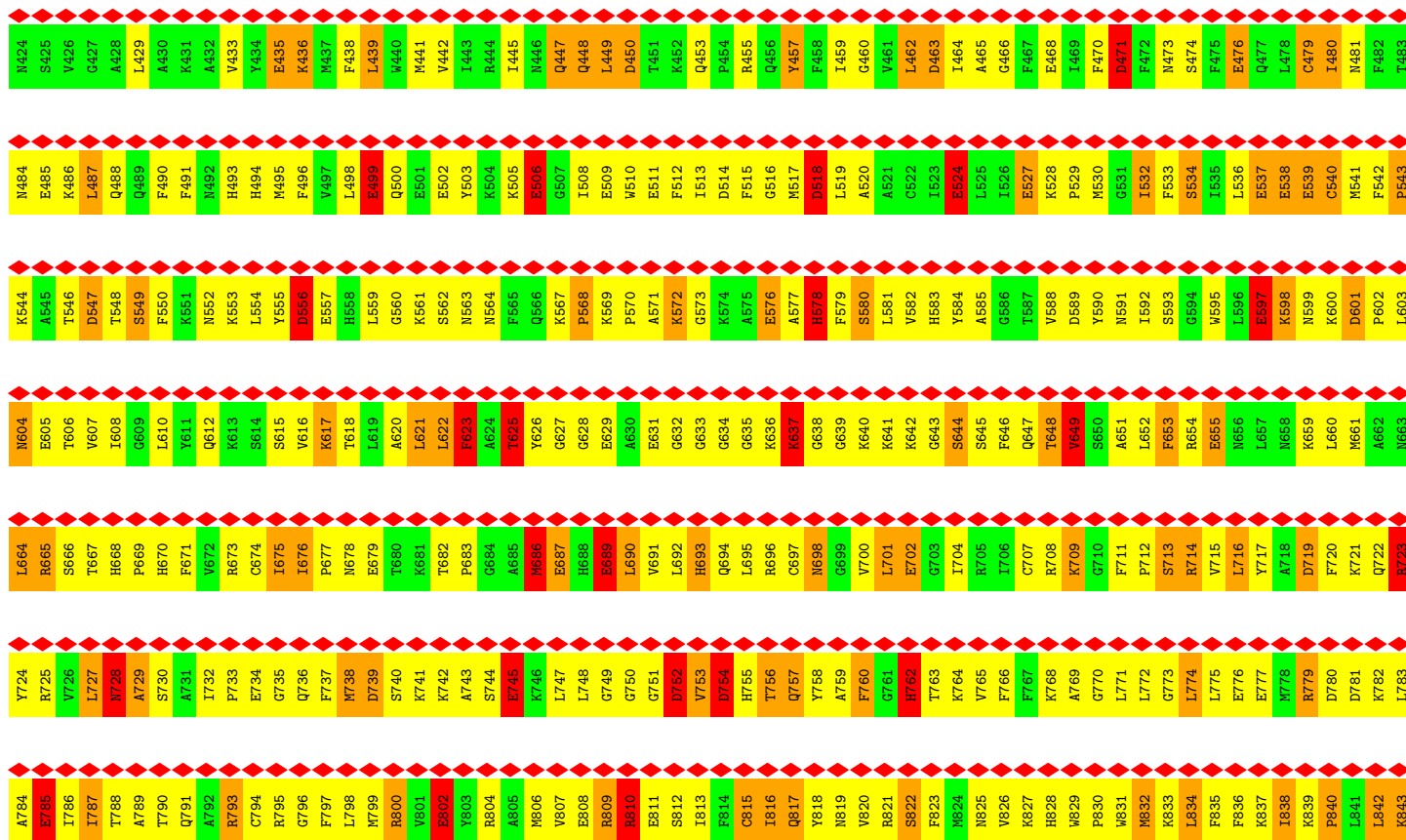
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• Molecule 1: Skeletal muscle Myosin II

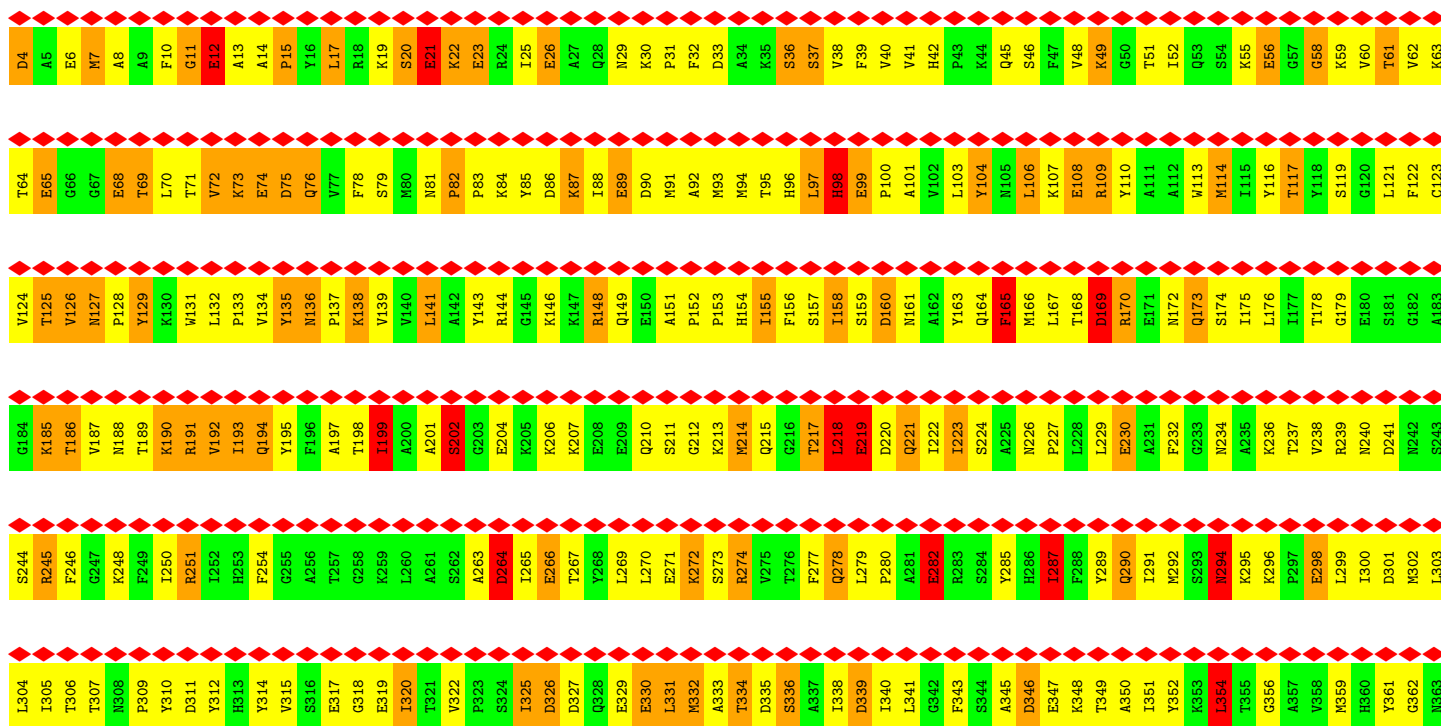


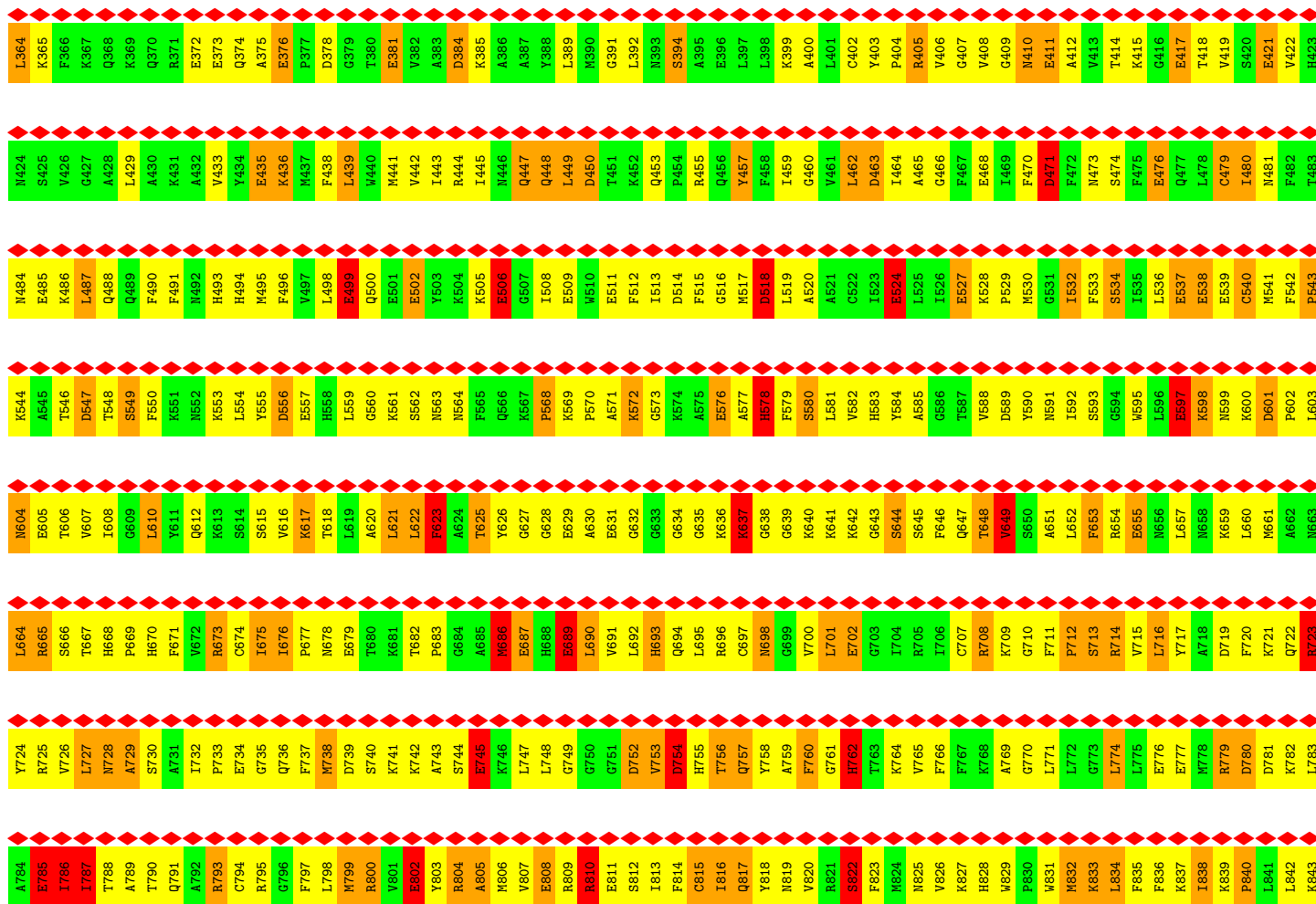
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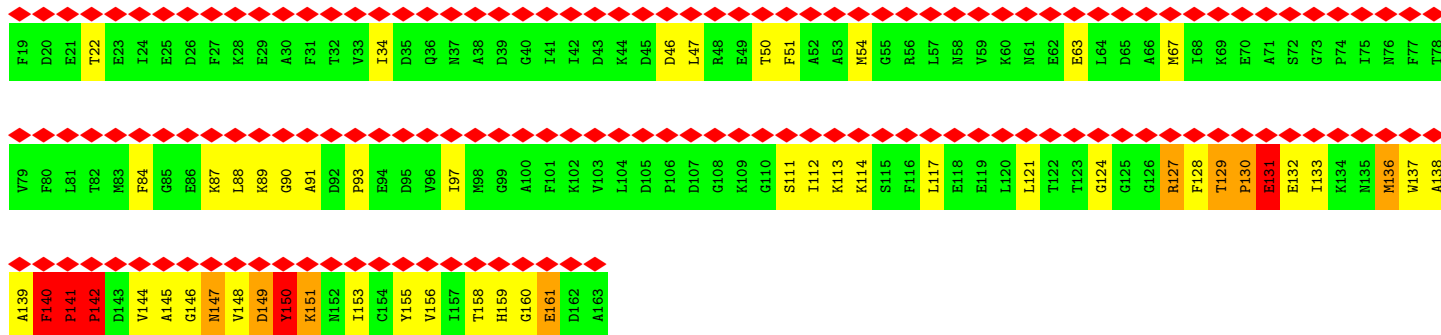


● Molecule 1: Skeletal muscle Myosin II

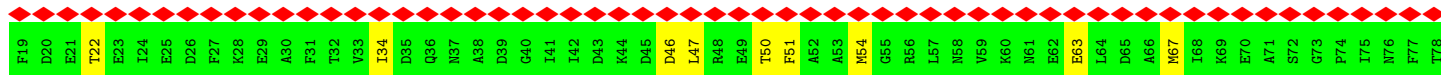


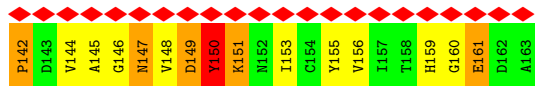
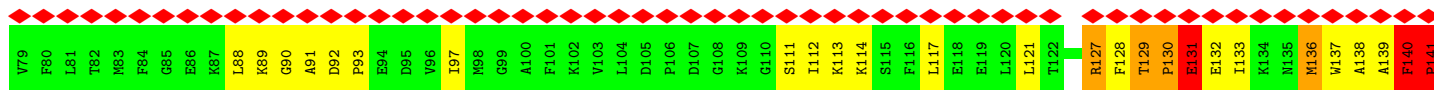


• Molecule 2: Skeletal muscle Myosin II Regulatory Light Chain

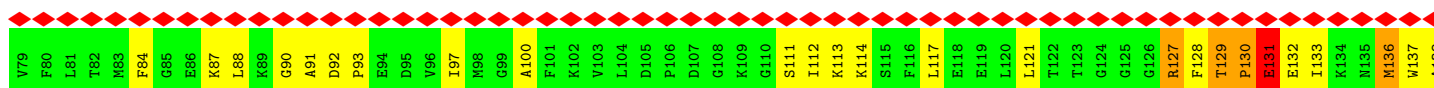
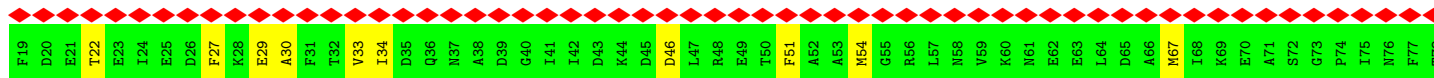


• Molecule 2: Skeletal muscle Myosin II Regulatory Light Chain

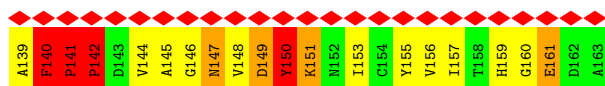
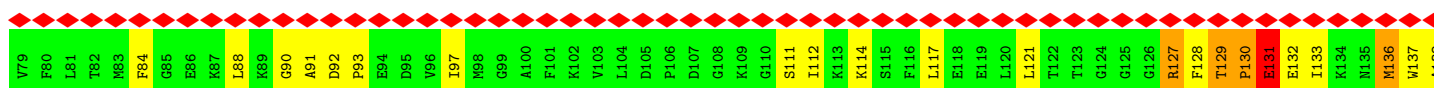




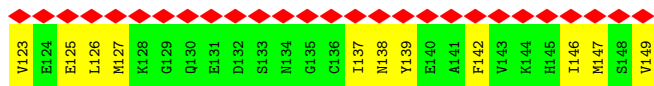
• Molecule 2: Skeletal muscle Myosin II Regulatory Light Chain



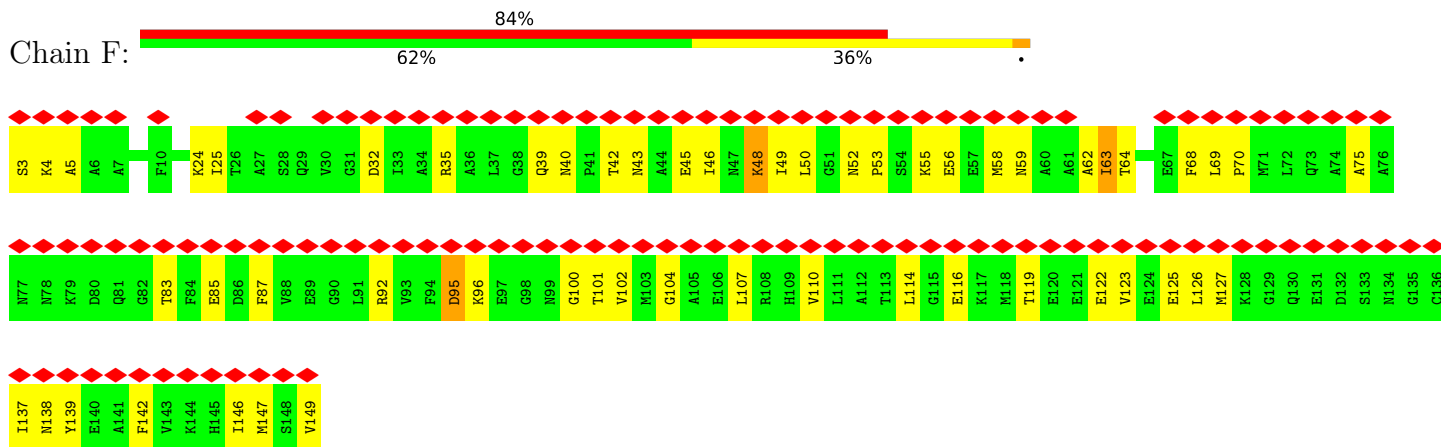
• Molecule 2: Skeletal muscle Myosin II Regulatory Light Chain



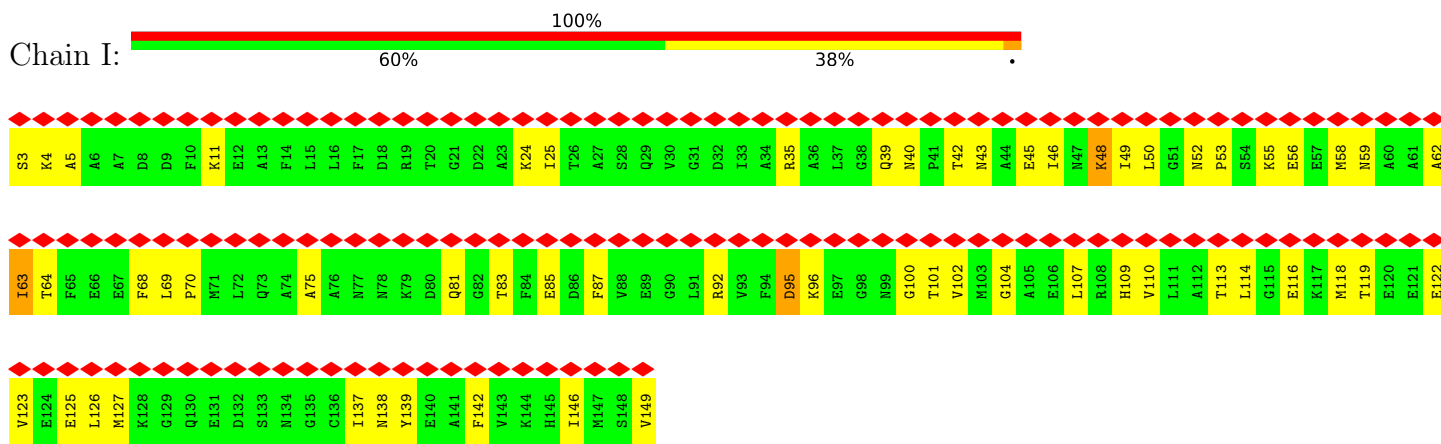
• Molecule 3: Skeletal muscle Myosin II Essential Light Chain



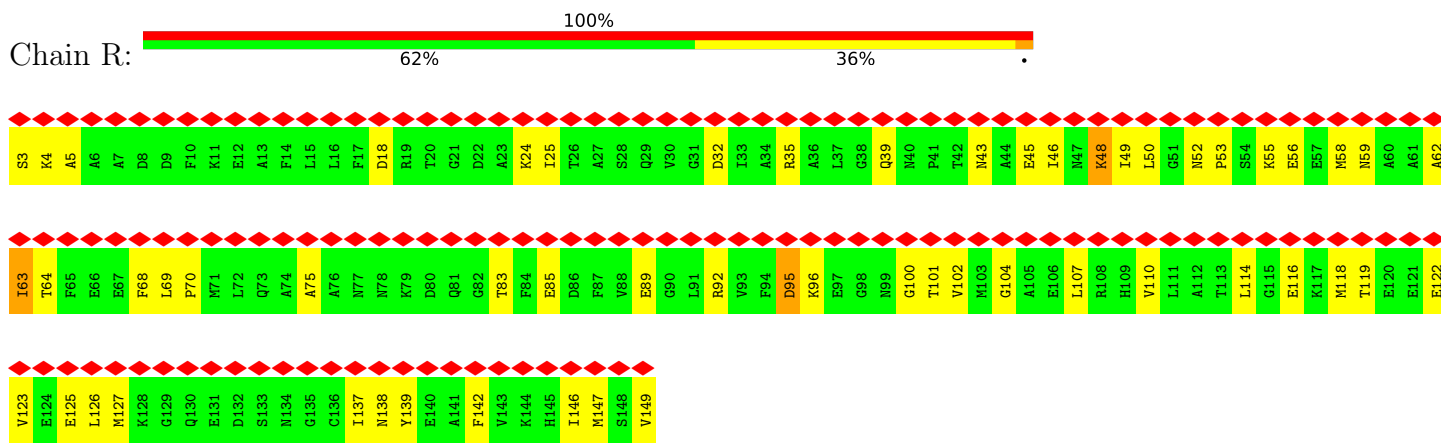
• Molecule 3: Skeletal muscle Myosin II Essential Light Chain



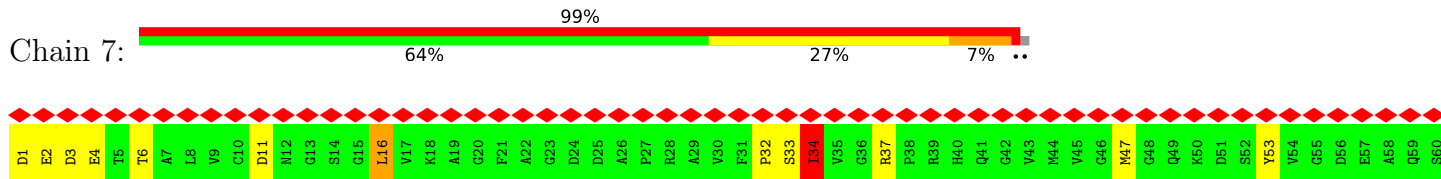
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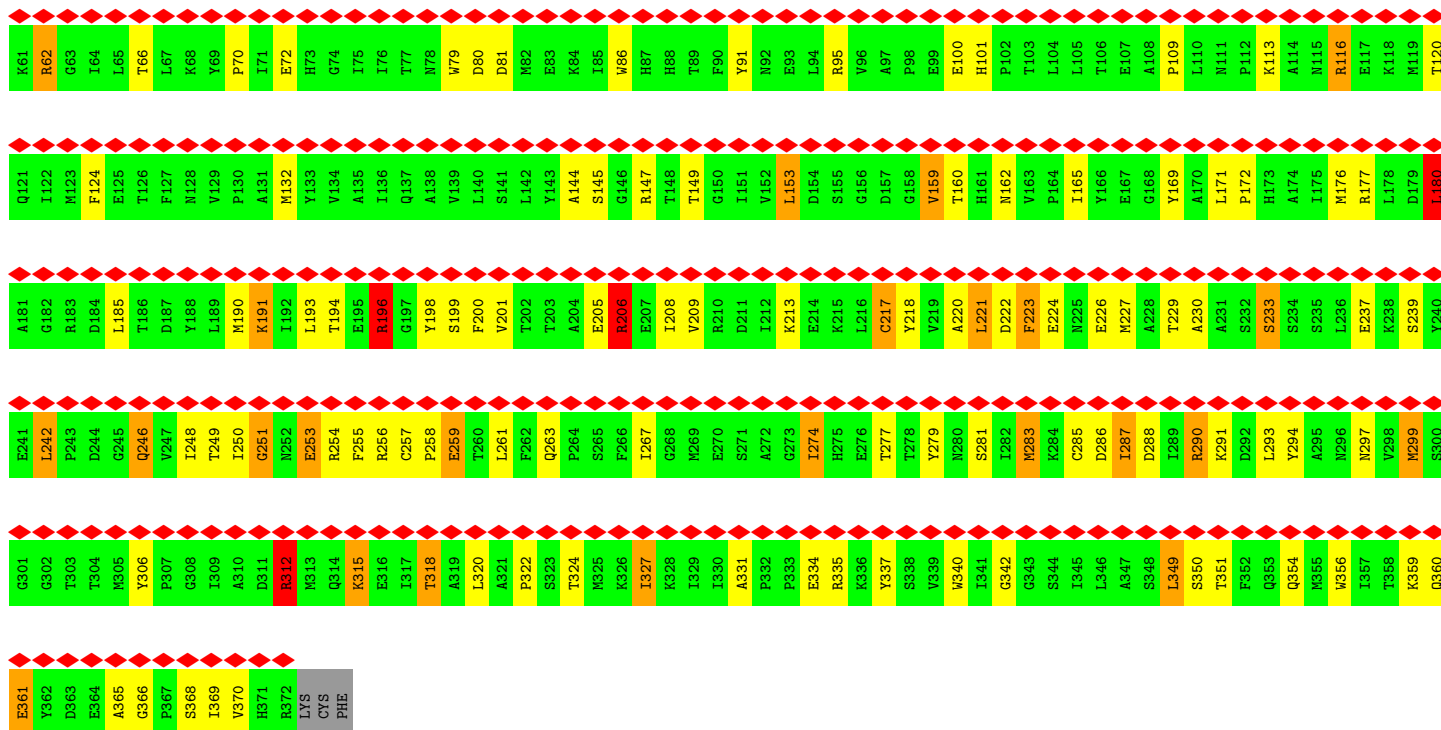


• Molecule 3: Skeletal muscle Myosin II Essential Light Chain

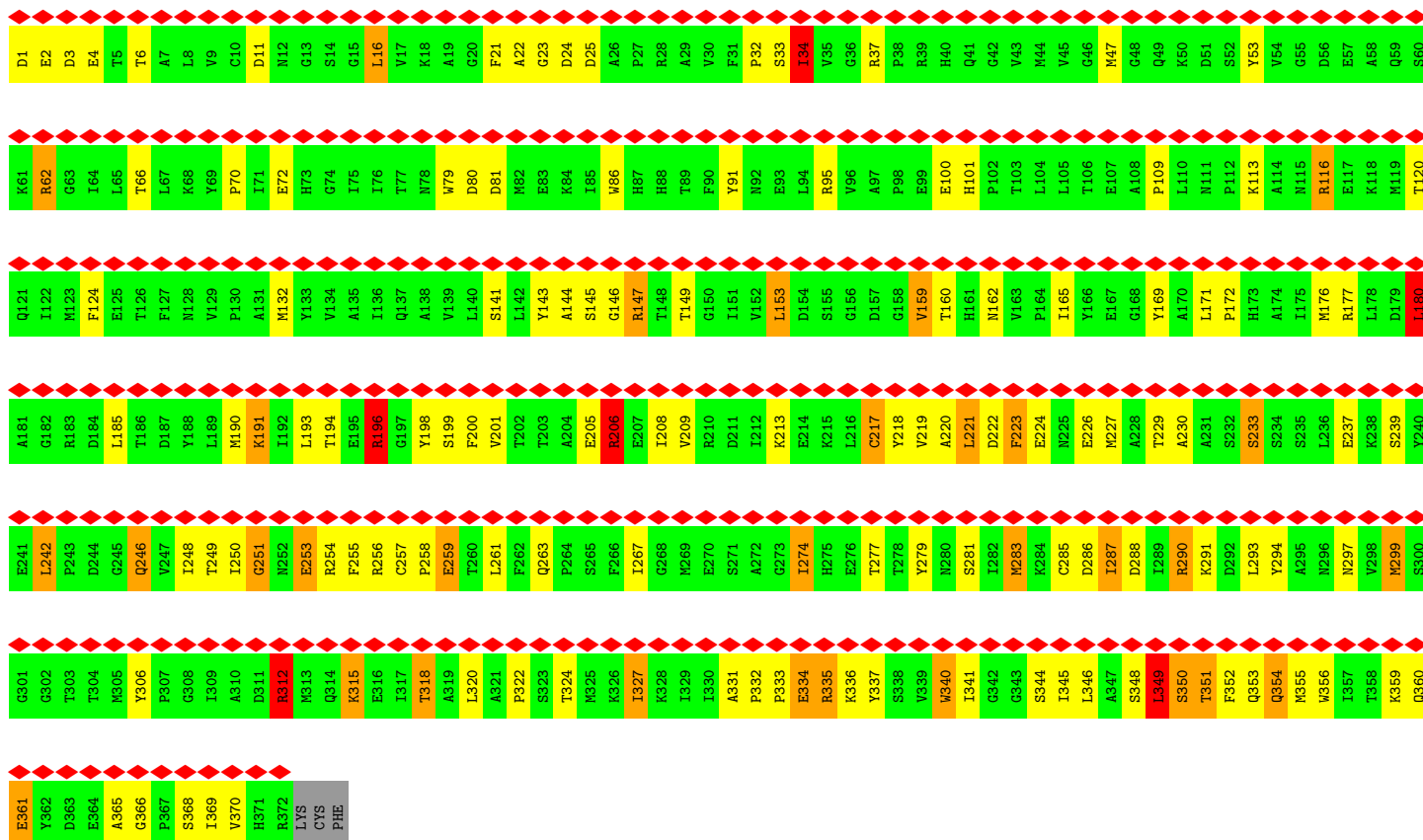


• Molecule 4: Skeletal muscle Actin

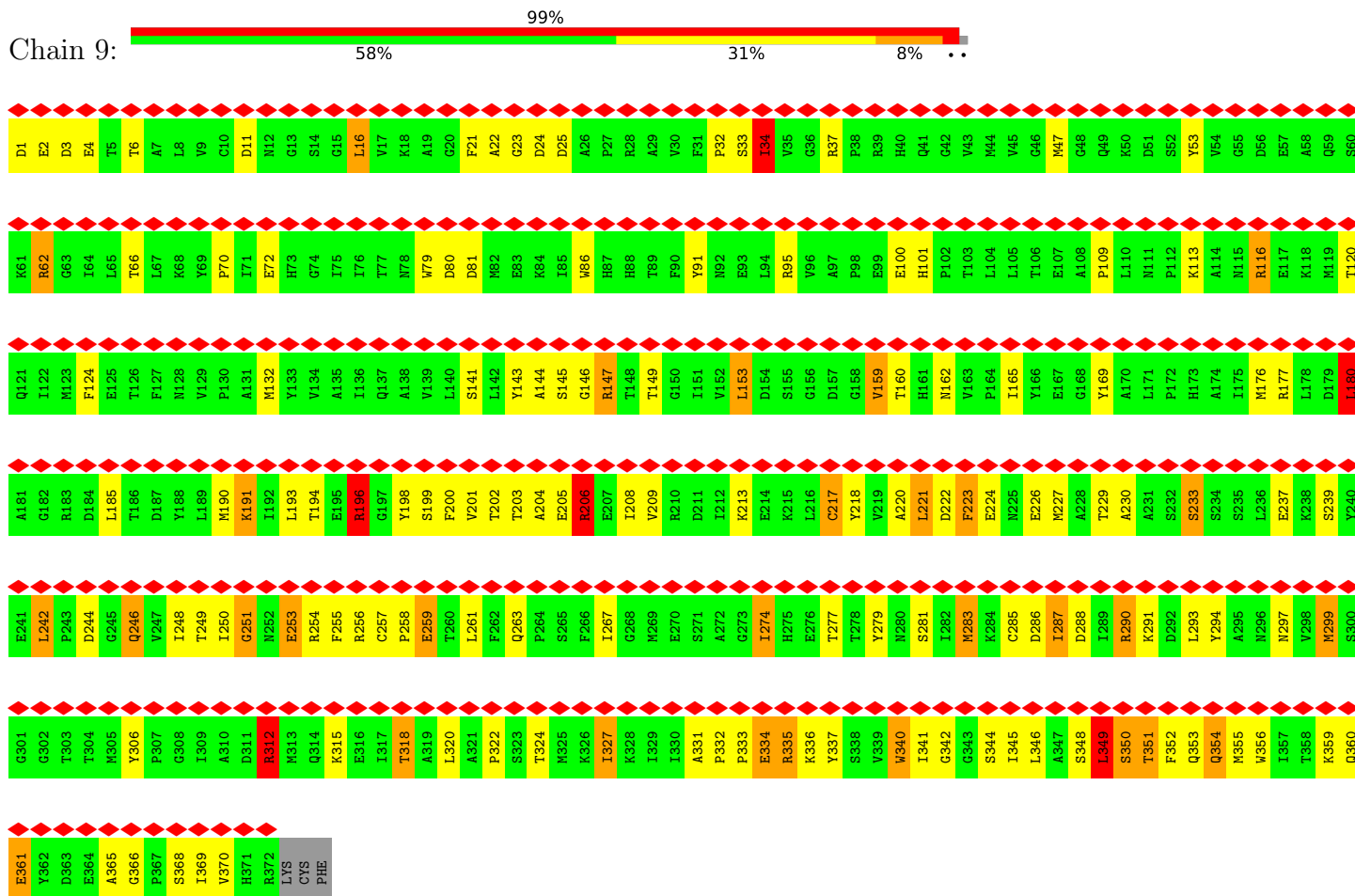




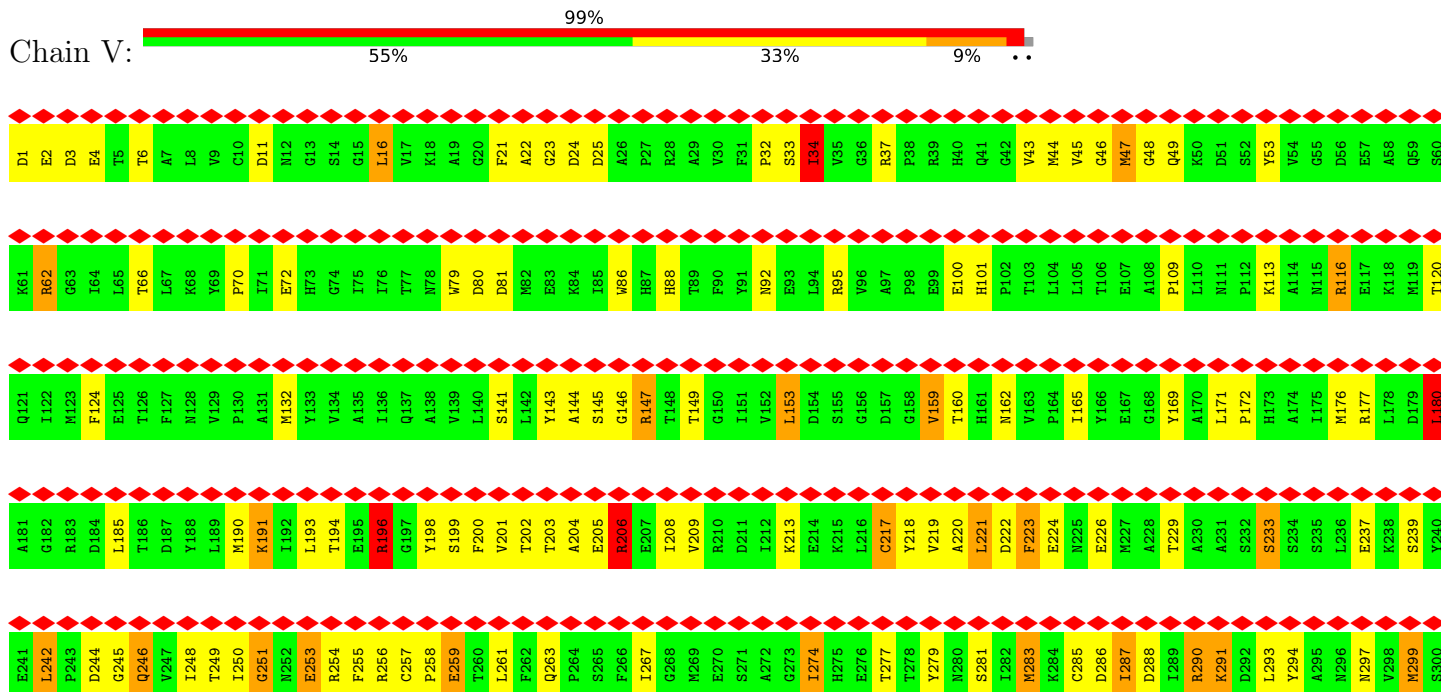
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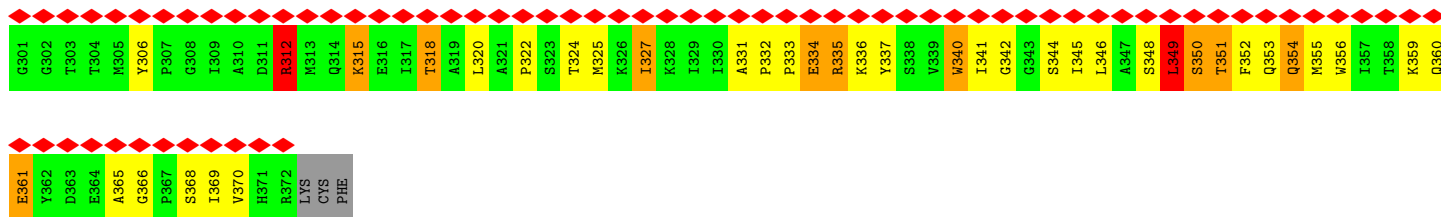


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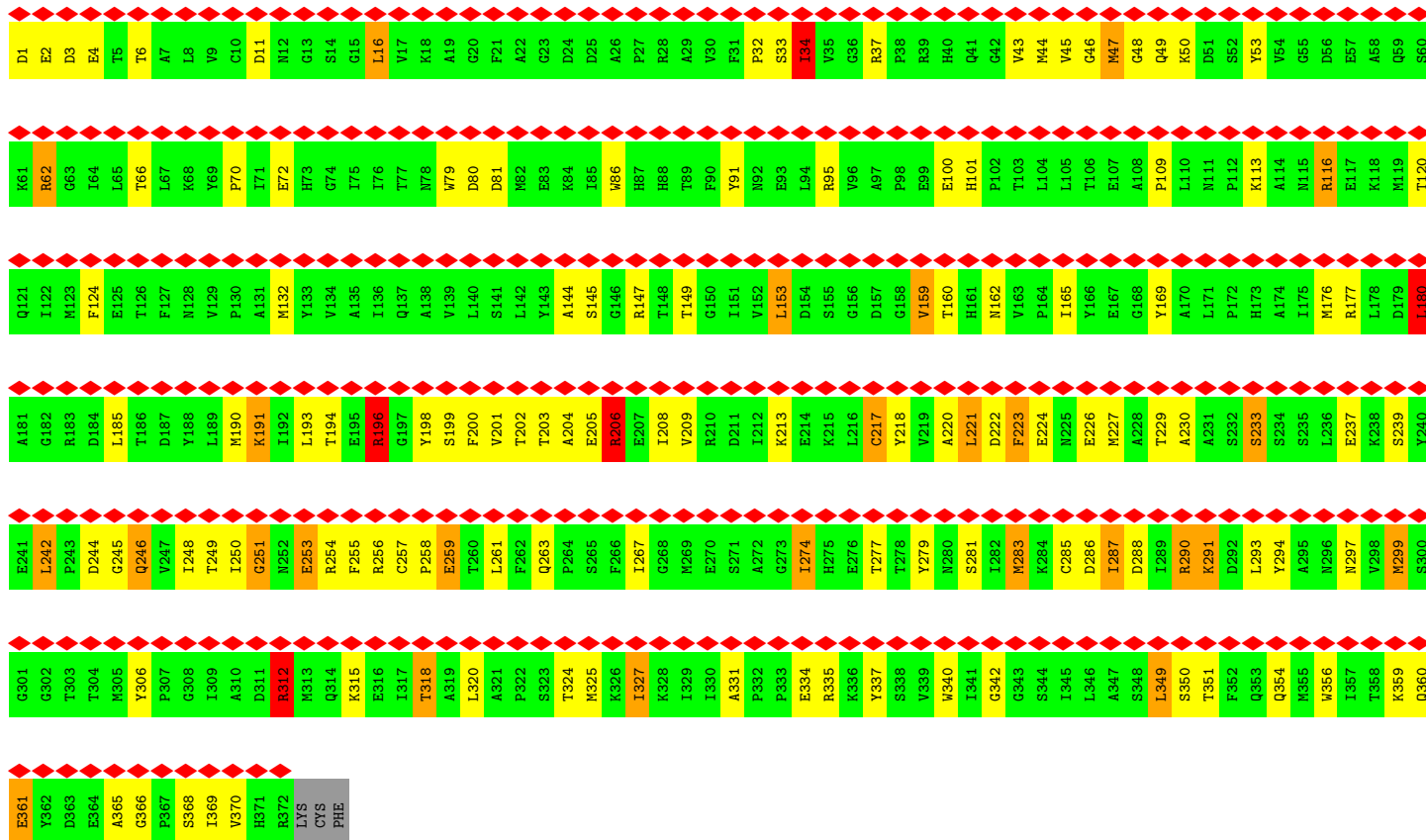


• Molecule 4: Skeletal muscle Actin



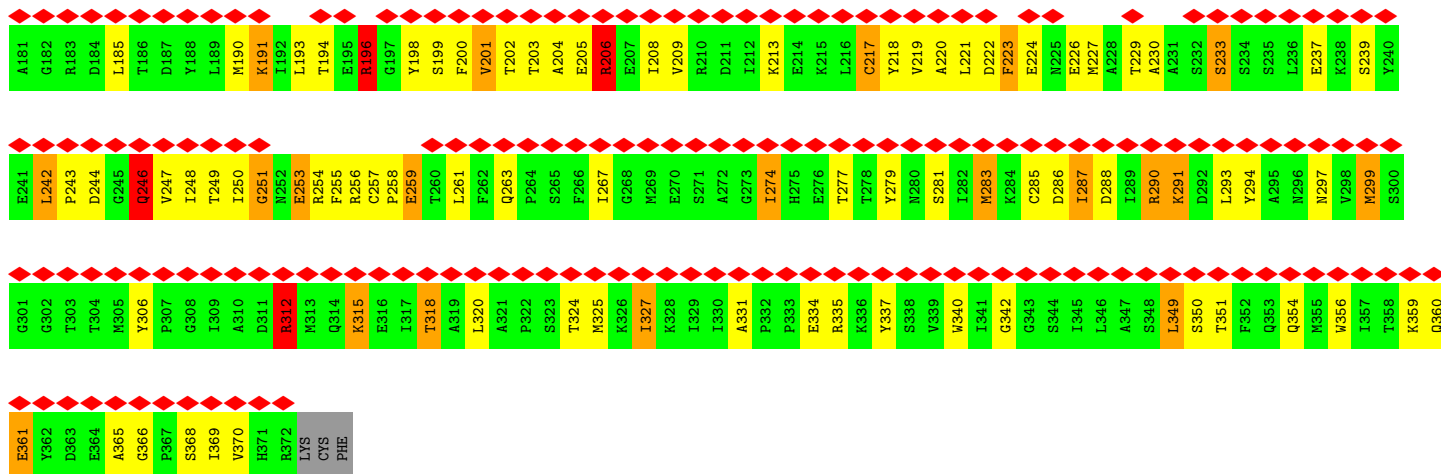


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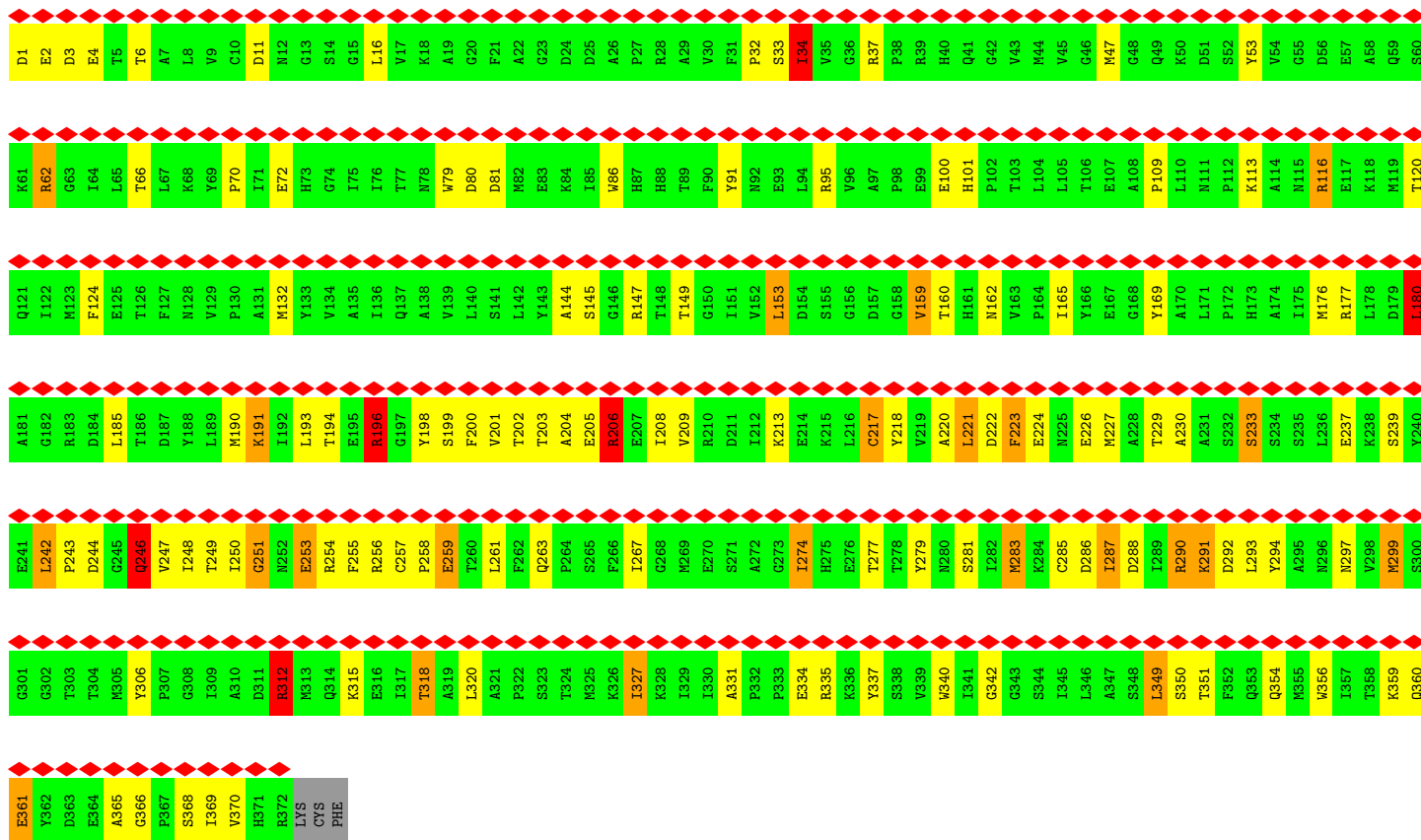


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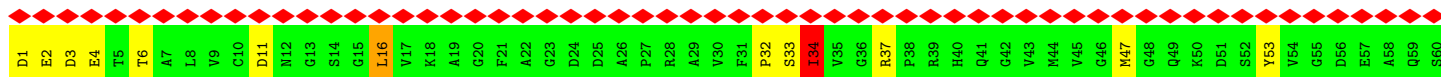




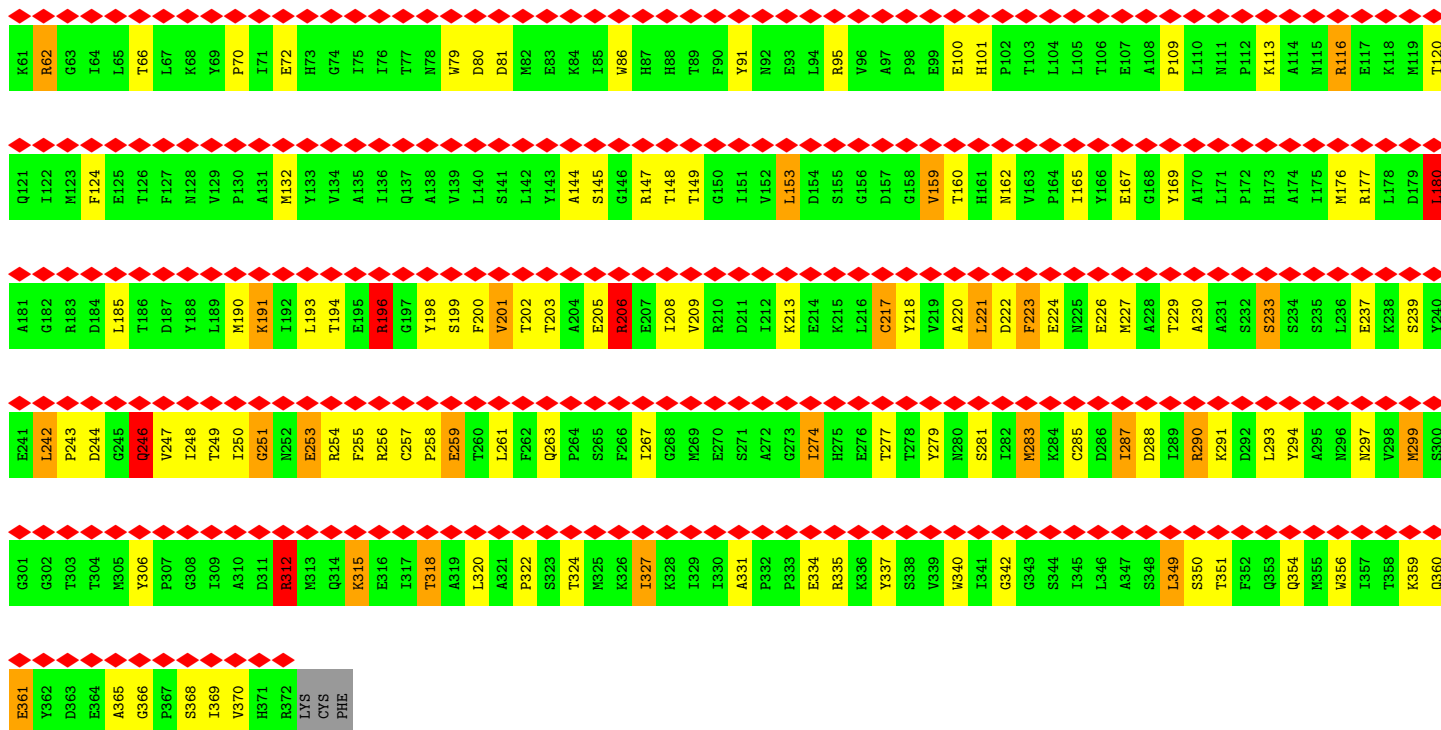
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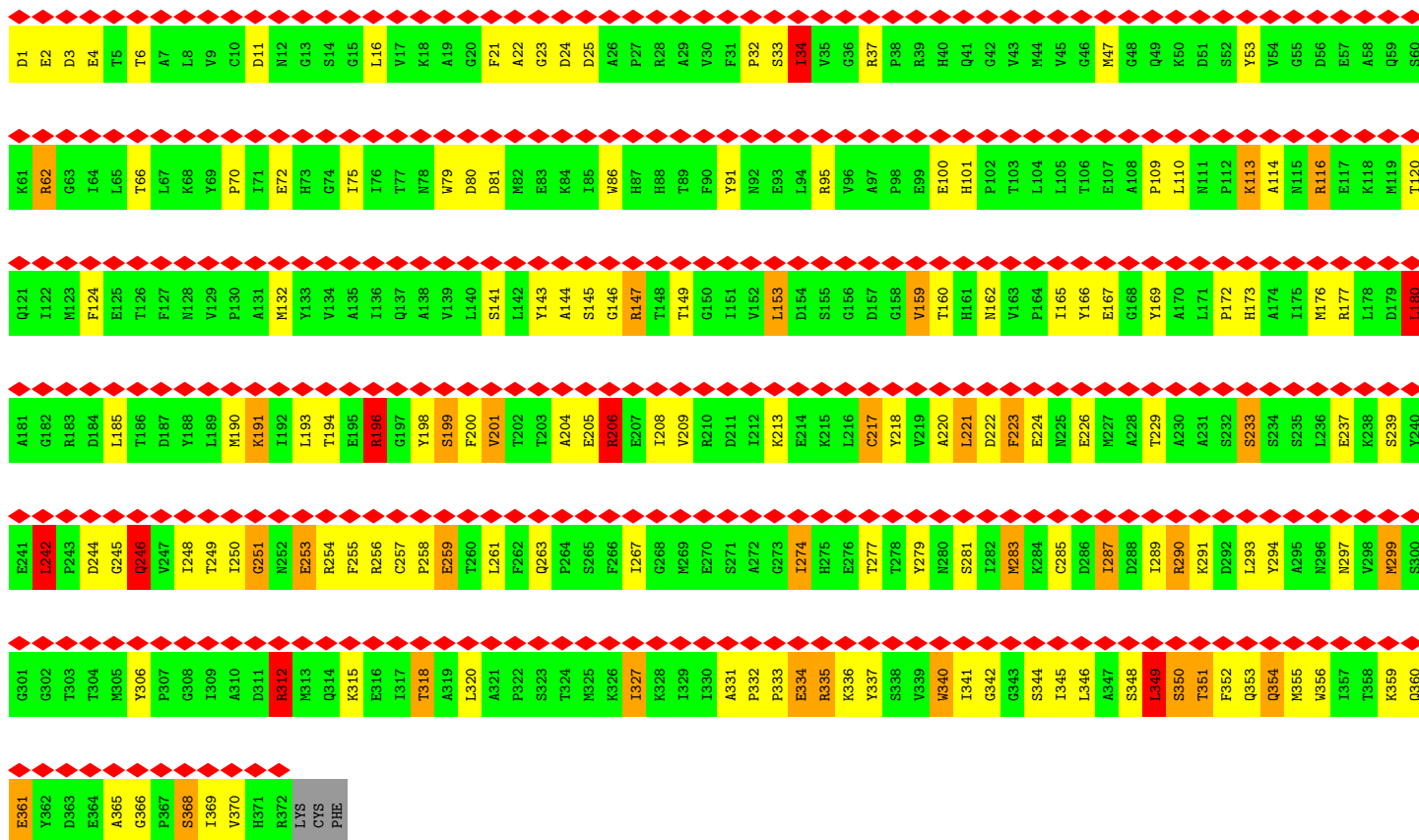
• Molecule 4: Skeletal muscle Actin



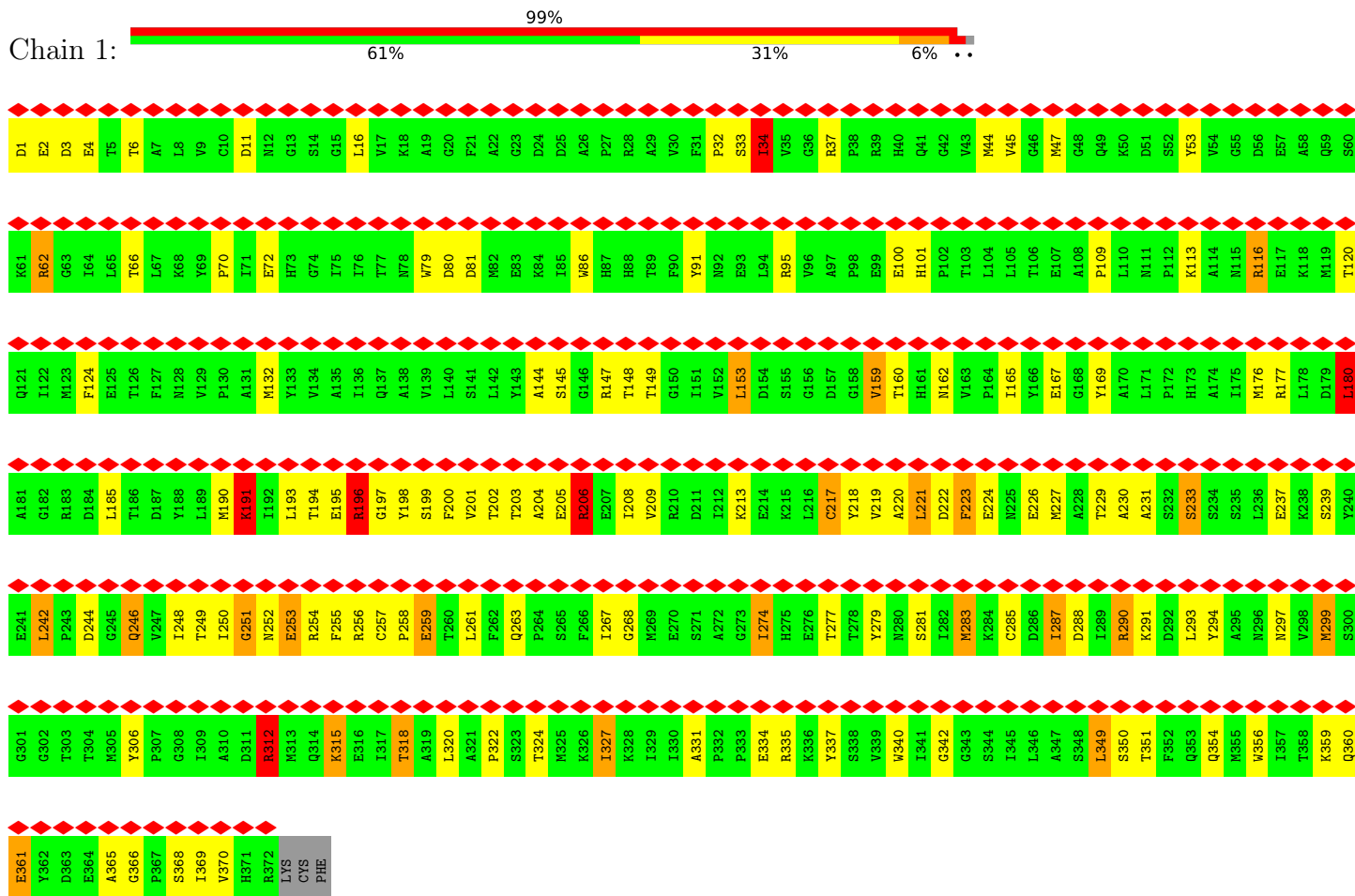




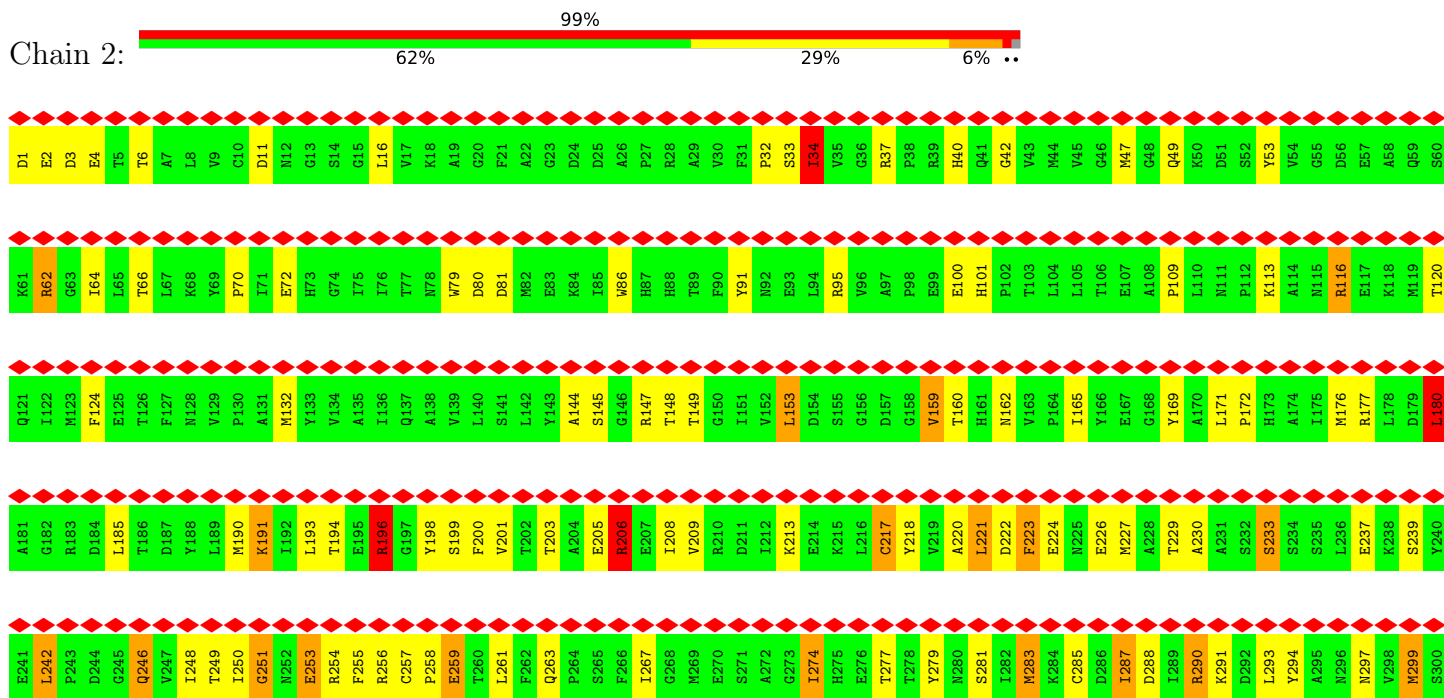
● Molecule 4: Skeletal muscle Actin

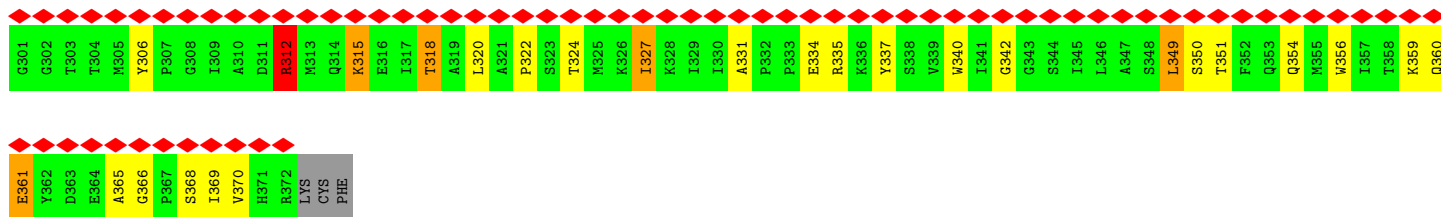


• Molecule 4: Skeletal muscle Actin

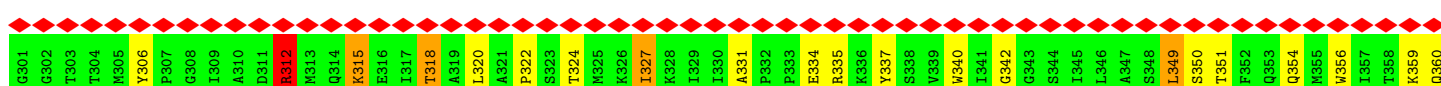
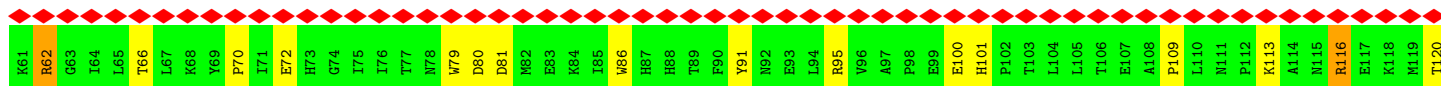
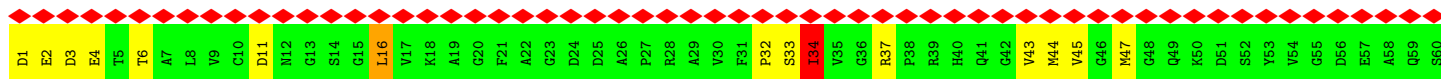


• Molecule 4: Skeletal muscle Actin

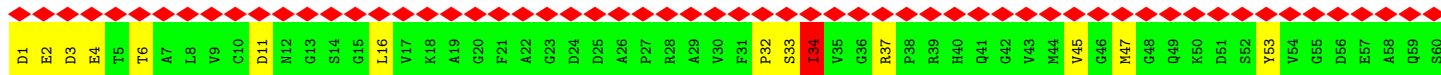
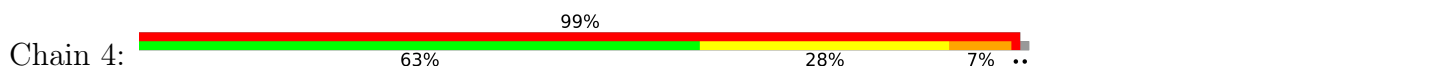




• Molecule 4: Skeletal muscle Actin

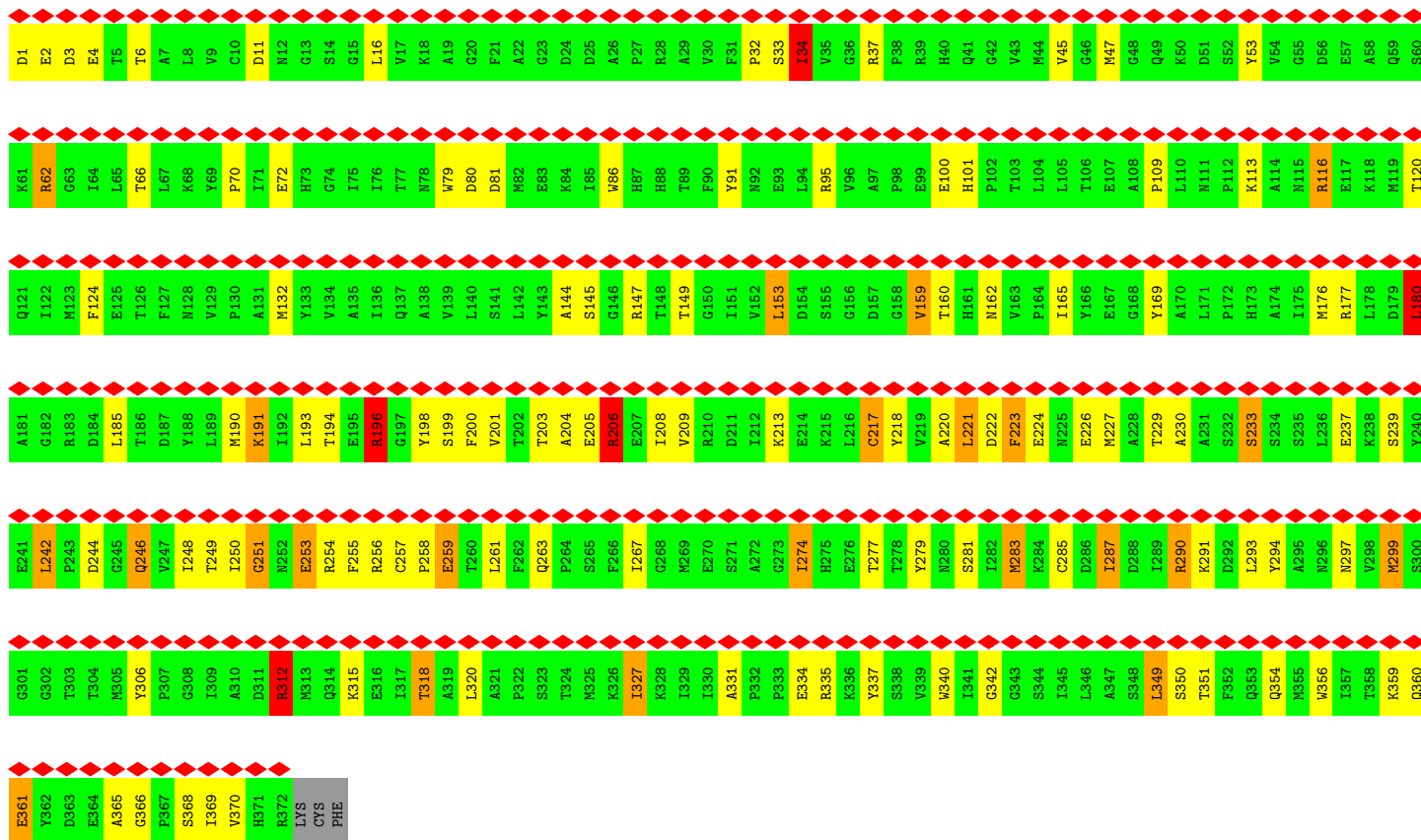


• Molecule 4: Skeletal muscle Actin





• Molecule 4: Skeletal muscle Actin



## 4 Experimental information

Property	Value	Source
EM reconstruction method	TOMOGRAPHY	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of tilted images used	Not provided	
Resolution determination method	Not provided	
CTF correction method	none	Depositor
Microscope	FEI/PHILIPS EM400	Depositor
Voltage (kV)	100	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	Not provided	
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	17000	Depositor
Image detector	KODAK SO-163 FILM	Depositor
Maximum voxel value	366.680	Depositor
Minimum voxel value	-417.992	Depositor
Average voxel value	1.860	Depositor
Voxel value standard deviation	47.792	Depositor
Recommended contour level	81.2	Depositor
Tomogram size ( $\text{\AA}$ )	9280, 9280, 464	wwPDB
Tomogram dimensions	600, 600, 30	wwPDB
Tomogram angles ( $^\circ$ )	90, 90, 90	wwPDB
Grid spacing ( $\text{\AA}$ )	15.4667, 15.4667, 15.4667	Depositor

## 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: MLY

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	1.77	67/6448 (1.0%)	1.82	117/8729 (1.3%)
1	D	1.77	64/6448 (1.0%)	1.82	114/8729 (1.3%)
1	G	1.77	68/6449 (1.1%)	1.86	118/8732 (1.4%)
1	P	1.79	69/6447 (1.1%)	1.84	120/8726 (1.4%)
2	B	1.22	10/1148 (0.9%)	1.61	16/1548 (1.0%)
2	E	1.22	10/1148 (0.9%)	1.62	16/1548 (1.0%)
2	H	1.22	10/1148 (0.9%)	1.62	16/1548 (1.0%)
2	Q	1.22	10/1148 (0.9%)	1.61	16/1548 (1.0%)
3	C	0.80	0/1136	0.95	4/1525 (0.3%)
3	F	0.80	0/1136	0.95	4/1525 (0.3%)
3	I	0.80	0/1136	0.94	4/1525 (0.3%)
3	R	0.80	0/1136	0.95	4/1525 (0.3%)
4	0	0.89	2/2968 (0.1%)	1.64	52/4023 (1.3%)
4	1	0.89	2/2968 (0.1%)	1.64	51/4023 (1.3%)
4	2	0.89	2/2968 (0.1%)	1.64	52/4023 (1.3%)
4	3	0.89	2/2968 (0.1%)	1.64	51/4023 (1.3%)
4	4	0.89	2/2968 (0.1%)	1.64	52/4023 (1.3%)
4	5	0.89	2/2968 (0.1%)	1.64	52/4023 (1.3%)
4	7	0.89	1/2968 (0.0%)	1.64	51/4023 (1.3%)
4	8	0.89	2/2968 (0.1%)	1.64	51/4023 (1.3%)
4	9	0.89	1/2968 (0.0%)	1.64	52/4023 (1.3%)
4	V	0.89	2/2968 (0.1%)	1.64	51/4023 (1.3%)
4	W	0.89	2/2968 (0.1%)	1.64	51/4023 (1.3%)
4	X	0.89	2/2968 (0.1%)	1.64	52/4023 (1.3%)
4	Y	0.89	2/2968 (0.1%)	1.64	52/4023 (1.3%)
4	Z	0.89	2/2968 (0.1%)	1.64	52/4023 (1.3%)
All	All	1.27	334/76480 (0.4%)	1.68	1271/103530 (1.2%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a

sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	1	4
1	D	1	4
1	G	1	6
1	P	1	6
2	B	0	3
2	E	0	3
2	H	0	3
2	Q	0	3
3	C	0	2
3	F	0	2
3	I	0	2
3	R	0	3
4	0	0	1
4	1	0	1
4	2	0	1
4	3	0	1
4	4	0	1
4	5	0	1
4	7	0	1
4	8	0	1
4	9	0	1
4	V	0	1
4	W	0	1
4	X	0	1
4	Y	0	1
4	Z	0	1
All	All	4	55

All (334) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	649	VAL	CB-CG1	53.26	2.64	1.52
1	P	649	VAL	CB-CG1	53.26	2.64	1.52
1	D	649	VAL	CB-CG1	53.20	2.64	1.52
1	A	649	VAL	CB-CG1	53.19	2.64	1.52
1	D	623	PHE	CB-CG	48.20	2.33	1.51
1	A	623	PHE	CB-CG	48.11	2.33	1.51
1	P	623	PHE	CB-CG	48.11	2.33	1.51
1	G	623	PHE	CB-CG	48.08	2.33	1.51
1	A	649	VAL	CB-CG2	46.26	2.50	1.52
1	P	649	VAL	CB-CG2	46.21	2.49	1.52
1	G	649	VAL	CB-CG2	46.20	2.49	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	649	VAL	CB-CG2	46.11	2.49	1.52
1	A	648	THR	CB-OG1	34.41	2.12	1.43
1	P	648	THR	CB-OG1	34.38	2.12	1.43
1	G	648	THR	CB-OG1	34.36	2.12	1.43
1	D	648	THR	CB-OG1	34.34	2.12	1.43
1	P	648	THR	CB-CG2	-30.70	0.51	1.52
1	A	648	THR	CB-CG2	-30.69	0.51	1.52
1	D	648	THR	CB-CG2	-30.66	0.51	1.52
1	G	648	THR	CB-CG2	-30.65	0.51	1.52
1	P	786	ILE	C-N	18.15	1.75	1.34
1	D	637	LYS	C-N	-15.02	1.06	1.33
1	P	637	LYS	C-N	-15.01	1.06	1.33
1	G	637	LYS	C-N	-14.83	1.06	1.33
1	A	637	LYS	C-N	-14.74	1.06	1.33
1	A	649	VAL	C-N	-13.50	1.02	1.34
1	G	649	VAL	C-N	-13.49	1.03	1.34
1	D	649	VAL	C-N	-13.45	1.03	1.34
1	P	649	VAL	C-N	-13.40	1.03	1.34
2	Q	150	TYR	CB-CG	-13.38	1.31	1.51
2	H	150	TYR	CB-CG	-13.36	1.31	1.51
2	B	150	TYR	CB-CG	-13.28	1.31	1.51
2	E	150	TYR	CB-CG	-13.20	1.31	1.51
2	E	140	PHE	C-N	-13.02	1.09	1.34
2	B	140	PHE	C-N	-13.01	1.09	1.34
2	Q	140	PHE	C-N	-12.89	1.09	1.34
2	H	140	PHE	C-N	-12.84	1.09	1.34
1	G	709	LYS	C-N	11.37	1.53	1.33
2	B	150	TYR	CG-CD2	-11.31	1.24	1.39
2	H	150	TYR	CG-CD2	-11.26	1.24	1.39
2	E	150	TYR	CG-CD2	-11.21	1.24	1.39
2	Q	150	TYR	CG-CD2	-11.09	1.24	1.39
2	Q	141	PRO	N-CD	-10.61	1.32	1.47
2	E	141	PRO	N-CD	-10.50	1.33	1.47
2	B	141	PRO	N-CD	-10.39	1.33	1.47
2	H	141	PRO	N-CD	-10.29	1.33	1.47
1	P	476	GLU	CD-OE1	8.90	1.35	1.25
1	D	476	GLU	CD-OE1	8.75	1.35	1.25
1	G	476	GLU	CD-OE1	8.73	1.35	1.25
1	P	622	LEU	C-N	8.71	1.54	1.34
1	A	476	GLU	CD-OE1	8.68	1.35	1.25
1	A	622	LEU	C-N	8.68	1.54	1.34
1	D	622	LEU	C-N	8.64	1.53	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	622	LEU	C-N	8.62	1.53	1.34
1	G	411	GLU	CD-OE1	8.45	1.34	1.25
1	P	411	GLU	CD-OE1	8.44	1.34	1.25
1	A	411	GLU	CD-OE1	8.30	1.34	1.25
1	P	745	GLU	CD-OE2	8.30	1.34	1.25
1	D	411	GLU	CD-OE1	8.27	1.34	1.25
2	B	150	TYR	CA-CB	-8.25	1.35	1.53
1	D	745	GLU	CD-OE2	8.25	1.34	1.25
2	Q	150	TYR	CA-CB	-8.22	1.35	1.53
2	H	150	TYR	CA-CB	-8.21	1.35	1.53
1	G	745	GLU	CD-OE2	8.14	1.34	1.25
1	A	745	GLU	CD-OE2	8.10	1.34	1.25
2	E	150	TYR	CA-CB	-8.06	1.36	1.53
1	A	381	GLU	CD-OE1	8.03	1.34	1.25
1	G	108	GLU	CD-OE1	7.99	1.34	1.25
1	P	108	GLU	CD-OE1	7.94	1.34	1.25
1	A	108	GLU	CD-OE1	7.89	1.34	1.25
1	P	202	SER	CB-OG	7.85	1.52	1.42
1	G	381	GLU	CD-OE1	7.83	1.34	1.25
1	D	381	GLU	CD-OE1	7.79	1.34	1.25
1	D	202	SER	CB-OG	7.78	1.52	1.42
1	P	381	GLU	CD-OE1	7.74	1.34	1.25
1	D	108	GLU	CD-OE1	7.71	1.34	1.25
1	A	202	SER	CB-OG	7.68	1.52	1.42
1	G	202	SER	CB-OG	7.66	1.52	1.42
1	G	689	GLU	CD-OE2	7.58	1.33	1.25
1	D	689	GLU	CD-OE2	7.57	1.33	1.25
1	A	689	GLU	CD-OE2	7.45	1.33	1.25
1	P	689	GLU	CD-OE2	7.39	1.33	1.25
1	D	23	GLU	CD-OE1	7.33	1.33	1.25
1	P	23	GLU	CD-OE1	7.30	1.33	1.25
1	P	347	GLU	CD-OE1	7.30	1.33	1.25
1	G	23	GLU	CD-OE1	7.26	1.33	1.25
1	A	23	GLU	CD-OE1	7.24	1.33	1.25
1	G	347	GLU	CD-OE1	7.24	1.33	1.25
1	D	347	GLU	CD-OE1	7.22	1.33	1.25
1	P	511	GLU	CD-OE1	7.19	1.33	1.25
1	D	524	GLU	CD-OE1	7.15	1.33	1.25
1	A	347	GLU	CD-OE1	7.13	1.33	1.25
1	A	511	GLU	CD-OE1	7.12	1.33	1.25
1	P	330	GLU	CD-OE1	7.08	1.33	1.25
1	D	68	GLU	CD-OE2	7.08	1.33	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	P	524	GLU	CD-OE1	7.02	1.33	1.25
1	G	68	GLU	CD-OE2	7.00	1.33	1.25
1	G	26	GLU	CD-OE1	6.99	1.33	1.25
1	G	330	GLU	CD-OE1	6.97	1.33	1.25
1	P	805	ALA	C-N	6.97	1.50	1.34
1	D	511	GLU	CD-OE1	6.95	1.33	1.25
1	D	376	GLU	CD-OE1	6.95	1.33	1.25
1	P	68	GLU	CD-OE2	6.94	1.33	1.25
1	A	376	GLU	CD-OE1	6.93	1.33	1.25
1	P	811	GLU	CD-OE1	6.90	1.33	1.25
1	A	68	GLU	CD-OE2	6.90	1.33	1.25
1	D	26	GLU	CD-OE1	6.89	1.33	1.25
1	G	524	GLU	CD-OE1	6.88	1.33	1.25
1	A	524	GLU	CD-OE1	6.87	1.33	1.25
1	P	376	GLU	CD-OE1	6.85	1.33	1.25
1	A	330	GLU	CD-OE1	6.85	1.33	1.25
1	G	376	GLU	CD-OE1	6.85	1.33	1.25
1	A	655	GLU	CD-OE1	6.85	1.33	1.25
1	P	26	GLU	CD-OE1	6.84	1.33	1.25
1	A	26	GLU	CD-OE1	6.84	1.33	1.25
1	G	511	GLU	CD-OE1	6.83	1.33	1.25
1	D	811	GLU	CD-OE1	6.83	1.33	1.25
1	D	330	GLU	CD-OE1	6.79	1.33	1.25
1	P	319	GLU	CD-OE1	6.78	1.33	1.25
1	P	655	GLU	CD-OE1	6.72	1.33	1.25
1	P	538	GLU	CD-OE1	6.68	1.32	1.25
1	A	811	GLU	CD-OE1	6.68	1.32	1.25
1	G	811	GLU	CD-OE1	6.65	1.32	1.25
1	A	319	GLU	CD-OE1	6.63	1.32	1.25
2	E	150	TYR	CD2-CE2	-6.62	1.29	1.39
1	D	655	GLU	CD-OE1	6.62	1.32	1.25
1	A	538	GLU	CD-OE1	6.60	1.32	1.25
1	D	319	GLU	CD-OE1	6.59	1.32	1.25
1	G	319	GLU	CD-OE1	6.59	1.32	1.25
1	G	538	GLU	CD-OE1	6.59	1.32	1.25
1	G	785	GLU	C-N	6.58	1.49	1.34
1	G	655	GLU	CD-OE1	6.55	1.32	1.25
1	P	266	GLU	CD-OE2	6.53	1.32	1.25
2	B	150	TYR	CD2-CE2	-6.51	1.29	1.39
1	D	538	GLU	CD-OE1	6.51	1.32	1.25
1	P	502	GLU	CD-OE2	6.51	1.32	1.25
1	D	538	GLU	CD-OE2	-6.48	1.18	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	Q	150	TYR	CD2-CE2	-6.48	1.29	1.39
1	A	266	GLU	CD-OE2	6.46	1.32	1.25
1	G	89	GLU	CD-OE1	6.46	1.32	1.25
1	G	605	GLU	CD-OE1	6.46	1.32	1.25
1	D	99	GLU	CD-OE2	6.46	1.32	1.25
1	G	99	GLU	CD-OE2	6.45	1.32	1.25
1	G	502	GLU	CD-OE2	6.44	1.32	1.25
1	P	89	GLU	CD-OE1	6.44	1.32	1.25
1	D	6	GLU	CD-OE1	6.43	1.32	1.25
1	D	266	GLU	CD-OE2	6.42	1.32	1.25
1	A	89	GLU	CD-OE1	6.42	1.32	1.25
1	A	605	GLU	CD-OE1	6.41	1.32	1.25
1	D	502	GLU	CD-OE2	6.40	1.32	1.25
1	P	99	GLU	CD-OE2	6.39	1.32	1.25
1	A	538	GLU	CD-OE2	-6.38	1.18	1.25
1	A	808	GLU	CD-OE1	6.35	1.32	1.25
1	A	502	GLU	CD-OE2	6.34	1.32	1.25
1	P	808	GLU	CD-OE1	6.34	1.32	1.25
1	G	802	GLU	CD-OE1	6.32	1.32	1.25
1	P	538	GLU	CD-OE2	-6.32	1.18	1.25
1	D	808	GLU	CD-OE1	6.30	1.32	1.25
2	B	150	TYR	N-CA	-6.30	1.33	1.46
1	P	6	GLU	CD-OE1	6.30	1.32	1.25
1	D	89	GLU	CD-OE1	6.30	1.32	1.25
4	2	259	GLU	CG-CD	6.29	1.61	1.51
4	3	259	GLU	CG-CD	6.29	1.61	1.51
4	7	259	GLU	CG-CD	6.29	1.61	1.51
4	Z	259	GLU	CG-CD	6.28	1.61	1.51
4	X	259	GLU	CG-CD	6.28	1.61	1.51
1	G	808	GLU	CD-OE1	6.28	1.32	1.25
2	E	150	TYR	N-CA	-6.28	1.33	1.46
2	H	150	TYR	CD2-CE2	-6.28	1.29	1.39
1	A	6	GLU	CD-OE1	6.27	1.32	1.25
4	W	259	GLU	CG-CD	6.27	1.61	1.51
1	G	266	GLU	CD-OE2	6.27	1.32	1.25
4	V	259	GLU	CG-CD	6.27	1.61	1.51
2	Q	150	TYR	N-CA	-6.27	1.33	1.46
1	A	99	GLU	CD-OE2	6.26	1.32	1.25
4	0	259	GLU	CG-CD	6.26	1.61	1.51
4	9	259	GLU	CG-CD	6.25	1.61	1.51
4	8	259	GLU	CG-CD	6.24	1.61	1.51
1	P	802	GLU	CD-OE1	6.24	1.32	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	Y	259	GLU	CG-CD	6.24	1.61	1.51
1	P	605	GLU	CD-OE1	6.24	1.32	1.25
1	G	509	GLU	CD-OE1	6.23	1.32	1.25
4	1	259	GLU	CG-CD	6.22	1.61	1.51
1	G	6	GLU	CD-OE1	6.22	1.32	1.25
1	D	605	GLU	CD-OE1	6.21	1.32	1.25
1	G	538	GLU	CD-OE2	-6.21	1.18	1.25
1	G	329	GLU	CD-OE1	6.20	1.32	1.25
4	5	259	GLU	CG-CD	6.20	1.61	1.51
2	H	150	TYR	N-CA	-6.18	1.33	1.46
4	4	259	GLU	CG-CD	6.18	1.61	1.51
1	D	802	GLU	CD-OE1	6.17	1.32	1.25
1	A	509	GLU	CD-OE1	6.17	1.32	1.25
1	D	509	GLU	CD-OE1	6.11	1.32	1.25
1	P	329	GLU	CD-OE1	6.10	1.32	1.25
1	P	509	GLU	CD-OE1	6.07	1.32	1.25
1	A	417	GLU	CD-OE1	6.06	1.32	1.25
1	A	329	GLU	CD-OE1	6.05	1.32	1.25
1	D	417	GLU	CD-OE1	6.02	1.32	1.25
1	P	230	GLU	CD-OE2	6.02	1.32	1.25
1	G	476	GLU	CD-OE2	-6.00	1.19	1.25
1	G	540	CYS	CB-SG	-5.96	1.72	1.81
1	D	468	GLU	CD-OE1	5.94	1.32	1.25
1	P	417	GLU	CD-OE1	5.94	1.32	1.25
1	A	802	GLU	CD-OE1	5.92	1.32	1.25
1	P	785	GLU	CD-OE2	5.90	1.32	1.25
1	D	329	GLU	CD-OE1	5.90	1.32	1.25
1	G	230	GLU	CD-OE2	5.88	1.32	1.25
1	G	417	GLU	CD-OE1	5.88	1.32	1.25
1	P	527	GLU	CD-OE1	5.87	1.32	1.25
1	P	421	GLU	CD-OE2	5.85	1.32	1.25
1	A	230	GLU	CD-OE2	5.84	1.32	1.25
1	D	230	GLU	CD-OE2	5.82	1.32	1.25
1	P	74	GLU	CD-OE2	5.82	1.32	1.25
1	P	499	GLU	CD-OE2	5.82	1.32	1.25
1	A	468	GLU	CD-OE1	5.82	1.32	1.25
1	D	785	GLU	CD-OE2	5.81	1.32	1.25
1	D	476	GLU	CD-OE2	-5.80	1.19	1.25
1	A	74	GLU	CD-OE2	5.80	1.32	1.25
1	A	597	GLU	CD-OE1	5.79	1.32	1.25
1	G	218	LEU	CB-CG	5.79	1.69	1.52
1	P	540	CYS	CB-SG	-5.79	1.72	1.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	687	GLU	CD-OE1	5.77	1.31	1.25
1	P	468	GLU	CD-OE1	5.75	1.31	1.25
1	D	540	CYS	CB-SG	-5.75	1.72	1.81
1	G	597	GLU	CD-OE1	5.74	1.31	1.25
1	A	785	GLU	CD-OE2	5.73	1.31	1.25
1	A	625	THR	CB-CG2	5.73	1.71	1.52
1	D	597	GLU	CD-OE1	5.72	1.31	1.25
1	G	74	GLU	CD-OE2	5.72	1.31	1.25
1	A	540	CYS	CB-SG	-5.71	1.72	1.81
1	D	218	LEU	CB-CG	5.71	1.69	1.52
1	A	527	GLU	CD-OE1	5.68	1.31	1.25
1	D	625	THR	CB-CG2	5.68	1.71	1.52
1	P	625	THR	CB-CG2	5.67	1.71	1.52
1	G	625	THR	CB-CG2	5.66	1.71	1.52
1	G	785	GLU	CD-OE2	5.66	1.31	1.25
1	A	218	LEU	CB-CG	5.66	1.69	1.52
1	G	527	GLU	CD-OE1	5.66	1.31	1.25
1	P	476	GLU	CD-OE2	-5.65	1.19	1.25
1	D	74	GLU	CD-OE2	5.64	1.31	1.25
1	A	687	GLU	CD-OE1	5.64	1.31	1.25
1	D	499	GLU	CD-OE2	5.63	1.31	1.25
1	D	527	GLU	CD-OE1	5.59	1.31	1.25
1	P	218	LEU	CB-CG	5.59	1.68	1.52
1	A	476	GLU	CD-OE2	-5.59	1.19	1.25
1	G	421	GLU	CD-OE2	5.58	1.31	1.25
2	H	150	TYR	CE1-CZ	5.58	1.45	1.38
1	A	373	GLU	CD-OE1	5.57	1.31	1.25
1	P	373	GLU	CD-OE1	5.56	1.31	1.25
1	G	468	GLU	CD-OE1	5.56	1.31	1.25
1	P	597	GLU	CD-OE1	5.55	1.31	1.25
1	A	421	GLU	CD-OE2	5.54	1.31	1.25
1	A	499	GLU	CD-OE2	5.50	1.31	1.25
1	G	373	GLU	CD-OE1	5.49	1.31	1.25
1	G	777	GLU	CD-OE2	5.49	1.31	1.25
1	G	687	GLU	CD-OE1	5.47	1.31	1.25
1	G	499	GLU	CD-OE2	5.47	1.31	1.25
2	Q	131	GLU	N-CA	5.47	1.57	1.46
1	P	687	GLU	CD-OE1	5.47	1.31	1.25
1	D	777	GLU	CD-OE2	5.46	1.31	1.25
1	D	421	GLU	CD-OE2	5.45	1.31	1.25
1	G	298	GLU	CD-OE2	5.45	1.31	1.25
1	D	373	GLU	CD-OE1	5.43	1.31	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	777	GLU	CD-OE2	5.43	1.31	1.25
1	A	479	CYS	CB-SG	-5.43	1.73	1.81
2	E	150	TYR	CE1-CZ	5.42	1.45	1.38
2	Q	150	TYR	CE1-CZ	5.41	1.45	1.38
2	B	150	TYR	CE1-CZ	5.40	1.45	1.38
2	H	131	GLU	N-CA	5.39	1.57	1.46
1	G	506	GLU	CD-OE2	5.38	1.31	1.25
1	D	65	GLU	CD-OE1	5.38	1.31	1.25
1	D	218	LEU	C-N	-5.37	1.21	1.34
1	G	479	CYS	CB-SG	-5.37	1.73	1.81
1	A	506	GLU	CD-OE2	5.36	1.31	1.25
2	B	131	GLU	N-CA	5.36	1.57	1.46
1	P	218	LEU	C-N	-5.36	1.21	1.34
2	E	131	GLU	N-CA	5.35	1.57	1.46
1	P	298	GLU	CD-OE2	5.34	1.31	1.25
1	A	65	GLU	CD-OE1	5.33	1.31	1.25
1	P	527	GLU	CD-OE2	-5.33	1.19	1.25
1	A	298	GLU	CD-OE2	5.32	1.31	1.25
1	P	479	CYS	CB-SG	-5.32	1.73	1.81
1	D	298	GLU	CD-OE2	5.32	1.31	1.25
1	A	218	LEU	C-N	-5.31	1.21	1.34
1	D	282	GLU	CD-OE1	5.31	1.31	1.25
1	G	679	GLU	CD-OE2	5.31	1.31	1.25
1	G	218	LEU	C-N	-5.30	1.21	1.34
1	P	777	GLU	CD-OE2	5.30	1.31	1.25
1	D	679	GLU	CD-OE2	5.28	1.31	1.25
1	P	679	GLU	CD-OE2	5.27	1.31	1.25
1	D	506	GLU	CD-OE2	5.24	1.31	1.25
1	D	479	CYS	CB-SG	-5.21	1.73	1.81
1	A	702	GLU	CD-OE2	5.21	1.31	1.25
1	G	702	GLU	CD-OE2	5.20	1.31	1.25
1	P	506	GLU	CD-OE2	5.19	1.31	1.25
2	Q	149	ASP	CB-CG	5.18	1.62	1.51
1	P	12	GLU	CD-OE2	5.18	1.31	1.25
1	G	21	GLU	CD-OE2	5.18	1.31	1.25
1	G	65	GLU	CD-OE1	5.18	1.31	1.25
1	D	702	GLU	CD-OE2	5.15	1.31	1.25
1	P	702	GLU	CD-OE2	5.15	1.31	1.25
1	A	527	GLU	CD-OE2	-5.15	1.20	1.25
1	P	21	GLU	CD-OE2	5.14	1.31	1.25
1	A	679	GLU	CD-OE2	5.13	1.31	1.25
1	P	65	GLU	CD-OE1	5.13	1.31	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	149	ASP	CB-CG	5.12	1.62	1.51
1	G	697	CYS	CB-SG	5.12	1.91	1.82
2	B	149	ASP	CB-CG	5.11	1.62	1.51
4	Z	259	GLU	CB-CG	5.10	1.61	1.52
1	A	697	CYS	CB-SG	5.10	1.91	1.82
1	G	12	GLU	CD-OE2	5.09	1.31	1.25
1	A	21	GLU	CD-OE2	5.09	1.31	1.25
4	3	259	GLU	CB-CG	5.09	1.61	1.52
4	4	259	GLU	CB-CG	5.09	1.61	1.52
4	8	259	GLU	CB-CG	5.08	1.61	1.52
4	2	259	GLU	CB-CG	5.08	1.61	1.52
1	A	539	GLU	CD-OE1	5.08	1.31	1.25
1	A	150	GLU	CD-OE1	5.07	1.31	1.25
1	G	150	GLU	CD-OE1	5.07	1.31	1.25
2	H	149	ASP	CB-CG	5.06	1.62	1.51
1	P	56	GLU	CD-OE1	5.06	1.31	1.25
1	P	697	CYS	CB-SG	5.06	1.90	1.82
4	0	259	GLU	CB-CG	5.05	1.61	1.52
4	V	259	GLU	CB-CG	5.04	1.61	1.52
4	Y	259	GLU	CB-CG	5.04	1.61	1.52
1	D	21	GLU	CD-OE2	5.03	1.31	1.25
4	5	259	GLU	CB-CG	5.03	1.61	1.52
4	X	259	GLU	CB-CG	5.02	1.61	1.52
1	A	56	GLU	CD-OE1	5.02	1.31	1.25
1	D	12	GLU	CD-OE2	5.02	1.31	1.25
4	W	259	GLU	CB-CG	5.02	1.61	1.52
1	G	539	GLU	CD-OE1	5.02	1.31	1.25
1	P	282	GLU	CD-OE1	5.02	1.31	1.25
4	1	259	GLU	CB-CG	5.01	1.61	1.52

All (1271) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	637	LYS	O-C-N	-58.54	23.69	123.20
1	P	637	LYS	O-C-N	-58.49	23.77	123.20
1	D	637	LYS	O-C-N	-58.47	23.80	123.20
1	A	637	LYS	O-C-N	-58.47	23.81	123.20
1	P	649	VAL	CG1-CB-CG2	-34.04	56.44	110.90
1	D	649	VAL	CG1-CB-CG2	-33.99	56.51	110.90
1	A	649	VAL	CG1-CB-CG2	-33.99	56.52	110.90
1	G	649	VAL	CG1-CB-CG2	-33.98	56.53	110.90
1	G	709	LYS	O-C-N	-32.34	68.22	123.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	P	648	THR	CA-CB-OG1	-31.71	42.40	109.00
1	A	648	THR	CA-CB-OG1	-31.70	42.42	109.00
1	D	648	THR	CA-CB-OG1	-31.69	42.45	109.00
1	G	648	THR	CA-CB-OG1	-31.66	42.51	109.00
2	Q	150	TYR	CB-CG-CD2	-28.82	103.71	121.00
2	E	150	TYR	CB-CG-CD2	-28.62	103.83	121.00
2	H	150	TYR	CB-CG-CD2	-28.61	103.83	121.00
2	B	150	TYR	CB-CG-CD2	-28.57	103.86	121.00
1	G	649	VAL	CA-CB-CG1	-28.51	68.13	110.90
1	P	649	VAL	CA-CB-CG1	-28.47	68.19	110.90
1	D	649	VAL	CA-CB-CG1	-28.45	68.22	110.90
1	A	649	VAL	CA-CB-CG1	-28.43	68.25	110.90
1	A	649	VAL	CA-CB-CG2	-28.17	68.65	110.90
1	G	649	VAL	CA-CB-CG2	-28.16	68.66	110.90
1	D	649	VAL	CA-CB-CG2	-28.16	68.67	110.90
1	P	649	VAL	CA-CB-CG2	-28.14	68.69	110.90
1	P	648	THR	CA-CB-CG2	-25.61	76.54	112.40
1	D	648	THR	CA-CB-CG2	-25.59	76.57	112.40
1	A	648	THR	CA-CB-CG2	-25.43	76.80	112.40
1	G	648	THR	CA-CB-CG2	-25.41	76.83	112.40
2	H	150	TYR	CG-CD2-CE2	-20.85	104.62	121.30
2	E	150	TYR	CG-CD2-CE2	-20.59	104.83	121.30
2	Q	150	TYR	CG-CD2-CE2	-20.50	104.90	121.30
2	B	150	TYR	CG-CD2-CE2	-20.50	104.90	121.30
2	Q	150	TYR	CD1-CG-CD2	19.48	139.33	117.90
2	E	150	TYR	CD1-CG-CD2	19.46	139.31	117.90
2	H	150	TYR	CD1-CG-CD2	19.42	139.27	117.90
2	B	150	TYR	CD1-CG-CD2	19.39	139.23	117.90
2	E	150	TYR	CG-CD1-CE1	-18.46	106.53	121.30
2	H	150	TYR	CG-CD1-CE1	-18.39	106.59	121.30
2	B	150	TYR	CG-CD1-CE1	-18.36	106.61	121.30
2	Q	150	TYR	CG-CD1-CE1	-18.33	106.64	121.30
1	P	785	GLU	O-C-N	-18.09	93.76	122.70
1	G	709	LYS	CA-C-N	17.39	150.97	116.20
1	P	800	ARG	NE-CZ-NH2	-16.62	111.99	120.30
1	D	800	ARG	NE-CZ-NH2	-16.40	112.10	120.30
1	A	800	ARG	NE-CZ-NH2	-16.21	112.19	120.30
1	G	800	ARG	NE-CZ-NH2	-16.20	112.20	120.30
1	G	623	PHE	CB-CG-CD2	-13.77	111.16	120.80
1	P	623	PHE	CB-CG-CD2	-13.69	111.22	120.80
1	A	623	PHE	CB-CG-CD2	-13.69	111.22	120.80
1	D	623	PHE	CB-CG-CD2	-13.65	111.25	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	623	PHE	CB-CG-CD1	12.39	129.47	120.80
1	P	623	PHE	CB-CG-CD1	12.39	129.47	120.80
1	A	623	PHE	CB-CG-CD1	12.30	129.41	120.80
1	A	623	PHE	CA-CB-CG	-12.26	84.47	113.90
1	P	623	PHE	CA-CB-CG	-12.26	84.47	113.90
1	D	623	PHE	CA-CB-CG	-12.24	84.52	113.90
1	G	623	PHE	CA-CB-CG	-12.20	84.63	113.90
1	D	623	PHE	CB-CG-CD1	12.00	129.20	120.80
1	P	98	HIS	CB-CA-C	-11.57	87.25	110.40
1	A	98	HIS	CB-CA-C	-11.53	87.34	110.40
1	D	98	HIS	CB-CA-C	-11.52	87.36	110.40
1	G	98	HIS	CB-CA-C	-11.52	87.36	110.40
1	P	786	ILE	C-N-CA	-11.36	93.31	121.70
1	G	568	PRO	O-C-N	10.70	139.81	122.70
1	D	568	PRO	O-C-N	10.68	139.79	122.70
1	A	568	PRO	O-C-N	10.66	139.76	122.70
1	P	568	PRO	O-C-N	10.64	139.72	122.70
2	Q	141	PRO	CA-N-CD	10.27	126.08	111.70
2	E	141	PRO	CA-N-CD	10.26	126.06	111.70
2	H	141	PRO	CA-N-CD	10.23	126.02	111.70
2	B	141	PRO	CA-N-CD	10.14	125.89	111.70
1	G	327	ASP	CB-CG-OD1	-10.11	109.20	118.30
1	G	625	THR	CA-CB-CG2	-10.09	98.27	112.40
1	P	625	THR	CA-CB-CG2	-10.04	98.34	112.40
1	A	327	ASP	CB-CG-OD1	-10.01	109.29	118.30
1	A	625	THR	CA-CB-CG2	-10.01	98.39	112.40
1	D	625	THR	CA-CB-CG2	-10.01	98.39	112.40
1	D	327	ASP	CB-CG-OD1	-9.99	109.31	118.30
1	P	327	ASP	CB-CG-OD1	-9.99	109.30	118.30
1	A	241	ASP	CB-CG-OD1	-9.96	109.33	118.30
1	D	241	ASP	CB-CG-OD1	-9.78	109.50	118.30
3	I	63	ILE	O-C-N	9.75	138.30	122.70
3	C	63	ILE	O-C-N	9.74	138.29	122.70
1	P	241	ASP	CB-CG-OD1	-9.74	109.53	118.30
1	D	728	ASN	O-C-N	9.74	138.28	122.70
1	G	241	ASP	CB-CG-OD1	-9.73	109.54	118.30
3	F	63	ILE	O-C-N	9.72	138.25	122.70
1	P	728	ASN	O-C-N	9.67	138.16	122.70
3	R	63	ILE	O-C-N	9.63	138.11	122.70
1	A	728	ASN	O-C-N	9.62	138.09	122.70
1	G	728	ASN	O-C-N	9.58	138.03	122.70
1	G	264	ASP	CB-CG-OD2	-9.48	109.77	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	264	ASP	CB-CG-OD2	-9.48	109.77	118.30
1	A	264	ASP	CB-CG-OD2	-9.43	109.81	118.30
2	E	150	TYR	N-CA-CB	-9.41	93.67	110.60
1	P	264	ASP	CB-CG-OD2	-9.36	109.87	118.30
2	H	150	TYR	N-CA-CB	-9.35	93.76	110.60
2	Q	150	TYR	N-CA-CB	-9.32	93.83	110.60
2	B	150	TYR	N-CA-CB	-9.30	93.86	110.60
4	9	356	TRP	CD1-CG-CD2	9.20	113.66	106.30
4	Y	356	TRP	CD1-CG-CD2	9.19	113.65	106.30
4	W	356	TRP	CD1-CG-CD2	9.18	113.64	106.30
4	7	356	TRP	CD1-CG-CD2	9.16	113.63	106.30
4	5	356	TRP	CD1-CG-CD2	9.13	113.61	106.30
4	Z	356	TRP	CD1-CG-CD2	9.12	113.60	106.30
4	1	356	TRP	CD1-CG-CD2	9.11	113.59	106.30
4	2	356	TRP	CD1-CG-CD2	9.11	113.59	106.30
4	0	356	TRP	CD1-CG-CD2	9.10	113.58	106.30
4	X	356	TRP	CD1-CG-CD2	9.09	113.57	106.30
4	3	356	TRP	CD1-CG-CD2	9.06	113.55	106.30
4	4	356	TRP	CD1-CG-CD2	9.05	113.54	106.30
1	P	352	TYR	CB-CG-CD1	9.04	126.42	121.00
4	V	356	TRP	CD1-CG-CD2	9.04	113.53	106.30
4	8	356	TRP	CD1-CG-CD2	9.02	113.52	106.30
1	D	378	ASP	CB-CG-OD2	8.96	126.37	118.30
1	P	378	ASP	CB-CG-OD2	8.96	126.37	118.30
1	A	378	ASP	CB-CG-OD2	8.92	126.33	118.30
1	G	378	ASP	CB-CG-OD2	8.89	126.30	118.30
1	G	352	TYR	CB-CG-CD1	8.80	126.28	121.00
2	Q	138	ALA	O-C-N	-8.74	108.72	122.70
1	D	352	TYR	CB-CG-CD1	8.73	126.24	121.00
2	E	138	ALA	O-C-N	-8.73	108.73	122.70
1	A	352	TYR	CB-CG-CD1	8.72	126.23	121.00
2	B	138	ALA	O-C-N	-8.67	108.83	122.70
2	H	138	ALA	O-C-N	-8.64	108.88	122.70
4	X	177	ARG	NE-CZ-NH2	-8.63	115.99	120.30
4	0	177	ARG	NE-CZ-NH2	-8.62	115.99	120.30
4	W	177	ARG	NE-CZ-NH2	-8.62	115.99	120.30
4	2	86	TRP	CD1-CG-CD2	8.62	113.19	106.30
4	8	177	ARG	NE-CZ-NH2	-8.61	116.00	120.30
4	3	177	ARG	NE-CZ-NH2	-8.59	116.00	120.30
4	Y	177	ARG	NE-CZ-NH2	-8.58	116.01	120.30
4	9	177	ARG	NE-CZ-NH2	-8.55	116.03	120.30
4	5	177	ARG	NE-CZ-NH2	-8.55	116.03	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	4	86	TRP	CD1-CG-CD2	8.54	113.14	106.30
4	0	86	TRP	CD1-CG-CD2	8.54	113.13	106.30
4	Z	86	TRP	CD1-CG-CD2	8.54	113.13	106.30
4	1	177	ARG	NE-CZ-NH2	-8.53	116.03	120.30
4	V	86	TRP	CD1-CG-CD2	8.52	113.12	106.30
4	V	177	ARG	NE-CZ-NH2	-8.51	116.05	120.30
4	8	86	TRP	CD1-CG-CD2	8.51	113.11	106.30
4	5	86	TRP	CD1-CG-CD2	8.50	113.10	106.30
1	P	601	ASP	CB-CG-OD1	-8.49	110.66	118.30
4	7	86	TRP	CD1-CG-CD2	8.48	113.09	106.30
4	Z	177	ARG	NE-CZ-NH2	-8.48	116.06	120.30
4	9	86	TRP	CD1-CG-CD2	8.48	113.08	106.30
4	Y	86	TRP	CD1-CG-CD2	8.47	113.08	106.30
4	4	177	ARG	NE-CZ-NH2	-8.47	116.06	120.30
4	X	86	TRP	CD1-CG-CD2	8.47	113.08	106.30
4	W	86	TRP	CD1-CG-CD2	8.47	113.07	106.30
1	G	601	ASP	CB-CG-OD1	-8.46	110.68	118.30
1	D	601	ASP	CB-CG-OD1	-8.46	110.69	118.30
4	3	86	TRP	CD1-CG-CD2	8.45	113.06	106.30
4	7	177	ARG	NE-CZ-NH2	-8.44	116.08	120.30
4	1	86	TRP	CD1-CG-CD2	8.43	113.04	106.30
4	2	177	ARG	NE-CZ-NH2	-8.40	116.10	120.30
1	A	601	ASP	CB-CG-OD1	-8.40	110.74	118.30
1	P	352	TYR	CB-CG-CD2	-8.38	115.97	121.00
1	A	352	TYR	CB-CG-CD2	-8.36	115.98	121.00
1	D	33	ASP	CB-CG-OD1	-8.33	110.80	118.30
1	P	33	ASP	CB-CG-OD1	-8.32	110.81	118.30
1	A	33	ASP	CB-CG-OD1	-8.30	110.83	118.30
1	G	352	TYR	CB-CG-CD2	-8.26	116.04	121.00
1	G	33	ASP	CB-CG-OD1	-8.26	110.87	118.30
4	9	356	TRP	CE2-CD2-CG	-8.03	100.87	107.30
4	5	356	TRP	CE2-CD2-CG	-8.03	100.88	107.30
4	W	356	TRP	CE2-CD2-CG	-8.01	100.89	107.30
4	Y	356	TRP	CE2-CD2-CG	-8.01	100.89	107.30
1	D	352	TYR	CB-CG-CD2	-8.00	116.20	121.00
4	Z	356	TRP	CE2-CD2-CG	-8.00	100.90	107.30
1	G	339	ASP	CB-CG-OD1	-7.99	111.11	118.30
4	7	356	TRP	CE2-CD2-CG	-7.98	100.92	107.30
1	A	339	ASP	CB-CG-OD1	-7.96	111.14	118.30
4	0	356	TRP	CE2-CD2-CG	-7.95	100.94	107.30
1	D	637	LYS	CA-C-N	7.94	132.07	116.20
4	1	356	TRP	CE2-CD2-CG	-7.93	100.95	107.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	339	ASP	CB-CG-OD1	-7.93	111.17	118.30
1	G	637	LYS	CA-C-N	7.92	132.04	116.20
4	8	356	TRP	CE2-CD2-CG	-7.91	100.97	107.30
4	3	356	TRP	CE2-CD2-CG	-7.91	100.97	107.30
1	A	637	LYS	CA-C-N	7.91	132.02	116.20
4	X	356	TRP	CE2-CD2-CG	-7.91	100.97	107.30
4	4	356	TRP	CE2-CD2-CG	-7.91	100.97	107.30
4	V	356	TRP	CE2-CD2-CG	-7.89	100.98	107.30
4	2	356	TRP	CE2-CD2-CG	-7.89	100.99	107.30
1	P	339	ASP	CB-CG-OD1	-7.88	111.21	118.30
2	E	150	TYR	CD1-CE1-CZ	-7.85	112.73	119.80
1	P	637	LYS	CA-C-N	7.85	131.90	116.20
2	B	150	TYR	CD1-CE1-CZ	-7.82	112.76	119.80
2	H	150	TYR	CD1-CE1-CZ	-7.81	112.77	119.80
2	Q	150	TYR	CD1-CE1-CZ	-7.78	112.80	119.80
1	D	202	SER	CB-CA-C	-7.77	95.34	110.10
1	A	202	SER	CB-CA-C	-7.77	95.34	110.10
4	1	312	ARG	NE-CZ-NH2	7.75	124.18	120.30
1	G	202	SER	CB-CA-C	-7.74	95.39	110.10
4	0	312	ARG	NE-CZ-NH2	7.73	124.17	120.30
1	P	202	SER	CB-CA-C	-7.73	95.42	110.10
1	P	653	PHE	CB-CG-CD1	-7.71	115.40	120.80
4	W	312	ARG	NE-CZ-NH2	7.70	124.15	120.30
4	X	312	ARG	NE-CZ-NH2	7.68	124.14	120.30
4	4	312	ARG	NE-CZ-NH2	7.68	124.14	120.30
4	Z	312	ARG	NE-CZ-NH2	7.67	124.13	120.30
4	3	312	ARG	NE-CZ-NH2	7.67	124.13	120.30
4	2	86	TRP	CE2-CD2-CG	-7.64	101.19	107.30
4	7	312	ARG	NE-CZ-NH2	7.64	124.12	120.30
4	9	312	ARG	NE-CZ-NH2	7.63	124.12	120.30
4	5	312	ARG	NE-CZ-NH2	7.63	124.11	120.30
4	2	312	ARG	NE-CZ-NH2	7.62	124.11	120.30
4	8	86	TRP	CE2-CD2-CG	-7.61	101.21	107.30
4	8	312	ARG	NE-CZ-NH2	7.61	124.10	120.30
4	0	86	TRP	CE2-CD2-CG	-7.61	101.21	107.30
4	Z	86	TRP	CE2-CD2-CG	-7.60	101.22	107.30
4	5	86	TRP	CE2-CD2-CG	-7.59	101.23	107.30
1	D	653	PHE	CB-CG-CD1	-7.59	115.49	120.80
1	G	653	PHE	CB-CG-CD1	-7.59	115.49	120.80
4	V	86	TRP	CE2-CD2-CG	-7.58	101.24	107.30
4	V	312	ARG	NE-CZ-NH2	7.57	124.08	120.30
4	Y	86	TRP	CE2-CD2-CG	-7.57	101.25	107.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	4	86	TRP	CE2-CD2-CG	-7.56	101.25	107.30
4	X	86	TRP	CE2-CD2-CG	-7.56	101.25	107.30
1	A	654	ARG	NE-CZ-NH1	7.54	124.07	120.30
3	C	63	ILE	CG1-CB-CG2	-7.53	94.83	111.40
4	Y	312	ARG	NE-CZ-NH2	7.53	124.06	120.30
4	9	86	TRP	CE2-CD2-CG	-7.53	101.28	107.30
4	7	86	TRP	CE2-CD2-CG	-7.51	101.29	107.30
4	W	86	TRP	CE2-CD2-CG	-7.51	101.29	107.30
4	1	86	TRP	CE2-CD2-CG	-7.50	101.30	107.30
1	G	654	ARG	NE-CZ-NH1	7.49	124.05	120.30
1	G	346	ASP	CB-CG-OD2	-7.48	111.57	118.30
1	P	518	ASP	CB-CG-OD1	-7.48	111.57	118.30
3	R	63	ILE	CG1-CB-CG2	-7.48	94.94	111.40
3	I	63	ILE	CG1-CB-CG2	-7.48	94.95	111.40
4	3	86	TRP	CE2-CD2-CG	-7.48	101.32	107.30
3	F	63	ILE	CG1-CB-CG2	-7.47	94.97	111.40
1	D	654	ARG	NE-CZ-NH1	7.45	124.03	120.30
3	I	63	ILE	CA-C-N	-7.39	100.93	117.20
1	D	518	ASP	CB-CG-OD1	-7.39	111.65	118.30
2	B	127	ARG	NE-CZ-NH2	7.39	123.99	120.30
1	D	346	ASP	CB-CG-OD2	-7.38	111.66	118.30
1	A	653	PHE	CB-CG-CD1	-7.38	115.63	120.80
4	Y	233	SER	CA-C-N	-7.37	100.98	117.20
4	7	233	SER	CA-C-N	-7.37	100.99	117.20
4	2	233	SER	CA-C-N	-7.37	100.99	117.20
4	4	254	ARG	NE-CZ-NH2	-7.37	116.62	120.30
1	A	518	ASP	CB-CG-OD1	-7.36	111.67	118.30
4	4	233	SER	CA-C-N	-7.36	101.01	117.20
4	X	180	LEU	CA-CB-CG	7.36	132.22	115.30
1	G	518	ASP	CB-CG-OD1	-7.35	111.68	118.30
4	V	233	SER	CA-C-N	-7.35	101.03	117.20
4	1	233	SER	CA-C-N	-7.35	101.03	117.20
4	8	233	SER	CA-C-N	-7.35	101.03	117.20
3	C	63	ILE	CA-C-N	-7.34	101.04	117.20
4	1	180	LEU	CA-CB-CG	7.34	132.19	115.30
4	3	233	SER	CA-C-N	-7.34	101.04	117.20
4	W	233	SER	CA-C-N	-7.34	101.05	117.20
4	2	180	LEU	CA-CB-CG	7.34	132.19	115.30
4	7	180	LEU	CA-CB-CG	7.34	132.18	115.30
2	E	127	ARG	NE-CZ-NH2	7.34	123.97	120.30
4	5	233	SER	CA-C-N	-7.34	101.06	117.20
4	Z	233	SER	CA-C-N	-7.33	101.06	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	0	180	LEU	CA-CB-CG	7.33	132.17	115.30
4	0	233	SER	CA-C-N	-7.33	101.07	117.20
4	3	180	LEU	CA-CB-CG	7.33	132.17	115.30
1	A	346	ASP	CB-CG-OD2	-7.33	111.70	118.30
4	9	180	LEU	CA-CB-CG	7.33	132.16	115.30
4	X	233	SER	CA-C-N	-7.33	101.07	117.20
2	H	127	ARG	NE-CZ-NH2	7.32	123.96	120.30
4	9	233	SER	CA-C-N	-7.32	101.09	117.20
4	W	180	LEU	CA-CB-CG	7.32	132.14	115.30
3	R	63	ILE	CA-C-N	-7.32	101.09	117.20
1	P	104	TYR	CB-CG-CD2	7.32	125.39	121.00
4	4	180	LEU	CA-CB-CG	7.32	132.13	115.30
4	Z	180	LEU	CA-CB-CG	7.32	132.13	115.30
4	8	180	LEU	CA-CB-CG	7.32	132.13	115.30
4	V	180	LEU	CA-CB-CG	7.31	132.12	115.30
4	5	180	LEU	CA-CB-CG	7.30	132.09	115.30
1	G	104	TYR	CB-CG-CD2	7.30	125.38	121.00
4	Y	180	LEU	CA-CB-CG	7.30	132.09	115.30
4	1	79	TRP	CD1-CG-CD2	7.29	112.14	106.30
4	X	254	ARG	NE-CZ-NH2	-7.29	116.65	120.30
3	F	63	ILE	CA-C-N	-7.29	101.17	117.20
1	P	654	ARG	NE-CZ-NH1	7.27	123.94	120.30
4	Z	254	ARG	NE-CZ-NH2	-7.27	116.66	120.30
4	X	206	ARG	NE-CZ-NH1	7.26	123.93	120.30
4	W	254	ARG	NE-CZ-NH2	-7.26	116.67	120.30
4	V	254	ARG	NE-CZ-NH2	-7.26	116.67	120.30
4	3	254	ARG	NE-CZ-NH2	-7.24	116.68	120.30
4	8	79	TRP	CD1-CG-CD2	7.24	112.09	106.30
4	Z	340	TRP	CE2-CD2-CG	-7.23	101.51	107.30
4	0	79	TRP	CD1-CG-CD2	7.23	112.08	106.30
4	0	254	ARG	NE-CZ-NH2	-7.23	116.69	120.30
4	5	254	ARG	NE-CZ-NH2	-7.22	116.69	120.30
4	5	340	TRP	CE2-CD2-CG	-7.22	101.52	107.30
4	9	340	TRP	CE2-CD2-CG	-7.22	101.52	107.30
1	P	346	ASP	CB-CG-OD2	-7.21	111.81	118.30
1	A	148	ARG	NE-CZ-NH2	-7.21	116.70	120.30
4	8	254	ARG	NE-CZ-NH2	-7.20	116.70	120.30
4	V	79	TRP	CD1-CG-CD2	7.20	112.06	106.30
4	Y	340	TRP	CE2-CD2-CG	-7.20	101.54	107.30
1	A	104	TYR	CB-CG-CD2	7.19	125.32	121.00
4	Y	254	ARG	NE-CZ-NH2	-7.19	116.70	120.30
4	7	206	ARG	NE-CZ-NH1	7.19	123.89	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	9	254	ARG	NE-CZ-NH2	-7.19	116.71	120.30
4	7	254	ARG	NE-CZ-NH2	-7.18	116.71	120.30
4	3	79	TRP	CD1-CG-CD2	7.18	112.05	106.30
4	7	79	TRP	CD1-CG-CD2	7.17	112.03	106.30
4	Y	79	TRP	CD1-CG-CD2	7.17	112.03	106.30
4	Z	79	TRP	CD1-CG-CD2	7.16	112.03	106.30
4	X	79	TRP	CD1-CG-CD2	7.16	112.03	106.30
1	P	785	GLU	CA-C-N	7.16	132.94	117.20
4	7	340	TRP	CE2-CD2-CG	-7.16	101.58	107.30
4	1	254	ARG	NE-CZ-NH2	-7.16	116.72	120.30
4	5	79	TRP	CD1-CG-CD2	7.15	112.02	106.30
4	2	340	TRP	CE2-CD2-CG	-7.15	101.58	107.30
4	9	79	TRP	CD1-CG-CD2	7.14	112.02	106.30
4	W	340	TRP	CE2-CD2-CG	-7.14	101.58	107.30
4	2	206	ARG	NE-CZ-NH1	7.13	123.87	120.30
4	4	79	TRP	CD1-CG-CD2	7.13	112.01	106.30
4	W	79	TRP	CD1-CG-CD2	7.13	112.00	106.30
1	G	568	PRO	CA-C-N	-7.12	101.52	117.20
4	W	206	ARG	NE-CZ-NH1	7.12	123.86	120.30
4	V	340	TRP	CE2-CD2-CG	-7.12	101.61	107.30
4	3	340	TRP	CE2-CD2-CG	-7.12	101.61	107.30
4	1	340	TRP	CE2-CD2-CG	-7.12	101.61	107.30
4	0	340	TRP	CE2-CD2-CG	-7.11	101.61	107.30
1	A	568	PRO	CA-C-N	-7.11	101.56	117.20
4	0	206	ARG	NE-CZ-NH1	7.10	123.85	120.30
4	1	206	ARG	NE-CZ-NH1	7.10	123.85	120.30
4	X	340	TRP	CE2-CD2-CG	-7.10	101.62	107.30
1	P	568	PRO	CA-C-N	-7.09	101.60	117.20
4	8	206	ARG	NE-CZ-NH1	7.09	123.85	120.30
4	4	206	ARG	NE-CZ-NH1	7.09	123.84	120.30
4	4	340	TRP	CE2-CD2-CG	-7.09	101.63	107.30
1	D	568	PRO	CA-C-N	-7.08	101.62	117.20
4	1	79	TRP	CE2-CD2-CG	-7.08	101.63	107.30
4	8	340	TRP	CE2-CD2-CG	-7.08	101.64	107.30
4	8	79	TRP	CE2-CD2-CG	-7.07	101.64	107.30
4	4	47	MET	CA-CB-CG	-7.07	101.28	113.30
4	2	79	TRP	CD1-CG-CD2	7.06	111.95	106.30
4	V	206	ARG	NE-CZ-NH1	7.06	123.83	120.30
1	D	104	TYR	CB-CG-CD2	7.05	125.23	121.00
4	Z	206	ARG	NE-CZ-NH1	7.05	123.83	120.30
4	2	254	ARG	NE-CZ-NH2	-7.05	116.77	120.30
4	5	206	ARG	NE-CZ-NH1	7.05	123.82	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	Z	47	MET	CA-CB-CG	-7.04	101.33	113.30
4	0	47	MET	CA-CB-CG	-7.04	101.33	113.30
4	3	206	ARG	NE-CZ-NH1	7.04	123.82	120.30
4	W	47	MET	CA-CB-CG	-7.04	101.33	113.30
2	E	150	TYR	CB-CG-CD1	-7.04	116.78	121.00
4	X	79	TRP	CE2-CD2-CG	-7.04	101.67	107.30
4	7	47	MET	CA-CB-CG	-7.03	101.34	113.30
4	9	206	ARG	NE-CZ-NH1	7.03	123.82	120.30
4	1	47	MET	CA-CB-CG	-7.03	101.34	113.30
1	P	264	ASP	N-CA-CB	-7.03	97.94	110.60
4	X	47	MET	CA-CB-CG	-7.03	101.35	113.30
4	8	47	MET	CA-CB-CG	-7.03	101.35	113.30
4	0	79	TRP	CE2-CD2-CG	-7.03	101.68	107.30
1	D	218	LEU	CB-CG-CD1	7.02	122.94	111.00
4	7	340	TRP	CD1-CG-CD2	7.02	111.92	106.30
4	V	47	MET	CA-CB-CG	-7.02	101.36	113.30
2	H	150	TYR	CB-CG-CD1	-7.02	116.79	121.00
4	2	47	MET	CA-CB-CG	-7.02	101.37	113.30
4	9	47	MET	CA-CB-CG	-7.01	101.38	113.30
1	A	264	ASP	N-CA-CB	-7.01	97.99	110.60
4	5	340	TRP	CD1-CG-CD2	7.00	111.90	106.30
1	A	217	THR	N-CA-CB	7.00	123.60	110.30
2	Q	127	ARG	NE-CZ-NH2	7.00	123.80	120.30
4	Y	47	MET	CA-CB-CG	-7.00	101.40	113.30
4	5	47	MET	CA-CB-CG	-7.00	101.40	113.30
1	P	218	LEU	CB-CG-CD1	7.00	122.90	111.00
1	G	218	LEU	CB-CG-CD1	7.00	122.90	111.00
1	G	217	THR	N-CA-CB	6.99	123.58	110.30
1	A	218	LEU	CB-CG-CD1	6.99	122.88	111.00
4	9	79	TRP	CE2-CD2-CG	-6.99	101.71	107.30
2	B	150	TYR	CB-CG-CD1	-6.99	116.81	121.00
4	Y	79	TRP	CE2-CD2-CG	-6.99	101.71	107.30
1	G	264	ASP	N-CA-CB	-6.99	98.03	110.60
4	3	47	MET	CA-CB-CG	-6.99	101.42	113.30
4	V	79	TRP	CE2-CD2-CG	-6.98	101.71	107.30
1	D	264	ASP	N-CA-CB	-6.98	98.04	110.60
4	3	79	TRP	CE2-CD2-CG	-6.98	101.72	107.30
4	Z	340	TRP	CD1-CG-CD2	6.97	111.88	106.30
1	D	217	THR	N-CA-CB	6.97	123.54	110.30
4	2	340	TRP	CD1-CG-CD2	6.97	111.87	106.30
4	1	340	TRP	CD1-CG-CD2	6.96	111.87	106.30
4	3	340	TRP	CD1-CG-CD2	6.96	111.87	106.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	5	79	TRP	CE2-CD2-CG	-6.96	101.73	107.30
4	0	340	TRP	CD1-CG-CD2	6.96	111.87	106.30
4	9	340	TRP	CD1-CG-CD2	6.95	111.86	106.30
4	Y	206	ARG	NE-CZ-NH1	6.95	123.78	120.30
4	X	340	TRP	CD1-CG-CD2	6.95	111.86	106.30
4	7	79	TRP	CE2-CD2-CG	-6.94	101.75	107.30
4	V	340	TRP	CD1-CG-CD2	6.94	111.85	106.30
1	P	217	THR	N-CA-CB	6.92	123.45	110.30
4	Z	79	TRP	CE2-CD2-CG	-6.92	101.77	107.30
1	D	148	ARG	NE-CZ-NH2	-6.91	116.84	120.30
4	W	340	TRP	CD1-CG-CD2	6.91	111.83	106.30
1	P	148	ARG	NE-CZ-NH2	-6.90	116.85	120.30
4	4	79	TRP	CE2-CD2-CG	-6.90	101.78	107.30
4	2	79	TRP	CE2-CD2-CG	-6.89	101.79	107.30
1	A	75	ASP	N-CA-CB	6.87	122.97	110.60
4	Y	340	TRP	CD1-CG-CD2	6.87	111.80	106.30
1	G	75	ASP	N-CA-CB	6.87	122.96	110.60
4	8	340	TRP	CD1-CG-CD2	6.86	111.79	106.30
2	Q	150	TYR	CB-CG-CD1	-6.86	116.88	121.00
1	D	728	ASN	CA-C-N	-6.86	102.11	117.20
1	G	728	ASN	CA-C-N	-6.85	102.12	117.20
1	P	728	ASN	CA-C-N	-6.85	102.13	117.20
4	W	79	TRP	CE2-CD2-CG	-6.84	101.82	107.30
4	4	340	TRP	CD1-CG-CD2	6.82	111.76	106.30
1	G	450	ASP	CB-CG-OD2	6.82	124.44	118.30
1	P	75	ASP	N-CA-CB	6.82	122.87	110.60
1	A	728	ASN	CA-C-N	-6.82	102.21	117.20
1	D	450	ASP	CB-CG-OD2	6.78	124.40	118.30
1	D	75	ASP	N-CA-CB	6.76	122.78	110.60
1	A	450	ASP	CB-CG-OD2	6.74	124.37	118.30
1	P	75	ASP	CB-CG-OD2	6.72	124.35	118.30
1	G	148	ARG	NE-CZ-NH2	-6.72	116.94	120.30
1	P	555	TYR	CB-CG-CD2	-6.72	116.97	121.00
1	G	756	THR	N-CA-CB	-6.71	97.56	110.30
1	P	450	ASP	CB-CG-OD2	6.70	124.33	118.30
1	D	781	ASP	CB-CG-OD1	-6.69	112.28	118.30
1	P	756	THR	N-CA-CB	-6.67	97.63	110.30
1	A	781	ASP	CB-CG-OD1	-6.66	112.31	118.30
1	P	219	GLU	N-CA-C	-6.65	93.05	111.00
1	G	219	GLU	N-CA-C	-6.65	93.06	111.00
1	A	75	ASP	CB-CG-OD2	6.63	124.27	118.30
1	A	756	THR	N-CA-CB	-6.63	97.70	110.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	9	196	ARG	NE-CZ-NH1	6.63	123.61	120.30
1	G	781	ASP	CB-CG-OD1	-6.63	112.34	118.30
1	A	555	TYR	CB-CG-CD2	-6.62	117.03	121.00
1	D	756	THR	N-CA-CB	-6.62	97.73	110.30
4	3	196	ARG	NE-CZ-NH1	6.61	123.61	120.30
1	D	555	TYR	CB-CG-CD2	-6.60	117.04	121.00
1	A	219	GLU	N-CA-C	-6.59	93.20	111.00
1	G	555	TYR	CB-CG-CD2	-6.59	117.05	121.00
4	5	196	ARG	NE-CZ-NH1	6.58	123.59	120.30
4	0	196	ARG	NE-CZ-NH1	6.58	123.59	120.30
1	D	219	GLU	N-CA-C	-6.57	93.25	111.00
4	7	169	TYR	CB-CG-CD2	-6.57	117.06	121.00
4	Y	283	MET	CG-SD-CE	6.55	110.69	100.20
1	A	343	PHE	CB-CG-CD1	6.55	125.39	120.80
4	V	196	ARG	NE-CZ-NH1	6.55	123.58	120.30
1	A	332	MET	CG-SD-CE	-6.55	89.72	100.20
1	D	332	MET	CG-SD-CE	-6.55	89.72	100.20
4	4	169	TYR	CB-CG-CD2	-6.55	117.07	121.00
1	G	590	TYR	CB-CG-CD2	6.54	124.93	121.00
4	8	169	TYR	CB-CG-CD2	-6.54	117.07	121.00
4	8	283	MET	CG-SD-CE	6.54	110.67	100.20
4	Z	283	MET	CG-SD-CE	6.54	110.67	100.20
4	5	169	TYR	CB-CG-CD2	-6.54	117.07	121.00
1	P	141	LEU	CB-CA-C	-6.54	97.77	110.20
4	W	283	MET	CG-SD-CE	6.54	110.67	100.20
4	X	283	MET	CG-SD-CE	6.54	110.67	100.20
4	Y	169	TYR	CB-CG-CD2	-6.54	117.08	121.00
4	V	283	MET	CG-SD-CE	6.54	110.66	100.20
4	5	283	MET	CG-SD-CE	6.54	110.66	100.20
1	P	332	MET	CG-SD-CE	-6.53	89.75	100.20
4	4	283	MET	CG-SD-CE	6.53	110.66	100.20
4	9	283	MET	CG-SD-CE	6.53	110.65	100.20
4	X	169	TYR	CB-CG-CD2	-6.53	117.08	121.00
4	0	283	MET	CG-SD-CE	6.53	110.65	100.20
1	P	781	ASP	CB-CG-OD1	-6.53	112.42	118.30
4	1	283	MET	CG-SD-CE	6.53	110.64	100.20
1	G	169	ASP	CB-CG-OD1	-6.53	112.43	118.30
1	G	141	LEU	CB-CA-C	-6.52	97.80	110.20
4	Y	196	ARG	NE-CZ-NH1	6.52	123.56	120.30
1	D	75	ASP	CB-CG-OD2	6.52	124.17	118.30
4	2	283	MET	CG-SD-CE	6.52	110.63	100.20
4	3	283	MET	CG-SD-CE	6.52	110.63	100.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	332	MET	CG-SD-CE	-6.52	89.77	100.20
4	1	169	TYR	CB-CG-CD2	-6.52	117.09	121.00
4	4	196	ARG	NE-CZ-NH1	6.52	123.56	120.30
4	7	283	MET	CG-SD-CE	6.51	110.62	100.20
4	W	196	ARG	NE-CZ-NH1	6.51	123.56	120.30
1	A	169	ASP	CB-CG-OD1	-6.51	112.44	118.30
4	0	169	TYR	CB-CG-CD2	-6.51	117.10	121.00
1	D	334	THR	CA-CB-CG2	-6.50	103.30	112.40
1	D	141	LEU	CB-CA-C	-6.50	97.85	110.20
1	G	334	THR	CA-CB-CG2	-6.49	103.31	112.40
4	7	159	VAL	CB-CA-C	-6.49	99.06	111.40
4	Z	159	VAL	CB-CA-C	-6.48	99.08	111.40
4	Y	159	VAL	CB-CA-C	-6.48	99.08	111.40
4	2	159	VAL	CB-CA-C	-6.48	99.08	111.40
4	W	169	TYR	CB-CG-CD2	-6.48	117.11	121.00
4	2	169	TYR	CB-CG-CD2	-6.48	117.11	121.00
2	H	141	PRO	N-CD-CG	-6.48	93.48	103.20
4	1	159	VAL	CB-CA-C	-6.48	99.09	111.40
4	V	159	VAL	CB-CA-C	-6.47	99.10	111.40
1	P	169	ASP	CB-CG-OD1	-6.47	112.47	118.30
4	Z	169	TYR	CB-CG-CD2	-6.47	117.12	121.00
4	0	159	VAL	CB-CA-C	-6.47	99.10	111.40
4	9	169	TYR	CB-CG-CD2	-6.47	117.12	121.00
1	P	334	THR	CA-CB-CG2	-6.46	103.35	112.40
4	3	159	VAL	CB-CA-C	-6.46	99.12	111.40
1	A	334	THR	CA-CB-CG2	-6.46	103.35	112.40
1	G	343	PHE	CB-CG-CD1	6.46	125.32	120.80
4	8	159	VAL	CB-CA-C	-6.46	99.12	111.40
4	W	159	VAL	CB-CA-C	-6.46	99.12	111.40
4	X	159	VAL	CB-CA-C	-6.46	99.13	111.40
1	A	141	LEU	CB-CA-C	-6.46	97.93	110.20
1	D	169	ASP	CB-CG-OD1	-6.46	112.49	118.30
4	5	159	VAL	CB-CA-C	-6.46	99.14	111.40
1	D	129	TYR	CB-CG-CD2	-6.45	117.13	121.00
4	4	159	VAL	CB-CA-C	-6.45	99.14	111.40
1	A	589	ASP	CB-CG-OD1	-6.45	112.49	118.30
4	1	196	ARG	NE-CZ-NH1	6.45	123.52	120.30
1	G	589	ASP	CB-CG-OD1	-6.45	112.50	118.30
4	9	159	VAL	CB-CA-C	-6.44	99.17	111.40
4	4	34	ILE	CA-CB-CG2	-6.44	98.03	110.90
4	Y	34	ILE	CA-CB-CG2	-6.43	98.04	110.90
2	E	141	PRO	N-CD-CG	-6.43	93.56	103.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	X	196	ARG	NE-CZ-NH1	6.42	123.51	120.30
4	3	34	ILE	CA-CB-CG2	-6.42	98.05	110.90
1	D	343	PHE	CB-CG-CD1	6.42	125.30	120.80
4	5	34	ILE	CA-CB-CG2	-6.42	98.06	110.90
4	V	169	TYR	CB-CG-CD2	-6.42	117.15	121.00
4	8	196	ARG	NE-CZ-NH1	6.42	123.51	120.30
4	7	34	ILE	CA-CB-CG2	-6.41	98.07	110.90
4	9	34	ILE	CA-CB-CG2	-6.41	98.07	110.90
1	P	589	ASP	CB-CG-OD1	-6.41	112.53	118.30
4	1	34	ILE	CA-CB-CG2	-6.41	98.08	110.90
4	2	196	ARG	NE-CZ-NH1	6.40	123.50	120.30
4	Z	34	ILE	CA-CB-CG2	-6.40	98.11	110.90
4	2	34	ILE	CA-CB-CG2	-6.39	98.12	110.90
4	V	34	ILE	CA-CB-CG2	-6.39	98.13	110.90
4	X	34	ILE	CA-CB-CG2	-6.38	98.13	110.90
1	P	343	PHE	CB-CG-CD1	6.38	125.26	120.80
4	Z	196	ARG	NE-CZ-NH1	6.38	123.49	120.30
4	8	34	ILE	CA-CB-CG2	-6.38	98.15	110.90
1	P	779	ARG	NE-CZ-NH1	6.37	123.49	120.30
2	Q	141	PRO	N-CD-CG	-6.37	93.65	103.20
4	W	34	ILE	CA-CB-CG2	-6.37	98.16	110.90
4	0	34	ILE	CA-CB-CG2	-6.37	98.17	110.90
1	G	578	HIS	N-CA-CB	6.35	122.03	110.60
4	3	169	TYR	CB-CG-CD2	-6.35	117.19	121.00
1	D	589	ASP	CB-CG-OD1	-6.34	112.59	118.30
1	G	75	ASP	CB-CG-OD2	6.34	124.01	118.30
1	A	341	LEU	CB-CA-C	6.34	122.24	110.20
1	P	129	TYR	CB-CG-CD2	-6.34	117.20	121.00
1	G	341	LEU	CB-CA-C	6.33	122.24	110.20
1	G	129	TYR	CB-CG-CD2	-6.33	117.20	121.00
1	A	129	TYR	CB-CG-CD2	-6.32	117.21	121.00
1	P	578	HIS	N-CA-CB	6.31	121.96	110.60
2	B	141	PRO	N-CD-CG	-6.31	93.74	103.20
4	7	196	ARG	NE-CZ-NH1	6.30	123.45	120.30
4	X	217	CYS	CA-CB-SG	-6.30	102.66	114.00
1	P	341	LEU	CB-CA-C	6.30	122.17	110.20
4	W	217	CYS	CA-CB-SG	-6.30	102.66	114.00
4	0	217	CYS	CA-CB-SG	-6.30	102.67	114.00
4	3	217	CYS	CA-CB-SG	-6.30	102.67	114.00
1	P	327	ASP	CB-CG-OD2	6.29	123.97	118.30
4	9	217	CYS	CA-CB-SG	-6.29	102.67	114.00
4	V	217	CYS	CA-CB-SG	-6.29	102.67	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	8	217	CYS	CA-CB-SG	-6.29	102.68	114.00
1	A	578	HIS	N-CA-CB	6.29	121.92	110.60
4	7	217	CYS	CA-CB-SG	-6.28	102.70	114.00
4	1	217	CYS	CA-CB-SG	-6.28	102.70	114.00
4	5	217	CYS	CA-CB-SG	-6.28	102.70	114.00
4	Z	217	CYS	CA-CB-SG	-6.27	102.72	114.00
1	D	578	HIS	N-CA-CB	6.26	121.87	110.60
4	Y	217	CYS	CA-CB-SG	-6.26	102.73	114.00
1	D	341	LEU	CB-CA-C	6.26	122.09	110.20
1	P	104	TYR	CB-CG-CD1	-6.26	117.25	121.00
4	4	217	CYS	CA-CB-SG	-6.26	102.74	114.00
1	D	590	TYR	CB-CG-CD2	6.26	124.75	121.00
4	2	217	CYS	CA-CB-SG	-6.26	102.74	114.00
1	P	760	PHE	CB-CG-CD2	-6.24	116.43	120.80
2	Q	129	THR	CB-CA-C	-6.24	94.75	111.60
1	D	760	PHE	CB-CG-CD2	-6.24	116.43	120.80
1	G	327	ASP	CB-CG-OD2	6.20	123.88	118.30
2	H	129	THR	CB-CA-C	-6.19	94.88	111.60
1	D	214	MET	CG-SD-CE	6.19	110.10	100.20
1	G	104	TYR	CB-CG-CD1	-6.19	117.29	121.00
2	E	129	THR	CB-CA-C	-6.18	94.90	111.60
1	D	327	ASP	CB-CG-OD2	6.18	123.86	118.30
1	G	810	ARG	NE-CZ-NH1	6.18	123.39	120.30
1	G	214	MET	CG-SD-CE	6.17	110.08	100.20
1	A	698	ASN	CB-CA-C	-6.17	98.06	110.40
1	A	810	ARG	NE-CZ-NH1	6.17	123.38	120.30
2	B	129	THR	CB-CA-C	-6.17	94.95	111.60
1	P	214	MET	CG-SD-CE	6.17	110.06	100.20
1	A	779	ARG	NE-CZ-NH1	6.16	123.38	120.30
1	A	214	MET	CG-SD-CE	6.16	110.06	100.20
2	H	141	PRO	N-CA-CB	-6.16	95.83	102.60
2	E	141	PRO	N-CA-CB	-6.15	95.83	102.60
4	Z	259	GLU	CA-CB-CG	6.15	126.93	113.40
1	P	590	TYR	CB-CG-CD2	6.15	124.69	121.00
1	A	463	ASP	CB-CG-OD2	-6.15	112.77	118.30
4	9	259	GLU	CA-CB-CG	6.15	126.93	113.40
2	Q	141	PRO	N-CA-CB	-6.14	95.84	102.60
1	D	810	ARG	NE-CZ-NH1	6.14	123.37	120.30
4	3	259	GLU	CA-CB-CG	6.14	126.91	113.40
1	D	779	ARG	NE-CZ-NH1	6.14	123.37	120.30
1	G	698	ASN	CB-CA-C	-6.14	98.12	110.40
1	P	698	ASN	CB-CA-C	-6.14	98.12	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	V	259	GLU	CA-CB-CG	6.14	126.90	113.40
4	8	259	GLU	CA-CB-CG	6.14	126.90	113.40
4	0	259	GLU	CA-CB-CG	6.14	126.90	113.40
4	2	259	GLU	CA-CB-CG	6.13	126.90	113.40
4	4	259	GLU	CA-CB-CG	6.13	126.89	113.40
4	5	259	GLU	CA-CB-CG	6.13	126.89	113.40
1	A	780	ASP	CB-CG-OD2	6.13	123.82	118.30
4	Y	259	GLU	CA-CB-CG	6.13	126.89	113.40
1	A	327	ASP	CB-CG-OD2	6.13	123.81	118.30
4	W	259	GLU	CA-CB-CG	6.13	126.88	113.40
4	X	259	GLU	CA-CB-CG	6.13	126.88	113.40
4	1	259	GLU	CA-CB-CG	6.12	126.88	113.40
4	7	259	GLU	CA-CB-CG	6.12	126.87	113.40
1	D	698	ASN	CB-CA-C	-6.12	98.16	110.40
3	F	58	MET	CG-SD-CE	6.11	109.98	100.20
1	D	104	TYR	CB-CG-CD1	-6.11	117.33	121.00
1	G	463	ASP	CB-CG-OD2	-6.11	112.81	118.30
1	A	760	PHE	CB-CG-CD2	-6.08	116.54	120.80
3	I	58	MET	CG-SD-CE	6.08	109.93	100.20
2	B	129	THR	CA-CB-CG2	6.08	120.91	112.40
1	G	682	THR	CA-CB-CG2	-6.08	103.89	112.40
2	E	129	THR	CA-CB-CG2	6.07	120.90	112.40
2	B	141	PRO	N-CA-CB	-6.07	95.92	102.60
2	H	129	THR	CA-CB-CG2	6.07	120.90	112.40
3	R	58	MET	CG-SD-CE	6.07	109.91	100.20
3	C	58	MET	CG-SD-CE	6.07	109.91	100.20
4	2	16	LEU	CA-CB-CG	6.06	129.25	115.30
1	G	346	ASP	CB-CG-OD1	6.06	123.76	118.30
1	G	625	THR	CA-CB-OG1	6.06	121.72	109.00
4	V	349	LEU	CA-C-N	-6.06	103.87	117.20
4	3	349	LEU	CA-C-N	-6.06	103.87	117.20
1	P	463	ASP	CB-CG-OD2	-6.05	112.85	118.30
4	W	349	LEU	CA-C-N	-6.05	103.89	117.20
1	D	463	ASP	CB-CG-OD2	-6.05	112.86	118.30
1	P	682	THR	CA-CB-CG2	-6.05	103.93	112.40
4	X	16	LEU	CA-CB-CG	6.05	129.21	115.30
4	2	349	LEU	CA-C-N	-6.04	103.90	117.20
4	3	16	LEU	CA-CB-CG	6.04	129.20	115.30
4	5	349	LEU	CA-C-N	-6.04	103.91	117.20
4	8	16	LEU	CA-CB-CG	6.04	129.19	115.30
4	Z	16	LEU	CA-CB-CG	6.04	129.19	115.30
4	4	349	LEU	CA-C-N	-6.04	103.91	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	V	16	LEU	CA-CB-CG	6.04	129.19	115.30
4	W	16	LEU	CA-CB-CG	6.04	129.19	115.30
4	7	349	LEU	CA-C-N	-6.03	103.92	117.20
4	X	349	LEU	CA-C-N	-6.03	103.94	117.20
4	Y	16	LEU	CA-CB-CG	6.03	129.17	115.30
4	1	349	LEU	CA-C-N	-6.03	103.94	117.20
1	D	378	ASP	CB-CG-OD1	-6.03	112.88	118.30
4	7	16	LEU	CA-CB-CG	6.03	129.16	115.30
4	W	116	ARG	NE-CZ-NH1	6.03	123.31	120.30
4	Y	349	LEU	CA-C-N	-6.03	103.94	117.20
4	Z	349	LEU	CA-C-N	-6.03	103.94	117.20
4	0	349	LEU	CA-C-N	-6.03	103.94	117.20
4	5	16	LEU	CA-CB-CG	6.03	129.16	115.30
1	G	780	ASP	CB-CG-OD2	6.03	123.72	118.30
1	D	625	THR	CA-CB-OG1	6.02	121.65	109.00
1	D	809	ARG	NE-CZ-NH2	-6.02	117.29	120.30
4	4	16	LEU	CA-CB-CG	6.02	129.16	115.30
1	D	346	ASP	CB-CG-OD1	6.02	123.72	118.30
4	9	16	LEU	CA-CB-CG	6.02	129.15	115.30
1	G	760	PHE	CB-CG-CD2	-6.02	116.58	120.80
4	1	16	LEU	CA-CB-CG	6.02	129.15	115.30
1	P	752	ASP	CB-CG-OD2	6.02	123.72	118.30
1	A	447	GLN	N-CA-CB	6.01	121.42	110.60
1	P	625	THR	CA-CB-OG1	6.01	121.62	109.00
4	9	349	LEU	CA-C-N	-6.01	103.98	117.20
1	D	682	THR	CA-CB-CG2	-6.01	103.99	112.40
4	0	16	LEU	CA-CB-CG	6.00	129.11	115.30
1	A	682	THR	CA-CB-CG2	-6.00	103.99	112.40
1	D	192	VAL	CA-CB-CG1	-6.00	101.90	110.90
4	7	116	ARG	NE-CZ-NH1	6.00	123.30	120.30
4	8	349	LEU	CA-C-N	-6.00	104.00	117.20
1	P	447	GLN	N-CA-CB	6.00	121.40	110.60
1	A	590	TYR	CB-CG-CD2	5.99	124.59	121.00
1	P	192	VAL	CA-CB-CG1	-5.99	101.92	110.90
1	D	754	ASP	CB-CG-OD2	-5.99	112.91	118.30
1	G	450	ASP	CB-CG-OD1	-5.99	112.91	118.30
4	W	335	ARG	NE-CZ-NH2	-5.98	117.31	120.30
1	D	471	ASP	CB-CG-OD1	-5.98	112.92	118.30
1	D	447	GLN	N-CA-CB	5.98	121.36	110.60
1	G	779	ARG	NE-CZ-NH1	5.98	123.29	120.30
1	P	450	ASP	CB-CG-OD1	-5.98	112.92	118.30
2	Q	129	THR	CA-CB-CG2	5.97	120.76	112.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	P	810	ARG	NE-CZ-NH1	5.97	123.29	120.30
1	G	447	GLN	N-CA-CB	5.97	121.34	110.60
4	0	335	ARG	NE-CZ-NH2	-5.96	117.32	120.30
1	G	192	VAL	CA-CB-CG1	-5.96	101.96	110.90
4	9	335	ARG	NE-CZ-NH2	-5.96	117.32	120.30
1	A	625	THR	CA-CB-OG1	5.96	121.51	109.00
1	D	665	ARG	NE-CZ-NH2	-5.96	117.32	120.30
4	1	79	TRP	CG-CD2-CE3	5.95	139.26	133.90
1	D	339	ASP	CB-CG-OD2	5.95	123.66	118.30
4	0	79	TRP	CG-CD2-CE3	5.95	139.25	133.90
1	D	780	ASP	CB-CG-OD2	5.94	123.64	118.30
4	3	116	ARG	NE-CZ-NH1	5.94	123.27	120.30
4	Z	335	ARG	NE-CZ-NH2	-5.93	117.33	120.30
4	X	116	ARG	NE-CZ-NH1	5.93	123.27	120.30
1	P	665	ARG	NE-CZ-NH2	-5.93	117.33	120.30
4	5	116	ARG	NE-CZ-NH1	5.93	123.27	120.30
1	A	104	TYR	CB-CG-CD1	-5.93	117.44	121.00
4	8	79	TRP	CG-CD2-CE3	5.93	139.24	133.90
1	P	339	ASP	CB-CG-OD2	5.92	123.63	118.30
1	A	754	ASP	CB-CG-OD2	-5.92	112.97	118.30
4	Z	116	ARG	NE-CZ-NH1	5.91	123.26	120.30
1	A	192	VAL	CA-CB-CG1	-5.91	102.03	110.90
1	A	378	ASP	CB-CG-OD1	-5.91	112.98	118.30
1	G	754	ASP	CB-CG-OD2	-5.91	112.98	118.30
4	Z	79	TRP	CG-CD2-CE3	5.91	139.21	133.90
1	A	815	CYS	CA-CB-SG	-5.90	103.37	114.00
1	D	450	ASP	CB-CG-OD1	-5.90	112.99	118.30
1	G	339	ASP	CB-CG-OD2	5.90	123.61	118.30
1	P	378	ASP	CB-CG-OD1	-5.90	112.99	118.30
1	P	754	ASP	CB-CG-OD2	-5.89	113.00	118.30
4	1	335	ARG	NE-CZ-NH2	-5.89	117.35	120.30
4	4	254	ARG	NE-CZ-NH1	5.89	123.25	120.30
1	A	752	ASP	CB-CG-OD2	5.89	123.60	118.30
4	9	200	PHE	CA-C-N	-5.89	104.25	117.20
4	5	79	TRP	CG-CD2-CE3	5.89	139.20	133.90
1	P	780	ASP	CB-CG-OD2	5.88	123.60	118.30
4	3	79	TRP	CG-CD2-CE3	5.88	139.19	133.90
1	P	346	ASP	CB-CG-OD1	5.88	123.59	118.30
4	Y	200	PHE	CA-C-N	-5.88	104.26	117.20
4	1	116	ARG	NE-CZ-NH1	5.88	123.24	120.30
1	A	738	MET	CG-SD-CE	5.88	109.61	100.20
1	D	738	MET	CG-SD-CE	5.88	109.60	100.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	780	ASP	CB-CG-OD1	-5.88	113.01	118.30
4	Y	335	ARG	NE-CZ-NH2	-5.88	117.36	120.30
4	Z	200	PHE	CA-C-N	-5.88	104.27	117.20
1	G	738	MET	CG-SD-CE	5.87	109.60	100.20
4	X	79	TRP	CG-CD2-CE3	5.87	139.19	133.90
1	A	665	ARG	NE-CZ-NH2	-5.87	117.36	120.30
4	4	200	PHE	CA-C-N	-5.87	104.29	117.20
1	D	556	ASP	CB-CG-OD1	-5.87	113.02	118.30
4	X	200	PHE	CA-C-N	-5.87	104.30	117.20
4	V	200	PHE	CA-C-N	-5.86	104.30	117.20
4	3	200	PHE	CA-C-N	-5.86	104.30	117.20
1	P	738	MET	CG-SD-CE	5.86	109.58	100.20
4	7	79	TRP	CG-CD2-CE3	5.86	139.18	133.90
4	Y	79	TRP	CG-CD2-CE3	5.86	139.18	133.90
4	5	254	ARG	NE-CZ-NH1	5.86	123.23	120.30
1	D	752	ASP	CB-CG-OD2	5.86	123.57	118.30
4	7	200	PHE	CA-C-N	-5.86	104.31	117.20
1	G	378	ASP	CB-CG-OD1	-5.86	113.03	118.30
1	P	815	CYS	CA-CB-SG	-5.85	103.47	114.00
4	2	200	PHE	CA-C-N	-5.85	104.33	117.20
4	8	200	PHE	CA-C-N	-5.85	104.33	117.20
4	1	200	PHE	CA-C-N	-5.85	104.33	117.20
4	2	79	TRP	CG-CD2-CE3	5.84	139.16	133.90
4	5	335	ARG	NE-CZ-NH2	-5.84	117.38	120.30
4	W	79	TRP	CG-CD2-CE3	5.84	139.16	133.90
1	A	450	ASP	CB-CG-OD1	-5.83	113.05	118.30
4	W	200	PHE	CA-C-N	-5.83	104.36	117.20
4	0	200	PHE	CA-C-N	-5.83	104.37	117.20
4	V	79	TRP	CG-CD2-CE3	5.83	139.14	133.90
1	P	556	ASP	CB-CG-OD1	-5.82	113.06	118.30
4	5	200	PHE	CA-C-N	-5.82	104.39	117.20
4	4	79	TRP	CG-CD2-CE3	5.82	139.14	133.90
4	8	335	ARG	NE-CZ-NH2	-5.82	117.39	120.30
1	G	752	ASP	CB-CG-OD2	5.81	123.53	118.30
4	W	254	ARG	NE-CZ-NH1	5.81	123.21	120.30
4	9	254	ARG	NE-CZ-NH1	5.81	123.21	120.30
1	A	809	ARG	NE-CZ-NH2	-5.80	117.40	120.30
1	G	665	ARG	NE-CZ-NH2	-5.80	117.40	120.30
4	9	79	TRP	CG-CD2-CE3	5.80	139.12	133.90
4	V	95	ARG	CA-CB-CG	5.80	126.17	113.40
4	V	116	ARG	NE-CZ-NH1	5.80	123.20	120.30
4	0	95	ARG	CA-CB-CG	5.80	126.15	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	1	95	ARG	CA-CB-CG	5.79	126.15	113.40
1	G	471	ASP	CB-CG-OD1	-5.79	113.09	118.30
1	P	471	ASP	CB-CG-OD1	-5.79	113.09	118.30
4	4	95	ARG	CA-CB-CG	5.79	126.14	113.40
1	G	556	ASP	CB-CG-OD1	-5.79	113.09	118.30
4	8	95	ARG	CA-CB-CG	5.79	126.13	113.40
1	D	815	CYS	CA-CB-SG	-5.78	103.59	114.00
4	X	95	ARG	CA-CB-CG	5.78	126.12	113.40
4	4	335	ARG	NE-CZ-NH2	-5.78	117.41	120.30
1	G	809	ARG	NE-CZ-NH2	-5.78	117.41	120.30
4	Z	95	ARG	CA-CB-CG	5.78	126.11	113.40
4	2	95	ARG	CA-CB-CG	5.78	126.11	113.40
4	4	116	ARG	NE-CZ-NH1	5.78	123.19	120.30
4	7	95	ARG	CA-CB-CG	5.78	126.11	113.40
4	Z	254	ARG	NE-CZ-NH1	5.78	123.19	120.30
1	P	165	PHE	N-CA-CB	-5.77	100.21	110.60
4	5	95	ARG	CA-CB-CG	5.77	126.10	113.40
2	H	149	ASP	N-CA-CB	5.77	120.98	110.60
4	W	95	ARG	CA-CB-CG	5.77	126.09	113.40
4	3	95	ARG	CA-CB-CG	5.76	126.08	113.40
4	Y	116	ARG	NE-CZ-NH1	5.76	123.18	120.30
1	D	4	ASP	CB-CG-OD2	5.76	123.48	118.30
4	8	254	ARG	NE-CZ-NH1	5.76	123.18	120.30
4	2	116	ARG	NE-CZ-NH1	5.76	123.18	120.30
1	A	339	ASP	CB-CG-OD2	5.76	123.48	118.30
4	Y	95	ARG	CA-CB-CG	5.76	126.07	113.40
4	9	95	ARG	CA-CB-CG	5.75	126.06	113.40
2	B	149	ASP	N-CA-CB	5.75	120.95	110.60
4	V	254	ARG	NE-CZ-NH1	5.75	123.17	120.30
4	X	335	ARG	NE-CZ-NH2	-5.75	117.43	120.30
1	G	165	PHE	N-CA-CB	-5.73	100.29	110.60
4	0	254	ARG	NE-CZ-NH1	5.73	123.16	120.30
1	P	809	ARG	NE-CZ-NH2	-5.72	117.44	120.30
4	V	335	ARG	NE-CZ-NH2	-5.72	117.44	120.30
4	8	335	ARG	CA-CB-CG	5.72	125.98	113.40
4	Y	335	ARG	CA-CB-CG	5.72	125.98	113.40
4	2	335	ARG	NE-CZ-NH2	-5.72	117.44	120.30
1	A	4	ASP	CB-CG-OD2	5.72	123.45	118.30
1	G	815	CYS	CA-CB-SG	-5.72	103.71	114.00
4	4	335	ARG	CA-CB-CG	5.72	125.98	113.40
1	A	165	PHE	N-CA-CB	-5.72	100.31	110.60
4	3	335	ARG	CA-CB-CG	5.71	125.97	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	780	ASP	CB-CG-OD1	-5.71	113.16	118.30
4	X	335	ARG	CA-CB-CG	5.71	125.96	113.40
4	9	335	ARG	CA-CB-CG	5.71	125.96	113.40
1	D	352	TYR	N-CA-CB	5.71	120.88	110.60
4	Z	335	ARG	CA-CB-CG	5.71	125.96	113.40
4	5	335	ARG	CA-CB-CG	5.71	125.96	113.40
4	9	116	ARG	NE-CZ-NH1	5.71	123.15	120.30
4	0	335	ARG	CA-CB-CG	5.70	125.95	113.40
1	A	556	ASP	CB-CG-OD1	-5.70	113.17	118.30
4	2	335	ARG	CA-CB-CG	5.70	125.94	113.40
4	8	116	ARG	NE-CZ-NH1	5.70	123.15	120.30
4	V	335	ARG	CA-CB-CG	5.70	125.94	113.40
4	W	335	ARG	CA-CB-CG	5.70	125.94	113.40
4	7	335	ARG	CA-CB-CG	5.70	125.94	113.40
1	G	4	ASP	CB-CG-OD2	5.69	123.42	118.30
1	A	346	ASP	CB-CG-OD1	5.69	123.42	118.30
1	P	780	ASP	CB-CG-OD1	-5.69	113.18	118.30
4	7	335	ARG	NE-CZ-NH2	-5.69	117.46	120.30
1	D	165	PHE	N-CA-CB	-5.69	100.36	110.60
4	1	335	ARG	CA-CB-CG	5.68	125.91	113.40
4	X	254	ARG	NE-CZ-NH1	5.68	123.14	120.30
4	2	254	ARG	NE-CZ-NH1	5.68	123.14	120.30
1	D	780	ASP	CB-CG-OD1	-5.68	113.19	118.30
4	0	116	ARG	NE-CZ-NH1	5.68	123.14	120.30
1	D	781	ASP	CB-CG-OD2	5.67	123.40	118.30
4	3	335	ARG	NE-CZ-NH2	-5.67	117.47	120.30
1	G	352	TYR	N-CA-CB	5.66	120.79	110.60
1	A	781	ASP	CB-CG-OD2	5.66	123.39	118.30
1	A	471	ASP	CB-CG-OD1	-5.65	113.21	118.30
4	1	254	ARG	NE-CZ-NH1	5.65	123.12	120.30
2	Q	149	ASP	N-CA-CB	5.64	120.75	110.60
4	7	254	ARG	NE-CZ-NH1	5.64	123.12	120.30
2	E	149	ASP	N-CA-CB	5.63	120.73	110.60
1	P	4	ASP	CB-CG-OD2	5.62	123.36	118.30
4	7	356	TRP	CG-CD2-CE3	5.62	138.96	133.90
1	G	693	HIS	CA-CB-CG	-5.62	104.05	113.60
1	G	785	GLU	O-C-N	5.62	131.69	122.70
1	A	352	TYR	N-CA-CB	5.61	120.70	110.60
4	9	113	LYS	CA-CB-CG	5.61	125.74	113.40
4	8	279	TYR	CB-CG-CD2	-5.61	117.64	121.00
1	P	352	TYR	N-CA-CB	5.61	120.69	110.60
1	P	781	ASP	CB-CG-OD2	5.61	123.34	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	693	HIS	CA-CB-CG	-5.60	104.07	113.60
4	V	113	LYS	CA-CB-CG	5.60	125.72	113.40
4	0	113	LYS	CA-CB-CG	5.60	125.72	113.40
4	3	294	TYR	CB-CG-CD2	-5.60	117.64	121.00
1	P	686	MET	N-CA-CB	-5.60	100.52	110.60
4	0	279	TYR	CB-CG-CD2	-5.60	117.64	121.00
1	P	693	HIS	CA-CB-CG	-5.60	104.09	113.60
4	7	294	TYR	CB-CG-CD2	-5.59	117.65	121.00
4	Y	356	TRP	CG-CD2-CE3	5.59	138.93	133.90
4	1	113	LYS	CA-CB-CG	5.59	125.69	113.40
4	4	279	TYR	CB-CG-CD2	-5.59	117.65	121.00
4	2	113	LYS	CA-CB-CG	5.59	125.69	113.40
4	W	113	LYS	CA-CB-CG	5.58	125.68	113.40
4	Y	113	LYS	CA-CB-CG	5.58	125.68	113.40
4	4	113	LYS	CA-CB-CG	5.58	125.68	113.40
4	9	356	TRP	CG-CD2-CE3	5.58	138.92	133.90
4	X	113	LYS	CA-CB-CG	5.58	125.67	113.40
4	8	113	LYS	CA-CB-CG	5.58	125.67	113.40
4	V	294	TYR	CB-CG-CD2	-5.58	117.65	121.00
4	Z	294	TYR	CB-CG-CD2	-5.57	117.66	121.00
1	G	781	ASP	CB-CG-OD2	5.57	123.31	118.30
4	W	279	TYR	CB-CG-CD2	-5.57	117.66	121.00
4	Z	113	LYS	CA-CB-CG	5.57	125.65	113.40
1	D	752	ASP	CB-CA-C	5.56	121.53	110.40
4	3	113	LYS	CA-CB-CG	5.56	125.64	113.40
4	7	279	TYR	CB-CG-CD2	-5.56	117.66	121.00
1	G	320	ILE	CB-CA-C	-5.56	100.48	111.60
4	Y	294	TYR	CB-CG-CD2	-5.56	117.66	121.00
4	Z	279	TYR	CB-CG-CD2	-5.56	117.66	121.00
4	5	279	TYR	CB-CG-CD2	-5.56	117.67	121.00
1	D	306	THR	CA-CB-CG2	-5.56	104.62	112.40
1	A	693	HIS	CA-CB-CG	-5.56	104.16	113.60
4	7	113	LYS	CA-CB-CG	5.56	125.62	113.40
1	G	686	MET	N-CA-CB	-5.55	100.60	110.60
1	A	752	ASP	CB-CA-C	5.55	121.50	110.40
4	7	254	ARG	N-CA-CB	-5.55	100.61	110.60
4	W	356	TRP	CG-CD2-CE3	5.55	138.90	133.90
4	Y	254	ARG	NE-CZ-NH1	5.55	123.07	120.30
4	0	254	ARG	N-CA-CB	-5.55	100.62	110.60
1	P	320	ILE	CB-CA-C	-5.54	100.51	111.60
4	5	254	ARG	N-CA-CB	-5.54	100.62	110.60
4	5	113	LYS	CA-CB-CG	5.54	125.58	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	9	254	ARG	N-CA-CB	-5.54	100.64	110.60
4	3	254	ARG	N-CA-CB	-5.54	100.63	110.60
1	A	33	ASP	CB-CG-OD2	5.53	123.28	118.30
4	V	254	ARG	N-CA-CB	-5.53	100.64	110.60
4	2	294	TYR	CB-CG-CD2	-5.53	117.68	121.00
4	4	294	TYR	CB-CG-CD2	-5.53	117.68	121.00
1	P	326	ASP	CB-CG-OD2	5.53	123.27	118.30
4	9	279	TYR	CB-CG-CD2	-5.53	117.69	121.00
4	5	356	TRP	CG-CD2-CE3	5.53	138.87	133.90
4	W	254	ARG	N-CA-CB	-5.52	100.66	110.60
4	Z	254	ARG	N-CA-CB	-5.52	100.66	110.60
1	A	686	MET	N-CA-CB	-5.52	100.66	110.60
4	1	356	TRP	CG-CD2-CE3	5.52	138.87	133.90
4	9	294	TYR	CB-CG-CD2	-5.52	117.69	121.00
4	Y	279	TYR	CB-CG-CD2	-5.52	117.69	121.00
4	2	356	TRP	CG-CD2-CE3	5.52	138.87	133.90
4	5	294	TYR	CB-CG-CD2	-5.52	117.69	121.00
1	G	752	ASP	CB-CA-C	5.51	121.43	110.40
4	X	254	ARG	N-CA-CB	-5.51	100.67	110.60
4	2	279	TYR	CB-CG-CD2	-5.51	117.69	121.00
4	1	294	TYR	CB-CG-CD2	-5.51	117.69	121.00
1	D	686	MET	N-CA-CB	-5.51	100.68	110.60
4	2	254	ARG	N-CA-CB	-5.51	100.68	110.60
4	4	254	ARG	N-CA-CB	-5.51	100.68	110.60
4	1	254	ARG	N-CA-CB	-5.50	100.69	110.60
1	D	33	ASP	CB-CG-OD2	5.50	123.25	118.30
4	8	254	ARG	N-CA-CB	-5.50	100.69	110.60
4	W	294	TYR	CB-CG-CD2	-5.50	117.70	121.00
4	Z	356	TRP	CG-CD2-CE3	5.50	138.85	133.90
1	D	723	ARG	NE-CZ-NH1	5.50	123.05	120.30
1	P	343	PHE	CB-CG-CD2	-5.50	116.95	120.80
4	X	294	TYR	CB-CG-CD2	-5.49	117.70	121.00
1	P	33	ASP	CB-CG-OD2	5.49	123.24	118.30
4	7	11	ASP	CB-CG-OD1	5.49	123.24	118.30
4	1	11	ASP	CB-CG-OD1	5.49	123.24	118.30
4	8	294	TYR	CB-CG-CD2	-5.49	117.71	121.00
4	4	356	TRP	CG-CD2-CE3	5.49	138.84	133.90
4	9	11	ASP	CB-CG-OD1	5.49	123.24	118.30
4	Y	254	ARG	N-CA-CB	-5.49	100.72	110.60
4	3	254	ARG	NE-CZ-NH1	5.49	123.04	120.30
1	D	320	ILE	CB-CA-C	-5.48	100.63	111.60
1	A	306	THR	CA-CB-CG2	-5.48	104.72	112.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	241	ASP	CB-CG-OD2	5.48	123.23	118.30
4	5	11	ASP	CB-CG-OD1	5.48	123.23	118.30
1	G	306	THR	CA-CB-CG2	-5.48	104.73	112.40
4	8	356	TRP	CG-CD2-CE3	5.48	138.83	133.90
4	0	356	TRP	CG-CD2-CE3	5.47	138.82	133.90
1	D	384	ASP	CB-CG-OD1	-5.47	113.38	118.30
1	P	752	ASP	CB-CA-C	5.47	121.33	110.40
4	V	279	TYR	CB-CG-CD2	-5.46	117.72	121.00
4	V	356	TRP	CG-CD2-CE3	5.46	138.82	133.90
4	7	79	TRP	CB-CG-CD1	-5.46	119.90	127.00
1	A	320	ILE	CB-CA-C	-5.46	100.68	111.60
4	V	11	ASP	CB-CG-OD1	5.46	123.21	118.30
4	X	356	TRP	CG-CD2-CE3	5.45	138.80	133.90
4	3	279	TYR	CB-CG-CD2	-5.45	117.73	121.00
1	D	326	ASP	CB-CG-OD2	5.44	123.20	118.30
4	V	79	TRP	CB-CG-CD1	-5.44	119.92	127.00
4	V	147	ARG	NE-CZ-NH2	-5.44	117.58	120.30
4	3	356	TRP	CB-CG-CD1	-5.44	119.93	127.00
4	8	11	ASP	CB-CG-OD1	5.43	123.19	118.30
4	X	356	TRP	CB-CG-CD1	-5.43	119.94	127.00
4	2	356	TRP	CB-CG-CD1	-5.43	119.94	127.00
4	9	356	TRP	CB-CG-CD1	-5.42	119.95	127.00
4	V	356	TRP	CB-CG-CD1	-5.42	119.95	127.00
4	1	79	TRP	CB-CG-CD1	-5.42	119.95	127.00
4	3	11	ASP	CB-CG-OD1	5.42	123.18	118.30
1	D	547	ASP	CB-CG-OD2	5.42	123.18	118.30
4	0	294	TYR	CB-CG-CD2	-5.42	117.75	121.00
4	0	356	TRP	CB-CG-CD1	-5.42	119.95	127.00
4	4	356	TRP	CB-CG-CD1	-5.42	119.95	127.00
4	1	356	TRP	CB-CG-CD1	-5.42	119.96	127.00
4	2	11	ASP	CB-CG-OD1	5.42	123.18	118.30
4	3	79	TRP	CB-CG-CD1	-5.42	119.96	127.00
1	G	723	ARG	NE-CZ-NH1	5.42	123.01	120.30
1	P	547	ASP	CB-CG-OD2	5.42	123.17	118.30
4	Y	11	ASP	CB-CG-OD1	5.42	123.17	118.30
4	Y	79	TRP	CB-CG-CD1	-5.42	119.96	127.00
4	1	147	ARG	NE-CZ-NH2	-5.42	117.59	120.30
4	1	279	TYR	CB-CG-CD2	-5.41	117.75	121.00
4	W	11	ASP	CB-CG-OD1	5.41	123.17	118.30
4	8	79	TRP	CB-CG-CD1	-5.41	119.97	127.00
4	X	147	ARG	NE-CZ-NH2	-5.41	117.60	120.30
4	4	11	ASP	CB-CG-OD1	5.41	123.17	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	326	ASP	CB-CG-OD2	5.41	123.17	118.30
4	Z	79	TRP	CB-CG-CD1	-5.41	119.97	127.00
4	Z	356	TRP	CB-CG-CD1	-5.41	119.97	127.00
4	3	356	TRP	CG-CD2-CE3	5.41	138.76	133.90
4	9	356	TRP	CG-CD1-NE1	-5.40	104.70	110.10
4	X	11	ASP	CB-CG-OD1	5.40	123.16	118.30
4	X	79	TRP	CB-CG-CD1	-5.40	119.98	127.00
4	Y	147	ARG	NE-CZ-NH2	-5.40	117.60	120.30
4	5	356	TRP	CG-CD1-NE1	-5.40	104.70	110.10
1	A	723	ARG	NE-CZ-NH1	5.40	123.00	120.30
4	7	356	TRP	CB-CG-CD1	-5.40	119.98	127.00
4	0	79	TRP	CB-CG-CD1	-5.40	119.98	127.00
1	P	384	ASP	CB-CG-OD1	-5.40	113.44	118.30
4	V	356	TRP	CG-CD1-NE1	-5.40	104.70	110.10
1	A	384	ASP	CB-CG-OD1	-5.39	113.44	118.30
1	G	218	LEU	O-C-N	5.39	131.33	122.70
4	5	79	TRP	CB-CG-CD1	-5.39	119.99	127.00
4	Y	356	TRP	CB-CG-CD1	-5.39	119.99	127.00
1	P	306	THR	CA-CB-CG2	-5.39	104.85	112.40
4	W	79	TRP	CB-CG-CD1	-5.39	119.99	127.00
4	Z	11	ASP	CB-CG-OD1	5.39	123.15	118.30
4	5	356	TRP	CB-CG-CD1	-5.38	120.00	127.00
1	D	241	ASP	CB-CG-OD2	5.38	123.14	118.30
4	2	356	TRP	CG-CD1-NE1	-5.38	104.72	110.10
4	8	147	ARG	NE-CZ-NH2	-5.38	117.61	120.30
4	8	356	TRP	CB-CG-CD1	-5.38	120.01	127.00
4	9	79	TRP	CB-CG-CD1	-5.38	120.01	127.00
4	1	356	TRP	CG-CD1-NE1	-5.38	104.72	110.10
1	A	686	MET	CG-SD-CE	-5.37	91.60	100.20
4	7	147	ARG	NE-CZ-NH2	-5.37	117.61	120.30
4	W	356	TRP	CB-CG-CD1	-5.37	120.02	127.00
4	Z	356	TRP	CG-CD1-NE1	-5.37	104.73	110.10
4	2	251	GLY	CA-C-N	-5.37	105.39	117.20
4	3	356	TRP	CG-CD1-NE1	-5.37	104.73	110.10
4	4	79	TRP	CB-CG-CD1	-5.37	120.02	127.00
4	W	356	TRP	CG-CD1-NE1	-5.37	104.73	110.10
1	P	723	ARG	NE-CZ-NH1	5.36	122.98	120.30
4	W	147	ARG	NE-CZ-NH2	-5.36	117.62	120.30
4	8	251	GLY	CA-C-N	-5.36	105.40	117.20
4	1	251	GLY	CA-C-N	-5.36	105.40	117.20
1	A	601	ASP	CB-CG-OD2	5.36	123.12	118.30
1	G	686	MET	CG-SD-CE	-5.36	91.63	100.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	4	251	GLY	CA-C-N	-5.36	105.41	117.20
1	D	601	ASP	CB-CG-OD2	5.36	123.12	118.30
2	Q	136	MET	CG-SD-CE	5.35	108.77	100.20
4	W	251	GLY	CA-C-N	-5.35	105.42	117.20
1	G	33	ASP	CB-CG-OD2	5.35	123.12	118.30
4	9	335	ARG	NE-CZ-NH1	5.35	122.98	120.30
4	5	251	GLY	CA-C-N	-5.35	105.43	117.20
4	V	251	GLY	CA-C-N	-5.35	105.43	117.20
4	X	356	TRP	CG-CD1-NE1	-5.35	104.75	110.10
1	P	218	LEU	O-C-N	5.34	131.25	122.70
1	G	601	ASP	CB-CG-OD2	5.34	123.11	118.30
1	P	601	ASP	CB-CG-OD2	5.34	123.11	118.30
4	X	251	GLY	CA-C-N	-5.34	105.45	117.20
4	0	11	ASP	CB-CG-OD1	5.34	123.11	118.30
4	2	79	TRP	CB-CG-CD1	-5.34	120.06	127.00
4	9	251	GLY	CA-C-N	-5.34	105.46	117.20
4	2	147	ARG	NE-CZ-NH2	-5.34	117.63	120.30
1	D	760	PHE	CB-CG-CD1	5.33	124.53	120.80
4	7	251	GLY	CA-C-N	-5.33	105.47	117.20
4	Y	356	TRP	CG-CD1-NE1	-5.33	104.77	110.10
4	4	356	TRP	CG-CD1-NE1	-5.33	104.77	110.10
4	Y	251	GLY	CA-C-N	-5.33	105.47	117.20
4	Z	176	MET	CG-SD-CE	5.33	108.73	100.20
4	0	251	GLY	CA-C-N	-5.33	105.48	117.20
4	3	251	GLY	CA-C-N	-5.33	105.48	117.20
4	Z	251	GLY	CA-C-N	-5.33	105.49	117.20
4	1	176	MET	CG-SD-CE	5.32	108.72	100.20
4	2	176	MET	CG-SD-CE	5.32	108.72	100.20
4	5	147	ARG	NE-CZ-NH2	-5.32	117.64	120.30
1	P	686	MET	CG-SD-CE	-5.32	91.69	100.20
4	4	91	TYR	CB-CG-CD2	-5.32	117.81	121.00
4	V	176	MET	CG-SD-CE	5.32	108.71	100.20
4	5	335	ARG	NE-CZ-NH1	5.32	122.96	120.30
1	A	343	PHE	CB-CG-CD2	-5.32	117.08	120.80
1	G	326	ASP	CB-CG-OD2	5.32	123.08	118.30
1	P	800	ARG	NH1-CZ-NH2	5.32	125.25	119.40
4	8	176	MET	CG-SD-CE	5.32	108.71	100.20
4	W	176	MET	CG-SD-CE	5.32	108.71	100.20
4	X	176	MET	CG-SD-CE	5.32	108.70	100.20
4	X	279	TYR	CB-CG-CD2	-5.32	117.81	121.00
4	0	356	TRP	CG-CD1-NE1	-5.32	104.78	110.10
1	A	125	THR	CA-CB-CG2	-5.31	104.96	112.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	8	356	TRP	CG-CD1-NE1	-5.31	104.79	110.10
1	P	170	ARG	NE-CZ-NH1	5.31	122.95	120.30
2	B	136	MET	CG-SD-CE	5.31	108.70	100.20
1	P	241	ASP	CB-CG-OD2	5.31	123.08	118.30
2	H	136	MET	CG-SD-CE	5.31	108.69	100.20
4	7	176	MET	CG-SD-CE	5.30	108.69	100.20
4	Y	176	MET	CG-SD-CE	5.30	108.69	100.20
1	A	354	LEU	CB-CG-CD2	-5.30	101.99	111.00
1	D	343	PHE	CB-CG-CD2	-5.30	117.09	120.80
1	D	354	LEU	CB-CG-CD2	-5.30	101.99	111.00
4	Z	147	ARG	NE-CZ-NH2	-5.30	117.65	120.30
4	3	176	MET	CG-SD-CE	5.30	108.68	100.20
1	G	660	LEU	CB-CG-CD2	5.30	120.01	111.00
4	9	176	MET	CG-SD-CE	5.30	108.68	100.20
1	D	686	MET	CG-SD-CE	-5.30	91.73	100.20
1	D	800	ARG	NH1-CZ-NH2	5.30	125.23	119.40
4	7	356	TRP	CG-CD1-NE1	-5.30	104.80	110.10
4	8	62	ARG	NE-CZ-NH1	5.30	122.95	120.30
1	G	354	LEU	CB-CG-CD2	-5.29	102.00	111.00
1	G	343	PHE	CB-CG-CD2	-5.29	117.10	120.80
4	V	62	ARG	NE-CZ-NH1	5.29	122.94	120.30
1	G	125	THR	CA-CB-CG2	-5.29	105.00	112.40
4	0	176	MET	CG-SD-CE	5.28	108.65	100.20
4	3	147	ARG	NE-CZ-NH2	-5.28	117.66	120.30
1	P	125	THR	CA-CB-CG2	-5.28	105.01	112.40
1	G	384	ASP	CB-CG-OD1	-5.28	113.55	118.30
2	E	136	MET	CG-SD-CE	5.28	108.64	100.20
4	9	147	ARG	NE-CZ-NH2	-5.28	117.66	120.30
4	4	176	MET	CG-SD-CE	5.27	108.63	100.20
1	G	241	ASP	CB-CG-OD2	5.27	123.04	118.30
1	G	800	ARG	NH1-CZ-NH2	5.27	125.19	119.40
1	A	547	ASP	CB-CG-OD2	5.26	123.04	118.30
1	A	660	LEU	CB-CG-CD2	5.26	119.94	111.00
4	0	147	ARG	NE-CZ-NH2	-5.26	117.67	120.30
4	4	147	ARG	NE-CZ-NH2	-5.26	117.67	120.30
4	5	176	MET	CG-SD-CE	5.26	108.61	100.20
1	D	125	THR	CA-CB-CG2	-5.25	105.04	112.40
4	Z	335	ARG	NE-CZ-NH1	5.25	122.92	120.30
4	0	335	ARG	NE-CZ-NH1	5.25	122.92	120.30
1	D	660	LEU	CB-CG-CD2	5.24	119.91	111.00
4	2	62	ARG	NE-CZ-NH1	5.24	122.92	120.30
1	A	346	ASP	N-CA-CB	-5.24	101.18	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	547	ASP	CB-CG-OD2	5.24	123.01	118.30
4	4	335	ARG	NE-CZ-NH1	5.24	122.92	120.30
1	A	218	LEU	O-C-N	5.23	131.07	122.70
4	0	62	ARG	NE-CZ-NH1	5.23	122.92	120.30
1	P	660	LEU	CB-CG-CD2	5.23	119.89	111.00
4	9	91	TYR	CB-CG-CD2	-5.23	117.86	121.00
1	D	218	LEU	O-C-N	5.22	131.06	122.70
4	Y	62	ARG	NE-CZ-NH1	5.22	122.91	120.30
1	D	4	ASP	CB-CG-OD1	-5.22	113.60	118.30
4	W	62	ARG	NE-CZ-NH1	5.22	122.91	120.30
4	1	335	ARG	NE-CZ-NH1	5.22	122.91	120.30
4	1	337	TYR	CB-CG-CD1	-5.22	117.87	121.00
4	W	335	ARG	NE-CZ-NH1	5.22	122.91	120.30
1	A	760	PHE	CB-CG-CD1	5.21	124.45	120.80
1	P	354	LEU	CB-CG-CD2	-5.21	102.15	111.00
1	P	346	ASP	N-CA-CB	-5.21	101.23	110.60
4	4	337	TYR	CB-CG-CD1	-5.21	117.88	121.00
1	G	555	TYR	CB-CG-CD1	5.20	124.12	121.00
1	P	760	PHE	CB-CG-CD1	5.20	124.44	120.80
4	1	62	ARG	NE-CZ-NH1	5.20	122.90	120.30
4	1	53	TYR	CB-CG-CD1	-5.20	117.88	121.00
1	A	555	TYR	CB-CG-CD1	5.20	124.12	121.00
4	Y	335	ARG	NE-CZ-NH1	5.19	122.90	120.30
4	3	337	TYR	CB-CG-CD1	-5.19	117.89	121.00
4	7	62	ARG	NE-CZ-NH1	5.19	122.89	120.30
1	A	800	ARG	NH1-CZ-NH2	5.18	125.10	119.40
4	Z	290	ARG	CA-C-N	5.18	128.60	117.20
4	1	91	TYR	CB-CG-CD2	-5.18	117.89	121.00
4	Y	290	ARG	CA-C-N	5.17	128.59	117.20
4	1	290	ARG	CA-C-N	5.17	128.58	117.20
1	D	82	PRO	N-CA-CB	5.17	109.50	103.30
4	8	335	ARG	NE-CZ-NH1	5.17	122.89	120.30
1	D	346	ASP	N-CA-CB	-5.17	101.30	110.60
4	9	337	TYR	CB-CG-CD1	-5.17	117.90	121.00
4	X	290	ARG	CA-C-N	5.17	128.56	117.20
1	A	90	ASP	CB-CG-OD1	-5.17	113.65	118.30
4	V	290	ARG	CA-C-N	5.17	128.56	117.20
4	8	290	ARG	CA-C-N	5.16	128.56	117.20
4	8	337	TYR	CB-CG-CD1	-5.16	117.90	121.00
4	X	335	ARG	NE-CZ-NH1	5.16	122.88	120.30
4	9	290	ARG	CA-C-N	5.16	128.55	117.20
1	D	170	ARG	NE-CZ-NH1	5.16	122.88	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	3	290	ARG	CA-C-N	5.16	128.55	117.20
4	4	290	ARG	CA-C-N	5.16	128.54	117.20
4	5	290	ARG	CA-C-N	5.16	128.54	117.20
4	7	290	ARG	CA-C-N	5.15	128.54	117.20
1	G	4	ASP	CB-CG-OD1	-5.15	113.66	118.30
1	P	786	ILE	CA-C-N	-5.15	105.86	117.20
4	9	62	ARG	NE-CZ-NH1	5.15	122.88	120.30
4	W	290	ARG	CA-C-N	5.15	128.54	117.20
1	D	160	ASP	CB-CG-OD2	-5.15	113.67	118.30
4	9	53	TYR	CB-CG-CD1	-5.15	117.91	121.00
4	Y	53	TYR	CB-CG-CD1	-5.15	117.91	121.00
4	0	290	ARG	CA-C-N	5.15	128.52	117.20
1	A	4	ASP	CB-CG-OD1	-5.14	113.67	118.30
1	G	346	ASP	N-CA-CB	-5.14	101.35	110.60
1	P	4	ASP	CB-CG-OD1	-5.14	113.67	118.30
1	P	555	TYR	CB-CG-CD1	5.14	124.08	121.00
4	8	91	TYR	CB-CG-CD2	-5.13	117.92	121.00
4	2	290	ARG	CA-C-N	5.13	128.49	117.20
4	3	62	ARG	NE-CZ-NH1	5.13	122.86	120.30
4	X	62	ARG	NE-CZ-NH1	5.13	122.86	120.30
1	A	576	GLU	CA-CB-CG	-5.12	102.12	113.40
1	G	760	PHE	CB-CG-CD1	5.12	124.39	120.80
4	7	91	TYR	CB-CG-CD2	-5.12	117.93	121.00
4	5	337	TYR	CB-CG-CD1	-5.12	117.93	121.00
1	P	82	PRO	N-CA-CB	5.12	109.44	103.30
1	A	160	ASP	CB-CG-OD2	-5.12	113.69	118.30
1	D	628	GLY	O-C-N	-5.12	114.51	122.70
1	P	628	GLY	O-C-N	-5.12	114.51	122.70
4	2	337	TYR	CB-CG-CD1	-5.12	117.93	121.00
1	G	576	GLU	CA-CB-CG	-5.12	102.15	113.40
4	4	62	ARG	NE-CZ-NH1	5.11	122.86	120.30
1	D	576	GLU	CA-CB-CG	-5.11	102.15	113.40
1	G	170	ARG	NE-CZ-NH1	5.11	122.86	120.30
4	V	335	ARG	NE-CZ-NH1	5.11	122.86	120.30
4	2	62	ARG	CA-CB-CG	5.11	124.64	113.40
4	7	53	TYR	CB-CG-CD1	-5.11	117.93	121.00
4	5	53	TYR	CB-CG-CD1	-5.11	117.94	121.00
1	P	218	LEU	CA-CB-CG	5.11	127.05	115.30
4	W	91	TYR	CB-CG-CD2	-5.11	117.94	121.00
4	X	337	TYR	CB-CG-CD1	-5.11	117.94	121.00
4	2	86	TRP	CG-CD1-NE1	-5.11	104.99	110.10
1	G	90	ASP	CB-CG-OD1	-5.10	113.71	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	X	62	ARG	CA-CB-CG	5.10	124.63	113.40
4	4	86	TRP	CG-CD1-NE1	-5.10	105.00	110.10
4	7	62	ARG	CA-CB-CG	5.10	124.62	113.40
4	Z	337	TYR	CB-CG-CD1	-5.10	117.94	121.00
1	A	218	LEU	CA-CB-CG	5.10	127.03	115.30
4	5	62	ARG	CA-CB-CG	5.09	124.61	113.40
4	7	86	TRP	CG-CD1-NE1	-5.09	105.01	110.10
4	W	337	TYR	CB-CG-CD1	-5.09	117.95	121.00
4	4	62	ARG	CA-CB-CG	5.09	124.59	113.40
4	9	62	ARG	CA-CB-CG	5.09	124.59	113.40
1	A	170	ARG	NE-CZ-NH1	5.09	122.84	120.30
1	A	628	GLY	O-C-N	-5.09	114.56	122.70
1	D	621	LEU	CA-CB-CG	-5.09	103.60	115.30
4	V	62	ARG	CA-CB-CG	5.09	124.59	113.40
4	W	62	ARG	CA-CB-CG	5.09	124.59	113.40
4	Y	191	LYS	CA-C-N	5.09	128.39	117.20
4	1	62	ARG	CA-CB-CG	5.09	124.59	113.40
4	3	91	TYR	CB-CG-CD2	-5.09	117.95	121.00
4	2	191	LYS	CA-C-N	5.08	128.39	117.20
1	D	218	LEU	CA-CB-CG	5.08	126.99	115.30
4	8	62	ARG	CA-CB-CG	5.08	124.58	113.40
4	Z	62	ARG	CA-CB-CG	5.08	124.58	113.40
4	0	191	LYS	CA-C-N	5.08	128.38	117.20
4	0	337	TYR	CB-CG-CD1	-5.08	117.95	121.00
4	5	191	LYS	CA-C-N	5.08	128.37	117.20
4	3	62	ARG	CA-CB-CG	5.08	124.57	113.40
4	7	191	LYS	CA-C-N	5.08	128.37	117.20
4	Z	86	TRP	CG-CD1-NE1	-5.07	105.03	110.10
4	4	191	LYS	CA-C-N	5.07	128.36	117.20
1	P	301	ASP	CB-CG-OD2	5.07	122.86	118.30
4	3	191	LYS	CA-C-N	5.07	128.36	117.20
4	0	62	ARG	CA-CB-CG	5.07	124.55	113.40
1	P	576	GLU	CA-CB-CG	-5.07	102.25	113.40
4	0	86	TRP	CG-CD1-NE1	-5.07	105.03	110.10
4	Z	91	TYR	CB-CG-CD2	-5.07	117.96	121.00
1	A	82	PRO	N-CA-CB	5.07	109.38	103.30
1	G	160	ASP	CB-CG-OD2	-5.07	113.74	118.30
4	V	337	TYR	CB-CG-CD1	-5.07	117.96	121.00
4	Y	62	ARG	CA-CB-CG	5.07	124.54	113.40
4	Y	337	TYR	CB-CG-CD1	-5.07	117.96	121.00
4	X	191	LYS	CA-C-N	5.06	128.34	117.20
4	1	191	LYS	CA-C-N	5.06	128.33	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	P	90	ASP	CB-CG-OD1	-5.06	113.75	118.30
4	8	191	LYS	CA-C-N	5.06	128.33	117.20
4	9	191	LYS	CA-C-N	5.06	128.33	117.20
4	V	86	TRP	CG-CD1-NE1	-5.06	105.04	110.10
4	2	53	TYR	CB-CG-CD1	-5.06	117.96	121.00
4	3	335	ARG	NE-CZ-NH1	5.06	122.83	120.30
1	A	621	LEU	CA-CB-CG	-5.06	103.67	115.30
1	G	621	LEU	CA-CB-CG	-5.06	103.67	115.30
4	4	53	TYR	CB-CG-CD1	-5.05	117.97	121.00
4	X	86	TRP	CG-CD1-NE1	-5.05	105.05	110.10
4	Z	62	ARG	NE-CZ-NH1	5.05	122.83	120.30
4	7	337	TYR	CB-CG-CD1	-5.05	117.97	121.00
4	2	335	ARG	NE-CZ-NH1	5.05	122.83	120.30
4	V	191	LYS	CA-C-N	5.05	128.31	117.20
1	A	235	ALA	N-CA-CB	-5.05	103.03	110.10
4	X	91	TYR	CB-CG-CD2	-5.05	117.97	121.00
4	Z	53	TYR	CB-CG-CD1	-5.05	117.97	121.00
4	0	53	TYR	CB-CG-CD1	-5.05	117.97	121.00
1	G	628	GLY	O-C-N	-5.04	114.63	122.70
4	Y	91	TYR	CB-CG-CD2	-5.04	117.98	121.00
4	8	53	TYR	CB-CG-CD1	-5.04	117.98	121.00
4	5	91	TYR	CB-CG-CD2	-5.04	117.98	121.00
4	Z	191	LYS	CA-C-N	5.04	128.28	117.20
1	D	463	ASP	CB-CG-OD1	5.03	122.83	118.30
1	G	218	LEU	CA-CB-CG	5.03	126.88	115.30
1	P	160	ASP	CB-CG-OD2	-5.03	113.77	118.30
4	5	62	ARG	NE-CZ-NH1	5.03	122.82	120.30
1	P	621	LEU	CA-CB-CG	-5.03	103.73	115.30
4	2	91	TYR	CB-CG-CD2	-5.03	117.98	121.00
4	V	53	TYR	CB-CG-CD1	-5.03	117.98	121.00
4	W	53	TYR	CB-CG-CD1	-5.03	117.98	121.00
4	0	91	TYR	CB-CG-CD2	-5.03	117.98	121.00
4	W	191	LYS	CA-C-N	5.02	128.25	117.20
1	A	739	ASP	CA-CB-CG	-5.02	102.36	113.40
4	9	86	TRP	CG-CD1-NE1	-5.02	105.08	110.10
4	X	53	TYR	CB-CG-CD1	-5.02	117.99	121.00
1	A	463	ASP	CB-CG-OD1	5.01	122.81	118.30
4	3	86	TRP	CG-CD1-NE1	-5.01	105.08	110.10
1	D	90	ASP	CB-CG-OD1	-5.01	113.79	118.30
4	Y	86	TRP	CG-CD1-NE1	-5.01	105.09	110.10
4	5	86	TRP	CG-CD1-NE1	-5.01	105.09	110.10
1	G	739	ASP	N-CA-CB	5.01	119.61	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	P	463	ASP	CB-CG-OD1	5.01	122.81	118.30
1	G	235	ALA	N-CA-CB	-5.00	103.10	110.10

All (4) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	A	648	THR	CB
1	D	648	THR	CB
1	G	648	THR	CB
1	P	648	THR	CB

All (55) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
4	0	62	ARG	Sidechain
4	1	62	ARG	Sidechain
4	2	62	ARG	Sidechain
4	3	62	ARG	Sidechain
4	4	62	ARG	Sidechain
4	5	62	ARG	Sidechain
4	7	62	ARG	Sidechain
4	8	62	ARG	Sidechain
4	9	62	ARG	Sidechain
1	A	623	PHE	Sidechain
1	A	637	LYS	Mainchain
1	A	649	VAL	Mainchain
1	A	98	HIS	Mainchain
2	B	150	TYR	Sidechain
2	B	155	TYR	Mainchain
2	B	22	THR	Mainchain
3	C	75	ALA	Mainchain
3	C	85	GLU	Mainchain
1	D	623	PHE	Sidechain
1	D	637	LYS	Mainchain
1	D	649	VAL	Mainchain
1	D	98	HIS	Mainchain
2	E	150	TYR	Sidechain
2	E	155	TYR	Mainchain
2	E	22	THR	Mainchain
3	F	75	ALA	Mainchain
3	F	85	GLU	Mainchain
1	G	623	PHE	Sidechain

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Mol	Chain	Res	Type	Group
1	G	637	LYS	Mainchain
1	G	649	VAL	Mainchain
1	G	709	LYS	Peptide,Mainchain
1	G	98	HIS	Mainchain
2	H	150	TYR	Sidechain
2	H	155	TYR	Mainchain
2	H	22	THR	Mainchain
3	I	75	ALA	Mainchain
3	I	85	GLU	Mainchain
1	P	623	PHE	Sidechain
1	P	637	LYS	Mainchain
1	P	649	VAL	Mainchain
1	P	785	GLU	Peptide,Mainchain
1	P	98	HIS	Mainchain
2	Q	150	TYR	Sidechain
2	Q	155	TYR	Mainchain
2	Q	22	THR	Mainchain
3	R	18	ASP	Mainchain
3	R	75	ALA	Mainchain
3	R	85	GLU	Mainchain
4	V	62	ARG	Sidechain
4	W	62	ARG	Sidechain
4	X	62	ARG	Sidechain
4	Y	62	ARG	Sidechain
4	Z	62	ARG	Sidechain

## 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	6797	0	6757	1530	0
1	D	6797	0	6756	1374	0
1	G	6797	0	6760	1438	0
1	P	6797	0	6766	1428	0
2	B	1127	0	1087	268	0
2	E	1127	0	1089	248	0
2	H	1127	0	1086	254	0
2	Q	1127	0	1088	259	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	C	1123	0	1084	188	0
3	F	1123	0	1082	179	0
3	I	1123	0	1084	179	0
3	R	1123	0	1084	182	0
4	0	2906	0	2855	449	0
4	1	2906	0	2864	251	0
4	2	2906	0	2864	122	0
4	3	2906	0	2864	165	0
4	4	2906	0	2865	99	0
4	5	2906	0	2865	98	0
4	7	2906	0	2866	78	0
4	8	2906	0	2857	316	0
4	9	2906	0	2855	335	0
4	V	2906	0	2851	384	0
4	W	2906	0	2860	148	0
4	X	2906	0	2862	197	0
4	Y	2906	0	2860	166	0
4	Z	2906	0	2862	188	0
All	All	76872	0	75773	7833	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 51.

All (7833) 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:H:144:VAL:HG13	2:H:153:ILE:CG1	1.17	1.64
1:A:831:TRP:CH2	2:B:34:ILE:HG23	1.18	1.64
1:G:797:PHE:HD1	3:I:149:VAL:CG1	1.11	1.63
1:D:815:CYS:SG	2:E:92:ASP:HB2	1.30	1.63
2:H:144:VAL:HG13	2:H:153:ILE:CD1	1.22	1.63
2:Q:144:VAL:HG13	2:Q:153:ILE:CD1	1.22	1.62
1:A:830:PRO:HG2	2:B:67:MET:CE	1.23	1.62
2:E:144:VAL:HG13	2:E:153:ILE:CD1	1.22	1.61
1:P:725:ARG:HE	1:P:733:PRO:CB	1.09	1.61
4:1:287:ILE:CG1	4:3:203:THR:H	1.10	1.61
1:D:538:GLU:CA	4:9:349:LEU:CD1	1.78	1.61
4:Z:287:ILE:CG1	4:1:203:THR:H	1.06	1.60
2:B:144:VAL:HG13	2:B:153:ILE:CD1	1.22	1.60
2:E:144:VAL:HG13	2:E:153:ILE:CG1	1.17	1.59
2:B:144:VAL:HG13	2:B:153:ILE:CG1	1.17	1.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1:287:ILE:CG2	4:3:202:THR:HB	1.29	1.59
1:A:206:LYS:CD	1:A:217:THR:HG23	1.28	1.59
1:G:206:LYS:CD	1:G:217:THR:HG23	1.28	1.59
1:A:799:MET:SD	3:C:32:ASP:HB3	1.42	1.59
1:A:538:GLU:CA	4:8:349:LEU:CD1	1.78	1.58
1:A:800:ARG:HB3	3:C:149:VAL:CG2	1.18	1.58
1:D:834:LEU:HD21	2:E:54:MET:CG	1.19	1.58
1:G:538:GLU:CA	4:V:349:LEU:CD1	1.79	1.58
1:G:725:ARG:HE	1:G:733:PRO:CB	1.09	1.58
4:Z:287:ILE:CG2	4:1:202:THR:HB	1.25	1.58
1:G:768:MLY:HD3	1:G:772:LEU:CB	1.32	1.57
4:X:291:LYS:HE3	4:Z:243:PRO:CB	1.10	1.57
1:P:818:TYR:HB3	2:Q:90:GLY:CA	1.22	1.57
1:D:839:MLY:HH11	2:E:159:HIS:CD2	1.36	1.56
2:Q:144:VAL:HG13	2:Q:153:ILE:CG1	1.17	1.56
1:D:725:ARG:HE	1:D:733:PRO:CB	1.09	1.56
1:D:834:LEU:CD2	2:E:54:MET:HG3	1.14	1.56
1:P:538:GLU:CA	4:0:349:LEU:CD1	1.79	1.56
1:D:530:MET:HG2	4:9:354:GLN:CB	1.35	1.56
1:D:797:PHE:HE2	3:F:126:LEU:CD2	1.19	1.55
4:Y:291:LYS:CG	4:0:246:GLN:H	1.18	1.55
1:D:798:LEU:CD1	3:F:126:LEU:HD21	1.33	1.55
1:A:530:MET:HG2	4:8:354:GLN:CB	1.35	1.55
1:A:839:MLY:HH13	2:B:159:HIS:CD2	1.37	1.55
1:P:206:LYS:CD	1:P:217:THR:HG23	1.28	1.55
1:D:736:GLN:HA	1:D:743:ALA:CB	1.35	1.55
1:A:725:ARG:HE	1:A:733:PRO:CB	1.09	1.54
1:P:725:ARG:CZ	3:R:92:ARG:HG3	1.27	1.54
1:D:206:LYS:CD	1:D:217:THR:HG23	1.28	1.54
4:Y:291:LYS:CD	4:0:246:GLN:HB2	1.37	1.54
1:P:93:MET:HE2	1:P:764:MLY:CD	1.26	1.54
1:A:641:LYS:HG3	1:A:647:GLN:CG	1.37	1.54
1:G:788:THR:CG2	3:I:42:THR:HG21	1.30	1.54
1:D:797:PHE:CE2	3:F:126:LEU:CD2	1.88	1.53
1:G:641:LYS:HG3	1:G:647:GLN:CG	1.37	1.53
1:A:504:MLY:HB2	1:A:762:HIS:CE1	1.38	1.53
1:P:641:LYS:HG3	1:P:647:GLN:CG	1.37	1.53
1:D:641:LYS:HG3	1:D:647:GLN:CG	1.36	1.53
4:Z:287:ILE:HG23	4:1:202:THR:CB	1.35	1.53
1:G:530:MET:HG2	4:V:354:GLN:CB	1.36	1.52
1:P:800:ARG:HB3	3:R:149:VAL:CG2	1.34	1.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:726:VAL:N	1:D:782:MLY:HH22	1.23	1.52
1:G:556:ASP:CG	4:X:47:MET:CE	1.76	1.52
1:P:834:LEU:HD11	2:Q:54:MET:CG	1.33	1.52
1:A:736:GLN:HA	1:A:743:ALA:CB	1.35	1.52
1:G:769:ALA:CB	1:G:770:GLY:HA2	1.40	1.52
1:A:508:ILE:CD1	1:A:759:ALA:HB1	1.32	1.52
1:D:721:LYS:HG3	1:D:736:GLN:CG	1.15	1.52
1:G:795:ARG:HH21	3:I:116:GLU:CB	1.23	1.52
1:G:206:LYS:HD3	1:G:217:THR:CG2	1.40	1.52
1:P:530:MET:HG2	4:0:354:GLN:CB	1.36	1.51
4:Y:287:ILE:CB	4:0:201:VAL:CG2	1.88	1.51
1:G:797:PHE:CD1	3:I:149:VAL:CG1	1.94	1.51
2:H:111:SER:HB2	2:H:148:VAL:C	1.23	1.51
1:P:736:GLN:HA	1:P:743:ALA:CB	1.35	1.51
1:G:736:GLN:HA	1:G:743:ALA:CB	1.35	1.50
2:Q:117:LEU:HD12	2:Q:147:ASN:CB	1.41	1.50
4:2:290:ARG:NH2	4:4:202:THR:CG2	1.70	1.50
2:B:111:SER:HB2	2:B:148:VAL:C	1.23	1.50
2:H:117:LEU:HD12	2:H:147:ASN:CG	1.30	1.50
2:E:117:LEU:HD12	2:E:147:ASN:CB	1.41	1.49
1:A:505:MLY:HD3	1:A:762:HIS:CA	1.40	1.49
4:0:166:TYR:HE2	4:2:40:HIS:CG	1.27	1.49
2:B:117:LEU:HD12	2:B:147:ASN:CB	1.42	1.49
1:G:797:PHE:CD1	3:I:149:VAL:HG11	1.47	1.49
1:P:206:LYS:HD3	1:P:217:THR:CG2	1.40	1.49
1:A:505:MLY:CD	1:A:762:HIS:HA	1.42	1.48
1:D:206:LYS:HD3	1:D:217:THR:CG2	1.40	1.48
4:0:166:TYR:HE2	4:2:40:HIS:CB	1.26	1.48
1:A:206:LYS:HD3	1:A:217:THR:CG2	1.40	1.48
1:A:641:LYS:CG	1:A:647:GLN:NE2	1.76	1.48
1:D:800:ARG:CD	3:F:149:VAL:C	1.77	1.48
1:P:806:MET:C	1:P:807:VAL:CG2	1.79	1.48
4:W:324:THR:CG2	4:Y:247:VAL:H	1.25	1.48
4:0:113:LYS:NZ	4:1:252:ASN:HB2	1.22	1.47
2:B:117:LEU:HD12	2:B:147:ASN:CG	1.30	1.47
1:G:641:LYS:CG	1:G:647:GLN:NE2	1.76	1.47
1:A:834:LEU:CD1	2:B:54:MET:HG3	0.99	1.46
1:D:641:LYS:CG	1:D:647:GLN:NE2	1.77	1.46
2:Q:117:LEU:HD12	2:Q:147:ASN:CG	1.29	1.46
1:D:769:ALA:HB1	1:D:770:GLY:C	1.32	1.46
2:Q:111:SER:HB2	2:Q:148:VAL:C	1.23	1.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:0:166:TYR:CE2	4:2:40:HIS:CG	2.02	1.45
2:E:111:SER:HB2	2:E:148:VAL:C	1.23	1.45
4:1:287:ILE:HG23	4:3:202:THR:CB	1.45	1.45
1:A:795:ARG:CD	3:C:35:ARG:HH12	1.28	1.45
1:D:641:LYS:CD	1:D:647:GLN:CD	1.85	1.45
1:P:641:LYS:CG	1:P:647:GLN:NE2	1.77	1.45
1:A:797:PHE:HE2	3:C:126:LEU:CD2	1.28	1.45
2:H:117:LEU:HD12	2:H:147:ASN:CB	1.42	1.45
1:P:641:LYS:CD	1:P:647:GLN:CD	1.85	1.45
1:A:508:ILE:HD13	1:A:759:ALA:CB	1.45	1.44
2:E:117:LEU:HD12	2:E:147:ASN:CG	1.30	1.44
1:G:538:GLU:C	4:V:349:LEU:CD1	1.84	1.44
1:G:728:ASN:ND2	3:I:114:LEU:HG	1.25	1.44
1:P:783:LEU:HG	1:P:786:ILE:CD1	1.45	1.44
1:P:836:PHE:CE1	2:Q:159:HIS:HB2	1.52	1.44
4:1:287:ILE:HG12	4:3:203:THR:N	1.22	1.44
1:A:830:PRO:CG	2:B:67:MET:HE1	1.46	1.43
1:P:818:TYR:CB	2:Q:90:GLY:HA3	1.45	1.43
4:X:291:LYS:CE	4:Z:243:PRO:HB2	1.46	1.43
1:D:818:TYR:HB2	2:E:90:GLY:CA	1.48	1.43
1:G:641:LYS:CD	1:G:647:GLN:CD	1.85	1.43
1:G:757:GLN:HG3	1:G:776:GLU:CG	1.48	1.43
1:G:721:LYS:HG3	1:G:736:GLN:CG	1.15	1.43
1:A:641:LYS:CD	1:A:647:GLN:CD	1.85	1.43
1:D:736:GLN:N	1:D:743:ALA:HB1	1.35	1.42
4:Y:291:LYS:HG3	4:0:246:GLN:N	1.30	1.42
4:0:110:LEU:CA	4:1:195:GLU:HG3	1.49	1.42
1:A:800:ARG:HD2	3:C:149:VAL:C	1.38	1.42
1:A:538:GLU:C	4:8:349:LEU:CD1	1.84	1.42
1:A:795:ARG:HB3	3:C:35:ARG:CZ	1.46	1.42
1:D:538:GLU:C	4:9:349:LEU:CD1	1.84	1.42
1:P:538:GLU:C	4:0:349:LEU:CD1	1.84	1.42
1:D:793:ARG:NE	3:F:147:MET:HG2	1.26	1.41
4:Y:291:LYS:HD2	4:0:246:GLN:CB	1.45	1.41
1:G:567:LYS:NZ	4:X:92:ASN:HD22	1.17	1.41
4:Z:287:ILE:HG12	4:1:203:THR:N	1.22	1.41
1:P:202:SER:HA	1:P:207:LYS:CE	1.51	1.41
1:P:725:ARG:NH2	3:R:92:ARG:HD2	1.28	1.41
1:A:502:GLU:HG3	1:A:761:GLY:CA	1.42	1.41
1:A:530:MET:CG	4:8:354:GLN:HB2	1.50	1.41
1:D:530:MET:CG	4:9:354:GLN:HB2	1.50	1.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:733:PRO:O	1:D:737:PHE:CD1	1.74	1.41
2:E:144:VAL:CG1	2:E:153:ILE:CD1	1.99	1.41
1:A:721:LYS:HG3	1:A:736:GLN:CG	1.15	1.40
1:A:839:MLY:CH1	2:B:159:HIS:HD2	1.34	1.40
1:P:725:ARG:NH1	3:R:92:ARG:HG3	1.24	1.40
1:P:726:VAL:CG1	3:R:89:GLU:OE2	1.68	1.40
1:P:733:PRO:O	1:P:737:PHE:CD1	1.73	1.40
1:P:813:ILE:HG23	2:Q:128:PHE:CZ	1.55	1.40
1:A:502:GLU:HA	1:A:762:HIS:N	1.13	1.40
1:A:736:GLN:CA	1:A:743:ALA:CB	2.00	1.40
1:A:757:GLN:HB3	1:A:771:LEU:CD1	0.94	1.40
1:A:800:ARG:CB	3:C:149:VAL:HG22	1.48	1.40
1:A:733:PRO:O	1:A:737:PHE:CD1	1.73	1.40
1:A:797:PHE:CE2	3:C:126:LEU:CD2	2.03	1.40
1:A:834:LEU:HD11	2:B:54:MET:CG	0.94	1.40
1:P:736:GLN:N	1:P:743:ALA:HB1	1.35	1.40
4:3:288:ASP:CG	4:5:203:THR:CG2	1.90	1.40
1:G:218:LEU:CB	1:G:221:GLN:HG3	1.51	1.40
1:A:831:TRP:CZ3	2:B:34:ILE:HG23	1.57	1.39
1:G:736:GLN:CA	1:G:743:ALA:CB	2.00	1.39
1:P:218:LEU:CB	1:P:221:GLN:HG3	1.52	1.39
1:P:786:ILE:C	1:P:787:ILE:N	1.75	1.39
1:A:795:ARG:NH1	3:C:43:ASN:N	1.66	1.39
1:A:798:LEU:CD1	3:C:126:LEU:HD21	1.52	1.39
1:D:218:LEU:CB	1:D:221:GLN:HG3	1.52	1.39
1:D:736:GLN:CA	1:D:743:ALA:CB	2.00	1.39
1:G:537:GLU:O	4:V:349:LEU:CD1	1.71	1.39
1:P:834:LEU:CD1	2:Q:54:MET:HG3	1.50	1.39
1:D:736:GLN:CA	1:D:743:ALA:HB1	1.53	1.39
1:A:218:LEU:CB	1:A:221:GLN:HG3	1.52	1.39
1:D:202:SER:HA	1:D:207:LYS:CE	1.51	1.39
1:D:814:PHE:CE1	2:E:127:ARG:NH2	1.73	1.39
1:G:733:PRO:O	1:G:737:PHE:CD1	1.74	1.39
1:P:725:ARG:CZ	3:R:92:ARG:CG	2.02	1.39
1:A:795:ARG:HD2	3:C:35:ARG:NH1	1.19	1.38
2:B:144:VAL:CG1	2:B:153:ILE:CD1	1.99	1.38
2:B:144:VAL:CG1	2:B:153:ILE:HG12	1.54	1.38
1:G:202:SER:HA	1:G:207:LYS:CE	1.51	1.38
4:2:290:ARG:CZ	4:4:202:THR:HG21	1.52	1.38
1:G:795:ARG:NH2	3:I:116:GLU:HB3	1.08	1.38
1:P:721:LYS:HG3	1:P:736:GLN:CG	1.15	1.38

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:831:TRP:CH2	2:B:34:ILE:CG2	2.06	1.38
2:H:144:VAL:CG1	2:H:153:ILE:CD1	1.99	1.38
1:P:530:MET:CG	4:O:354:GLN:HB2	1.51	1.38
1:A:793:ARG:NH2	3:C:147:MET:CE	1.86	1.38
1:G:534:SER:O	4:V:351:THR:CG2	1.64	1.38
1:P:736:GLN:CA	1:P:743:ALA:HB1	1.53	1.37
1:A:202:SER:HA	1:A:207:LYS:CE	1.51	1.37
1:A:795:ARG:HB3	3:C:35:ARG:NH2	1.34	1.37
1:D:506:GLU:CG	1:D:764:MLY:HE3	1.53	1.37
1:D:537:GLU:O	4:9:349:LEU:CD1	1.70	1.37
2:E:144:VAL:CG1	2:E:153:ILE:HG12	1.54	1.37
1:P:537:GLU:O	4:O:349:LEU:CD1	1.70	1.37
1:P:795:ARG:CG	3:R:118:MET:HE1	1.53	1.37
4:Z:287:ILE:CG1	4:1:203:THR:N	1.74	1.37
1:G:789:ALA:HB2	3:I:81:GLN:NE2	1.37	1.37
1:P:736:GLN:CA	1:P:743:ALA:CB	2.00	1.37
4:Z:287:ILE:HG12	4:1:202:THR:C	1.42	1.37
1:A:537:GLU:O	4:8:349:LEU:CD1	1.70	1.37
1:G:641:LYS:HG3	1:G:647:GLN:CD	1.45	1.37
1:G:795:ARG:NE	3:I:118:MET:HE1	1.40	1.37
4:3:288:ASP:OD2	4:5:203:THR:CG2	1.72	1.37
1:D:769:ALA:HB1	1:D:770:GLY:CA	1.52	1.37
1:G:721:LYS:CG	1:G:736:GLN:CG	1.97	1.37
1:G:641:LYS:CG	1:G:647:GLN:CD	1.93	1.36
1:G:736:GLN:N	1:G:743:ALA:HB1	1.34	1.36
1:P:815:CYS:SG	2:Q:92:ASP:CG	2.02	1.36
1:G:553:MLY:CH1	4:X:45:VAL:HG11	1.54	1.36
1:P:641:LYS:CG	1:P:647:GLN:CD	1.93	1.36
2:Q:144:VAL:CG1	2:Q:153:ILE:HG12	1.54	1.36
1:G:538:GLU:CA	4:V:349:LEU:HD12	0.88	1.36
1:G:736:GLN:CA	1:G:743:ALA:HB1	1.53	1.36
2:H:144:VAL:CG1	2:H:153:ILE:HG12	1.54	1.36
2:Q:144:VAL:CG1	2:Q:153:ILE:CD1	1.99	1.36
1:A:649:VAL:O	1:A:649:VAL:CG1	1.74	1.36
2:E:144:VAL:CG1	2:E:153:ILE:CG1	2.03	1.36
1:G:831:TRP:HE1	2:H:67:MET:CG	1.36	1.36
1:G:530:MET:CG	4:V:354:GLN:HB2	1.51	1.36
2:Q:117:LEU:CD1	2:Q:147:ASN:OD1	1.74	1.36
1:A:641:LYS:CG	1:A:647:GLN:CD	1.93	1.35
2:B:117:LEU:HB2	2:B:147:ASN:ND2	1.40	1.35
1:D:641:LYS:HG3	1:D:647:GLN:CD	1.45	1.35

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:642:LYS:HG3	4:9:23:GLY:N	1.40	1.35
1:D:831:TRP:CD1	2:E:67:MET:SD	2.19	1.35
1:G:642:LYS:HG3	4:V:23:GLY:N	1.39	1.35
2:H:117:LEU:HB2	2:H:147:ASN:ND2	1.39	1.35
2:Q:117:LEU:HB2	2:Q:147:ASN:ND2	1.39	1.35
1:P:641:LYS:HG3	1:P:647:GLN:CD	1.46	1.35
1:P:642:LYS:HG3	4:0:23:GLY:N	1.40	1.35
1:A:538:GLU:CA	4:8:349:LEU:HD12	0.87	1.34
1:A:641:LYS:HG3	1:A:647:GLN:CD	1.45	1.34
1:D:769:ALA:O	1:D:774:LEU:HD13	1.21	1.34
1:G:649:VAL:O	1:G:649:VAL:CG1	1.74	1.34
1:P:721:LYS:CG	1:P:736:GLN:CG	1.97	1.34
1:A:530:MET:HA	4:8:354:GLN:CG	1.56	1.34
1:A:534:SER:O	4:8:351:THR:CG2	1.64	1.34
1:A:707:CYS:CA	1:A:714:ARG:NH1	1.84	1.34
1:A:736:GLN:N	1:A:743:ALA:HB1	1.34	1.34
1:G:817:GLN:CD	2:H:127:ARG:HD2	1.44	1.34
1:A:642:LYS:HG3	4:8:23:GLY:N	1.40	1.34
1:A:757:GLN:CB	1:A:771:LEU:HD11	0.87	1.34
1:D:641:LYS:CG	1:D:647:GLN:CD	1.93	1.34
1:P:502:GLU:OE2	1:P:761:GLY:CA	1.76	1.34
1:A:793:ARG:NH2	3:C:147:MET:HE2	1.39	1.34
1:D:538:GLU:CA	4:9:349:LEU:HD12	0.87	1.34
1:P:538:GLU:CA	4:0:349:LEU:HD12	0.88	1.34
1:A:736:GLN:CA	1:A:743:ALA:HB1	1.53	1.33
1:A:800:ARG:CD	3:C:149:VAL:C	1.93	1.33
1:D:839:MLY:CH1	2:E:159:HIS:CD2	2.10	1.33
1:P:817:GLN:CD	2:Q:127:ARG:HD2	1.47	1.33
2:B:117:LEU:CD1	2:B:147:ASN:OD1	1.74	1.33
1:D:649:VAL:O	1:D:649:VAL:CG1	1.74	1.33
1:P:530:MET:HA	4:0:354:GLN:CG	1.56	1.33
1:D:534:SER:O	4:9:351:THR:CG2	1.64	1.33
1:G:629:GLU:HA	1:G:643:GLY:O	1.17	1.33
1:P:635:GLY:CA	4:0:334:GLU:HG2	1.59	1.33
1:P:795:ARG:NH2	3:R:116:GLU:CB	1.89	1.33
4:Z:287:ILE:CB	4:1:203:THR:H	1.39	1.33
1:A:635:GLY:CA	4:8:334:GLU:HG2	1.59	1.33
1:G:635:GLY:CA	4:V:334:GLU:HG2	1.59	1.33
2:H:117:LEU:CD1	2:H:147:ASN:OD1	1.74	1.33
1:P:649:VAL:CG1	1:P:649:VAL:O	1.74	1.33
2:B:114:LYS:CA	2:B:146:GLY:O	1.76	1.33

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:721:LYS:CG	1:D:736:GLN:CG	1.97	1.33
2:E:117:LEU:HB2	2:E:147:ASN:ND2	1.39	1.33
2:Q:114:LYS:CA	2:Q:146:GLY:O	1.76	1.33
1:A:721:LYS:CG	1:A:736:GLN:CD	1.98	1.32
1:G:793:ARG:NH1	3:I:40:ASN:HD21	1.26	1.32
1:D:629:GLU:HA	1:D:643:GLY:O	1.17	1.32
1:D:725:ARG:NE	1:D:733:PRO:HB3	1.00	1.32
2:E:117:LEU:CD1	2:E:147:ASN:OD1	1.74	1.32
1:G:721:LYS:HG2	1:G:736:GLN:OE1	1.29	1.32
1:P:721:LYS:CG	1:P:736:GLN:CD	1.98	1.32
1:G:721:LYS:CG	1:G:736:GLN:CD	1.98	1.32
1:A:629:GLU:HA	1:A:643:GLY:O	1.17	1.32
4:3:288:ASP:CG	4:5:203:THR:HG23	1.47	1.32
1:D:530:MET:HA	4:9:354:GLN:CG	1.56	1.32
1:D:822:SER:OG	2:E:88:LEU:CD2	1.78	1.32
2:H:114:LYS:CA	2:H:146:GLY:O	1.76	1.32
2:E:114:LYS:CA	2:E:146:GLY:O	1.76	1.31
1:G:530:MET:HA	4:V:354:GLN:CG	1.57	1.31
1:P:534:SER:O	4:O:351:THR:CG2	1.64	1.31
1:P:799:MET:SD	3:R:32:ASP:HB3	1.68	1.31
2:Q:121:LEU:O	2:Q:128:PHE:CB	1.79	1.31
4:1:287:ILE:CB	4:3:203:THR:H	1.42	1.31
1:D:635:GLY:CA	4:9:334:GLU:HG2	1.59	1.31
1:P:508:ILE:HD11	1:P:759:ALA:CB	1.60	1.31
4:Y:286:ASP:OD1	4:O:205:GLU:HG2	1.19	1.31
1:A:830:PRO:HB2	2:B:51:PHE:CZ	1.64	1.31
1:P:629:GLU:HA	1:P:643:GLY:O	1.17	1.31
4:W:324:THR:HG21	4:Y:247:VAL:N	0.98	1.30
2:H:144:VAL:CG1	2:H:153:ILE:CG1	2.03	1.30
1:P:721:LYS:HG2	1:P:736:GLN:OE1	1.29	1.30
1:G:725:ARG:NE	1:G:733:PRO:HB3	0.99	1.30
1:D:721:LYS:CG	1:D:736:GLN:CD	1.98	1.30
1:P:599:ASN:HA	1:P:649:VAL:CB	1.60	1.30
4:X:324:THR:HG22	4:Z:247:VAL:CG2	1.60	1.30
1:A:95:THR:OG1	1:A:769:ALA:HA	1.31	1.30
1:D:813:ILE:CG2	2:E:127:ARG:HD2	1.60	1.30
1:P:725:ARG:NE	1:P:733:PRO:HB3	1.00	1.30
1:P:735:GLY:O	1:P:743:ALA:HB2	1.29	1.30
1:A:725:ARG:NE	1:A:733:PRO:HB3	0.99	1.29
1:G:735:GLY:C	1:G:743:ALA:CB	2.01	1.29
1:P:797:PHE:CD1	3:R:149:VAL:CG1	2.15	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:735:GLY:C	1:A:743:ALA:CB	2.01	1.29
1:D:506:GLU:HG3	1:D:764:MLY:CE	1.62	1.29
2:E:121:LEU:O	2:E:128:PHE:CB	1.79	1.29
1:P:823:PHE:CE1	2:Q:156:VAL:HG12	1.66	1.29
4:X:291:LYS:CE	4:Z:243:PRO:CB	2.03	1.29
1:A:502:GLU:O	1:A:761:GLY:HA2	1.18	1.29
1:A:537:GLU:C	4:8:349:LEU:HD13	1.52	1.29
1:A:735:GLY:O	1:A:743:ALA:HB2	1.29	1.29
1:A:791:GLN:HE22	3:C:116:GLU:N	1.29	1.29
1:G:92:ALA:O	1:G:714:ARG:HD2	1.19	1.29
4:X:291:LYS:HE2	4:Z:243:PRO:C	1.53	1.29
4:Z:287:ILE:CG2	4:1:202:THR:CB	1.98	1.29
1:D:799:MET:SD	3:F:32:ASP:HB3	1.72	1.29
2:B:121:LEU:O	2:B:128:PHE:CB	1.79	1.29
1:G:538:GLU:O	4:V:349:LEU:CD1	1.78	1.29
2:H:121:LEU:O	2:H:128:PHE:CB	1.79	1.29
4:W:325:MET:SD	4:Y:244:ASP:HB2	1.72	1.29
1:D:815:CYS:SG	2:E:92:ASP:CB	2.17	1.28
1:P:537:GLU:C	4:0:349:LEU:HD13	1.52	1.28
1:D:534:SER:O	4:9:351:THR:CA	1.82	1.28
1:D:599:ASN:HA	1:D:649:VAL:CB	1.60	1.28
1:G:599:ASN:HA	1:G:649:VAL:CB	1.60	1.28
1:G:735:GLY:O	1:G:743:ALA:HB2	1.29	1.28
1:G:768:MLY:CD	1:G:772:LEU:HB2	1.62	1.28
1:G:817:GLN:OE1	2:H:127:ARG:CD	1.81	1.28
1:D:834:LEU:CD1	2:E:54:MET:HB2	1.64	1.28
1:G:788:THR:HG22	3:I:42:THR:CG2	1.62	1.28
1:P:534:SER:O	4:0:351:THR:CA	1.82	1.28
1:D:537:GLU:C	4:9:349:LEU:HD13	1.52	1.28
1:P:735:GLY:C	1:P:743:ALA:CB	2.01	1.28
1:A:538:GLU:O	4:8:349:LEU:CD1	1.78	1.27
1:G:537:GLU:C	4:V:349:LEU:HD13	1.53	1.27
1:P:538:GLU:O	4:0:349:LEU:CD1	1.78	1.27
4:3:288:ASP:OD2	4:5:203:THR:HG21	1.14	1.27
1:A:721:LYS:HG3	1:A:736:GLN:CD	1.54	1.27
1:D:735:GLY:C	1:D:743:ALA:CB	2.01	1.27
1:D:800:ARG:NH1	3:F:149:VAL:HG13	1.47	1.27
1:P:733:PRO:O	1:P:737:PHE:HD1	0.93	1.27
1:A:599:ASN:HA	1:A:649:VAL:CB	1.61	1.27
1:A:831:TRP:CZ2	2:B:47:LEU:HA	1.68	1.27
1:D:769:ALA:CB	1:D:770:GLY:C	2.03	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:504:MLY:HB2	1:A:762:HIS:NE2	1.47	1.27
1:A:721:LYS:CG	1:A:736:GLN:OE1	1.83	1.27
1:G:538:GLU:C	4:V:349:LEU:HD12	1.48	1.27
1:D:538:GLU:C	4:9:349:LEU:HD12	1.48	1.27
1:P:836:PHE:HE1	2:Q:159:HIS:CB	1.47	1.27
1:A:534:SER:O	4:8:351:THR:CA	1.81	1.26
1:D:538:GLU:O	4:9:349:LEU:CD1	1.78	1.26
1:D:834:LEU:HD11	2:E:54:MET:CB	1.65	1.26
1:G:215:GLN:N	1:G:340:ILE:HG12	1.19	1.26
1:G:754:ASP:OD2	1:G:779:ARG:HD2	1.36	1.26
1:G:793:ARG:HH11	3:I:40:ASN:ND2	1.33	1.26
1:G:823:PHE:CE1	2:H:156:VAL:O	1.86	1.26
1:D:814:PHE:CD1	2:E:127:ARG:NH2	1.91	1.26
1:A:822:SER:OG	2:B:88:LEU:HD23	1.23	1.26
1:P:538:GLU:C	4:0:349:LEU:HD12	1.48	1.26
4:0:113:LYS:CE	4:1:252:ASN:HB2	1.64	1.26
4:1:287:ILE:HG12	4:3:202:THR:C	1.56	1.26
1:A:505:MLY:CE	1:A:762:HIS:HB3	1.65	1.26
2:B:144:VAL:CG1	2:B:153:ILE:CG1	2.03	1.26
1:D:733:PRO:O	1:D:737:PHE:HD1	0.93	1.26
1:G:149:GLN:HG2	1:G:763:THR:OG1	1.31	1.26
1:G:552:ASN:O	4:X:47:MET:SD	1.91	1.26
1:P:785:GLU:O	1:P:788:THR:HB	1.10	1.26
1:A:822:SER:CB	2:B:88:LEU:HD23	1.66	1.25
1:D:721:LYS:HG2	1:D:736:GLN:OE1	1.29	1.25
4:V:324:THR:HG21	4:X:247:VAL:N	1.49	1.25
4:Z:287:ILE:HG12	4:1:202:THR:CA	1.66	1.25
1:D:538:GLU:O	4:9:349:LEU:HD11	1.35	1.25
2:H:144:VAL:CG1	2:H:153:ILE:HD11	1.64	1.25
1:P:725:ARG:NH2	3:R:92:ARG:CD	1.99	1.25
1:P:797:PHE:CD1	3:R:149:VAL:HG11	1.72	1.25
1:P:803:TYR:O	1:P:807:VAL:HG21	1.35	1.25
4:0:166:TYR:CE2	4:2:40:HIS:CB	2.13	1.25
1:P:813:ILE:CG2	2:Q:128:PHE:CZ	2.18	1.25
1:A:506:GLU:HB2	1:A:760:PHE:O	1.29	1.25
1:P:215:GLN:N	1:P:340:ILE:HG12	1.19	1.25
1:P:795:ARG:NH2	3:R:116:GLU:HB3	0.95	1.25
4:V:325:MET:SD	4:X:244:ASP:HB2	1.77	1.25
1:G:534:SER:O	4:V:351:THR:CA	1.83	1.24
2:H:117:LEU:CD1	2:H:147:ASN:CG	2.05	1.24
1:P:630:ALA:O	4:0:25:ASP:OD2	1.52	1.24

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:117:LEU:CD1	2:B:147:ASN:CG	2.05	1.24
1:D:721:LYS:CG	1:D:736:GLN:OE1	1.83	1.24
2:E:117:LEU:CD1	2:E:147:ASN:CG	2.05	1.24
1:P:806:MET:C	1:P:807:VAL:HG23	0.89	1.24
1:A:641:LYS:CD	1:A:647:GLN:NE2	1.99	1.24
4:7:322:PRO:CB	4:9:244:ASP:OD2	1.86	1.24
4:9:322:PRO:CB	4:W:244:ASP:OD2	1.86	1.24
1:D:735:GLY:O	1:D:743:ALA:HB2	1.29	1.24
1:G:795:ARG:CG	3:I:118:MET:HE3	1.67	1.24
1:A:215:GLN:N	1:A:340:ILE:HG12	1.20	1.24
1:D:646:PHE:CE2	1:D:652:LEU:HD11	1.73	1.24
1:D:721:LYS:HG3	1:D:736:GLN:CD	1.54	1.24
1:D:793:ARG:HE	3:F:147:MET:CG	1.50	1.24
1:G:646:PHE:CE2	1:G:652:LEU:HD11	1.73	1.24
1:G:721:LYS:CG	1:G:736:GLN:OE1	1.83	1.24
1:D:769:ALA:HA	1:D:771:LEU:CA	1.67	1.23
1:G:783:LEU:O	1:G:787:ILE:N	1.71	1.23
1:A:641:LYS:CG	1:A:647:GLN:CG	2.16	1.23
1:P:646:PHE:CE2	1:P:652:LEU:HD11	1.73	1.23
1:P:817:GLN:NE2	2:Q:127:ARG:HB2	1.50	1.23
1:P:817:GLN:OE1	2:Q:127:ARG:HD2	1.29	1.23
1:A:646:PHE:CE2	1:A:652:LEU:HD11	1.73	1.23
1:A:831:TRP:CZ2	2:B:47:LEU:HD23	1.74	1.23
1:G:800:ARG:HD2	3:I:149:VAL:CG2	1.68	1.23
1:A:502:GLU:HG3	1:A:761:GLY:N	1.54	1.23
1:A:630:ALA:O	4:8:25:ASP:OD2	1.53	1.23
1:D:641:LYS:CD	1:D:647:GLN:NE2	1.99	1.23
1:G:629:GLU:CA	1:G:643:GLY:O	1.87	1.23
1:P:803:TYR:O	1:P:807:VAL:CG2	1.86	1.23
2:Q:121:LEU:C	2:Q:128:PHE:CB	2.07	1.23
2:H:121:LEU:C	2:H:128:PHE:CB	2.07	1.23
1:P:721:LYS:CG	1:P:736:GLN:OE1	1.83	1.23
4:X:291:LYS:CD	4:Z:244:ASP:N	1.86	1.23
1:A:502:GLU:O	1:A:761:GLY:CA	1.87	1.22
1:D:215:GLN:N	1:D:340:ILE:CG1	2.02	1.22
1:P:641:LYS:CG	1:P:647:GLN:CG	2.16	1.22
2:Q:144:VAL:CG1	2:Q:153:ILE:HD11	1.65	1.22
1:D:726:VAL:CA	1:D:782:MLY:HH22	1.67	1.22
1:D:797:PHE:CE2	3:F:126:LEU:HD22	1.59	1.22
1:G:721:LYS:HG3	1:G:736:GLN:CD	1.53	1.22
4:8:322:PRO:CB	4:V:244:ASP:OD2	1.86	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:117:LEU:HD12	2:B:147:ASN:OD1	1.32	1.22
1:D:769:ALA:C	1:D:770:GLY:O	1.77	1.22
1:G:557:GLU:CB	4:X:46:GLY:O	1.86	1.22
4:2:322:PRO:HB3	4:4:244:ASP:OD2	1.39	1.22
1:A:538:GLU:C	4:8:349:LEU:HD12	1.48	1.22
1:A:733:PRO:O	1:A:737:PHE:HD1	0.93	1.22
1:A:799:MET:SD	3:C:32:ASP:CB	2.26	1.22
1:G:92:ALA:O	1:G:714:ARG:CD	1.88	1.22
1:G:215:GLN:N	1:G:340:ILE:CG1	2.02	1.22
1:G:733:PRO:O	1:G:737:PHE:HD1	0.93	1.22
1:P:795:ARG:NE	3:R:118:MET:HE1	1.53	1.22
1:A:502:GLU:C	1:A:761:GLY:CA	2.08	1.22
2:E:121:LEU:C	2:E:128:PHE:CB	2.07	1.22
1:P:804:ARG:O	1:P:808:GLU:N	1.73	1.22
1:P:819:ASN:O	2:Q:157:ILE:HG23	1.35	1.22
2:B:121:LEU:C	2:B:128:PHE:CB	2.07	1.21
1:D:534:SER:O	4:9:351:THR:CB	1.88	1.21
1:G:534:SER:O	4:V:351:THR:CB	1.89	1.21
1:G:557:GLU:HA	4:X:48:GLY:N	1.13	1.21
1:G:641:LYS:CG	1:G:647:GLN:CG	2.16	1.21
1:G:795:ARG:NH2	3:I:116:GLU:CB	1.86	1.21
1:A:629:GLU:CA	1:A:643:GLY:O	1.87	1.21
1:A:721:LYS:HG2	1:A:736:GLN:OE1	1.29	1.21
1:A:800:ARG:CG	3:C:149:VAL:HG22	1.69	1.21
1:A:502:GLU:C	1:A:761:GLY:HA3	1.58	1.21
1:A:800:ARG:CB	3:C:149:VAL:CG2	2.07	1.21
1:G:641:LYS:CG	1:G:647:GLN:HG3	1.71	1.21
1:P:215:GLN:N	1:P:340:ILE:CG1	2.02	1.21
1:P:534:SER:O	4:0:351:THR:CB	1.88	1.21
4:1:287:ILE:CG2	4:3:202:THR:CB	2.09	1.21
1:D:831:TRP:NE1	2:E:67:MET:SD	2.13	1.21
1:G:557:GLU:CA	4:X:48:GLY:N	1.99	1.21
1:G:768:MLY:CD	1:G:772:LEU:CB	2.18	1.21
1:P:93:MET:CG	1:P:714:ARG:HG3	1.71	1.21
1:P:508:ILE:CD1	1:P:759:ALA:HB2	1.69	1.21
1:P:629:GLU:CA	1:P:643:GLY:O	1.87	1.21
1:P:721:LYS:HG3	1:P:736:GLN:CD	1.53	1.21
1:P:725:ARG:NH1	3:R:92:ARG:O	1.74	1.21
2:Q:117:LEU:CD1	2:Q:147:ASN:CG	2.04	1.21
2:Q:117:LEU:CD1	2:Q:147:ASN:CB	2.19	1.21
1:A:215:GLN:N	1:A:340:ILE:CG1	2.02	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:534:SER:O	4:8:351:THR:CB	1.87	1.20
1:A:791:GLN:NE2	3:C:116:GLU:H	1.40	1.20
1:D:822:SER:OG	2:E:88:LEU:HD23	1.03	1.20
1:P:800:ARG:HB3	3:R:149:VAL:HG21	1.21	1.20
1:P:804:ARG:C	1:P:807:VAL:HB	1.61	1.20
4:X:291:LYS:CE	4:Z:243:PRO:C	2.10	1.20
1:D:629:GLU:CA	1:D:643:GLY:O	1.87	1.20
1:D:630:ALA:O	4:9:25:ASP:OD2	1.52	1.20
1:D:641:LYS:CG	1:D:647:GLN:HG3	1.70	1.20
1:P:726:VAL:O	3:R:89:GLU:CD	1.79	1.20
1:P:641:LYS:CG	1:P:647:GLN:HG3	1.71	1.20
1:P:725:ARG:HH22	3:R:92:ARG:CD	1.52	1.20
1:P:726:VAL:HG13	3:R:89:GLU:CB	1.70	1.20
4:8:322:PRO:HB2	4:V:244:ASP:OD2	1.39	1.20
1:P:795:ARG:CG	3:R:118:MET:CE	2.19	1.20
1:P:795:ARG:CD	3:R:118:MET:HE1	1.72	1.20
1:D:506:GLU:CG	1:D:764:MLY:CE	2.15	1.20
1:D:793:ARG:NH2	3:F:147:MET:CE	2.04	1.20
2:E:117:LEU:CD1	2:E:147:ASN:CB	2.19	1.20
1:A:736:GLN:N	1:A:743:ALA:CB	2.05	1.19
2:B:117:LEU:CD1	2:B:147:ASN:CB	2.19	1.19
1:G:567:LYS:NZ	4:X:92:ASN:ND2	1.86	1.19
1:A:502:GLU:CG	1:A:761:GLY:CA	2.20	1.19
1:A:797:PHE:CE2	3:C:126:LEU:HD22	1.69	1.19
4:0:110:LEU:HB3	4:1:195:GLU:HB2	1.24	1.19
1:A:508:ILE:CD1	1:A:759:ALA:CB	2.11	1.19
1:D:538:GLU:OE2	4:9:355:MET:CE	1.90	1.19
1:D:798:LEU:CD1	3:F:126:LEU:CD2	2.18	1.19
1:G:832:MET:SD	2:H:84:PHE:HE2	1.65	1.19
1:P:538:GLU:OE2	4:0:355:MET:CE	1.90	1.19
4:7:322:PRO:HB2	4:9:244:ASP:OD2	1.39	1.19
1:A:504:MLY:CB	1:A:762:HIS:CE1	2.25	1.19
1:A:506:GLU:HB2	1:A:760:PHE:C	1.62	1.19
1:A:757:GLN:CG	1:A:771:LEU:HD11	1.73	1.19
2:B:144:VAL:CG1	2:B:153:ILE:HD11	1.64	1.19
2:H:117:LEU:CD1	2:H:147:ASN:CB	2.19	1.19
1:P:800:ARG:CB	3:R:149:VAL:HG22	1.71	1.19
1:P:813:ILE:CG2	2:Q:128:PHE:HZ	1.53	1.19
4:Z:288:ASP:CG	4:1:203:THR:HG21	1.62	1.19
1:P:818:TYR:CB	2:Q:90:GLY:CA	2.06	1.18
1:A:502:GLU:CA	1:A:762:HIS:N	2.05	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:793:ARG:HH21	3:C:147:MET:CE	1.45	1.18
1:D:641:LYS:CG	1:D:647:GLN:CG	2.15	1.18
1:D:721:LYS:HA	1:D:736:GLN:NE2	1.58	1.18
1:G:538:GLU:OE2	4:V:355:MET:CE	1.90	1.18
1:G:553:MLY:CE	4:X:45:VAL:CB	2.22	1.18
1:G:735:GLY:O	1:G:743:ALA:CB	1.91	1.18
1:A:538:GLU:OE2	4:8:355:MET:CE	1.91	1.18
1:A:557:GLU:H	4:V:48:GLY:CA	1.56	1.18
1:G:789:ALA:CB	3:I:81:GLN:HE21	1.56	1.18
4:9:322:PRO:HB2	4:W:244:ASP:OD2	1.39	1.18
1:A:641:LYS:CB	1:A:647:GLN:NE2	2.07	1.18
4:W:324:THR:CG2	4:Y:247:VAL:N	1.89	1.18
1:A:641:LYS:CG	1:A:647:GLN:HG3	1.71	1.18
1:A:735:GLY:O	1:A:743:ALA:CB	1.91	1.18
1:D:557:GLU:H	4:W:48:GLY:CA	1.56	1.18
4:Y:287:ILE:CB	4:0:201:VAL:HG22	1.58	1.18
1:A:721:LYS:CG	1:A:736:GLN:CG	1.97	1.17
1:G:788:THR:CG2	3:I:42:THR:CG2	2.21	1.17
1:P:538:GLU:HA	4:0:349:LEU:CD1	1.55	1.17
1:A:641:LYS:HD2	1:A:647:GLN:NE2	1.59	1.17
1:D:641:LYS:CB	1:D:647:GLN:NE2	2.07	1.17
1:G:641:LYS:CD	1:G:647:GLN:NE2	1.99	1.17
1:G:721:LYS:HA	1:G:736:GLN:NE2	1.58	1.17
1:P:641:LYS:CB	1:P:647:GLN:NE2	2.07	1.17
1:P:735:GLY:O	1:P:743:ALA:CB	1.91	1.17
4:Y:292:ASP:CG	4:0:244:ASP:CB	2.11	1.17
4:3:287:ILE:HD13	4:5:203:THR:HB	1.22	1.17
1:A:506:GLU:CB	1:A:760:PHE:O	1.91	1.17
1:A:753:VAL:HA	1:A:778:MET:SD	1.83	1.17
1:D:538:GLU:HA	4:9:349:LEU:CD1	1.54	1.17
1:G:641:LYS:HD2	1:G:647:GLN:NE2	1.58	1.17
1:P:726:VAL:HG13	3:R:89:GLU:HB2	1.18	1.17
1:P:815:CYS:SG	2:Q:92:ASP:OD2	2.02	1.17
1:D:641:LYS:CE	4:9:348:SER:O	1.93	1.17
2:E:144:VAL:CG1	2:E:153:ILE:HD11	1.64	1.17
1:G:641:LYS:CB	1:G:647:GLN:NE2	2.07	1.17
1:G:642:LYS:CG	4:V:23:GLY:N	2.08	1.17
1:P:834:LEU:HD11	2:Q:54:MET:CB	1.74	1.17
4:8:290:ARG:NH2	4:V:202:THR:HG23	1.59	1.17
4:Y:287:ILE:HG21	4:0:199:SER:O	1.44	1.17
1:A:538:GLU:O	4:8:349:LEU:HD11	1.35	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:557:GLU:HB3	4:X:46:GLY:O	0.99	1.17
1:P:538:GLU:OE2	4:O:355:MET:HE1	1.44	1.17
1:P:827:MLY:HH21	2:Q:139:ALA:HB3	1.20	1.17
1:A:641:LYS:CE	4:8:348:SER:O	1.93	1.16
1:G:503:TYR:CE1	1:G:711:PHE:CE2	2.33	1.16
1:P:641:LYS:HD2	1:P:647:GLN:NE2	1.59	1.16
1:P:726:VAL:HG12	3:R:89:GLU:OE2	1.31	1.16
1:P:797:PHE:HD1	3:R:149:VAL:CG1	1.54	1.16
1:P:215:GLN:HA	1:P:340:ILE:CG2	1.75	1.16
1:P:641:LYS:CE	4:O:348:SER:O	1.93	1.16
1:P:721:LYS:HA	1:P:736:GLN:NE2	1.59	1.16
4:1:287:ILE:CG1	4:3:203:THR:N	1.81	1.16
1:G:215:GLN:HA	1:G:340:ILE:CG2	1.75	1.16
1:G:842:LEU:HG	2:H:29:GLU:HB3	1.28	1.16
1:A:642:LYS:CG	4:8:23:GLY:N	2.09	1.16
1:A:721:LYS:HG3	1:A:736:GLN:HG2	1.25	1.16
1:D:839:MLY:CH1	2:E:159:HIS:CG	2.28	1.16
1:P:641:LYS:CD	1:P:647:GLN:NE2	1.99	1.16
1:P:739:ASP:HB3	1:P:742:LYS:HB3	1.21	1.16
4:W:325:MET:HE2	4:Y:244:ASP:OD2	1.46	1.16
1:A:215:GLN:HA	1:A:340:ILE:CG2	1.76	1.16
2:B:117:LEU:CD1	2:B:147:ASN:HB3	1.76	1.16
1:D:839:MLY:HH11	2:E:159:HIS:CG	1.79	1.16
1:G:641:LYS:CE	4:V:348:SER:O	1.93	1.16
1:A:721:LYS:HA	1:A:736:GLN:NE2	1.58	1.15
1:D:215:GLN:HA	1:D:340:ILE:CG2	1.75	1.15
1:D:641:LYS:HD2	1:D:647:GLN:NE2	1.59	1.15
2:E:117:LEU:HD12	2:E:147:ASN:OD1	1.32	1.15
2:H:117:LEU:HD12	2:H:147:ASN:OD1	1.32	1.15
4:7:290:ARG:NH2	4:9:202:THR:HG23	1.59	1.15
1:P:721:LYS:HG3	1:P:736:GLN:HG2	1.25	1.15
1:A:542:PHE:HA	4:8:143:TYR:CE1	1.82	1.15
1:D:642:LYS:CG	4:9:23:GLY:N	2.08	1.15
1:D:649:VAL:HA	1:D:649:VAL:CG2	1.76	1.15
1:G:553:MLY:HG3	4:X:45:VAL:O	1.01	1.15
1:G:817:GLN:OE1	2:H:127:ARG:HD2	0.97	1.15
1:P:93:MET:HA	1:P:714:ARG:CG	1.75	1.15
1:P:649:VAL:CG2	1:P:649:VAL:HA	1.77	1.15
4:9:290:ARG:NH2	4:W:202:THR:HG23	1.59	1.15
1:A:201:ALA:O	1:A:202:SER:HB3	1.35	1.15
2:B:111:SER:CA	2:B:148:VAL:O	1.95	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:218:LEU:HB2	1:D:221:GLN:HG3	1.17	1.15
1:D:542:PHE:HA	4:9:143:TYR:CE1	1.82	1.15
1:D:793:ARG:HH21	3:F:147:MET:HB3	1.04	1.15
1:D:818:TYR:CB	2:E:90:GLY:N	2.10	1.15
1:G:93:MET:O	1:G:714:ARG:O	1.65	1.15
1:P:642:LYS:CG	4:0:23:GLY:N	2.08	1.15
1:P:793:ARG:HH21	3:R:147:MET:HE2	1.12	1.15
2:Q:121:LEU:C	2:Q:128:PHE:HB2	1.67	1.15
4:V:325:MET:SD	4:X:244:ASP:CB	2.33	1.15
4:X:287:ILE:CG1	4:Z:201:VAL:HG23	1.76	1.15
4:Z:288:ASP:OD2	4:1:203:THR:HG21	1.46	1.15
1:A:538:GLU:OE2	4:8:355:MET:HE1	1.44	1.15
1:D:639:GLY:HA3	4:9:344:SER:O	1.46	1.15
1:G:538:GLU:O	4:V:349:LEU:HD11	1.34	1.15
1:P:707:CYS:O	1:P:710:GLY:HA3	1.46	1.15
2:Q:112:ILE:O	2:Q:147:ASN:O	1.65	1.15
1:A:218:LEU:HB2	1:A:221:GLN:HG3	1.17	1.14
1:A:502:GLU:HA	1:A:761:GLY:C	1.66	1.14
1:A:538:GLU:C	4:8:349:LEU:HD11	1.54	1.14
1:G:538:GLU:OE2	4:V:355:MET:HE1	1.43	1.14
1:G:542:PHE:HA	4:V:143:TYR:CE1	1.82	1.14
1:G:640:LYS:HB3	1:G:645:SER:OG	1.46	1.14
1:G:789:ALA:CB	3:I:81:GLN:NE2	2.09	1.14
1:P:538:GLU:O	4:0:349:LEU:HD11	1.35	1.14
4:W:324:THR:HG21	4:Y:246:GLN:C	1.61	1.14
2:B:121:LEU:CA	2:B:128:PHE:HB3	1.77	1.14
1:D:735:GLY:O	1:D:743:ALA:CB	1.91	1.14
1:G:530:MET:HE2	4:V:354:GLN:HG2	1.25	1.14
1:G:768:MLY:HH23	1:G:772:LEU:HD22	1.24	1.14
2:H:121:LEU:CA	2:H:128:PHE:HB3	1.78	1.14
1:P:635:GLY:HA2	4:0:334:GLU:HG2	1.16	1.14
1:P:736:GLN:N	1:P:743:ALA:CB	2.05	1.14
4:1:287:ILE:HB	4:3:203:THR:CG2	1.77	1.14
1:A:795:ARG:NH2	3:C:116:GLU:OE2	1.77	1.14
1:A:795:ARG:CB	3:C:35:ARG:CZ	2.26	1.14
1:A:814:PHE:CD1	2:B:127:ARG:NH2	2.15	1.14
1:D:215:GLN:N	1:D:340:ILE:HG12	1.20	1.14
1:D:795:ARG:HB3	3:F:35:ARG:CZ	1.71	1.14
1:P:530:MET:HE2	4:0:354:GLN:HG2	1.20	1.14
1:A:641:LYS:NZ	4:8:348:SER:O	1.80	1.14
1:A:649:VAL:HA	1:A:649:VAL:CG2	1.76	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:795:ARG:NH2	3:C:116:GLU:CD	1.98	1.14
2:B:112:ILE:O	2:B:147:ASN:O	1.65	1.14
1:G:201:ALA:O	1:G:202:SER:CB	1.92	1.14
1:G:649:VAL:HA	1:G:649:VAL:CG2	1.76	1.14
2:H:111:SER:CA	2:H:148:VAL:O	1.95	1.14
1:P:542:PHE:HA	4:O:143:TYR:CE1	1.82	1.14
2:Q:111:SER:CA	2:Q:148:VAL:O	1.95	1.14
2:Q:117:LEU:CD1	2:Q:147:ASN:HB3	1.76	1.14
4:W:325:MET:SD	4:Y:244:ASP:CB	2.35	1.14
1:A:530:MET:HE2	4:8:354:GLN:HG2	1.28	1.14
1:D:639:GLY:HA2	4:9:345:ILE:HA	1.26	1.14
2:E:111:SER:CA	2:E:148:VAL:O	1.95	1.14
1:G:218:LEU:HB2	1:G:221:GLN:HG3	1.17	1.14
1:G:553:MLY:HE2	4:X:45:VAL:CB	1.75	1.14
1:G:736:GLN:N	1:G:743:ALA:CB	2.05	1.14
1:A:599:ASN:OD1	1:A:649:VAL:CB	1.96	1.13
1:D:553:MLY:CE	4:W:45:VAL:HA	1.52	1.13
1:D:831:TRP:CH2	2:E:47:LEU:O	1.99	1.13
2:H:117:LEU:CD1	2:H:147:ASN:HB3	1.75	1.13
4:Z:287:ILE:CB	4:1:202:THR:HB	1.77	1.13
2:E:121:LEU:C	2:E:128:PHE:HB2	1.67	1.13
2:H:111:SER:CB	2:H:148:VAL:C	1.93	1.13
1:P:599:ASN:OD1	1:P:649:VAL:CB	1.96	1.13
1:D:538:GLU:OE2	4:9:355:MET:HE1	1.45	1.13
1:D:599:ASN:OD1	1:D:649:VAL:CB	1.96	1.13
1:G:639:GLY:HA3	4:V:344:SER:O	1.46	1.13
1:P:541:MET:C	4:O:143:TYR:OH	1.87	1.13
1:P:641:LYS:CE	1:P:647:GLN:OE1	1.97	1.13
1:A:639:GLY:CA	4:8:345:ILE:HA	1.74	1.13
1:D:538:GLU:C	4:9:349:LEU:HD11	1.54	1.13
1:D:640:LYS:HB3	1:D:645:SER:OG	1.46	1.13
2:E:117:LEU:CD1	2:E:147:ASN:HB3	1.75	1.13
1:A:502:GLU:HG2	1:A:764:MLY:O	1.48	1.12
1:A:635:GLY:HA2	4:8:334:GLU:HG2	1.16	1.12
1:A:640:LYS:HB3	1:A:645:SER:OG	1.46	1.13
1:A:798:LEU:HD11	3:C:126:LEU:HD21	1.26	1.12
1:A:831:TRP:CZ3	2:B:34:ILE:HG12	1.84	1.12
1:D:641:LYS:CE	1:D:647:GLN:OE1	1.97	1.12
1:D:800:ARG:HH11	3:F:149:VAL:CG1	1.61	1.12
1:G:639:GLY:CA	4:V:345:ILE:HA	1.73	1.13
1:G:599:ASN:OD1	1:G:649:VAL:CB	1.96	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:641:LYS:CE	1:G:647:GLN:OE1	1.97	1.12
1:G:831:TRP:HE1	2:H:67:MET:CB	1.62	1.12
1:P:639:GLY:HA3	4:0:344:SER:O	1.46	1.12
1:P:640:LYS:HB3	1:P:645:SER:OG	1.45	1.13
1:P:795:ARG:HE	3:R:118:MET:CE	1.61	1.13
2:Q:111:SER:HB3	2:Q:148:VAL:O	1.50	1.12
4:1:288:ASP:CG	4:3:203:THR:HG21	1.68	1.12
1:A:505:MLY:HG3	1:A:741:LYS:NZ	1.62	1.12
1:A:831:TRP:NE1	2:B:47:LEU:HD22	1.63	1.12
1:D:507:GLY:O	1:D:761:GLY:CA	1.96	1.12
1:G:84:MLY:CE	1:G:719:ASP:HB3	1.80	1.12
2:H:112:ILE:O	2:H:147:ASN:O	1.65	1.12
1:P:823:PHE:CE1	2:Q:156:VAL:CG1	2.32	1.12
4:Y:292:ASP:CG	4:0:244:ASP:HB2	1.66	1.12
1:A:541:MET:C	4:8:143:TYR:OH	1.87	1.12
1:A:641:LYS:CE	1:A:647:GLN:OE1	1.97	1.12
1:D:800:ARG:HD2	3:F:149:VAL:CA	1.78	1.12
1:D:815:CYS:O	2:E:90:GLY:O	1.67	1.12
2:E:121:LEU:CA	2:E:128:PHE:HB3	1.77	1.12
3:F:48:LYS:C	3:F:52:ASN:ND2	2.03	1.12
1:G:795:ARG:HG2	3:I:118:MET:HE3	1.13	1.12
1:P:708:ARG:C	1:P:710:GLY:N	2.02	1.12
1:P:725:ARG:NH1	3:R:92:ARG:CG	2.05	1.12
1:A:639:GLY:HA2	4:8:345:ILE:HA	1.26	1.12
1:A:768:MLY:CB	1:A:771:LEU:HB2	1.80	1.12
2:B:121:LEU:O	2:B:128:PHE:HB2	0.94	1.12
1:D:788:THR:HG23	3:F:42:THR:HG21	1.29	1.12
1:G:641:LYS:NZ	4:V:348:SER:O	1.80	1.12
1:G:817:GLN:NE2	2:H:127:ARG:HB2	1.64	1.12
2:H:117:LEU:HB2	2:H:147:ASN:CG	1.70	1.12
2:H:121:LEU:C	2:H:128:PHE:HB2	1.67	1.12
3:I:48:LYS:C	3:I:52:ASN:ND2	2.03	1.12
1:P:201:ALA:O	1:P:202:SER:CB	1.92	1.12
1:P:502:GLU:OE2	1:P:761:GLY:HA2	1.42	1.12
1:P:639:GLY:CA	4:0:345:ILE:HA	1.73	1.12
1:P:785:GLU:O	1:P:788:THR:CB	1.98	1.12
1:P:836:PHE:CE2	2:Q:160:GLY:C	2.19	1.12
3:R:48:LYS:C	3:R:52:ASN:ND2	2.03	1.12
1:A:499:GLU:OE1	1:A:766:PHE:HZ	1.32	1.12
1:A:793:ARG:NE	3:C:147:MET:HG2	1.62	1.12
1:D:798:LEU:HD11	3:F:126:LEU:CD2	1.77	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:798:LEU:HD11	3:F:126:LEU:HD21	1.27	1.12
1:D:813:ILE:HG22	2:E:127:ARG:HD2	1.31	1.12
1:G:541:MET:C	4:V:143:TYR:OH	1.87	1.12
4:Z:287:ILE:CB	4:1:203:THR:N	2.06	1.12
1:A:639:GLY:HA3	4:8:344:SER:O	1.47	1.11
1:D:635:GLY:HA2	4:9:334:GLU:HG2	1.16	1.11
1:D:641:LYS:NZ	4:9:348:SER:O	1.80	1.11
2:E:112:ILE:O	2:E:147:ASN:O	1.65	1.11
1:G:635:GLY:HA2	4:V:334:GLU:HG2	1.16	1.11
2:Q:121:LEU:CA	2:Q:128:PHE:HB3	1.78	1.11
1:A:641:LYS:CE	1:A:647:GLN:CD	2.18	1.11
1:A:831:TRP:CZ3	2:B:34:ILE:CG2	2.24	1.11
2:B:117:LEU:HB2	2:B:147:ASN:CG	1.71	1.11
3:C:48:LYS:C	3:C:52:ASN:ND2	2.03	1.11
1:D:201:ALA:O	1:D:202:SER:HB3	1.36	1.11
1:D:800:ARG:HH11	3:F:149:VAL:HG13	0.99	1.11
1:G:649:VAL:O	1:G:649:VAL:HG12	0.94	1.11
1:P:639:GLY:HA2	4:0:345:ILE:HA	1.26	1.11
1:P:649:VAL:HG22	1:P:649:VAL:HG13	1.21	1.11
1:P:793:ARG:HE	3:R:147:MET:HG2	1.14	1.11
2:Q:144:VAL:CG1	2:Q:153:ILE:CG1	2.03	1.11
4:X:324:THR:HG22	4:Z:247:VAL:HG23	1.31	1.11
4:Y:291:LYS:CB	4:0:246:GLN:H	1.63	1.11
1:A:553:MLY:CE	4:V:45:VAL:HA	1.52	1.11
1:A:649:VAL:O	1:A:649:VAL:HG12	0.94	1.11
1:A:739:ASP:HB3	1:A:742:LYS:HB3	1.21	1.11
1:D:734:GLU:O	1:D:738:MET:HG2	1.51	1.11
1:G:149:GLN:OE1	1:G:762:HIS:HB2	1.51	1.11
1:G:721:LYS:HG3	1:G:736:GLN:HG2	1.25	1.11
1:G:739:ASP:HB3	1:G:742:LYS:HB3	1.21	1.11
1:P:201:ALA:O	1:P:202:SER:HB3	1.36	1.11
1:P:623:PHE:CG	1:P:623:PHE:CB	2.33	1.11
2:E:121:LEU:O	2:E:128:PHE:HB2	0.94	1.11
3:F:24:LYS:CB	3:F:63:ILE:O	1.99	1.11
1:G:623:PHE:CB	1:G:623:PHE:CG	2.33	1.11
2:Q:117:LEU:HB2	2:Q:147:ASN:CG	1.70	1.11
4:9:290:ARG:CZ	4:W:202:THR:HG21	1.81	1.11
4:X:291:LYS:HD2	4:Z:244:ASP:N	1.37	1.11
4:Y:291:LYS:CG	4:0:246:GLN:N	1.94	1.11
1:D:541:MET:C	4:9:143:TYR:OH	1.87	1.11
1:D:641:LYS:CE	1:D:647:GLN:CD	2.18	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:201:ALA:O	1:G:202:SER:HB3	1.36	1.11
2:H:121:LEU:O	2:H:128:PHE:HB2	0.94	1.11
1:P:641:LYS:HD2	1:P:647:GLN:CD	1.70	1.11
1:P:641:LYS:NZ	4:O:348:SER:O	1.80	1.11
1:P:726:VAL:HG22	3:R:89:GLU:HB3	1.33	1.11
1:P:800:ARG:CB	3:R:149:VAL:CG2	2.27	1.11
4:7:290:ARG:CZ	4:9:202:THR:HG21	1.81	1.11
1:A:623:PHE:CB	1:A:623:PHE:CG	2.33	1.10
1:D:639:GLY:CA	4:9:345:ILE:HA	1.74	1.10
1:G:530:MET:CE	4:V:354:GLN:HG2	1.80	1.10
1:P:530:MET:HE2	4:O:354:GLN:CG	1.79	1.10
1:P:641:LYS:CE	1:P:647:GLN:CD	2.18	1.10
4:8:290:ARG:CZ	4:V:202:THR:HG21	1.81	1.10
4:1:287:ILE:HG12	4:3:202:THR:CA	1.81	1.10
1:D:623:PHE:CB	1:D:623:PHE:CG	2.33	1.10
1:D:649:VAL:O	1:D:649:VAL:HG12	0.94	1.10
1:A:530:MET:CE	4:8:354:GLN:HG2	1.80	1.10
1:A:553:MLY:HB3	4:V:46:GLY:CA	1.51	1.10
1:D:530:MET:CE	4:9:354:GLN:HG2	1.80	1.10
1:G:553:MLY:CE	4:X:45:VAL:HG12	1.68	1.10
1:G:752:ASP:OD2	1:G:783:LEU:HB2	1.48	1.10
3:R:24:LYS:CB	3:R:63:ILE:O	1.99	1.10
1:G:538:GLU:C	4:V:349:LEU:HD11	1.54	1.10
1:G:641:LYS:CE	1:G:647:GLN:CD	2.18	1.10
1:P:641:LYS:HE3	1:P:647:GLN:OE1	1.50	1.10
1:P:726:VAL:O	3:R:89:GLU:OE1	1.70	1.10
2:Q:121:LEU:O	2:Q:128:PHE:HB2	0.94	1.10
1:A:202:SER:CA	1:A:207:LYS:HE2	1.82	1.10
1:A:734:GLU:O	1:A:738:MET:HG2	1.51	1.10
1:A:830:PRO:CG	2:B:67:MET:CE	2.13	1.10
1:D:202:SER:CA	1:D:207:LYS:HE2	1.82	1.10
1:G:769:ALA:CB	1:G:770:GLY:CA	2.28	1.10
1:G:769:ALA:HB2	1:G:770:GLY:HA2	1.20	1.10
1:G:821:ARG:HH22	2:H:127:ARG:HG2	1.09	1.10
1:P:218:LEU:HB2	1:P:221:GLN:HG3	1.17	1.10
1:P:800:ARG:HB3	3:R:149:VAL:HG22	1.10	1.10
1:A:768:MLY:HB3	1:A:771:LEU:HB2	1.23	1.09
1:A:795:ARG:NH1	3:C:43:ASN:H	1.33	1.09
1:A:797:PHE:HE2	3:C:126:LEU:HD23	1.05	1.09
3:C:24:LYS:CB	3:C:63:ILE:O	1.99	1.09
1:D:530:MET:HE2	4:9:354:GLN:HG2	1.30	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:797:PHE:CD2	3:F:126:LEU:CD2	2.34	1.09
1:D:814:PHE:HA	2:E:127:ARG:NH1	1.67	1.09
1:G:202:SER:CA	1:G:207:LYS:HE2	1.82	1.09
1:G:556:ASP:CG	4:X:47:MET:HE3	1.49	1.09
1:G:752:ASP:CG	1:G:783:LEU:CB	2.18	1.09
1:G:797:PHE:HD1	3:I:149:VAL:HG12	0.99	1.09
1:G:800:ARG:CD	3:I:149:VAL:HG22	1.80	1.09
1:P:797:PHE:HD1	3:R:149:VAL:HG12	1.11	1.09
4:2:290:ARG:CZ	4:4:202:THR:CG2	2.20	1.09
4:3:322:PRO:HB3	4:5:244:ASP:CG	1.72	1.09
1:A:201:ALA:O	1:A:202:SER:CB	1.92	1.09
2:E:117:LEU:HB2	2:E:147:ASN:CG	1.70	1.09
4:2:288:ASP:H	4:4:203:THR:HG22	1.17	1.09
2:B:111:SER:HB3	2:B:148:VAL:O	1.49	1.09
1:D:201:ALA:O	1:D:202:SER:CB	1.92	1.09
1:D:649:VAL:HG22	1:D:649:VAL:HG13	1.21	1.09
2:E:111:SER:HB3	2:E:148:VAL:O	1.50	1.09
1:G:553:MLY:HE2	4:X:45:VAL:HB	1.09	1.09
1:G:571:ALA:O	1:G:572:LYS:HG3	1.52	1.09
1:P:202:SER:CA	1:P:207:LYS:HE2	1.82	1.09
1:P:530:MET:CE	4:0:354:GLN:HG2	1.80	1.09
1:P:643:GLY:O	1:P:644:SER:OG	1.69	1.09
1:P:783:LEU:HG	1:P:786:ILE:HD12	1.35	1.09
4:Z:287:ILE:HB	4:1:203:THR:HG22	1.16	1.09
1:A:649:VAL:HG13	1:A:649:VAL:HG22	1.21	1.09
1:A:834:LEU:HD21	2:B:54:MET:CE	1.80	1.09
1:D:793:ARG:HH21	3:F:147:MET:CB	1.64	1.09
1:G:538:GLU:HA	4:V:349:LEU:CD1	1.55	1.09
1:G:795:ARG:HG2	3:I:118:MET:CE	1.83	1.09
1:G:795:ARG:HE	3:I:118:MET:CE	1.65	1.09
1:P:649:VAL:O	1:P:649:VAL:HG12	0.94	1.09
1:P:721:LYS:HA	1:P:736:GLN:CD	1.73	1.09
2:Q:117:LEU:HD12	2:Q:147:ASN:OD1	1.33	1.09
4:2:324:THR:CB	4:4:243:PRO:O	2.01	1.09
1:A:506:GLU:OE2	1:A:717:TYR:OH	1.71	1.09
1:A:538:GLU:HA	4:8:349:LEU:CD1	1.54	1.09
1:G:508:ILE:HD13	1:G:711:PHE:CZ	1.88	1.09
1:G:736:GLN:HA	1:G:743:ALA:HB3	1.35	1.09
1:P:571:ALA:O	1:P:572:LYS:HG3	1.52	1.09
1:A:576:GLU:HG2	1:A:577:ALA:N	1.66	1.08
1:G:641:LYS:HE3	1:G:647:GLN:OE1	1.50	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:649:VAL:HG22	1:G:649:VAL:HG13	1.21	1.08
1:G:768:MLY:HH23	1:G:772:LEU:CD2	1.81	1.08
1:G:768:MLY:CH2	1:G:772:LEU:HD22	1.82	1.08
2:H:111:SER:OG	2:H:148:VAL:O	1.71	1.08
3:I:24:LYS:CB	3:I:63:ILE:O	1.99	1.08
1:A:643:GLY:O	1:A:644:SER:OG	1.70	1.08
2:B:111:SER:OG	2:B:148:VAL:O	1.71	1.08
2:B:121:LEU:C	2:B:128:PHE:HB2	1.67	1.08
2:E:111:SER:CB	2:E:148:VAL:C	1.93	1.08
1:G:95:THR:OG1	1:G:713:SER:HB3	1.51	1.08
1:G:757:GLN:HG3	1:G:776:GLU:HG3	1.14	1.08
4:7:287:ILE:HG21	4:9:205:GLU:HG2	1.17	1.08
4:0:166:TYR:CE2	4:2:40:HIS:HB2	1.83	1.08
1:A:721:LYS:HA	1:A:736:GLN:CD	1.73	1.08
1:D:638:GLY:CA	4:9:341:ILE:O	2.01	1.08
1:D:798:LEU:HD12	3:F:126:LEU:HD21	1.23	1.08
1:G:639:GLY:HA2	4:V:345:ILE:HA	1.26	1.08
1:P:638:GLY:CA	4:0:341:ILE:O	2.01	1.08
1:P:795:ARG:HG3	3:R:118:MET:HE1	1.32	1.08
1:P:800:ARG:HD2	3:R:149:VAL:C	1.74	1.08
4:Y:286:ASP:OD1	4:0:205:GLU:CG	1.99	1.08
4:2:324:THR:CG2	4:4:244:ASP:O	1.97	1.08
1:D:643:GLY:O	1:D:644:SER:OG	1.70	1.08
1:G:641:LYS:HG3	1:G:647:GLN:HG3	1.21	1.08
1:G:721:LYS:HA	1:G:736:GLN:CD	1.73	1.08
1:G:728:ASN:ND2	3:I:114:LEU:CG	2.16	1.08
1:G:795:ARG:HB3	3:I:35:ARG:NH2	1.67	1.08
1:G:831:TRP:NE1	2:H:67:MET:CG	2.15	1.08
4:9:287:ILE:HG21	4:W:205:GLU:HG2	1.17	1.08
1:D:739:ASP:HB3	1:D:742:LYS:HB3	1.21	1.08
1:D:795:ARG:CZ	3:F:43:ASN:CG	2.22	1.08
1:D:800:ARG:HD3	3:F:149:VAL:C	1.68	1.08
1:D:813:ILE:HG21	2:E:127:ARG:HD2	1.35	1.08
2:E:111:SER:OG	2:E:148:VAL:O	1.71	1.08
1:G:409:GLY:N	1:G:636:LYS:HG3	1.69	1.08
1:G:576:GLU:HG2	1:G:577:ALA:N	1.66	1.08
2:H:121:LEU:C	2:H:128:PHE:HB3	1.72	1.08
1:P:734:GLU:O	1:P:738:MET:HG2	1.51	1.08
2:Q:111:SER:CB	2:Q:148:VAL:O	0.78	1.08
1:A:641:LYS:HB2	1:A:647:GLN:NE2	1.68	1.07
1:D:641:LYS:HE3	1:D:647:GLN:OE1	1.50	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:818:TYR:HB2	2:E:90:GLY:N	1.65	1.07
1:G:530:MET:HE2	4:V:354:GLN:CG	1.84	1.07
1:G:734:GLU:O	1:G:738:MET:HG2	1.51	1.07
1:G:789:ALA:HB2	3:I:81:GLN:CD	1.74	1.07
1:P:783:LEU:HA	1:P:786:ILE:CG1	1.83	1.07
4:3:3:ASP:HA	4:3:6:THR:HB	1.36	1.07
1:A:529:PRO:HB3	4:8:353:GLN:OE1	1.53	1.07
1:A:571:ALA:O	1:A:572:LYS:HG3	1.52	1.07
1:A:736:GLN:HA	1:A:743:ALA:HB3	1.35	1.07
2:B:111:SER:CB	2:B:148:VAL:C	1.93	1.07
1:D:529:PRO:HB3	4:9:353:GLN:OE1	1.53	1.07
2:H:111:SER:CB	2:H:148:VAL:O	0.78	1.07
1:P:724:TYR:CE1	1:P:776:GLU:OE2	2.07	1.07
2:Q:121:LEU:C	2:Q:128:PHE:HB3	1.72	1.07
4:Y:292:ASP:OD2	4:0:244:ASP:HB3	1.52	1.07
1:A:839:MLY:CH1	2:B:159:HIS:CD2	2.18	1.07
2:B:111:SER:CB	2:B:148:VAL:O	0.78	1.07
2:B:121:LEU:HG	2:B:128:PHE:CA	1.59	1.07
1:D:721:LYS:HA	1:D:736:GLN:CD	1.73	1.07
2:E:111:SER:CB	2:E:148:VAL:O	0.78	1.07
1:P:529:PRO:HB3	4:0:353:GLN:OE1	1.53	1.07
4:8:287:ILE:HG21	4:V:205:GLU:HG2	1.17	1.07
4:Z:288:ASP:CG	4:1:203:THR:CG2	2.22	1.07
1:A:638:GLY:CA	4:8:341:ILE:O	2.01	1.07
1:A:641:LYS:HG3	1:A:647:GLN:HG3	1.21	1.07
1:A:757:GLN:HB3	1:A:771:LEU:HD13	1.25	1.07
1:A:791:GLN:OE1	3:C:116:GLU:HG3	1.55	1.07
1:D:795:ARG:HB3	3:F:35:ARG:NH2	1.70	1.07
1:D:795:ARG:CZ	3:F:43:ASN:OD1	2.02	1.07
1:D:797:PHE:CD2	3:F:126:LEU:HD22	1.86	1.07
1:P:641:LYS:HB2	1:P:647:GLN:NE2	1.68	1.07
4:X:287:ILE:HG12	4:Z:201:VAL:N	1.61	1.07
1:D:541:MET:SD	4:9:345:ILE:O	2.12	1.07
1:D:571:ALA:O	1:D:572:LYS:HG3	1.52	1.07
1:G:553:MLY:HH13	4:X:45:VAL:HG11	1.37	1.07
1:G:641:LYS:HB2	1:G:647:GLN:NE2	1.68	1.07
1:G:643:GLY:O	1:G:644:SER:OG	1.70	1.07
1:G:817:GLN:CD	2:H:127:ARG:CD	2.21	1.07
1:P:736:GLN:HA	1:P:743:ALA:HB3	1.35	1.07
4:2:290:ARG:NH2	4:4:202:THR:HG23	1.41	1.07
1:A:72:VAL:HG13	1:A:76:GLN:HB3	1.36	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:508:ILE:HD11	1:A:759:ALA:C	1.75	1.06
1:A:541:MET:SD	4:8:345:ILE:O	2.12	1.06
1:A:641:LYS:HE3	1:A:647:GLN:OE1	1.50	1.06
1:A:795:ARG:NH2	3:C:43:ASN:HB2	1.58	1.06
1:G:72:VAL:HG13	1:G:76:GLN:HB3	1.36	1.06
1:G:641:LYS:HD2	1:G:647:GLN:CD	1.70	1.06
1:G:728:ASN:HA	3:I:113:THR:OG1	1.53	1.06
1:G:757:GLN:HG3	1:G:776:GLU:HG2	1.37	1.06
1:P:827:MLY:HH21	2:Q:139:ALA:CB	1.83	1.06
4:X:287:ILE:C	4:Z:205:GLU:CD	2.11	1.06
4:Y:287:ILE:CB	4:0:201:VAL:HG23	1.64	1.06
1:A:409:GLY:N	1:A:636:LYS:HG3	1.69	1.06
1:D:721:LYS:HG3	1:D:736:GLN:HG2	1.25	1.06
1:G:769:ALA:HB3	1:G:770:GLY:HA2	1.12	1.06
1:P:72:VAL:HG13	1:P:76:GLN:HB3	1.36	1.06
1:P:823:PHE:CD1	2:Q:156:VAL:O	2.08	1.06
4:2:322:PRO:HB2	4:4:244:ASP:CB	1.85	1.06
1:A:501:GLU:HG2	1:A:762:HIS:HD1	1.18	1.06
2:B:144:VAL:HG11	2:B:153:ILE:HG12	1.38	1.06
1:D:641:LYS:HB2	1:D:647:GLN:NE2	1.68	1.06
1:G:529:PRO:HB3	4:V:353:GLN:OE1	1.53	1.06
1:G:638:GLY:CA	4:V:341:ILE:O	2.02	1.06
1:P:541:MET:SD	4:0:345:ILE:O	2.13	1.06
1:P:818:TYR:HB3	2:Q:90:GLY:C	1.75	1.06
2:Q:111:SER:OG	2:Q:148:VAL:O	1.71	1.06
1:A:501:GLU:CG	1:A:762:HIS:HD1	1.67	1.06
1:A:641:LYS:HD2	1:A:647:GLN:CD	1.70	1.06
1:D:726:VAL:HB	1:D:782:MLY:CE	1.86	1.06
1:D:798:LEU:HD11	3:F:126:LEU:CG	1.84	1.06
1:P:409:GLY:N	1:P:636:LYS:HG3	1.69	1.06
1:P:576:GLU:HG2	1:P:577:ALA:N	1.66	1.06
4:1:3:ASP:HA	4:1:6:THR:HB	1.36	1.06
4:1:287:ILE:HD13	4:3:203:THR:HB	1.08	1.06
1:A:530:MET:CA	4:8:354:GLN:HG3	1.86	1.06
1:A:542:PHE:CG	4:8:143:TYR:HE1	1.73	1.06
2:B:114:LYS:HA	2:B:146:GLY:O	0.89	1.06
1:D:409:GLY:N	1:D:636:LYS:HG3	1.69	1.06
1:D:542:PHE:CG	4:9:143:TYR:HE1	1.73	1.06
1:G:503:TYR:CE1	1:G:711:PHE:HE2	1.71	1.06
1:G:541:MET:SD	4:V:345:ILE:O	2.13	1.06
1:G:557:GLU:HB3	4:X:46:GLY:C	1.76	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:506:GLU:HG2	1:P:760:PHE:H	1.17	1.06
2:Q:114:LYS:HA	2:Q:146:GLY:O	0.89	1.06
4:Z:287:ILE:HD13	4:1:203:THR:HB	1.08	1.06
4:5:3:ASP:HA	4:5:6:THR:HB	1.36	1.06
1:A:635:GLY:HA3	4:8:341:ILE:HD13	1.37	1.05
1:G:635:GLY:HA3	4:V:341:ILE:HD13	1.37	1.05
4:X:3:ASP:HA	4:X:6:THR:HB	1.36	1.05
4:0:113:LYS:HE3	4:1:252:ASN:CB	1.85	1.05
1:A:795:ARG:CB	3:C:35:ARG:NH2	2.19	1.05
1:A:831:TRP:CE3	2:B:34:ILE:HD13	1.90	1.05
1:G:93:MET:SD	1:G:716:LEU:HD12	1.96	1.05
1:G:556:ASP:OD1	4:X:47:MET:HE3	1.56	1.05
1:P:641:LYS:HE3	4:0:348:SER:O	1.55	1.05
2:E:114:LYS:HA	2:E:146:GLY:O	0.89	1.05
1:P:795:ARG:HB3	3:R:35:ARG:NH2	1.72	1.05
4:Y:291:LYS:HG3	4:0:245:GLY:C	1.77	1.05
4:0:113:LYS:NZ	4:1:252:ASN:CB	2.18	1.05
4:2:322:PRO:HB3	4:4:244:ASP:CG	1.75	1.05
1:A:834:LEU:CG	2:B:54:MET:HG3	1.86	1.05
2:H:114:LYS:HA	2:H:146:GLY:O	0.88	1.05
1:P:530:MET:CA	4:0:354:GLN:HG3	1.87	1.05
1:P:817:GLN:CD	2:Q:127:ARG:CD	2.24	1.05
4:8:3:ASP:HA	4:8:6:THR:HB	1.36	1.05
4:X:325:MET:SD	4:Z:244:ASP:OD2	2.15	1.05
1:A:599:ASN:HA	1:A:649:VAL:HB	1.06	1.05
1:D:635:GLY:HA3	4:9:341:ILE:HD13	1.36	1.05
2:E:140:PHE:O	2:E:141:PRO:O	1.74	1.05
1:G:795:ARG:CG	3:I:118:MET:CE	2.34	1.05
1:G:817:GLN:HB3	2:H:127:ARG:HD3	1.38	1.05
1:P:542:PHE:CG	4:0:143:TYR:HE1	1.73	1.05
2:B:121:LEU:C	2:B:128:PHE:HB3	1.72	1.04
1:D:641:LYS:HE3	4:9:348:SER:O	1.55	1.04
2:Q:140:PHE:O	2:Q:141:PRO:O	1.75	1.04
4:7:3:ASP:HA	4:7:6:THR:HB	1.36	1.04
4:V:3:ASP:HA	4:V:6:THR:HB	1.36	1.04
4:W:325:MET:CE	4:Y:244:ASP:OD2	2.04	1.04
4:X:324:THR:HG22	4:Z:247:VAL:HG22	1.37	1.04
1:A:793:ARG:HE	3:C:147:MET:HG2	0.88	1.04
3:C:49:ILE:CA	3:C:52:ASN:HD22	1.70	1.04
1:D:793:ARG:NH2	3:F:147:MET:HE2	1.71	1.04
1:G:542:PHE:CG	4:V:143:TYR:HE1	1.74	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:641:LYS:HE3	1:G:647:GLN:CD	1.77	1.04
1:P:93:MET:HA	1:P:714:ARG:HG3	1.31	1.04
1:P:502:GLU:OE2	1:P:760:PHE:O	1.76	1.04
3:R:49:ILE:CA	3:R:52:ASN:HD22	1.71	1.04
1:A:202:SER:CA	1:A:207:LYS:CE	2.36	1.04
1:G:530:MET:CA	4:V:354:GLN:HG3	1.87	1.04
1:G:553:MLY:CE	4:X:45:VAL:HG11	1.53	1.04
2:H:144:VAL:HG11	2:H:153:ILE:HG12	1.38	1.04
2:Q:111:SER:CB	2:Q:148:VAL:C	1.93	1.04
1:D:72:VAL:HG13	1:D:76:GLN:HB3	1.36	1.04
1:D:736:GLN:HA	1:D:743:ALA:HB3	1.35	1.04
1:D:736:GLN:N	1:D:743:ALA:CB	2.05	1.04
1:G:599:ASN:HA	1:G:649:VAL:HB	1.05	1.04
2:H:111:SER:HB3	2:H:148:VAL:O	1.49	1.04
1:A:530:MET:HE2	4:8:354:GLN:CG	1.88	1.04
1:A:639:GLY:HA3	4:8:344:SER:C	1.78	1.04
2:E:149:ASP:OD2	2:E:150:TYR:N	1.91	1.04
1:G:639:GLY:HA3	4:V:344:SER:C	1.78	1.04
1:G:793:ARG:NH1	3:I:40:ASN:ND2	1.98	1.04
1:P:797:PHE:CD1	3:R:149:VAL:HG12	1.88	1.04
1:A:642:LYS:HG3	4:8:23:GLY:H	0.86	1.03
1:A:831:TRP:HZ2	2:B:47:LEU:CA	1.69	1.03
1:D:641:LYS:HD2	1:D:647:GLN:CD	1.70	1.03
1:D:769:ALA:HA	1:D:771:LEU:HA	1.04	1.03
2:E:121:LEU:C	2:E:128:PHE:HB3	1.72	1.03
1:G:202:SER:CA	1:G:207:LYS:CE	2.36	1.03
1:G:552:ASN:O	4:X:47:MET:CE	2.05	1.03
1:G:757:GLN:CG	1:G:776:GLU:CG	2.36	1.03
3:I:49:ILE:CA	3:I:52:ASN:HD22	1.70	1.03
1:P:93:MET:HE1	1:P:764:MLY:CD	1.86	1.03
1:P:93:MET:HG3	1:P:714:ARG:HG3	1.34	1.03
2:Q:144:VAL:HG13	2:Q:153:ILE:HG12	1.14	1.03
2:Q:149:ASP:OD2	2:Q:150:TYR:N	1.91	1.03
4:8:290:ARG:CZ	4:V:202:THR:CG2	2.36	1.03
4:0:113:LYS:CE	4:1:252:ASN:CB	2.35	1.03
1:D:202:SER:CA	1:D:207:LYS:CE	2.36	1.03
1:D:530:MET:CA	4:9:354:GLN:HG3	1.87	1.03
1:D:726:VAL:HB	1:D:782:MLY:HE3	1.06	1.03
3:F:49:ILE:CA	3:F:52:ASN:HD22	1.70	1.03
1:P:202:SER:CA	1:P:207:LYS:CE	2.36	1.03
4:1:287:ILE:CB	4:3:203:THR:HG22	1.87	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:206:LYS:HD2	1:A:217:THR:HG23	1.41	1.03
2:B:140:PHE:O	2:B:141:PRO:O	1.74	1.03
2:H:140:PHE:O	2:H:141:PRO:O	1.75	1.03
1:P:639:GLY:HA3	4:0:344:SER:C	1.77	1.03
3:R:49:ILE:HA	3:R:52:ASN:HD22	1.23	1.03
1:A:638:GLY:HA2	4:8:341:ILE:O	1.57	1.03
1:A:641:LYS:HE3	1:A:647:GLN:CD	1.77	1.03
1:A:757:GLN:HB2	1:A:771:LEU:HD11	1.38	1.03
1:P:538:GLU:C	4:0:349:LEU:HD11	1.54	1.03
1:A:707:CYS:HA	1:A:714:ARG:NH1	0.91	1.03
1:D:641:LYS:HE3	1:D:647:GLN:CD	1.77	1.03
1:G:557:GLU:CB	4:X:46:GLY:C	2.26	1.03
1:G:639:GLY:N	4:V:345:ILE:N	1.94	1.03
1:D:725:ARG:C	1:D:782:MLY:CH2	2.24	1.02
1:D:793:ARG:CZ	3:F:147:MET:HG2	1.89	1.02
1:G:838:ILE:HD11	2:H:54:MET:CE	1.88	1.02
1:P:56:GLU:HB2	1:P:59:MLY:HB3	1.40	1.02
1:P:641:LYS:HE3	1:P:647:GLN:CD	1.77	1.02
1:P:642:LYS:HG3	4:0:23:GLY:H	0.86	1.02
1:P:786:ILE:HG22	1:P:787:ILE:N	1.73	1.02
4:Y:3:ASP:HA	4:Y:6:THR:HB	1.36	1.02
4:0:110:LEU:HA	4:1:195:GLU:HG3	1.08	1.02
4:2:3:ASP:HA	4:2:6:THR:HB	1.36	1.02
1:A:541:MET:HB3	4:8:143:TYR:OH	1.59	1.02
1:G:817:GLN:CD	2:H:127:ARG:HB2	1.78	1.02
1:P:635:GLY:HA3	4:0:341:ILE:HD13	1.36	1.02
1:P:783:LEU:HG	1:P:786:ILE:HD11	1.05	1.02
4:X:291:LYS:HE3	4:Z:243:PRO:HB3	1.40	1.02
4:Z:3:ASP:HA	4:Z:6:THR:HB	1.36	1.02
2:B:149:ASP:OD2	2:B:150:TYR:N	1.91	1.02
1:D:56:GLU:HB2	1:D:59:MLY:HB3	1.40	1.02
1:D:831:TRP:CD1	2:E:67:MET:CE	2.42	1.02
1:G:56:GLU:HB2	1:G:59:MLY:HB3	1.40	1.02
1:G:752:ASP:CG	1:G:783:LEU:HB2	1.68	1.02
1:G:800:ARG:HB3	3:I:149:VAL:HG21	1.42	1.02
2:H:149:ASP:OD2	2:H:150:TYR:N	1.91	1.02
1:P:599:ASN:CA	1:P:649:VAL:HB	1.89	1.02
1:P:641:LYS:HG3	1:P:647:GLN:HG3	1.20	1.02
4:Z:287:ILE:CG1	4:1:202:THR:CA	2.36	1.02
4:Z:322:PRO:HB3	4:1:244:ASP:CB	1.88	1.02
1:A:56:GLU:HB2	1:A:59:MLY:HB3	1.40	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:646:PHE:HE2	1:A:652:LEU:HD21	1.24	1.02
1:A:830:PRO:HG2	2:B:67:MET:HE3	1.37	1.02
3:C:24:LYS:HG2	3:C:63:ILE:O	1.59	1.02
1:G:599:ASN:CA	1:G:649:VAL:HB	1.89	1.02
1:G:642:LYS:HG3	4:V:23:GLY:H	0.85	1.02
1:G:646:PHE:HE2	1:G:652:LEU:HD21	1.24	1.02
1:G:768:MLY:HD3	1:G:772:LEU:HB2	1.02	1.02
2:H:144:VAL:HG13	2:H:153:ILE:HD11	1.21	1.02
1:P:769:ALA:CB	1:P:770:GLY:N	2.22	1.02
1:P:783:LEU:CA	1:P:786:ILE:HG13	1.88	1.02
2:Q:144:VAL:HG11	2:Q:153:ILE:HG12	1.38	1.02
3:R:24:LYS:HG2	3:R:63:ILE:O	1.59	1.02
1:A:599:ASN:CA	1:A:649:VAL:HB	1.89	1.02
1:D:769:ALA:HB1	1:D:770:GLY:HA3	1.39	1.02
1:D:795:ARG:NH1	3:F:43:ASN:CG	2.12	1.02
3:F:24:LYS:HG2	3:F:63:ILE:O	1.59	1.02
1:P:93:MET:O	1:P:713:SER:HA	1.59	1.02
4:7:290:ARG:CZ	4:9:202:THR:CG2	2.36	1.02
1:A:529:PRO:C	4:8:354:GLN:HB3	1.78	1.01
1:D:529:PRO:C	4:9:354:GLN:HB3	1.78	1.01
1:D:638:GLY:HA2	4:9:341:ILE:O	1.57	1.01
2:E:144:VAL:HG11	2:E:153:ILE:HG12	1.38	1.01
3:F:24:LYS:CG	3:F:63:ILE:O	2.08	1.01
1:G:206:LYS:HD2	1:G:217:THR:HG23	1.41	1.01
1:G:541:MET:HB3	4:V:143:TYR:OH	1.59	1.01
1:G:641:LYS:HE3	4:V:348:SER:O	1.56	1.01
3:I:24:LYS:CG	3:I:63:ILE:O	2.08	1.01
1:P:93:MET:CE	1:P:764:MLY:CE	2.37	1.01
1:P:599:ASN:HA	1:P:649:VAL:HB	1.05	1.01
3:R:24:LYS:CG	3:R:63:ILE:O	2.08	1.01
4:7:290:ARG:NH2	4:9:202:THR:CG2	2.23	1.01
4:9:290:ARG:CZ	4:W:202:THR:CG2	2.36	1.01
4:W:3:ASP:HA	4:W:6:THR:HB	1.36	1.01
1:A:553:MLY:HG2	4:V:44:MET:O	1.59	1.01
1:A:639:GLY:N	4:8:345:ILE:N	1.94	1.01
3:F:49:ILE:HA	3:F:52:ASN:HD22	1.22	1.01
1:G:529:PRO:C	4:V:354:GLN:HB3	1.79	1.01
1:P:638:GLY:HA2	4:0:341:ILE:O	1.57	1.01
4:9:3:ASP:HA	4:9:6:THR:HB	1.36	1.01
4:9:290:ARG:NH2	4:W:202:THR:CG2	2.23	1.01
1:A:642:LYS:HD3	4:8:340:TRP:CH2	1.95	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:642:LYS:HD3	4:8:340:TRP:CZ3	1.95	1.01
1:A:831:TRP:HZ2	2:B:47:LEU:HA	0.86	1.01
1:D:576:GLU:HG2	1:D:577:ALA:N	1.66	1.01
2:E:150:TYR:O	2:E:151:LYS:CB	2.06	1.01
1:G:728:ASN:ND2	3:I:113:THR:OG1	1.92	1.01
1:P:642:LYS:HD3	4:O:340:TRP:CH2	1.96	1.01
4:W:291:LYS:HD2	4:Y:243:PRO:HB2	1.41	1.01
4:Z:287:ILE:HB	4:1:203:THR:CG2	1.90	1.01
4:4:3:ASP:HA	4:4:6:THR:HB	1.36	1.01
1:A:641:LYS:HE3	1:A:647:GLN:HB2	1.42	1.01
1:D:541:MET:HB3	4:9:143:TYR:OH	1.60	1.01
1:D:599:ASN:HA	1:D:649:VAL:HB	1.05	1.01
1:D:641:LYS:HG3	1:D:647:GLN:HG3	1.20	1.01
1:D:641:LYS:HE3	1:D:647:GLN:HB2	1.43	1.01
1:D:642:LYS:HG3	4:9:23:GLY:H	0.86	1.01
1:D:642:LYS:HD3	4:9:340:TRP:CZ3	1.96	1.01
1:G:638:GLY:HA2	4:V:341:ILE:O	1.58	1.01
3:I:24:LYS:HG2	3:I:63:ILE:O	1.60	1.01
1:P:541:MET:HB3	4:O:143:TYR:OH	1.60	1.01
1:P:642:LYS:HD3	4:O:340:TRP:CZ3	1.96	1.01
1:P:836:PHE:CE2	2:Q:160:GLY:O	2.14	1.01
4:O:3:ASP:HA	4:O:6:THR:HB	1.36	1.01
4:2:287:ILE:HD13	4:4:203:THR:HB	1.42	1.01
3:C:48:LYS:O	3:C:52:ASN:ND2	1.94	1.01
1:D:599:ASN:CA	1:D:649:VAL:HB	1.89	1.01
1:D:639:GLY:HA3	4:9:344:SER:C	1.78	1.01
3:F:48:LYS:O	3:F:52:ASN:ND2	1.93	1.01
1:P:92:ALA:O	1:P:714:ARG:CD	2.09	1.01
1:A:98:HIS:HB3	1:A:100:PRO:HD2	1.42	1.00
1:A:534:SER:O	4:8:351:THR:HA	1.59	1.00
1:A:800:ARG:HD3	3:C:149:VAL:C	1.79	1.00
1:A:831:TRP:CZ3	2:B:34:ILE:CG1	2.44	1.00
1:D:530:MET:HE2	4:9:354:GLN:CG	1.91	1.00
1:G:641:LYS:HE3	1:G:647:GLN:HB2	1.42	1.00
1:G:642:LYS:HD3	4:V:340:TRP:CZ3	1.96	1.00
1:G:768:MLY:HD3	1:G:772:LEU:HB3	1.37	1.00
1:P:93:MET:HE1	1:P:764:MLY:NZ	1.74	1.00
1:P:93:MET:HG2	1:P:714:ARG:O	1.59	1.00
1:P:829:TRP:CZ3	2:Q:84:PHE:HZ	1.78	1.00
4:8:287:ILE:HB	4:V:204:ALA:H	1.25	1.00
1:A:576:GLU:HG2	1:A:577:ALA:H	0.85	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:798:LEU:HD11	3:C:126:LEU:CD2	1.90	1.00
3:C:49:ILE:HA	3:C:52:ASN:HD22	1.23	1.00
1:G:534:SER:O	4:V:351:THR:HA	1.60	1.00
2:Q:121:LEU:HG	2:Q:128:PHE:CA	1.60	1.00
4:0:110:LEU:CA	4:1:195:GLU:CG	2.39	1.00
1:A:95:THR:OG1	1:A:769:ALA:CA	2.09	1.00
1:A:218:LEU:CA	1:A:221:GLN:HG3	1.91	1.00
1:A:502:GLU:HA	1:A:762:HIS:H	1.19	1.00
1:A:534:SER:C	4:8:351:THR:HA	1.81	1.00
2:B:121:LEU:CB	2:B:128:PHE:HB3	1.69	1.00
1:D:206:LYS:HD2	1:D:217:THR:HG23	1.41	1.00
1:D:534:SER:C	4:9:351:THR:HA	1.81	1.00
1:D:553:MLY:HG2	4:W:44:MET:O	1.59	1.00
1:G:797:PHE:CD1	3:I:149:VAL:HG12	1.75	1.00
2:H:144:VAL:HG13	2:H:153:ILE:HG12	1.14	1.00
2:H:150:TYR:O	2:H:151:LYS:CB	2.07	1.00
1:P:174:SER:HB3	1:P:667:THR:HG21	1.44	1.00
1:P:534:SER:C	4:0:351:THR:HA	1.81	1.00
1:P:641:LYS:HE3	1:P:647:GLN:HB2	1.43	1.00
1:P:646:PHE:HE2	1:P:652:LEU:HD21	1.24	1.00
1:P:786:ILE:C	1:P:787:ILE:C	2.20	1.00
4:8:290:ARG:NH2	4:V:202:THR:CG2	2.23	1.00
4:1:287:ILE:HB	4:3:203:THR:HG22	1.00	1.00
3:C:24:LYS:CG	3:C:63:ILE:O	2.08	1.00
1:P:529:PRO:C	4:0:354:GLN:HB3	1.77	1.00
2:Q:150:TYR:O	2:Q:151:LYS:CB	2.07	1.00
4:V:324:THR:CG2	4:X:247:VAL:N	2.24	1.00
1:A:505:MLY:HD3	1:A:762:HIS:C	1.81	1.00
1:A:768:MLY:HB3	1:A:771:LEU:HD13	1.41	1.00
1:A:800:ARG:HB3	3:C:149:VAL:HG21	1.02	1.00
1:G:788:THR:HG23	3:I:42:THR:HG21	1.41	1.00
1:P:218:LEU:CA	1:P:221:GLN:HG3	1.91	1.00
2:Q:149:ASP:OD2	2:Q:150:TYR:O	1.80	1.00
4:9:287:ILE:HB	4:W:204:ALA:H	1.25	1.00
1:G:218:LEU:CA	1:G:221:GLN:HG3	1.91	1.00
1:G:831:TRP:NE1	2:H:67:MET:SD	2.34	1.00
2:Q:144:VAL:HG13	2:Q:153:ILE:HD11	1.21	1.00
4:X:287:ILE:HG12	4:Z:201:VAL:H	1.17	1.00
1:A:505:MLY:HE2	1:A:762:HIS:CB	1.92	1.00
1:D:576:GLU:HG2	1:D:577:ALA:H	0.85	1.00
1:D:800:ARG:HD2	3:F:149:VAL:C	1.51	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:557:GLU:N	4:V:48:GLY:CA	2.12	0.99
1:D:174:SER:HB3	1:D:667:THR:HG21	1.44	0.99
1:D:641:LYS:HE3	1:D:647:GLN:CB	1.91	0.99
1:G:534:SER:C	4:V:351:THR:HA	1.82	0.99
4:7:322:PRO:HB3	4:9:244:ASP:OD2	1.62	0.99
4:2:324:THR:HG21	4:4:244:ASP:O	1.60	0.99
1:D:612:GLN:HE22	1:D:627:GLY:CA	1.75	0.99
1:G:576:GLU:CG	1:G:577:ALA:H	1.75	0.99
3:I:49:ILE:HA	3:I:52:ASN:HD22	1.23	0.99
1:P:639:GLY:CA	4:0:345:ILE:CA	2.40	0.99
1:A:612:GLN:HE22	1:A:627:GLY:CA	1.75	0.99
1:A:639:GLY:CA	4:8:345:ILE:CA	2.41	0.99
1:G:576:GLU:HG2	1:G:577:ALA:H	0.85	0.99
1:G:612:GLN:HE22	1:G:627:GLY:CA	1.75	0.99
1:G:642:LYS:HD3	4:V:340:TRP:CH2	1.96	0.99
2:H:121:LEU:HG	2:H:128:PHE:CA	1.60	0.99
3:I:48:LYS:O	3:I:52:ASN:ND2	1.94	0.99
1:P:534:SER:O	4:0:351:THR:HA	1.60	0.99
1:P:576:GLU:HG2	1:P:577:ALA:H	0.85	0.99
4:8:322:PRO:HB3	4:V:244:ASP:OD2	1.62	0.99
1:A:94:MET:O	1:A:713:SER:HB3	1.62	0.99
2:B:144:VAL:HG13	2:B:153:ILE:HD11	1.22	0.99
2:B:149:ASP:OD2	2:B:150:TYR:O	1.80	0.99
1:G:639:GLY:CA	4:V:345:ILE:CA	2.40	0.99
1:A:502:GLU:CA	1:A:761:GLY:CA	2.41	0.99
1:A:707:CYS:CA	1:A:714:ARG:HH12	1.62	0.99
1:D:98:HIS:HB3	1:D:100:PRO:HD2	1.42	0.99
1:D:831:TRP:CH2	2:E:47:LEU:HA	1.96	0.99
1:G:215:GLN:CA	1:G:340:ILE:HG23	1.92	0.99
1:G:530:MET:CE	4:V:354:GLN:CG	2.39	0.99
1:P:612:GLN:HE22	1:P:627:GLY:CA	1.76	0.99
1:D:797:PHE:CE2	3:F:126:LEU:HD23	1.70	0.99
1:D:818:TYR:CB	2:E:90:GLY:HA3	1.93	0.99
1:G:649:VAL:CG1	1:G:649:VAL:HG22	1.92	0.99
1:P:206:LYS:HD2	1:P:217:THR:HG23	1.41	0.99
2:Q:141:PRO:HB2	2:Q:142:PRO:HD2	1.44	0.99
4:Y:291:LYS:HG3	4:0:245:GLY:CA	1.91	0.99
1:D:576:GLU:CG	1:D:577:ALA:H	1.75	0.99
1:D:769:ALA:CA	1:D:771:LEU:HA	1.92	0.99
1:P:769:ALA:C	1:P:770:GLY:N	2.15	0.99
1:P:783:LEU:CG	1:P:786:ILE:CD1	2.40	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:X:291:LYS:HE2	4:Z:243:PRO:O	1.62	0.99
4:1:288:ASP:OD2	4:3:203:THR:HG21	1.61	0.99
1:A:641:LYS:HE3	4:8:348:SER:O	1.56	0.99
1:A:641:LYS:HE3	1:A:647:GLN:CB	1.91	0.99
2:B:150:TYR:C	2:B:151:LYS:HG3	1.83	0.99
1:D:553:MLY:HB3	4:W:46:GLY:CA	1.51	0.99
1:G:641:LYS:HE3	1:G:647:GLN:CB	1.91	0.99
2:H:112:ILE:O	2:H:147:ASN:C	2.01	0.99
1:P:641:LYS:CG	4:0:348:SER:HB2	1.87	0.99
4:7:287:ILE:HB	4:9:204:ALA:H	1.26	0.99
2:B:112:ILE:O	2:B:147:ASN:C	2.01	0.99
4:2:324:THR:HB	4:4:243:PRO:O	1.14	0.99
1:A:834:LEU:HD11	2:B:54:MET:HG2	1.41	0.99
4:3:288:ASP:N	4:5:203:THR:HG22	1.75	0.99
1:G:93:MET:HA	1:G:714:ARG:HG3	1.44	0.98
1:P:783:LEU:CG	1:P:786:ILE:HD11	1.92	0.98
4:9:322:PRO:HB3	4:W:244:ASP:OD2	1.62	0.98
1:D:639:GLY:N	4:9:345:ILE:N	1.94	0.98
1:D:642:LYS:HD3	4:9:340:TRP:CH2	1.96	0.98
1:D:819:ASN:ND2	2:E:90:GLY:O	1.91	0.98
2:E:121:LEU:HG	2:E:128:PHE:CA	1.59	0.98
1:G:752:ASP:OD2	1:G:783:LEU:CB	2.09	0.98
1:P:817:GLN:OE1	2:Q:127:ARG:CD	2.10	0.98
2:Q:117:LEU:CB	2:Q:147:ASN:CG	2.32	0.98
3:R:52:ASN:HB2	3:R:53:PRO:HD3	1.46	0.98
4:Y:287:ILE:CA	4:0:201:VAL:HG23	1.91	0.98
1:A:215:GLN:CA	1:A:340:ILE:HG23	1.92	0.98
1:A:530:MET:CE	4:8:354:GLN:CG	2.41	0.98
1:G:206:LYS:CD	1:G:217:THR:CG2	2.16	0.98
1:G:769:ALA:HB3	1:G:770:GLY:CA	1.93	0.98
2:H:150:TYR:C	2:H:151:LYS:HG3	1.83	0.98
2:Q:112:ILE:O	2:Q:147:ASN:C	2.01	0.98
2:Q:150:TYR:C	2:Q:151:LYS:HG3	1.83	0.98
1:A:649:VAL:CG1	1:A:649:VAL:HG22	1.92	0.98
1:A:798:LEU:CD1	3:C:126:LEU:CD2	2.41	0.98
1:D:215:GLN:CA	1:D:340:ILE:HG23	1.92	0.98
1:D:218:LEU:CA	1:D:221:GLN:HG3	1.91	0.98
2:H:139:ALA:O	2:H:141:PRO:HD3	1.62	0.98
1:P:641:LYS:HE3	1:P:647:GLN:CB	1.91	0.98
4:7:286:ASP:OD1	4:9:203:THR:HG22	1.62	0.98
2:H:117:LEU:CB	2:H:147:ASN:CG	2.32	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:639:GLY:N	4:0:345:ILE:N	1.94	0.98
1:P:818:TYR:CG	2:Q:90:GLY:HA3	1.97	0.98
1:D:507:GLY:O	1:D:761:GLY:HA3	1.63	0.98
1:D:639:GLY:CA	4:9:345:ILE:CA	2.41	0.98
1:D:649:VAL:CG1	1:D:649:VAL:HG22	1.92	0.98
1:D:814:PHE:CA	2:E:127:ARG:HH12	1.76	0.98
1:P:817:GLN:HE21	2:Q:127:ARG:HB2	1.17	0.98
2:B:139:ALA:O	2:B:141:PRO:HD3	1.62	0.98
2:B:141:PRO:HB2	2:B:142:PRO:HD2	1.44	0.98
1:G:84:MLY:HE2	1:G:719:ASP:HB3	0.98	0.98
1:P:215:GLN:CA	1:P:340:ILE:HG23	1.92	0.98
4:3:322:PRO:CB	4:5:244:ASP:CB	2.40	0.98
1:A:793:ARG:NH2	3:C:147:MET:HE3	1.73	0.98
2:B:117:LEU:HD13	2:B:147:ASN:OD1	1.64	0.98
2:B:150:TYR:O	2:B:151:LYS:CB	2.07	0.98
1:D:727:LEU:H	1:D:782:MLY:CH2	1.75	0.98
2:H:141:PRO:HB2	2:H:142:PRO:HD2	1.44	0.98
1:P:93:MET:CE	1:P:764:MLY:NZ	2.27	0.98
2:B:130:PRO:O	2:B:133:ILE:N	1.96	0.98
2:E:112:ILE:O	2:E:147:ASN:C	2.01	0.98
1:G:838:ILE:CD1	2:H:54:MET:HE3	1.94	0.98
1:P:98:HIS:HB3	1:P:100:PRO:HD2	1.42	0.98
1:P:576:GLU:CG	1:P:577:ALA:H	1.75	0.98
1:P:649:VAL:CG1	1:P:649:VAL:HG22	1.92	0.98
1:A:505:MLY:HH12	1:A:762:HIS:HB2	1.46	0.98
1:A:542:PHE:CG	4:8:143:TYR:CE1	2.52	0.98
1:P:769:ALA:HB1	1:P:770:GLY:N	1.79	0.98
4:0:166:TYR:CE2	4:2:40:HIS:ND1	2.30	0.98
4:1:322:PRO:HB3	4:3:244:ASP:CB	1.92	0.98
1:A:635:GLY:HA3	4:8:334:GLU:HG2	1.46	0.97
1:A:831:TRP:HZ3	2:B:34:ILE:HG12	1.21	0.97
1:D:769:ALA:CA	1:D:770:GLY:O	2.10	0.97
1:G:635:GLY:HA3	4:V:334:GLU:HG2	1.46	0.97
2:Q:121:LEU:CB	2:Q:128:PHE:HB3	1.69	0.97
3:R:46:ILE:O	3:R:50:LEU:HG	1.64	0.97
3:R:48:LYS:O	3:R:52:ASN:ND2	1.94	0.97
1:A:795:ARG:HH22	3:C:43:ASN:HB2	1.26	0.97
1:D:831:TRP:HD1	2:E:67:MET:CE	1.77	0.97
3:F:46:ILE:O	3:F:50:LEU:HG	1.64	0.97
1:A:502:GLU:CA	1:A:761:GLY:HA3	1.93	0.97
1:D:800:ARG:CZ	3:F:149:VAL:C	2.32	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:818:TYR:CD2	2:E:89:LYS:O	2.17	0.97
1:G:98:HIS:HB3	1:G:100:PRO:HD2	1.42	0.97
4:9:286:ASP:OD1	4:W:203:THR:HG22	1.62	0.97
1:A:576:GLU:CG	1:A:577:ALA:H	1.75	0.97
1:A:795:ARG:HD3	3:C:35:ARG:HH22	1.29	0.97
1:A:834:LEU:HD21	2:B:54:MET:HE2	1.47	0.97
2:E:141:PRO:HB2	2:E:142:PRO:HD2	1.44	0.97
2:H:149:ASP:OD2	2:H:150:TYR:O	1.80	0.97
1:P:542:PHE:CG	4:O:143:TYR:CE1	2.53	0.97
4:8:286:ASP:OD1	4:V:203:THR:HG22	1.62	0.97
1:A:218:LEU:CA	1:A:221:GLN:CG	2.42	0.97
1:A:757:GLN:CG	1:A:771:LEU:CD1	2.35	0.97
1:D:649:VAL:CG2	1:D:649:VAL:CA	2.42	0.97
1:D:814:PHE:CA	2:E:127:ARG:NH1	2.28	0.97
2:E:149:ASP:OD2	2:E:150:TYR:O	1.80	0.97
1:G:784:ALA:O	1:G:788:THR:N	1.96	0.97
4:Y:287:ILE:N	4:O:201:VAL:HG23	1.78	0.97
1:A:534:SER:O	4:8:351:THR:HG23	1.13	0.97
1:A:822:SER:OG	2:B:88:LEU:HA	1.64	0.97
1:D:542:PHE:CG	4:9:143:TYR:CE1	2.52	0.97
1:D:800:ARG:NE	3:F:149:VAL:C	2.15	0.97
1:D:831:TRP:HH2	2:E:47:LEU:O	1.42	0.97
2:E:117:LEU:CB	2:E:147:ASN:CG	2.32	0.97
1:G:819:ASN:CG	2:H:92:ASP:HB2	1.84	0.97
1:G:842:LEU:HG	2:H:29:GLU:CB	1.95	0.97
1:P:783:LEU:HA	1:P:786:ILE:HG13	0.98	0.97
4:3:322:PRO:HB2	4:5:244:ASP:CB	1.95	0.97
1:A:502:GLU:CA	1:A:761:GLY:C	2.31	0.97
1:A:800:ARG:HB3	3:C:149:VAL:HG22	1.00	0.97
1:A:834:LEU:HD11	2:B:54:MET:CB	1.95	0.97
1:D:206:LYS:CD	1:D:217:THR:CG2	2.16	0.97
1:D:530:MET:CE	4:9:354:GLN:CG	2.40	0.97
1:G:218:LEU:CA	1:G:221:GLN:CG	2.42	0.97
1:G:768:MLY:HH23	1:G:772:LEU:HD13	1.46	0.97
1:P:642:LYS:HD2	4:O:24:ASP:O	1.65	0.97
1:P:726:VAL:HG13	3:R:89:GLU:OE2	1.44	0.97
2:Q:139:ALA:O	2:Q:141:PRO:HD3	1.62	0.97
4:V:324:THR:HG21	4:X:246:GLN:C	1.70	0.97
4:W:286:ASP:OD2	4:Y:203:THR:HG22	1.62	0.97
1:A:649:VAL:CG2	1:A:649:VAL:CA	2.43	0.97
2:B:150:TYR:O	2:B:151:LYS:HG3	1.65	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:642:LYS:HD2	4:9:24:ASP:O	1.64	0.97
1:P:804:ARG:C	1:P:807:VAL:CB	2.33	0.97
1:P:806:MET:O	1:P:807:VAL:HG23	1.65	0.97
2:Q:130:PRO:O	2:Q:133:ILE:N	1.96	0.97
1:A:174:SER:HB3	1:A:667:THR:HG21	1.44	0.97
1:D:557:GLU:N	4:W:48:GLY:CA	2.12	0.97
2:E:150:TYR:C	2:E:151:LYS:HG3	1.83	0.97
1:G:768:MLY:HH23	1:G:772:LEU:CG	1.94	0.97
2:B:117:LEU:CB	2:B:147:ASN:CG	2.32	0.97
2:H:117:LEU:HD13	2:H:147:ASN:OD1	1.64	0.97
2:H:121:LEU:CB	2:H:128:PHE:HB3	1.69	0.97
1:P:218:LEU:CA	1:P:221:GLN:CG	2.42	0.97
4:1:287:ILE:CB	4:3:202:THR:HB	1.94	0.97
1:A:502:GLU:HG3	1:A:761:GLY:HA3	1.44	0.96
1:A:800:ARG:CD	3:C:149:VAL:HG22	1.94	0.96
1:D:218:LEU:CA	1:D:221:GLN:CG	2.42	0.96
1:D:646:PHE:HE2	1:D:652:LEU:HD21	1.24	0.96
1:D:818:TYR:HB2	2:E:90:GLY:HA3	0.99	0.96
1:G:174:SER:HB3	1:G:667:THR:HG21	1.44	0.96
1:G:649:VAL:CG2	1:G:649:VAL:CA	2.43	0.96
2:H:121:LEU:HG	2:H:128:PHE:HA	1.47	0.96
1:A:642:LYS:HG2	4:8:21:PHE:O	1.65	0.96
1:D:736:GLN:CA	1:D:743:ALA:HB2	1.95	0.96
1:G:642:LYS:HG2	4:V:21:PHE:O	1.65	0.96
1:A:97:LEU:HD22	1:A:712:PRO:CB	1.95	0.96
1:A:502:GLU:CB	1:A:761:GLY:HA3	1.95	0.96
1:D:831:TRP:HA	2:E:51:PHE:HE1	1.26	0.96
2:H:130:PRO:O	2:H:133:ILE:N	1.96	0.96
1:P:806:MET:O	1:P:807:VAL:CG2	2.11	0.96
1:P:823:PHE:CZ	2:Q:156:VAL:HG12	2.00	0.96
1:D:507:GLY:O	1:D:762:HIS:N	1.97	0.96
1:D:793:ARG:NH2	3:F:147:MET:HB3	1.81	0.96
1:G:788:THR:O	3:I:42:THR:HG22	1.65	0.96
3:I:46:ILE:O	3:I:50:LEU:HG	1.64	0.96
4:X:324:THR:CG2	4:Z:247:VAL:CG2	2.44	0.96
1:A:505:MLY:HB3	1:A:762:HIS:CA	1.94	0.96
1:A:814:PHE:HA	2:B:127:ARG:NH2	1.78	0.96
1:D:553:MLY:CB	4:W:46:GLY:CA	2.32	0.96
2:E:150:TYR:O	2:E:151:LYS:HG3	1.65	0.96
1:G:149:GLN:CG	1:G:763:THR:OG1	2.12	0.96
1:P:649:VAL:CG2	1:P:649:VAL:CA	2.43	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Y:287:ILE:CD1	4:0:205:GLU:HG3	1.95	0.96
4:1:287:ILE:HG21	4:3:204:ALA:H	1.27	0.96
1:A:637:LYS:NZ	4:8:141:SER:O	1.99	0.96
1:A:768:MLY:HB3	1:A:771:LEU:CB	1.94	0.96
1:P:543:PRO:CG	4:0:143:TYR:O	2.14	0.96
4:3:288:ASP:CG	4:5:203:THR:HG21	1.63	0.96
1:A:649:VAL:CG1	1:A:649:VAL:CG2	2.44	0.96
1:A:736:GLN:CA	1:A:743:ALA:HB2	1.95	0.96
1:D:724:TYR:HE1	1:D:778:MET:HB3	1.29	0.96
2:E:139:ALA:O	2:E:141:PRO:HD3	1.62	0.96
1:P:724:TYR:HE1	1:P:776:GLU:OE2	1.47	0.96
2:Q:150:TYR:O	2:Q:151:LYS:HG3	1.65	0.96
4:0:110:LEU:HB3	4:1:195:GLU:CB	1.95	0.96
1:A:553:MLY:HB3	4:V:46:GLY:HA2	1.47	0.96
1:A:721:LYS:CA	1:A:736:GLN:CD	2.34	0.96
1:D:543:PRO:CG	4:9:143:TYR:O	2.14	0.96
1:G:538:GLU:HG3	4:V:352:PHE:N	1.81	0.96
1:G:542:PHE:CG	4:V:143:TYR:CE1	2.53	0.96
4:Y:291:LYS:CG	4:0:245:GLY:N	2.29	0.96
1:D:541:MET:N	4:9:349:LEU:HD21	1.80	0.96
1:D:793:ARG:NH2	3:F:147:MET:HE3	1.76	0.96
3:I:52:ASN:HB2	3:I:53:PRO:HD3	1.46	0.96
1:P:721:LYS:CA	1:P:736:GLN:CD	2.35	0.96
1:P:795:ARG:NE	3:R:118:MET:CE	2.21	0.96
2:Q:121:LEU:HG	2:Q:128:PHE:HA	1.47	0.96
4:1:287:ILE:CB	4:3:203:THR:N	2.13	0.96
1:A:501:GLU:CA	1:A:762:HIS:ND1	2.25	0.96
1:A:831:TRP:CE3	2:B:34:ILE:CD1	2.49	0.96
1:D:553:MLY:HB3	4:W:46:GLY:HA2	1.47	0.95
1:D:649:VAL:CG1	1:D:649:VAL:CG2	2.43	0.95
1:G:84:MLY:HE2	1:G:719:ASP:CB	1.94	0.95
1:G:721:LYS:CA	1:G:736:GLN:CD	2.34	0.95
1:P:735:GLY:C	1:P:743:ALA:CA	2.35	0.95
1:A:538:GLU:N	4:8:349:LEU:CD1	2.28	0.95
1:A:642:LYS:HD2	4:8:24:ASP:O	1.64	0.95
1:P:506:GLU:CG	1:P:760:PHE:H	1.80	0.95
1:P:635:GLY:HA3	4:0:334:GLU:HG2	1.47	0.95
4:Y:288:ASP:O	4:0:244:ASP:OD1	1.83	0.95
1:D:534:SER:O	4:9:351:THR:HA	1.60	0.95
1:G:649:VAL:CG1	1:G:649:VAL:CG2	2.44	0.95
1:G:832:MET:SD	2:H:84:PHE:CE2	2.57	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:543:PRO:CG	4:8:143:TYR:O	2.14	0.95
1:D:537:GLU:C	4:9:349:LEU:CD1	2.20	0.95
1:D:769:ALA:O	1:D:774:LEU:CD1	2.13	0.95
1:D:829:TRP:HE1	2:E:67:MET:HG2	1.32	0.95
1:G:817:GLN:HG2	2:H:127:ARG:CB	1.95	0.95
1:P:642:LYS:HG2	4:0:21:PHE:O	1.65	0.95
1:P:649:VAL:CG1	1:P:649:VAL:CG2	2.43	0.95
1:P:786:ILE:C	1:P:787:ILE:CA	2.33	0.95
4:0:287:ILE:HG21	4:2:203:THR:CG2	1.95	0.95
1:A:505:MLY:HE2	1:A:762:HIS:HB3	0.96	0.95
1:A:508:ILE:HD11	1:A:760:PHE:N	1.81	0.95
1:A:530:MET:CA	4:8:354:GLN:CG	2.44	0.95
1:A:538:GLU:HG3	4:8:352:PHE:N	1.82	0.95
1:A:798:LEU:HD21	3:C:122:GLU:HB3	1.48	0.95
1:G:769:ALA:HB2	1:G:770:GLY:CA	1.94	0.95
4:9:288:ASP:HA	4:W:204:ALA:HB2	1.48	0.95
1:D:538:GLU:HG3	4:9:352:PHE:N	1.82	0.95
1:G:637:LYS:NZ	4:V:141:SER:O	1.99	0.95
1:P:215:GLN:H	1:P:340:ILE:CG1	1.73	0.95
2:Q:117:LEU:HD13	2:Q:147:ASN:OD1	1.64	0.95
4:X:324:THR:CG2	4:Z:247:VAL:HG23	1.97	0.95
4:Z:287:ILE:CG2	4:1:204:ALA:H	1.78	0.95
1:A:502:GLU:CG	1:A:764:MLY:O	2.13	0.95
3:C:46:ILE:O	3:C:50:LEU:HG	1.65	0.95
1:D:506:GLU:HG2	1:D:764:MLY:CE	1.96	0.95
1:D:642:LYS:HG2	4:9:21:PHE:O	1.65	0.95
1:D:721:LYS:CA	1:D:736:GLN:CD	2.34	0.95
1:D:793:ARG:NE	3:F:147:MET:CG	2.17	0.95
1:D:800:ARG:HD2	3:F:149:VAL:CB	1.66	0.95
1:G:834:LEU:HD13	2:H:51:PHE:CE1	2.02	0.95
1:P:795:ARG:HG2	3:R:118:MET:CE	1.96	0.95
4:Z:287:ILE:HD13	4:1:203:THR:CB	1.96	0.95
1:A:768:MLY:HB3	1:A:771:LEU:CD1	1.95	0.95
2:B:121:LEU:HG	2:B:128:PHE:HA	1.46	0.95
2:E:130:PRO:O	2:E:133:ILE:N	1.96	0.95
1:G:543:PRO:CG	4:V:143:TYR:O	2.15	0.95
1:G:642:LYS:HD2	4:V:24:ASP:O	1.65	0.95
1:P:795:ARG:HG3	3:R:118:MET:CE	1.88	0.95
1:A:735:GLY:C	1:A:743:ALA:CA	2.34	0.95
1:D:800:ARG:NH1	3:F:149:VAL:C	2.20	0.95
1:P:642:LYS:CG	4:0:23:GLY:H	1.77	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:322:PRO:HB2	4:5:244:ASP:HB3	1.49	0.95
1:A:206:LYS:CD	1:A:217:THR:CG2	2.16	0.94
1:A:505:MLY:HB3	1:A:762:HIS:N	1.81	0.94
1:A:795:ARG:HD2	3:C:35:ARG:CZ	1.96	0.94
2:E:150:TYR:O	2:E:151:LYS:CG	2.15	0.94
1:G:530:MET:HA	4:V:354:GLN:HG3	0.97	0.94
1:G:546:THR:HG22	1:G:548:THR:H	1.32	0.94
1:P:546:THR:HG22	1:P:548:THR:H	1.32	0.94
4:V:286:ASP:CG	4:X:203:THR:HG22	1.87	0.94
4:X:291:LYS:CE	4:Z:243:PRO:CA	2.45	0.94
1:D:637:LYS:NZ	4:9:141:SER:O	1.99	0.94
1:D:834:LEU:HD21	2:E:54:MET:HG2	1.49	0.94
3:F:52:ASN:HB2	3:F:53:PRO:HD3	1.46	0.94
1:P:637:LYS:NZ	4:0:141:SER:O	1.99	0.94
3:C:52:ASN:HB2	3:C:53:PRO:HD3	1.46	0.94
1:D:530:MET:HA	4:9:354:GLN:HG3	0.96	0.94
1:G:553:MLY:HH12	4:X:45:VAL:HG21	1.47	0.94
1:A:530:MET:HA	4:8:354:GLN:HG3	0.96	0.94
1:A:768:MLY:C	1:A:771:LEU:HB2	1.97	0.94
1:D:538:GLU:N	4:9:349:LEU:CD1	2.28	0.94
1:G:821:ARG:NH2	2:H:127:ARG:HG2	1.82	0.94
1:P:506:GLU:HG3	1:P:760:PHE:HD1	1.32	0.94
4:8:288:ASP:HA	4:V:204:ALA:HB2	1.48	0.94
4:Y:291:LYS:HG3	4:0:246:GLN:H	0.86	0.94
4:0:110:LEU:C	4:1:195:GLU:HG3	1.86	0.94
1:A:557:GLU:H	4:V:48:GLY:HA3	1.29	0.94
1:A:795:ARG:CZ	3:C:116:GLU:OE2	2.14	0.94
2:E:150:TYR:O	2:E:151:LYS:HB2	1.67	0.94
1:G:831:TRP:HE1	2:H:67:MET:HG2	1.32	0.94
2:H:150:TYR:O	2:H:151:LYS:CG	2.15	0.94
4:7:288:ASP:HA	4:9:204:ALA:HB2	1.48	0.94
4:1:287:ILE:CG2	4:3:204:ALA:H	1.80	0.94
4:3:287:ILE:HD13	4:5:203:THR:CB	1.92	0.94
1:D:735:GLY:C	1:D:743:ALA:CA	2.34	0.94
1:P:530:MET:HA	4:0:354:GLN:HG3	0.96	0.94
1:P:538:GLU:HG3	4:0:352:PHE:N	1.81	0.94
4:1:322:PRO:HB3	4:3:244:ASP:HB3	1.48	0.94
1:A:215:GLN:H	1:A:340:ILE:CG1	1.73	0.94
1:A:642:LYS:CG	4:8:23:GLY:H	1.77	0.94
2:E:117:LEU:HD13	2:E:147:ASN:OD1	1.64	0.94
1:G:541:MET:N	4:V:349:LEU:HD21	1.80	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:768:MLY:HH23	1:G:772:LEU:CD1	1.97	0.94
4:2:288:ASP:N	4:4:203:THR:HG22	1.80	0.94
1:A:215:GLN:HA	1:A:340:ILE:HG23	0.96	0.94
1:A:505:MLY:HG3	1:A:741:LYS:HZ3	1.22	0.94
1:A:546:THR:HG22	1:A:548:THR:H	1.32	0.94
1:A:753:VAL:HG12	1:A:775:LEU:HG	1.48	0.94
1:A:831:TRP:CZ2	2:B:47:LEU:CD2	2.50	0.94
2:B:150:TYR:O	2:B:151:LYS:HB2	1.67	0.94
1:D:546:THR:HG22	1:D:548:THR:H	1.32	0.94
1:D:612:GLN:NE2	1:D:627:GLY:CA	2.31	0.94
1:D:791:GLN:HE22	3:F:116:GLU:H	1.11	0.94
1:D:795:ARG:NH2	3:F:43:ASN:HB2	1.83	0.94
1:G:538:GLU:N	4:V:349:LEU:CD1	2.29	0.94
1:G:612:GLN:NE2	1:G:627:GLY:HA3	1.83	0.94
2:H:150:TYR:O	2:H:151:LYS:HG3	1.65	0.94
1:P:93:MET:CE	1:P:764:MLY:HD2	1.94	0.94
1:P:530:MET:CE	4:0:354:GLN:CG	2.41	0.94
4:1:287:ILE:CD1	4:3:203:THR:HB	1.96	0.94
1:D:769:ALA:CA	1:D:770:GLY:C	2.35	0.94
2:E:144:VAL:HG13	2:E:153:ILE:HD11	1.21	0.94
1:P:502:GLU:OE2	1:P:761:GLY:HA3	1.65	0.94
1:P:612:GLN:NE2	1:P:627:GLY:CA	2.31	0.94
1:P:612:GLN:NE2	1:P:627:GLY:HA3	1.83	0.94
1:A:553:MLY:CB	4:V:46:GLY:CA	2.32	0.94
1:G:537:GLU:C	4:V:349:LEU:CD1	2.21	0.94
1:P:538:GLU:N	4:0:349:LEU:CD1	2.28	0.94
4:V:325:MET:CE	4:X:244:ASP:CG	2.37	0.94
1:A:822:SER:OG	2:B:88:LEU:CD2	2.14	0.93
1:G:530:MET:CA	4:V:354:GLN:CG	2.45	0.93
1:P:736:GLN:CA	1:P:743:ALA:HB2	1.95	0.93
1:A:739:ASP:HB3	1:A:742:LYS:CB	1.99	0.93
1:D:798:LEU:HD21	3:F:122:GLU:HB3	1.47	0.93
1:P:218:LEU:CB	1:P:221:GLN:CG	2.46	0.93
1:A:612:GLN:NE2	1:A:627:GLY:HA3	1.83	0.93
1:A:629:GLU:CB	1:A:643:GLY:O	2.17	0.93
1:D:557:GLU:H	4:W:48:GLY:HA3	1.28	0.93
1:D:831:TRP:HA	2:E:51:PHE:CE1	2.04	0.93
1:G:735:GLY:C	1:G:743:ALA:CA	2.34	0.93
1:P:530:MET:CA	4:0:354:GLN:CG	2.44	0.93
1:P:541:MET:N	4:0:349:LEU:HD21	1.80	0.93
1:P:725:ARG:NH2	3:R:92:ARG:CG	2.28	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:817:GLN:NE2	2:Q:127:ARG:CB	2.31	0.93
2:Q:150:TYR:O	2:Q:151:LYS:CG	2.16	0.93
1:A:541:MET:N	4:8:349:LEU:HD21	1.80	0.93
1:D:215:GLN:H	1:D:340:ILE:CG1	1.73	0.93
1:D:612:GLN:NE2	1:D:627:GLY:HA3	1.83	0.93
1:D:769:ALA:CB	1:D:770:GLY:CA	2.43	0.93
1:D:797:PHE:HE2	3:F:126:LEU:HD23	0.77	0.93
2:B:150:TYR:O	2:B:151:LYS:CG	2.15	0.93
1:A:648:THR:HG21	1:A:651:ALA:HB2	1.50	0.93
1:D:739:ASP:HB3	1:D:742:LYS:CB	1.98	0.93
4:X:291:LYS:HE3	4:Z:243:PRO:CA	1.98	0.93
1:D:795:ARG:NE	3:F:43:ASN:OD1	2.01	0.93
2:E:121:LEU:HG	2:E:128:PHE:HA	1.47	0.93
2:E:121:LEU:CB	2:E:128:PHE:HB3	1.69	0.93
1:G:215:GLN:HA	1:G:340:ILE:HG23	0.95	0.93
1:P:92:ALA:HB1	1:P:714:ARG:NH1	1.83	0.93
1:P:648:THR:HG21	1:P:651:ALA:HB2	1.50	0.93
1:P:725:ARG:NH1	3:R:92:ARG:C	2.20	0.93
1:D:818:TYR:CB	2:E:90:GLY:CA	2.41	0.93
1:G:642:LYS:CB	4:V:21:PHE:O	2.17	0.93
1:G:823:PHE:CZ	2:H:156:VAL:HG12	2.04	0.93
2:H:150:TYR:O	2:H:151:LYS:HB2	1.67	0.93
1:P:93:MET:HE2	1:P:764:MLY:HD2	1.50	0.93
4:V:286:ASP:OD2	4:X:203:THR:HG22	1.69	0.93
1:D:506:GLU:HG2	1:D:764:MLY:HE2	1.51	0.93
1:D:641:LYS:HG3	1:D:647:GLN:NE2	1.59	0.93
2:E:149:ASP:CG	2:E:150:TYR:H	1.73	0.93
1:D:736:GLN:HA	1:D:743:ALA:HB2	1.51	0.92
1:G:739:ASP:HB3	1:G:742:LYS:CB	1.99	0.92
4:Z:287:ILE:CD1	4:1:203:THR:HB	1.97	0.92
1:A:636:LYS:HD2	4:8:332:PRO:HB3	1.51	0.92
1:A:822:SER:OG	2:B:87:LYS:O	1.87	0.92
2:B:121:LEU:CA	2:B:128:PHE:CB	2.46	0.92
1:D:642:LYS:CB	4:9:21:PHE:O	2.17	0.92
1:G:629:GLU:CB	1:G:643:GLY:O	2.17	0.92
1:G:728:ASN:HD21	3:I:114:LEU:HG	1.16	0.92
2:Q:149:ASP:CG	2:Q:150:TYR:H	1.73	0.92
4:2:322:PRO:CB	4:4:244:ASP:CG	2.37	0.92
1:A:641:LYS:CD	4:8:348:SER:HB2	1.92	0.92
1:A:642:LYS:CB	4:8:21:PHE:O	2.17	0.92
1:A:814:PHE:CA	2:B:127:ARG:NH2	2.31	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:213:LYS:HA	1:P:220:ASP:CG	1.90	0.92
1:P:804:ARG:HA	1:P:807:VAL:HG11	1.50	0.92
4:Y:287:ILE:CG2	4:0:199:SER:O	2.16	0.92
1:D:538:GLU:N	4:9:351:THR:H	1.68	0.92
1:P:537:GLU:C	4:0:349:LEU:CD1	2.20	0.92
4:W:325:MET:CE	4:Y:244:ASP:CG	2.37	0.92
4:1:288:ASP:CG	4:3:203:THR:CG2	2.37	0.92
1:A:97:LEU:HD22	1:A:712:PRO:HB3	1.47	0.92
1:D:769:ALA:C	1:D:774:LEU:HD13	1.89	0.92
1:G:218:LEU:CB	1:G:221:GLN:CG	2.46	0.92
1:G:537:GLU:O	4:V:349:LEU:HD13	0.74	0.92
1:G:612:GLN:NE2	1:G:627:GLY:CA	2.31	0.92
1:G:838:ILE:CD1	2:H:54:MET:CE	2.47	0.92
1:P:799:MET:SD	3:R:32:ASP:CB	2.58	0.92
1:D:278:GLN:HG2	1:D:317:GLU:HB2	1.52	0.92
1:G:641:LYS:HE3	1:G:647:GLN:CG	2.00	0.92
4:Z:287:ILE:HG23	4:1:202:THR:OG1	1.68	0.92
1:A:537:GLU:C	4:8:349:LEU:CD1	2.20	0.92
1:A:612:GLN:NE2	1:A:627:GLY:CA	2.31	0.92
1:A:769:ALA:C	1:A:772:LEU:H	1.70	0.92
1:D:530:MET:CA	4:9:354:GLN:CG	2.45	0.92
4:W:286:ASP:OD1	4:Y:202:THR:HB	1.69	0.92
4:Y:292:ASP:OD1	4:0:244:ASP:HB2	1.70	0.92
4:Z:287:ILE:HG21	4:1:204:ALA:H	1.33	0.92
4:3:324:THR:HG23	4:5:244:ASP:C	1.86	0.92
1:A:831:TRP:HE1	2:B:47:LEU:HD22	1.30	0.92
1:D:649:VAL:CG1	1:D:649:VAL:C	2.38	0.92
1:G:542:PHE:HA	4:V:143:TYR:HE1	1.34	0.92
1:G:638:GLY:HA3	4:V:341:ILE:O	1.70	0.92
1:P:803:TYR:O	1:P:807:VAL:CB	2.17	0.92
4:Y:287:ILE:H	4:0:201:VAL:HG23	1.30	0.92
1:A:735:GLY:C	1:A:743:ALA:HA	1.90	0.92
1:D:648:THR:HG21	1:D:651:ALA:HB2	1.50	0.92
1:G:503:TYR:HE1	1:G:711:PHE:CE2	1.84	0.92
1:P:538:GLU:N	4:0:351:THR:H	1.67	0.92
4:Y:287:ILE:HG13	4:0:201:VAL:HG21	0.94	0.92
1:A:505:MLY:CB	1:A:762:HIS:N	2.33	0.92
1:A:641:LYS:HE3	1:A:647:GLN:CG	2.00	0.92
1:A:649:VAL:CG1	1:A:649:VAL:C	2.38	0.92
1:D:218:LEU:CB	1:D:221:GLN:CG	2.46	0.92
1:P:278:GLN:HG2	1:P:317:GLU:HB2	1.52	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:537:GLU:O	4:0:349:LEU:HD13	0.74	0.92
1:P:641:LYS:HE3	1:P:647:GLN:CG	2.00	0.92
1:A:505:MLY:CE	1:A:762:HIS:CB	2.47	0.91
1:A:537:GLU:O	4:8:349:LEU:HD13	0.74	0.91
1:A:752:ASP:O	1:A:778:MET:SD	2.28	0.91
1:D:629:GLU:CB	1:D:643:GLY:O	2.17	0.91
1:G:92:ALA:O	1:G:714:ARG:CG	2.17	0.91
1:G:213:LYS:HA	1:G:220:ASP:CG	1.90	0.91
1:G:736:GLN:HA	1:G:743:ALA:HB2	1.51	0.91
1:P:726:VAL:CG2	3:R:89:GLU:HB3	2.00	0.91
1:P:813:ILE:CG2	2:Q:128:PHE:CE1	2.53	0.91
1:A:544:LYS:HD2	4:8:147:ARG:HB3	1.53	0.91
1:A:557:GLU:H	4:V:48:GLY:HA2	1.32	0.91
1:D:557:GLU:H	4:W:48:GLY:HA2	1.32	0.91
1:D:813:ILE:HG22	2:E:127:ARG:CD	2.00	0.91
1:G:735:GLY:C	1:G:743:ALA:HA	1.90	0.91
1:P:739:ASP:HB3	1:P:742:LYS:CB	1.99	0.91
4:0:113:LYS:HZ2	4:1:252:ASN:HB2	1.32	0.91
1:A:213:LYS:HA	1:A:220:ASP:CG	1.90	0.91
1:A:218:LEU:CB	1:A:221:GLN:CG	2.46	0.91
1:D:537:GLU:O	4:9:349:LEU:HD13	0.74	0.91
1:D:635:GLY:HA3	4:9:334:GLU:HG2	1.47	0.91
1:D:636:LYS:HD2	4:9:332:PRO:HB3	1.52	0.91
1:G:567:LYS:HZ2	4:X:92:ASN:HD22	1.06	0.91
1:G:649:VAL:CG1	1:G:649:VAL:C	2.38	0.91
4:Y:291:LYS:HG3	4:0:245:GLY:N	1.84	0.91
1:G:636:LYS:HD2	4:V:332:PRO:HB3	1.52	0.91
1:P:93:MET:HA	1:P:714:ARG:HG2	1.52	0.91
1:P:218:LEU:HA	1:P:221:GLN:CG	2.01	0.91
1:P:649:VAL:CG1	1:P:649:VAL:C	2.38	0.91
1:P:804:ARG:HA	1:P:807:VAL:CG1	1.99	0.91
1:A:218:LEU:HA	1:A:221:GLN:CG	2.01	0.91
1:A:549:SER:C	4:V:46:GLY:HA3	1.90	0.91
1:A:814:PHE:CA	2:B:127:ARG:HH22	1.83	0.91
1:D:534:SER:O	4:9:351:THR:HG23	1.13	0.91
1:D:549:SER:C	4:W:46:GLY:HA3	1.90	0.91
1:G:817:GLN:CG	2:H:127:ARG:HB2	2.01	0.91
4:X:287:ILE:CG1	4:Z:201:VAL:CG2	2.48	0.91
1:A:795:ARG:CD	3:C:35:ARG:HH22	1.84	0.91
1:P:629:GLU:CB	1:P:643:GLY:O	2.17	0.91
1:A:550:PHE:HA	4:V:46:GLY:CA	2.00	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:831:TRP:CE2	2:B:47:LEU:CD2	2.54	0.91
1:D:550:PHE:HA	4:W:46:GLY:CA	2.00	0.91
1:D:735:GLY:C	1:D:743:ALA:HA	1.90	0.91
1:D:818:TYR:HB3	2:E:90:GLY:N	1.85	0.91
1:D:831:TRP:CZ2	2:E:47:LEU:HB3	2.06	0.91
1:G:218:LEU:HA	1:G:221:GLN:CG	2.01	0.91
1:G:538:GLU:N	4:V:351:THR:H	1.68	0.91
1:P:636:LYS:HD2	4:O:332:PRO:HB3	1.52	0.91
1:A:735:GLY:O	1:A:743:ALA:CA	2.19	0.91
1:D:218:LEU:HA	1:D:221:GLN:CG	2.01	0.91
1:D:641:LYS:HE3	1:D:647:GLN:CG	2.00	0.91
1:G:90:ASP:OD2	1:G:764:MLY:CH1	2.11	0.91
1:G:783:LEU:O	1:G:787:ILE:HB	1.70	0.91
1:P:642:LYS:CB	4:O:21:PHE:O	2.17	0.91
1:P:798:LEU:HD22	3:R:126:LEU:HD11	1.50	0.91
1:P:836:PHE:CE1	2:Q:159:HIS:CB	2.32	0.91
1:A:798:LEU:HD12	3:C:126:LEU:HD21	1.52	0.91
1:G:648:THR:HG21	1:G:651:ALA:HB2	1.50	0.91
1:A:542:PHE:HA	4:8:143:TYR:HE1	1.34	0.91
1:A:830:PRO:CB	2:B:51:PHE:CZ	2.51	0.91
1:G:544:LYS:HD2	4:V:147:ARG:HB3	1.53	0.91
1:G:649:VAL:CB	1:G:649:VAL:CG2	2.49	0.91
4:O:113:LYS:HZ1	4:1:252:ASN:HB2	1.13	0.91
1:A:504:MLY:HB2	1:A:762:HIS:HE1	1.28	0.90
1:A:638:GLY:HA3	4:8:341:ILE:O	1.70	0.90
1:A:649:VAL:CB	1:A:649:VAL:CG2	2.50	0.90
1:D:822:SER:HG	2:E:88:LEU:HD23	1.11	0.90
3:F:62:ALA:O	3:F:63:ILE:CG1	2.19	0.90
1:G:278:GLN:HG2	1:G:317:GLU:HB2	1.52	0.90
1:G:410:ASN:OD1	4:V:334:GLU:C	2.09	0.90
4:O:172:PRO:HB2	4:1:191:LYS:NZ	1.84	0.90
1:A:641:LYS:HG3	1:A:647:GLN:NE2	1.58	0.90
1:D:544:LYS:HD2	4:9:147:ARG:HB3	1.53	0.90
1:D:831:TRP:HZ2	2:E:47:LEU:HB3	1.35	0.90
2:H:149:ASP:CG	2:H:150:TYR:H	1.73	0.90
1:P:735:GLY:C	1:P:743:ALA:HA	1.91	0.90
1:D:213:LYS:HA	1:D:220:ASP:CG	1.90	0.90
1:D:215:GLN:HA	1:D:340:ILE:HG23	0.95	0.90
1:A:505:MLY:CD	1:A:762:HIS:CA	2.20	0.90
1:G:817:GLN:CG	2:H:127:ARG:HD2	2.01	0.90
4:Z:322:PRO:CB	4:1:244:ASP:HB3	2.02	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:499:GLU:OE1	1:A:766:PHE:CZ	2.24	0.90
1:G:735:GLY:O	1:G:743:ALA:CA	2.19	0.90
2:H:137:TRP:HA	2:H:145:ALA:HB2	1.54	0.90
4:X:287:ILE:CG2	4:Z:201:VAL:HG23	2.02	0.90
1:A:505:MLY:CB	1:A:762:HIS:HA	2.01	0.90
1:A:538:GLU:N	4:8:351:THR:H	1.67	0.90
1:D:538:GLU:O	4:9:349:LEU:CG	2.20	0.90
1:D:798:LEU:CD1	3:F:126:LEU:HD11	2.00	0.90
1:P:649:VAL:CG2	1:P:649:VAL:HG13	2.02	0.90
1:P:721:LYS:CB	1:P:736:GLN:OE1	2.20	0.90
1:P:819:ASN:O	2:Q:157:ILE:CG2	2.19	0.90
1:G:538:GLU:N	4:V:349:LEU:HD12	1.87	0.90
1:P:93:MET:CG	1:P:714:ARG:O	2.19	0.90
1:P:93:MET:HE3	1:P:764:MLY:CD	2.02	0.90
2:Q:150:TYR:O	2:Q:151:LYS:HB2	1.67	0.90
1:A:278:GLN:HG2	1:A:317:GLU:HB2	1.52	0.90
1:A:410:ASN:OD1	4:8:334:GLU:C	2.11	0.90
1:A:553:MLY:HE2	4:V:45:VAL:HA	1.53	0.90
1:D:649:VAL:CG2	1:D:649:VAL:HG13	2.02	0.90
1:D:839:MLY:HH11	2:E:159:HIS:HD2	1.20	0.90
2:E:137:TRP:HA	2:E:145:ALA:HB2	1.54	0.90
1:P:813:ILE:HG23	2:Q:128:PHE:HZ	0.87	0.90
1:G:508:ILE:HD13	1:G:711:PHE:HZ	1.30	0.90
3:I:62:ALA:O	3:I:63:ILE:HG12	1.71	0.90
4:V:325:MET:HE1	4:X:244:ASP:CG	1.92	0.90
4:3:288:ASP:OD1	4:5:203:THR:HG23	1.70	0.90
3:C:62:ALA:O	3:C:63:ILE:CG1	2.19	0.90
3:I:62:ALA:O	3:I:63:ILE:CG1	2.19	0.90
1:P:793:ARG:HH21	3:R:147:MET:CE	1.84	0.90
1:P:793:ARG:NH2	3:R:147:MET:HE2	1.87	0.90
3:R:62:ALA:O	3:R:63:ILE:HG12	1.71	0.90
4:3:288:ASP:H	4:5:203:THR:HG22	1.29	0.90
1:A:534:SER:HA	4:8:350:SER:O	1.71	0.89
1:A:550:PHE:CA	4:V:46:GLY:HA3	2.02	0.89
1:A:553:MLY:CG	4:V:44:MET:O	2.20	0.89
1:D:410:ASN:OD1	4:9:334:GLU:C	2.10	0.89
1:D:553:MLY:CG	4:W:44:MET:O	2.20	0.89
1:D:629:GLU:HG2	1:D:643:GLY:O	1.72	0.89
1:D:630:ALA:O	4:9:25:ASP:CG	2.09	0.89
4:Z:287:ILE:CB	4:1:203:THR:HG22	2.00	0.89
1:A:599:ASN:OD1	1:A:649:VAL:HB	1.72	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:630:ALA:O	4:8:25:ASP:CG	2.10	0.89
1:D:649:VAL:CB	1:D:649:VAL:CG2	2.49	0.89
1:G:817:GLN:HB3	2:H:127:ARG:CD	2.02	0.89
1:P:544:LYS:HD2	4:0:147:ARG:HB3	1.53	0.89
1:P:630:ALA:O	4:0:25:ASP:CG	2.09	0.89
1:P:635:GLY:CA	4:0:341:ILE:HD13	2.02	0.89
1:P:538:GLU:O	4:0:349:LEU:CG	2.20	0.89
4:V:325:MET:HE2	4:X:244:ASP:OD2	1.71	0.89
1:A:505:MLY:CG	1:A:762:HIS:HA	2.02	0.89
1:A:538:GLU:O	4:8:349:LEU:CG	2.19	0.89
3:C:62:ALA:O	3:C:63:ILE:HG12	1.71	0.89
1:D:550:PHE:CA	4:W:46:GLY:HA3	2.02	0.89
1:G:649:VAL:CG2	1:G:649:VAL:HG13	2.02	0.89
1:P:410:ASN:OD1	4:0:334:GLU:C	2.10	0.89
1:P:829:TRP:CZ3	2:Q:84:PHE:CZ	2.60	0.89
3:R:62:ALA:O	3:R:63:ILE:CG1	2.19	0.89
4:0:110:LEU:C	4:1:195:GLU:CG	2.37	0.89
2:B:137:TRP:HA	2:B:145:ALA:HB2	1.54	0.89
2:B:149:ASP:CG	2:B:150:TYR:H	1.73	0.89
1:D:818:TYR:HD2	2:E:89:LYS:O	1.50	0.89
1:P:649:VAL:CB	1:P:649:VAL:CG2	2.49	0.89
1:D:534:SER:HA	4:9:350:SER:O	1.71	0.89
1:D:735:GLY:O	1:D:743:ALA:CA	2.19	0.89
1:G:534:SER:O	4:V:351:THR:HG23	1.12	0.89
1:P:93:MET:HG2	1:P:714:ARG:CB	2.02	0.89
3:R:24:LYS:HB3	3:R:63:ILE:O	1.72	0.89
1:A:649:VAL:CG2	1:A:649:VAL:HG13	2.02	0.89
1:A:795:ARG:HH21	3:C:116:GLU:HB3	1.37	0.89
1:D:530:MET:N	4:9:354:GLN:HB3	1.87	0.89
1:D:831:TRP:HD1	2:E:67:MET:HE2	1.37	0.89
2:E:121:LEU:CA	2:E:128:PHE:CB	2.46	0.89
1:G:642:LYS:HG2	4:V:22:ALA:CA	2.03	0.89
1:P:215:GLN:HA	1:P:340:ILE:HG23	0.95	0.89
1:P:735:GLY:O	1:P:743:ALA:CA	2.19	0.89
1:P:795:ARG:HH21	3:R:116:GLU:CB	1.66	0.89
1:P:805:ALA:N	1:P:807:VAL:HB	1.86	0.89
1:A:506:GLU:CB	1:A:760:PHE:C	2.10	0.89
1:D:553:MLY:HE2	4:W:45:VAL:HA	1.53	0.89
3:F:62:ALA:O	3:F:63:ILE:HG12	1.71	0.89
1:G:538:GLU:O	4:V:349:LEU:CG	2.20	0.89
1:G:567:LYS:HZ1	4:X:92:ASN:ND2	1.66	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:629:GLU:HG2	1:G:643:GLY:O	1.72	0.89
1:A:501:GLU:HA	1:A:762:HIS:CE1	2.08	0.89
1:A:795:ARG:CD	3:C:35:ARG:NH1	2.02	0.89
1:G:92:ALA:O	1:G:714:ARG:HG3	1.73	0.89
1:G:721:LYS:CB	1:G:736:GLN:OE1	2.20	0.89
1:A:538:GLU:N	4:8:349:LEU:HD12	1.86	0.89
1:D:635:GLY:CA	4:9:341:ILE:HD13	2.03	0.89
1:D:641:LYS:HD2	4:9:348:SER:CB	2.03	0.89
1:G:768:MLY:HD3	1:G:772:LEU:CG	2.03	0.89
3:I:24:LYS:HB3	3:I:63:ILE:O	1.72	0.89
1:A:95:THR:HG1	1:A:769:ALA:HA	1.09	0.88
1:D:215:GLN:H	1:D:340:ILE:HG12	1.06	0.88
1:D:641:LYS:CD	1:D:647:GLN:OE1	2.17	0.88
1:D:788:THR:CG2	3:F:42:THR:HG21	2.02	0.88
1:P:538:GLU:N	4:0:349:LEU:HD12	1.86	0.88
1:P:800:ARG:HD2	3:R:149:VAL:HG22	1.53	0.88
4:V:324:THR:CG2	4:X:247:VAL:H	1.84	0.88
1:A:541:MET:CB	4:8:143:TYR:OH	2.20	0.88
1:A:793:ARG:HH21	3:C:147:MET:HE2	0.92	0.88
1:D:721:LYS:CB	1:D:736:GLN:OE1	2.20	0.88
1:G:635:GLY:CA	4:V:341:ILE:HD13	2.03	0.88
1:G:641:LYS:HG3	1:G:647:GLN:NE2	1.58	0.88
1:P:638:GLY:HA3	4:0:341:ILE:O	1.70	0.88
4:X:287:ILE:HG13	4:Z:201:VAL:HG23	1.54	0.88
1:A:530:MET:N	4:8:354:GLN:HB3	1.87	0.88
1:A:629:GLU:HG2	1:A:643:GLY:O	1.72	0.88
1:D:834:LEU:CG	2:E:54:MET:HG3	2.02	0.88
3:F:24:LYS:HB3	3:F:63:ILE:O	1.72	0.88
1:P:206:LYS:CD	1:P:217:THR:CG2	2.16	0.88
1:A:831:TRP:HH2	2:B:34:ILE:HG23	1.27	0.88
1:D:795:ARG:CB	3:F:35:ARG:CZ	2.45	0.88
1:G:530:MET:N	4:V:354:GLN:HB3	1.88	0.88
1:P:530:MET:N	4:0:354:GLN:HB3	1.87	0.88
1:P:534:SER:HA	4:0:350:SER:O	1.71	0.88
4:Z:287:ILE:HB	4:1:203:THR:H	1.37	0.88
3:C:24:LYS:HB3	3:C:63:ILE:O	1.72	0.88
1:P:541:MET:CB	4:0:143:TYR:OH	2.20	0.88
1:P:642:LYS:HG2	4:0:22:ALA:CA	2.03	0.88
1:P:729:ALA:HB2	3:R:89:GLU:HG2	1.55	0.88
1:A:635:GLY:CA	4:8:341:ILE:HD13	2.03	0.88
1:P:641:LYS:HD2	4:0:348:SER:CB	2.02	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:721:LYS:CB	1:A:736:GLN:OE1	2.20	0.88
1:A:791:GLN:NE2	3:C:116:GLU:N	2.06	0.88
1:D:538:GLU:N	4:9:349:LEU:HD12	1.86	0.88
1:G:541:MET:CB	4:V:143:TYR:OH	2.21	0.88
1:G:831:TRP:NE1	2:H:67:MET:HB3	1.88	0.88
1:P:642:LYS:CG	4:0:21:PHE:O	2.22	0.88
1:A:642:LYS:HG2	4:8:22:ALA:CA	2.04	0.88
1:A:819:ASN:H	2:B:90:GLY:HA3	1.36	0.88
2:B:137:TRP:HA	2:B:145:ALA:CB	2.04	0.88
1:G:752:ASP:CG	1:G:783:LEU:HB3	1.95	0.88
1:P:92:ALA:O	1:P:714:ARG:HD2	1.73	0.88
1:P:708:ARG:O	1:P:710:GLY:N	2.06	0.88
1:A:641:LYS:HD2	4:8:348:SER:CB	2.02	0.88
1:D:839:MLY:HH13	2:E:159:HIS:CG	2.08	0.88
1:A:635:GLY:HA2	4:8:334:GLU:CG	2.03	0.88
1:D:725:ARG:C	1:D:782:MLY:HH22	1.90	0.88
1:G:553:MLY:NZ	4:X:45:VAL:HG11	1.88	0.88
1:G:635:GLY:HA2	4:V:334:GLU:CG	2.03	0.88
1:P:93:MET:CA	1:P:714:ARG:HG3	2.03	0.88
2:Q:137:TRP:HA	2:Q:145:ALA:HB2	1.54	0.88
1:A:636:LYS:H	4:8:334:GLU:CD	1.77	0.87
1:A:646:PHE:CE2	1:A:652:LEU:CD1	2.57	0.87
3:C:139:TYR:HA	3:C:142:PHE:HB3	1.56	0.87
1:D:642:LYS:CG	4:9:21:PHE:O	2.22	0.87
1:D:813:ILE:CG2	2:E:127:ARG:CD	2.52	0.87
2:H:137:TRP:HA	2:H:145:ALA:CB	2.04	0.87
1:P:508:ILE:HD11	1:P:759:ALA:HB2	0.89	0.87
1:G:553:MLY:CH1	4:X:45:VAL:CG1	2.49	0.87
1:G:641:LYS:CD	1:G:647:GLN:OE1	2.18	0.87
1:P:635:GLY:HA2	4:0:334:GLU:CG	2.03	0.87
4:9:322:PRO:HB2	4:W:244:ASP:CG	1.94	0.87
1:A:642:LYS:CG	4:8:21:PHE:O	2.22	0.87
1:D:646:PHE:CE2	1:D:652:LEU:CD1	2.58	0.87
1:D:839:MLY:NZ	2:E:159:HIS:HB3	1.90	0.87
1:G:534:SER:HA	4:V:350:SER:O	1.71	0.87
1:G:735:GLY:C	1:G:743:ALA:HB2	1.82	0.87
1:G:769:ALA:O	1:G:773:GLY:CA	2.22	0.87
2:Q:137:TRP:HA	2:Q:145:ALA:CB	2.04	0.87
1:A:791:GLN:OE1	3:C:116:GLU:CG	2.22	0.87
1:D:541:MET:CB	4:9:143:TYR:OH	2.21	0.87
1:G:797:PHE:CE2	3:I:146:ILE:CD1	2.58	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:72:VAL:CG1	1:P:76:GLN:HB3	2.05	0.87
1:P:823:PHE:CZ	2:Q:156:VAL:CG1	2.56	0.87
3:R:139:TYR:HA	3:R:142:PHE:HB3	1.57	0.87
4:8:322:PRO:HB2	4:V:244:ASP:CG	1.94	0.87
4:Z:288:ASP:N	4:1:203:THR:HG22	1.90	0.87
1:A:505:MLY:CB	1:A:762:HIS:CA	2.52	0.87
1:A:793:ARG:HE	3:C:147:MET:CG	1.81	0.87
1:D:636:LYS:H	4:9:334:GLU:CD	1.77	0.87
1:D:638:GLY:HA3	4:9:341:ILE:O	1.70	0.87
1:G:641:LYS:HD2	4:V:348:SER:CB	2.03	0.87
1:P:827:MLY:CH2	2:Q:139:ALA:HB3	2.05	0.87
4:7:322:PRO:HB2	4:9:244:ASP:CG	1.94	0.87
1:A:72:VAL:CG1	1:A:76:GLN:HB3	2.05	0.87
1:A:93:MET:HE2	1:A:715:VAL:HA	1.55	0.87
2:E:137:TRP:HA	2:E:145:ALA:CB	2.04	0.87
1:G:646:PHE:CE2	1:G:652:LEU:CD1	2.58	0.87
1:P:636:LYS:H	4:0:334:GLU:CD	1.78	0.87
1:G:642:LYS:CG	4:V:21:PHE:O	2.22	0.87
1:G:649:VAL:CG1	1:G:649:VAL:CA	2.53	0.87
1:P:215:GLN:H	1:P:340:ILE:HG12	1.05	0.87
1:P:629:GLU:HG2	1:P:643:GLY:O	1.72	0.87
1:A:641:LYS:CD	1:A:647:GLN:OE1	2.17	0.87
1:A:649:VAL:CG1	1:A:649:VAL:CA	2.53	0.87
1:A:822:SER:CB	2:B:88:LEU:CD2	2.51	0.87
1:D:649:VAL:CG1	1:D:649:VAL:CA	2.53	0.87
1:D:755:HIS:HA	1:D:758:TYR:CE1	2.10	0.87
1:D:800:ARG:CZ	3:F:149:VAL:O	2.21	0.87
1:D:814:PHE:CD1	2:E:127:ARG:NH1	2.43	0.87
3:F:139:TYR:HA	3:F:142:PHE:HB3	1.56	0.87
1:P:641:LYS:HG3	1:P:647:GLN:NE2	1.59	0.87
1:P:836:PHE:HE1	2:Q:159:HIS:HB2	0.71	0.87
4:1:287:ILE:HD13	4:3:203:THR:CB	2.01	0.87
1:D:530:MET:HG2	4:9:354:GLN:CG	2.05	0.87
1:D:642:LYS:HG2	4:9:22:ALA:CA	2.04	0.87
1:G:215:GLN:H	1:G:340:ILE:HG12	1.06	0.87
4:1:287:ILE:CG1	4:3:202:THR:CA	2.52	0.87
1:D:599:ASN:OD1	1:D:649:VAL:HB	1.73	0.86
1:D:800:ARG:NH1	3:F:149:VAL:O	2.07	0.86
1:P:599:ASN:OD1	1:P:649:VAL:HB	1.73	0.86
4:Z:287:ILE:CG2	4:1:202:THR:OG1	2.23	0.86
1:A:530:MET:HG2	4:8:354:GLN:CG	2.05	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:814:PHE:CD1	2:E:127:ARG:CZ	2.57	0.86
1:G:797:PHE:CZ	3:I:146:ILE:HD13	2.11	0.86
4:3:287:ILE:CG2	4:5:204:ALA:H	1.87	0.86
1:A:215:GLN:H	1:A:340:ILE:HG12	1.06	0.86
1:P:649:VAL:CG1	1:P:649:VAL:CA	2.53	0.86
1:P:755:HIS:HA	1:P:758:TYR:CE1	2.10	0.86
2:Q:121:LEU:CA	2:Q:128:PHE:CB	2.46	0.86
1:A:755:HIS:HA	1:A:758:TYR:CE1	2.10	0.86
1:A:834:LEU:CD1	2:B:54:MET:CB	2.52	0.86
1:D:72:VAL:CG1	1:D:76:GLN:HB3	2.05	0.86
1:G:755:HIS:HA	1:G:758:TYR:CE1	2.10	0.86
1:P:506:GLU:HG2	1:P:760:PHE:N	1.89	0.86
4:0:110:LEU:CB	4:1:195:GLU:HB2	2.04	0.86
1:D:310:TYR:CZ	1:D:320:ILE:HD11	2.11	0.86
2:H:121:LEU:CA	2:H:128:PHE:CB	2.46	0.86
1:P:93:MET:CG	1:P:714:ARG:CG	2.52	0.86
4:W:286:ASP:CG	4:Y:203:THR:HG22	1.96	0.86
4:X:287:ILE:HG12	4:Z:201:VAL:CG2	2.05	0.86
1:A:505:MLY:HB3	1:A:762:HIS:CB	2.06	0.86
1:G:530:MET:HG2	4:V:354:GLN:CG	2.05	0.86
1:G:795:ARG:NH2	3:I:116:GLU:OE2	2.09	0.86
1:P:834:LEU:HD21	2:Q:54:MET:CE	2.06	0.86
4:0:114:ALA:HB3	4:1:196:ARG:HD3	1.56	0.86
1:A:95:THR:HB	1:A:772:LEU:HD22	1.58	0.86
1:A:817:GLN:CD	2:B:127:ARG:NE	2.29	0.86
1:D:646:PHE:CD2	1:D:652:LEU:HD11	2.09	0.86
1:G:728:ASN:HD22	3:I:114:LEU:HG	1.40	0.86
1:G:768:MLY:CH2	1:G:772:LEU:HD13	2.05	0.86
1:G:795:ARG:NE	3:I:118:MET:CE	2.31	0.86
4:V:286:ASP:OD1	4:X:203:THR:HG22	1.74	0.86
1:A:97:LEU:CD2	1:A:712:PRO:HB3	2.06	0.86
1:D:769:ALA:HB1	1:D:770:GLY:O	1.75	0.86
1:G:553:MLY:HG3	4:X:45:VAL:C	1.96	0.86
1:G:813:ILE:HG23	2:H:128:PHE:CZ	2.10	0.86
1:P:800:ARG:CG	3:R:149:VAL:HG22	2.06	0.86
1:A:795:ARG:CB	3:C:35:ARG:NH1	2.37	0.86
1:D:635:GLY:HA2	4:9:334:GLU:CG	2.03	0.86
1:G:599:ASN:OD1	1:G:649:VAL:HB	1.72	0.86
1:P:310:TYR:CZ	1:P:320:ILE:HD11	2.11	0.86
1:P:813:ILE:HG21	2:Q:128:PHE:CE1	2.11	0.86
4:1:322:PRO:CB	4:3:244:ASP:HB3	2.05	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:72:VAL:CG1	1:G:76:GLN:HB3	2.05	0.86
1:P:732:ILE:HG23	1:P:747:LEU:HB2	1.57	0.86
4:Z:322:PRO:CB	4:1:244:ASP:CB	2.53	0.86
1:A:646:PHE:CD2	1:A:652:LEU:HD11	2.10	0.85
1:D:814:PHE:HE1	2:E:127:ARG:NH2	1.48	0.85
1:P:646:PHE:CD2	1:P:652:LEU:HD11	2.10	0.85
1:D:831:TRP:CZ2	2:E:47:LEU:CA	2.59	0.85
2:E:117:LEU:CG	2:E:147:ASN:CG	2.45	0.85
1:G:206:LYS:HD3	1:G:217:THR:CB	2.06	0.85
1:G:769:ALA:O	1:G:773:GLY:HA3	1.75	0.85
1:P:206:LYS:HD3	1:P:217:THR:CB	2.06	0.85
1:P:534:SER:O	4:0:351:THR:HG23	1.13	0.85
1:P:641:LYS:CD	1:P:647:GLN:OE1	2.18	0.85
1:A:202:SER:HA	1:A:207:LYS:HE2	0.85	0.85
1:A:204:GLU:H	1:A:207:LYS:HE3	1.42	0.85
1:A:206:LYS:HD3	1:A:217:THR:CB	2.06	0.85
1:A:599:ASN:OD1	1:A:649:VAL:CA	2.25	0.85
1:A:797:PHE:CD2	3:C:126:LEU:CD2	2.58	0.85
1:G:817:GLN:CD	2:H:127:ARG:CB	2.44	0.85
1:G:831:TRP:HE1	2:H:67:MET:HB3	1.39	0.85
1:D:725:ARG:CZ	1:D:733:PRO:HB3	2.06	0.85
1:G:202:SER:HA	1:G:207:LYS:HE2	0.85	0.85
1:G:215:GLN:H	1:G:340:ILE:CG1	1.73	0.85
1:G:646:PHE:CD2	1:G:652:LEU:HD11	2.09	0.85
1:G:754:ASP:OD2	1:G:779:ARG:CD	2.24	0.85
1:G:823:PHE:HE1	2:H:160:GLY:HA2	1.39	0.85
3:I:139:TYR:HA	3:I:142:PHE:HB3	1.56	0.85
1:A:732:ILE:CG2	1:A:747:LEU:HD13	1.34	0.85
2:B:117:LEU:CG	2:B:147:ASN:CG	2.44	0.85
1:G:538:GLU:N	4:V:351:THR:N	2.24	0.85
1:G:636:LYS:H	4:V:334:GLU:CD	1.78	0.85
1:G:768:MLY:CE	1:G:772:LEU:HD22	2.06	0.85
1:P:107:MLY:HB3	1:P:686:MET:HE2	1.58	0.85
1:P:530:MET:HG2	4:0:354:GLN:CG	2.06	0.85
4:8:287:ILE:CG2	4:V:205:GLU:HG2	2.05	0.85
4:9:287:ILE:CG2	4:W:205:GLU:HG2	2.05	0.85
1:A:310:TYR:CZ	1:A:320:ILE:HD11	2.11	0.85
1:A:538:GLU:N	4:8:351:THR:N	2.24	0.85
1:A:817:GLN:HG3	2:B:127:ARG:CD	2.05	0.85
1:G:797:PHE:CE2	3:I:146:ILE:HD13	2.11	0.85
1:G:838:ILE:HD12	2:H:54:MET:HE3	1.56	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:204:GLU:H	1:P:207:LYS:HE3	1.42	0.85
4:Z:287:ILE:HG21	4:1:202:THR:CB	2.07	0.85
1:D:206:LYS:HD3	1:D:217:THR:CB	2.06	0.85
1:G:204:GLU:H	1:G:207:LYS:HE3	1.42	0.85
1:G:310:TYR:CZ	1:G:320:ILE:HD11	2.11	0.85
2:Q:117:LEU:CG	2:Q:147:ASN:CG	2.44	0.85
1:A:753:VAL:CG1	1:A:775:LEU:HG	2.06	0.85
1:A:768:MLY:CB	1:A:771:LEU:HD13	2.07	0.85
1:D:798:LEU:HD13	3:F:126:LEU:HD11	1.56	0.85
1:P:630:ALA:C	4:0:25:ASP:OD2	2.15	0.85
1:P:834:LEU:CD1	2:Q:54:MET:CG	2.28	0.85
4:Y:291:LYS:HD2	4:0:246:GLN:HB2	0.87	0.85
1:D:410:ASN:OD1	4:9:334:GLU:CA	2.24	0.85
1:D:630:ALA:C	4:9:25:ASP:OD2	2.15	0.85
1:D:727:LEU:N	1:D:782:MLY:HH22	1.90	0.85
1:D:831:TRP:CH2	2:E:47:LEU:CA	2.59	0.85
1:G:768:MLY:HH12	1:G:772:LEU:HD22	1.59	0.85
1:P:202:SER:HA	1:P:207:LYS:HE2	0.85	0.85
1:P:836:PHE:CD2	2:Q:161:GLU:HG2	2.12	0.85
4:X:288:ASP:N	4:Z:202:THR:OG1	2.09	0.85
1:A:630:ALA:C	4:8:25:ASP:OD2	2.15	0.85
1:A:732:ILE:HG23	1:A:747:LEU:CB	1.85	0.85
1:D:506:GLU:CG	1:D:764:MLY:HE2	2.06	0.85
1:P:599:ASN:OD1	1:P:649:VAL:CA	2.25	0.85
1:D:814:PHE:HA	2:E:127:ARG:HH12	1.32	0.84
1:P:502:GLU:CD	1:P:761:GLY:HA3	1.97	0.84
1:P:641:LYS:CD	4:0:348:SER:HB2	1.92	0.84
1:P:817:GLN:NE2	2:Q:127:ARG:HD2	1.91	0.84
1:P:834:LEU:CD1	2:Q:54:MET:CB	2.54	0.84
1:A:505:MLY:HH12	1:A:762:HIS:CB	2.07	0.84
1:A:797:PHE:CD1	3:C:149:VAL:HG11	2.13	0.84
1:A:818:TYR:HB3	2:B:89:LYS:HB2	1.59	0.84
1:D:529:PRO:CB	4:9:353:GLN:OE1	2.25	0.84
1:D:640:LYS:CB	1:D:645:SER:OG	2.25	0.84
1:G:599:ASN:OD1	1:G:649:VAL:CA	2.25	0.84
1:G:768:MLY:NZ	1:G:772:LEU:HD22	1.91	0.84
1:G:813:ILE:CG2	2:H:128:PHE:CE1	2.60	0.84
1:G:816:ILE:HD11	2:H:100:ALA:CB	2.07	0.84
2:H:117:LEU:CG	2:H:147:ASN:CG	2.45	0.84
1:P:543:PRO:HG3	4:0:143:TYR:O	1.77	0.84
4:2:322:PRO:CB	4:4:244:ASP:CB	2.55	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:410:ASN:ND2	4:9:336:LYS:HG2	1.93	0.84
1:D:640:LYS:C	4:9:23:GLY:O	2.15	0.84
1:P:410:ASN:ND2	4:0:336:LYS:HG2	1.92	0.84
4:Y:291:LYS:HD3	4:0:246:GLN:HB2	1.59	0.84
4:Y:292:ASP:OD2	4:0:244:ASP:CB	2.21	0.84
4:2:287:ILE:HD13	4:4:203:THR:CB	1.97	0.84
1:A:800:ARG:HH11	3:C:149:VAL:HG13	1.42	0.84
1:D:543:PRO:HG3	4:9:143:TYR:O	1.77	0.84
4:Z:288:ASP:OD2	4:1:203:THR:CG2	2.25	0.84
1:A:557:GLU:N	4:V:48:GLY:HA2	1.90	0.84
1:A:640:LYS:C	4:8:23:GLY:O	2.15	0.84
1:D:418:THR:HB	1:D:421:GLU:HG3	1.59	0.84
1:D:599:ASN:OD1	1:D:649:VAL:CA	2.25	0.84
1:D:732:ILE:HG23	1:D:747:LEU:HB2	1.58	0.84
1:G:842:LEU:CG	2:H:29:GLU:HB3	2.06	0.84
1:A:795:ARG:CD	3:C:35:ARG:CZ	2.56	0.84
1:A:97:LEU:CD2	1:A:712:PRO:CB	2.55	0.84
1:A:410:ASN:ND2	4:8:336:LYS:HG2	1.93	0.84
1:D:204:GLU:H	1:D:207:LYS:HE3	1.41	0.84
1:D:530:MET:HE1	4:9:355:MET:SD	2.17	0.84
1:G:640:LYS:CB	1:G:645:SER:OG	2.25	0.84
1:G:640:LYS:C	4:V:23:GLY:O	2.16	0.84
1:P:410:ASN:OD1	4:0:334:GLU:CA	2.24	0.84
1:P:823:PHE:CE1	2:Q:160:GLY:HA2	2.12	0.84
1:D:549:SER:O	4:W:46:GLY:HA3	1.77	0.84
2:E:141:PRO:CB	2:E:142:PRO:CD	2.56	0.84
1:G:410:ASN:ND2	4:V:336:LYS:HG2	1.92	0.84
1:P:529:PRO:CB	4:0:353:GLN:OE1	2.25	0.84
1:P:648:THR:CG2	1:P:651:ALA:HB2	2.08	0.84
1:P:649:VAL:HG12	1:P:649:VAL:C	1.98	0.84
4:W:237:GLU:HA	4:W:251:GLY:HA2	1.60	0.84
4:Y:237:GLU:HA	4:Y:251:GLY:HA2	1.60	0.84
4:0:237:GLU:HA	4:0:251:GLY:HA2	1.60	0.84
1:A:504:MLY:CA	1:A:762:HIS:NE2	2.18	0.84
1:A:725:ARG:CZ	1:A:733:PRO:HB3	2.06	0.84
2:B:121:LEU:CG	2:B:128:PHE:CA	2.48	0.84
1:G:648:THR:CG2	1:G:651:ALA:HB2	2.08	0.84
1:P:640:LYS:C	4:0:23:GLY:O	2.15	0.84
1:P:646:PHE:CE2	1:P:652:LEU:CD1	2.58	0.84
4:9:237:GLU:HA	4:9:251:GLY:HA2	1.60	0.84
4:Y:291:LYS:CG	4:0:246:GLN:HB2	2.07	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Z:287:ILE:CG1	4:1:202:THR:HA	2.05	0.84
4:Z:287:ILE:HG12	4:1:202:THR:HA	1.57	0.84
1:D:732:ILE:CG2	1:D:747:LEU:HD13	1.34	0.84
1:G:107:MLY:HB3	1:G:686:MET:HE2	1.60	0.84
1:P:800:ARG:CD	3:R:149:VAL:HG22	2.08	0.84
1:P:820:VAL:HG11	2:Q:136:MET:CE	2.07	0.84
2:Q:141:PRO:CB	2:Q:142:PRO:CD	2.56	0.84
4:W:291:LYS:HD2	4:Y:243:PRO:CB	2.07	0.84
4:3:322:PRO:HB3	4:5:244:ASP:OD2	1.78	0.84
1:A:830:PRO:CD	2:B:67:MET:HE1	2.08	0.83
1:A:831:TRP:CE2	2:B:47:LEU:HD22	2.13	0.83
1:D:202:SER:HA	1:D:207:LYS:HE2	0.85	0.83
1:D:641:LYS:HG2	1:D:647:GLN:HG3	1.60	0.83
1:D:834:LEU:CG	2:E:54:MET:CB	2.56	0.83
1:P:418:THR:HB	1:P:421:GLU:HG3	1.59	0.83
1:A:643:GLY:N	4:8:24:ASP:HA	1.93	0.83
1:D:730:SER:O	1:D:734:GLU:HG3	1.78	0.83
2:E:121:LEU:CG	2:E:128:PHE:CA	2.48	0.83
1:G:543:PRO:HG3	4:V:143:TYR:O	1.78	0.83
1:P:829:TRP:CH2	2:Q:84:PHE:CZ	2.66	0.83
4:X:291:LYS:HD2	4:Z:244:ASP:H	0.98	0.83
1:A:736:GLN:HA	1:A:743:ALA:HB2	1.51	0.83
1:A:753:VAL:CA	1:A:778:MET:SD	2.65	0.83
1:D:542:PHE:CA	4:9:143:TYR:CE1	2.61	0.83
1:G:542:PHE:CA	4:V:143:TYR:CE1	2.61	0.83
1:G:707:CYS:SG	1:G:714:ARG:NH1	2.50	0.83
1:G:725:ARG:CD	1:G:733:PRO:HB3	2.07	0.83
1:G:768:MLY:CH1	1:G:772:LEU:HD22	2.08	0.83
2:H:141:PRO:CB	2:H:142:PRO:CD	2.56	0.83
1:P:279:LEU:HB2	1:P:282:GLU:HG3	1.60	0.83
1:P:732:ILE:CG2	1:P:747:LEU:HD13	1.34	0.83
1:P:818:TYR:CG	2:Q:90:GLY:CA	2.60	0.83
1:A:279:LEU:HB2	1:A:282:GLU:HG3	1.60	0.83
1:A:498:LEU:HD23	1:A:764:MLY:HH22	1.60	0.83
1:A:831:TRP:CE2	2:B:47:LEU:HD23	2.14	0.83
1:D:553:MLY:HG2	4:W:47:MET:H	1.44	0.83
1:D:648:THR:CG2	1:D:651:ALA:HB2	2.08	0.83
1:P:725:ARG:CD	1:P:733:PRO:HB3	2.08	0.83
1:P:736:GLN:HA	1:P:743:ALA:HB2	1.51	0.83
4:7:287:ILE:CG2	4:9:205:GLU:HG2	2.05	0.83
4:3:287:ILE:CD1	4:5:203:THR:HB	2.06	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:237:GLU:HA	4:5:251:GLY:HA2	1.60	0.83
1:A:410:ASN:OD1	4:8:334:GLU:CA	2.25	0.83
1:A:529:PRO:CB	4:8:353:GLN:OE1	2.25	0.83
1:A:641:LYS:HD2	4:8:348:SER:HB2	1.54	0.83
1:D:629:GLU:CG	1:D:643:GLY:O	2.26	0.83
1:D:795:ARG:CZ	3:F:43:ASN:CB	2.57	0.83
1:D:799:MET:SD	3:F:32:ASP:CB	2.62	0.83
1:D:815:CYS:HG	2:E:92:ASP:HB2	1.34	0.83
1:G:529:PRO:CB	4:V:353:GLN:OE1	2.25	0.83
1:G:552:ASN:O	4:X:47:MET:HE1	1.74	0.83
4:7:237:GLU:HA	4:7:251:GLY:HA2	1.60	0.83
4:Y:292:ASP:CG	4:0:244:ASP:HB3	1.87	0.83
4:2:237:GLU:HA	4:2:251:GLY:HA2	1.60	0.83
4:3:237:GLU:HA	4:3:251:GLY:HA2	1.60	0.83
1:A:543:PRO:HG3	4:8:143:TYR:O	1.77	0.83
1:A:549:SER:O	4:V:46:GLY:HA3	1.77	0.83
1:A:725:ARG:CD	1:A:733:PRO:HB3	2.08	0.83
1:A:732:ILE:HG23	1:A:747:LEU:HB2	1.58	0.83
1:A:797:PHE:CD2	3:C:126:LEU:HD22	2.12	0.83
1:A:800:ARG:HD2	3:C:149:VAL:HG22	1.59	0.83
1:P:640:LYS:CB	1:P:645:SER:OG	2.25	0.83
4:W:286:ASP:OD1	4:Y:203:THR:N	2.11	0.83
4:X:291:LYS:CD	4:Z:243:PRO:C	2.39	0.83
1:A:640:LYS:CB	1:A:645:SER:OG	2.25	0.83
1:A:836:PHE:HB3	2:B:161:GLU:OE1	1.79	0.83
1:D:798:LEU:HD13	3:F:126:LEU:HD21	1.59	0.83
1:G:641:LYS:HD2	4:V:348:SER:HB2	1.54	0.83
1:P:508:ILE:CD1	1:P:759:ALA:CB	2.43	0.83
1:P:538:GLU:N	4:0:351:THR:N	2.24	0.83
1:P:542:PHE:CA	4:0:143:TYR:CE1	2.61	0.83
1:P:629:GLU:CG	1:P:643:GLY:O	2.26	0.83
4:2:290:ARG:HH21	4:4:202:THR:HG23	1.41	0.83
1:A:648:THR:CG2	1:A:651:ALA:HB2	2.08	0.83
1:A:799:MET:SD	3:C:32:ASP:CA	2.67	0.83
1:D:506:GLU:O	1:D:763:THR:N	2.12	0.83
1:G:279:LEU:HB2	1:G:282:GLU:HG3	1.60	0.83
1:G:732:ILE:HG23	1:G:747:LEU:HB2	1.57	0.83
4:7:286:ASP:OD1	4:9:203:THR:CG2	2.26	0.83
1:G:795:ARG:HH22	3:I:116:GLU:HB3	1.38	0.83
1:A:530:MET:HE1	4:8:355:MET:SD	2.19	0.83
1:D:508:ILE:HA	1:D:761:GLY:HA3	1.59	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:818:TYR:CD2	2:E:89:LYS:C	2.53	0.83
1:G:751:GLY:N	3:I:114:LEU:HD13	1.94	0.83
1:P:542:PHE:CA	4:O:143:TYR:HE1	1.92	0.83
1:P:732:ILE:HG21	1:P:747:LEU:HD13	0.91	0.83
4:8:286:ASP:OD1	4:V:203:THR:CG2	2.26	0.83
4:Y:287:ILE:CA	4:O:201:VAL:CG2	2.51	0.83
1:A:542:PHE:CA	4:8:143:TYR:CE1	2.61	0.82
1:D:549:SER:O	4:W:46:GLY:CA	2.27	0.82
1:G:817:GLN:CG	2:H:127:ARG:CB	2.57	0.82
1:A:553:MLY:HG2	4:V:47:MET:H	1.44	0.82
1:A:809:ARG:NH2	2:B:124:GLY:HA2	1.94	0.82
1:D:507:GLY:HA3	1:D:762:HIS:CB	2.09	0.82
1:D:725:ARG:CD	1:D:733:PRO:HB3	2.07	0.82
1:P:641:LYS:HG2	1:P:647:GLN:HG3	1.61	0.82
4:9:286:ASP:OD1	4:W:203:THR:CG2	2.26	0.82
4:Z:287:ILE:HB	4:1:203:THR:N	1.92	0.82
1:A:578:HIS:HB3	1:A:592:ILE:HD12	1.62	0.82
1:A:578:HIS:HD2	1:A:591:ASN:HA	1.44	0.82
1:D:834:LEU:CD1	2:E:54:MET:CB	2.38	0.82
1:G:629:GLU:CG	1:G:643:GLY:O	2.26	0.82
1:P:730:SER:O	1:P:734:GLU:HG3	1.79	0.82
2:Q:144:VAL:HG12	2:Q:153:ILE:CD1	2.10	0.82
4:7:290:ARG:NH1	4:9:202:THR:HG21	1.94	0.82
4:X:287:ILE:HG12	4:Z:201:VAL:HG23	1.61	0.82
2:B:141:PRO:CB	2:B:142:PRO:CD	2.56	0.82
1:D:542:PHE:CA	4:9:143:TYR:HE1	1.92	0.82
1:G:557:GLU:HB2	4:X:46:GLY:C	2.00	0.82
1:G:730:SER:O	1:G:734:GLU:HG3	1.78	0.82
1:G:768:MLY:HD2	1:G:772:LEU:HB2	1.59	0.82
1:G:795:ARG:CB	3:I:35:ARG:NH2	2.42	0.82
1:P:218:LEU:HA	1:P:221:GLN:HG2	1.62	0.82
4:8:290:ARG:NH1	4:V:202:THR:HG21	1.94	0.82
4:Z:287:ILE:CD1	4:1:203:THR:H	1.92	0.82
4:4:237:GLU:HA	4:4:251:GLY:HA2	1.60	0.82
1:D:538:GLU:N	4:9:351:THR:N	2.24	0.82
1:D:793:ARG:HH21	3:F:147:MET:CG	1.92	0.82
1:G:410:ASN:OD1	4:V:334:GLU:CA	2.24	0.82
1:G:831:TRP:CE2	2:H:67:MET:SD	2.72	0.82
1:A:501:GLU:CA	1:A:762:HIS:CE1	2.62	0.82
1:A:730:SER:O	1:A:734:GLU:HG3	1.78	0.82
1:D:724:TYR:CE1	1:D:778:MET:HB3	2.14	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:643:GLY:N	4:0:24:ASP:HA	1.93	0.82
1:P:726:VAL:CG1	3:R:89:GLU:CB	2.55	0.82
4:1:237:GLU:HA	4:1:251:GLY:HA2	1.60	0.82
1:A:639:GLY:CA	4:8:344:SER:C	2.48	0.82
1:A:721:LYS:CA	1:A:736:GLN:NE2	2.43	0.82
1:A:797:PHE:CE2	3:C:126:LEU:HD21	2.13	0.82
1:D:279:LEU:HB2	1:D:282:GLU:HG3	1.60	0.82
1:D:549:SER:O	4:W:46:GLY:C	2.18	0.82
1:G:218:LEU:HD22	1:G:222:ILE:CG1	2.10	0.82
1:G:641:LYS:HG2	1:G:647:GLN:HG3	1.61	0.82
1:P:800:ARG:CD	3:R:149:VAL:C	2.47	0.82
1:A:418:THR:HB	1:A:421:GLU:HG3	1.60	0.82
1:G:418:THR:HB	1:G:421:GLU:HG3	1.60	0.82
1:G:639:GLY:CA	4:V:344:SER:C	2.48	0.82
1:P:639:GLY:CA	4:0:344:SER:C	2.48	0.82
1:A:795:ARG:CD	3:C:35:ARG:NH2	2.42	0.82
1:A:797:PHE:CD1	3:C:149:VAL:CG1	2.63	0.82
1:A:831:TRP:HZ3	2:B:50:THR:HG21	1.45	0.82
1:G:578:HIS:HB3	1:G:592:ILE:HD12	1.62	0.82
1:G:751:GLY:H	3:I:114:LEU:HD13	1.44	0.82
1:P:641:LYS:HD2	4:0:348:SER:CA	2.10	0.82
1:P:725:ARG:HH22	3:R:92:ARG:HD2	0.70	0.82
1:A:793:ARG:HH22	3:C:147:MET:CE	1.93	0.82
1:P:578:HIS:HB3	1:P:592:ILE:HD12	1.62	0.82
4:9:290:ARG:NH1	4:W:202:THR:HG21	1.94	0.82
1:A:218:LEU:HD22	1:A:222:ILE:CG1	2.10	0.81
1:A:629:GLU:CG	1:A:643:GLY:O	2.26	0.81
1:D:218:LEU:HD22	1:D:222:ILE:CG1	2.10	0.81
1:D:834:LEU:HD23	2:E:54:MET:HG3	1.54	0.81
1:P:721:LYS:CA	1:P:736:GLN:NE2	2.43	0.81
1:P:795:ARG:HH22	3:R:116:GLU:HB3	1.02	0.81
1:D:107:MLY:HB3	1:D:686:MET:HE2	1.62	0.81
1:D:218:LEU:CA	1:D:221:GLN:HG2	2.10	0.81
1:D:578:HIS:HD2	1:D:591:ASN:HA	1.45	0.81
1:G:503:TYR:CE1	1:G:711:PHE:CD2	2.68	0.81
1:P:127:ASN:HD22	1:P:128:PRO:HD2	1.45	0.81
1:P:218:LEU:CA	1:P:221:GLN:HG2	2.10	0.81
1:A:107:MLY:HB3	1:A:686:MET:HE2	1.61	0.81
1:A:480:ILE:HG22	1:A:481:ASN:HD22	1.45	0.81
1:A:549:SER:O	4:V:46:GLY:CA	2.27	0.81
1:A:757:GLN:CB	1:A:771:LEU:CD1	1.79	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:639:GLY:CA	4:9:344:SER:C	2.48	0.81
1:D:641:LYS:HD2	4:9:348:SER:CA	2.09	0.81
1:D:727:LEU:N	1:D:782:MLY:CH2	2.39	0.81
1:D:793:ARG:NH2	3:F:147:MET:CB	2.41	0.81
2:E:144:VAL:HG12	2:E:153:ILE:CD1	2.10	0.81
1:G:553:MLY:HH12	4:X:45:VAL:HG11	1.58	0.81
4:V:237:GLU:HA	4:V:251:GLY:HA2	1.60	0.81
4:X:237:GLU:HA	4:X:251:GLY:HA2	1.60	0.81
4:Y:291:LYS:HD2	4:0:246:GLN:HB3	1.57	0.81
1:A:538:GLU:CA	4:8:351:THR:H	1.93	0.81
1:A:542:PHE:CA	4:8:143:TYR:HE1	1.92	0.81
1:G:538:GLU:CA	4:V:351:THR:H	1.92	0.81
1:G:725:ARG:CZ	1:G:733:PRO:HB3	2.06	0.81
2:H:111:SER:OG	2:H:148:VAL:C	2.15	0.81
1:P:218:LEU:HD22	1:P:222:ILE:CG1	2.10	0.81
1:P:793:ARG:NE	3:R:147:MET:HG2	1.94	0.81
4:8:237:GLU:HA	4:8:251:GLY:HA2	1.60	0.81
4:Z:237:GLU:HA	4:Z:251:GLY:HA2	1.60	0.81
1:A:232:PHE:CZ	1:A:287:ILE:HD13	2.16	0.81
1:P:538:GLU:CA	4:0:351:THR:H	1.93	0.81
1:P:815:CYS:SG	2:Q:92:ASP:OD1	2.37	0.81
1:A:508:ILE:HD11	1:A:759:ALA:CA	2.11	0.81
1:A:734:GLU:O	1:A:738:MET:CG	2.28	0.81
1:D:218:LEU:HB3	1:D:221:GLN:HG3	1.61	0.81
1:D:480:ILE:HG22	1:D:481:ASN:HD22	1.45	0.81
1:D:798:LEU:CD2	3:F:122:GLU:HB3	2.11	0.81
1:G:567:LYS:HZ3	4:X:92:ASN:ND2	1.78	0.81
1:G:789:ALA:HB2	3:I:81:GLN:CG	2.10	0.81
1:G:817:GLN:HG2	2:H:127:ARG:HB3	1.61	0.81
1:G:823:PHE:HZ	2:H:156:VAL:HG12	1.43	0.81
1:P:215:GLN:N	1:P:340:ILE:CD1	2.44	0.81
4:1:287:ILE:HB	4:3:203:THR:H	1.45	0.81
1:A:641:LYS:HG2	1:A:647:GLN:HG3	1.61	0.81
1:A:768:MLY:C	1:A:771:LEU:CB	2.57	0.81
1:D:538:GLU:CA	4:9:351:THR:H	1.93	0.81
1:D:735:GLY:C	1:D:743:ALA:HB2	1.82	0.81
1:G:218:LEU:HA	1:G:221:GLN:HG2	1.62	0.81
1:G:571:ALA:O	1:G:572:LYS:CG	2.29	0.81
1:G:817:GLN:CD	2:H:127:ARG:CG	2.49	0.81
1:G:836:PHE:CZ	2:H:159:HIS:HA	2.15	0.81
4:V:325:MET:SD	4:X:244:ASP:HB3	2.19	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:215:GLN:N	1:D:340:ILE:CD1	2.44	0.81
1:G:649:VAL:HG12	1:G:649:VAL:C	1.99	0.81
1:G:732:ILE:CG2	1:G:747:LEU:HD13	1.34	0.81
1:P:480:ILE:HG22	1:P:481:ASN:HD22	1.45	0.81
4:0:110:LEU:HA	4:1:195:GLU:CG	2.04	0.81
1:A:732:ILE:HG22	1:A:747:LEU:HD12	0.81	0.81
1:D:643:GLY:N	4:9:24:ASP:HA	1.93	0.81
1:D:726:VAL:H	1:D:782:MLY:CH2	1.94	0.81
1:G:553:MLY:CE	4:X:45:VAL:HB	1.91	0.81
1:P:836:PHE:CE1	2:Q:159:HIS:CA	2.57	0.81
4:8:223:PHE:HE1	4:8:255:PHE:HB2	1.46	0.81
4:W:223:PHE:HE1	4:W:255:PHE:HB2	1.46	0.81
1:A:502:GLU:CG	1:A:761:GLY:HA3	1.97	0.81
1:A:641:LYS:HD2	4:8:348:SER:CA	2.10	0.81
1:D:218:LEU:HA	1:D:221:GLN:HG2	1.62	0.81
1:G:768:MLY:HH22	1:G:772:LEU:HB2	1.62	0.81
4:3:324:THR:CG2	4:5:244:ASP:N	2.31	0.81
4:5:223:PHE:HE1	4:5:255:PHE:HB2	1.46	0.81
1:A:215:GLN:N	1:A:340:ILE:CD1	2.44	0.80
1:D:721:LYS:CA	1:D:736:GLN:NE2	2.43	0.80
1:D:732:ILE:HG22	1:D:747:LEU:HD12	0.81	0.80
1:G:768:MLY:HD3	1:G:772:LEU:CD2	2.10	0.80
1:P:232:PHE:CZ	1:P:287:ILE:HD13	2.16	0.80
4:9:223:PHE:HE1	4:9:255:PHE:HB2	1.46	0.80
4:X:324:THR:HB	4:Z:246:GLN:HA	1.63	0.80
4:2:322:PRO:CB	4:4:244:ASP:OD2	2.27	0.80
1:A:831:TRP:CZ3	2:B:50:THR:HG21	2.14	0.80
1:D:232:PHE:CZ	1:D:287:ILE:HD13	2.16	0.80
1:D:599:ASN:CA	1:D:649:VAL:CB	2.54	0.80
1:G:215:GLN:N	1:G:340:ILE:CD1	2.44	0.80
1:G:480:ILE:HG22	1:G:481:ASN:HD22	1.45	0.80
1:G:800:ARG:HD2	3:I:149:VAL:HG22	0.83	0.80
1:P:218:LEU:HB3	1:P:221:GLN:HG3	1.61	0.80
4:V:223:PHE:HE1	4:V:255:PHE:HB2	1.46	0.80
1:D:529:PRO:C	4:9:354:GLN:CB	2.49	0.80
1:G:643:GLY:N	4:V:24:ASP:HA	1.94	0.80
2:Q:144:VAL:CA	2:Q:153:ILE:HD11	2.11	0.80
1:A:505:MLY:HG3	1:A:741:LYS:HZ2	1.42	0.80
1:A:550:PHE:CA	4:V:46:GLY:CA	2.59	0.80
1:A:571:ALA:O	1:A:572:LYS:CG	2.28	0.80
1:A:830:PRO:HB2	2:B:51:PHE:CE1	2.16	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:141:PRO:CB	2:B:142:PRO:HD2	2.11	0.80
2:B:144:VAL:CA	2:B:153:ILE:HD11	2.11	0.80
1:D:734:GLU:O	1:D:738:MET:CG	2.28	0.80
1:D:769:ALA:CB	1:D:770:GLY:O	2.27	0.80
1:G:84:MLY:HH23	1:G:716:LEU:O	1.81	0.80
1:G:232:PHE:CZ	1:G:287:ILE:HD13	2.16	0.80
1:G:578:HIS:HD2	1:G:591:ASN:HA	1.45	0.80
1:A:374:GLN:HG3	1:A:375:ALA:N	1.96	0.80
1:A:649:VAL:HG12	1:A:649:VAL:C	1.98	0.80
1:A:800:ARG:CB	3:C:149:VAL:HG21	1.96	0.80
1:G:409:GLY:N	1:G:636:LYS:CG	2.44	0.80
1:G:768:MLY:CH2	1:G:772:LEU:HB2	2.12	0.80
1:P:578:HIS:HD2	1:P:591:ASN:HA	1.45	0.80
1:P:732:ILE:HG22	1:P:747:LEU:HD12	0.81	0.80
1:P:735:GLY:C	1:P:743:ALA:HB2	1.82	0.80
4:0:172:PRO:HB2	4:1:191:LYS:HZ1	1.43	0.80
1:A:218:LEU:HA	1:A:221:GLN:HG2	1.62	0.80
1:A:834:LEU:HD21	2:B:54:MET:HE3	1.64	0.80
1:D:735:GLY:C	1:D:743:ALA:HB1	1.84	0.80
1:G:503:TYR:HE1	1:G:711:PHE:CD2	1.99	0.80
3:R:49:ILE:N	3:R:52:ASN:ND2	2.29	0.80
4:3:223:PHE:HE1	4:3:255:PHE:HB2	1.46	0.80
1:G:641:LYS:HD2	4:V:348:SER:CA	2.10	0.80
1:G:732:ILE:HG22	1:G:747:LEU:HD12	0.81	0.80
1:G:754:ASP:N	1:G:776:GLU:OE1	2.06	0.80
1:D:374:GLN:HG3	1:D:375:ALA:N	1.96	0.80
1:G:734:GLU:O	1:G:738:MET:CG	2.28	0.80
1:P:725:ARG:CZ	1:P:733:PRO:HB3	2.06	0.80
1:P:734:GLU:O	1:P:738:MET:CG	2.28	0.80
2:Q:117:LEU:CB	2:Q:147:ASN:ND2	2.35	0.80
4:7:223:PHE:HE1	4:7:255:PHE:HB2	1.46	0.80
1:A:791:GLN:HE22	3:C:116:GLU:H	0.81	0.80
2:B:141:PRO:HB2	2:B:142:PRO:CD	2.12	0.80
1:D:127:ASN:HD22	1:D:128:PRO:HD2	1.45	0.80
1:D:571:ALA:O	1:D:572:LYS:CG	2.28	0.80
1:G:218:LEU:CA	1:G:221:GLN:HG2	2.10	0.80
4:0:166:TYR:CD2	4:2:40:HIS:CG	2.70	0.80
1:A:549:SER:O	4:V:46:GLY:C	2.19	0.80
1:D:578:HIS:HB3	1:D:592:ILE:HD12	1.62	0.80
2:E:141:PRO:HB2	2:E:142:PRO:CD	2.12	0.80
4:Y:291:LYS:HB3	4:0:246:GLN:CB	2.12	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:0:223:PHE:HE1	4:0:255:PHE:HB2	1.46	0.80
1:A:127:ASN:HD22	1:A:128:PRO:HD2	1.45	0.79
1:D:550:PHE:CA	4:W:46:GLY:CA	2.59	0.79
1:G:291:ILE:HA	1:G:331:LEU:HD11	1.64	0.79
1:G:374:GLN:HG3	1:G:375:ALA:N	1.96	0.79
1:G:538:GLU:HG3	4:V:351:THR:C	2.02	0.79
1:D:291:ILE:HA	1:D:331:LEU:HD11	1.64	0.79
1:G:93:MET:CA	1:G:714:ARG:HG3	2.12	0.79
1:G:817:GLN:CG	2:H:127:ARG:CD	2.59	0.79
4:3:322:PRO:HB3	4:5:244:ASP:CB	2.10	0.79
1:A:732:ILE:HG21	1:A:747:LEU:HD13	0.91	0.79
1:A:839:MLY:HH11	2:B:159:HIS:HD2	1.41	0.79
2:Q:111:SER:OG	2:Q:148:VAL:C	2.15	0.79
4:Y:291:LYS:HG2	4:0:245:GLY:N	1.97	0.79
1:A:829:TRP:HE1	2:B:67:MET:HG2	1.47	0.79
3:C:49:ILE:N	3:C:52:ASN:ND2	2.29	0.79
1:G:530:MET:HE1	4:V:355:MET:SD	2.23	0.79
1:G:817:GLN:CB	2:H:127:ARG:CD	2.60	0.79
2:H:141:PRO:CB	2:H:142:PRO:HD2	2.12	0.79
2:H:144:VAL:HG12	2:H:153:ILE:CD1	2.09	0.79
1:P:291:ILE:HA	1:P:331:LEU:HD11	1.64	0.79
1:P:641:LYS:HD2	1:P:647:GLN:OE1	1.81	0.79
1:P:725:ARG:CZ	3:R:92:ARG:CD	2.50	0.79
4:X:223:PHE:HE1	4:X:255:PHE:HB2	1.46	0.79
4:Y:223:PHE:HE1	4:Y:255:PHE:HB2	1.46	0.79
4:Z:322:PRO:HB3	4:1:244:ASP:HB3	1.60	0.79
1:A:218:LEU:CA	1:A:221:GLN:HG2	2.10	0.79
1:A:550:PHE:HA	4:V:46:GLY:HA2	1.65	0.79
1:A:641:LYS:CE	1:A:647:GLN:CG	2.60	0.79
3:F:49:ILE:N	3:F:52:ASN:ND2	2.29	0.79
1:G:127:ASN:HD22	1:G:128:PRO:HD2	1.45	0.79
1:G:795:ARG:HH21	3:I:116:GLU:HB2	1.42	0.79
2:H:121:LEU:CG	2:H:128:PHE:CA	2.49	0.79
2:H:141:PRO:HB2	2:H:142:PRO:CD	2.12	0.79
1:P:571:ALA:O	1:P:572:LYS:CG	2.28	0.79
1:P:786:ILE:CG2	1:P:787:ILE:N	2.46	0.79
2:Q:141:PRO:HB2	2:Q:142:PRO:CD	2.12	0.79
2:Q:141:PRO:CB	2:Q:142:PRO:HD2	2.12	0.79
4:8:287:ILE:HB	4:V:204:ALA:N	1.97	0.79
1:D:550:PHE:N	4:W:46:GLY:HA3	1.97	0.79
1:D:831:TRP:HD1	2:E:67:MET:SD	1.91	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:144:VAL:CA	2:E:153:ILE:HD11	2.11	0.79
3:F:50:LEU:C	3:F:53:PRO:HD2	2.03	0.79
1:G:642:LYS:HG2	4:V:22:ALA:HA	1.65	0.79
3:I:49:ILE:N	3:I:52:ASN:ND2	2.29	0.79
1:P:793:ARG:NH2	3:R:147:MET:CE	2.43	0.79
1:A:291:ILE:HA	1:A:331:LEU:HD11	1.64	0.79
1:A:798:LEU:HD11	3:C:126:LEU:CG	2.13	0.79
2:E:141:PRO:CB	2:E:142:PRO:HD2	2.12	0.79
3:I:50:LEU:C	3:I:53:PRO:HD2	2.03	0.79
1:P:374:GLN:HG3	1:P:375:ALA:N	1.96	0.79
1:P:538:GLU:HG3	4:O:351:THR:C	2.03	0.79
1:P:726:VAL:CG1	3:R:89:GLU:CD	2.51	0.79
4:X:287:ILE:CB	4:Z:201:VAL:HG23	2.13	0.79
1:A:799:MET:CE	3:C:32:ASP:HB3	2.12	0.79
1:D:726:VAL:C	1:D:782:MLY:HH22	2.03	0.79
1:G:795:ARG:HG3	3:I:118:MET:HE3	1.64	0.79
1:P:409:GLY:N	1:P:636:LYS:CG	2.44	0.79
4:1:287:ILE:CG2	4:3:203:THR:N	2.45	0.79
1:A:174:SER:CB	1:A:667:THR:HG21	2.13	0.79
1:G:174:SER:CB	1:G:667:THR:HG21	2.13	0.79
1:G:789:ALA:CB	3:I:81:GLN:HG2	2.12	0.79
1:G:817:GLN:HG2	2:H:127:ARG:HB2	1.62	0.79
4:Z:287:ILE:CG1	4:1:202:THR:HB	2.13	0.79
4:1:223:PHE:HE1	4:1:255:PHE:HB2	1.46	0.79
1:A:834:LEU:CD1	2:B:54:MET:CG	1.88	0.79
1:G:542:PHE:CA	4:V:143:TYR:HE1	1.93	0.79
2:H:144:VAL:CA	2:H:153:ILE:HD11	2.11	0.79
3:R:50:LEU:C	3:R:53:PRO:HD2	2.03	0.79
4:2:223:PHE:HE1	4:2:255:PHE:HB2	1.46	0.79
1:A:646:PHE:CE2	1:A:652:LEU:HD21	2.14	0.78
2:B:144:VAL:HG12	2:B:153:ILE:CD1	2.09	0.78
1:D:767:PHE:O	1:D:771:LEU:CD1	2.31	0.78
1:G:407:GLY:HA2	1:G:412:ALA:HA	1.65	0.78
1:G:641:LYS:CE	1:G:647:GLN:CG	2.61	0.78
4:Y:288:ASP:HA	4:O:242:LEU:HD23	1.64	0.78
1:D:641:LYS:CE	1:D:647:GLN:HB2	2.13	0.78
1:G:567:LYS:HZ1	4:X:92:ASN:HD22	1.18	0.78
2:H:117:LEU:HB2	2:H:147:ASN:HD21	1.47	0.78
1:P:537:GLU:O	4:O:350:SER:N	2.16	0.78
4:V:287:ILE:HD11	4:X:201:VAL:O	1.76	0.78
4:4:223:PHE:HE1	4:4:255:PHE:HB2	1.46	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:538:GLU:HG3	4:8:351:THR:C	2.03	0.78
3:C:50:LEU:C	3:C:53:PRO:HD2	2.03	0.78
1:D:409:GLY:N	1:D:636:LYS:CG	2.44	0.78
1:D:639:GLY:CA	4:9:345:ILE:N	2.47	0.78
1:G:537:GLU:O	4:V:350:SER:N	2.16	0.78
1:P:174:SER:CB	1:P:667:THR:HG21	2.13	0.78
1:P:639:GLY:CA	4:0:345:ILE:N	2.46	0.78
1:P:646:PHE:CE2	1:P:652:LEU:HD21	2.14	0.78
1:P:726:VAL:HG22	3:R:89:GLU:CB	2.14	0.78
1:P:818:TYR:CB	2:Q:90:GLY:O	2.31	0.78
1:D:831:TRP:CH2	2:E:47:LEU:C	2.57	0.78
1:G:646:PHE:CE2	1:G:652:LEU:HD21	2.14	0.78
4:1:287:ILE:HG21	4:3:202:THR:CB	2.13	0.78
1:A:537:GLU:O	4:8:350:SER:N	2.16	0.78
4:1:287:ILE:HG21	4:3:203:THR:N	1.98	0.78
4:0:166:TYR:CZ	4:2:40:HIS:HB2	2.19	0.78
1:A:409:GLY:N	1:A:636:LYS:CG	2.44	0.78
1:D:174:SER:CB	1:D:667:THR:HG21	2.13	0.78
1:A:639:GLY:CA	4:8:345:ILE:N	2.47	0.78
3:F:3:SER:O	3:F:4:LYS:HB2	1.84	0.78
1:P:646:PHE:HE2	1:P:652:LEU:CD2	1.97	0.78
2:Q:121:LEU:CG	2:Q:128:PHE:CA	2.49	0.78
4:Z:223:PHE:HE1	4:Z:255:PHE:HB2	1.46	0.78
1:A:508:ILE:HD11	1:A:759:ALA:CB	2.05	0.78
1:A:635:GLY:HA3	4:8:341:ILE:CD1	2.14	0.78
1:A:641:LYS:CE	1:A:647:GLN:HB2	2.13	0.78
1:A:646:PHE:HE2	1:A:652:LEU:CD2	1.97	0.78
1:A:798:LEU:CD2	3:C:122:GLU:HB3	2.14	0.78
1:D:496:PHE:CD2	1:D:514:ASP:HA	2.19	0.78
1:G:641:LYS:HD2	1:G:647:GLN:OE1	1.81	0.78
1:P:819:ASN:N	2:Q:90:GLY:O	2.16	0.78
4:W:325:MET:HE1	4:Y:244:ASP:CG	2.03	0.78
1:D:51:THR:O	1:D:62:VAL:HG13	1.84	0.78
1:D:507:GLY:O	1:D:761:GLY:C	2.22	0.78
1:D:815:CYS:HG	2:E:92:ASP:CB	1.85	0.78
1:P:729:ALA:CB	3:R:89:GLU:HG2	2.14	0.78
4:0:223:PHE:HD2	4:0:312:ARG:HH21	1.32	0.78
4:3:288:ASP:N	4:5:203:THR:CG2	2.46	0.78
1:A:505:MLY:CD	1:A:762:HIS:CB	2.62	0.77
1:D:556:ASP:HA	4:W:49:GLN:O	1.70	0.77
1:G:51:THR:O	1:G:62:VAL:HG13	1.84	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:481:ASN:HD22	1:P:481:ASN:N	1.82	0.77
4:7:287:ILE:HB	4:9:204:ALA:N	1.98	0.77
1:A:502:GLU:CA	1:A:762:HIS:H	1.84	0.77
1:A:537:GLU:HG3	4:8:350:SER:O	1.79	0.77
1:D:641:LYS:CE	1:D:647:GLN:CG	2.60	0.77
1:D:831:TRP:CZ2	2:E:47:LEU:CB	2.67	0.77
3:F:49:ILE:N	3:F:52:ASN:HD22	1.82	0.77
1:G:635:GLY:HA3	4:V:341:ILE:CD1	2.14	0.77
1:G:823:PHE:CE1	2:H:160:GLY:HA2	2.19	0.77
1:P:407:GLY:HA2	1:P:412:ALA:HA	1.65	0.77
1:P:831:TRP:CH2	2:Q:34:ILE:HG23	2.18	0.77
2:Q:150:TYR:C	2:Q:151:LYS:CG	2.49	0.77
4:9:223:PHE:HD2	4:9:312:ARG:HH21	1.33	0.77
4:W:223:PHE:HD2	4:W:312:ARG:HH21	1.33	0.77
4:2:223:PHE:HD2	4:2:312:ARG:HH21	1.33	0.77
1:A:51:THR:O	1:A:62:VAL:HG13	1.84	0.77
1:G:641:LYS:CE	1:G:647:GLN:HB2	2.13	0.77
1:P:496:PHE:CD2	1:P:514:ASP:HA	2.19	0.77
1:P:635:GLY:HA3	4:0:341:ILE:CD1	2.14	0.77
1:P:804:ARG:O	1:P:807:VAL:C	2.21	0.77
4:7:223:PHE:HD2	4:7:312:ARG:HH21	1.33	0.77
4:1:288:ASP:N	4:3:203:THR:HG22	1.99	0.77
1:A:550:PHE:N	4:V:46:GLY:HA3	1.97	0.77
1:D:407:GLY:HA2	1:D:412:ALA:HA	1.65	0.77
1:D:550:PHE:HA	4:W:46:GLY:HA2	1.64	0.77
1:D:553:MLY:NZ	4:W:45:VAL:HA	1.84	0.77
4:8:223:PHE:HD2	4:8:312:ARG:HH21	1.33	0.77
4:Y:223:PHE:HD2	4:Y:312:ARG:HH21	1.33	0.77
4:0:113:LYS:HZ1	4:1:252:ASN:CB	1.87	0.77
1:A:218:LEU:HD22	1:A:222:ILE:HG12	1.67	0.77
1:A:822:SER:HB3	2:B:88:LEU:CD2	2.15	0.77
1:A:822:SER:HB3	2:B:88:LEU:HD23	1.61	0.77
1:D:481:ASN:HD22	1:D:481:ASN:N	1.82	0.77
1:D:538:GLU:HG3	4:9:351:THR:C	2.03	0.77
1:D:646:PHE:HE2	1:D:652:LEU:CD2	1.97	0.77
1:G:736:GLN:CA	1:G:743:ALA:HB2	1.95	0.77
1:G:795:ARG:CD	3:I:118:MET:HE1	2.13	0.77
1:G:823:PHE:CZ	2:H:156:VAL:O	2.36	0.77
1:P:831:TRP:CE2	2:Q:51:PHE:CZ	2.72	0.77
4:Z:288:ASP:N	4:1:203:THR:CG2	2.48	0.77
4:4:223:PHE:HD2	4:4:312:ARG:HH21	1.32	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:642:LYS:HG2	4:8:22:ALA:HA	1.66	0.77
1:G:219:GLU:O	1:G:223:ILE:HG13	1.84	0.77
4:V:223:PHE:HD2	4:V:312:ARG:HH21	1.33	0.77
1:A:407:GLY:HA2	1:A:412:ALA:HA	1.65	0.77
3:C:49:ILE:N	3:C:52:ASN:HD22	1.82	0.77
1:D:537:GLU:O	4:9:350:SER:N	2.16	0.77
1:G:721:LYS:CA	1:G:736:GLN:OE1	2.33	0.77
4:3:288:ASP:H	4:5:203:THR:CG2	1.98	0.77
4:3:322:PRO:CB	4:5:244:ASP:HB2	2.14	0.77
1:D:219:GLU:O	1:D:223:ILE:HG13	1.84	0.77
1:G:508:ILE:CD1	1:G:711:PHE:CZ	2.66	0.77
1:G:646:PHE:HE2	1:G:652:LEU:CD2	1.97	0.77
1:G:757:GLN:CG	1:G:776:GLU:HG2	2.04	0.77
1:P:642:LYS:HG2	4:0:22:ALA:HA	1.65	0.77
1:A:791:GLN:CD	3:C:116:GLU:H	1.88	0.77
1:A:795:ARG:HH22	3:C:116:GLU:CD	1.86	0.77
1:A:795:ARG:CG	3:C:35:ARG:NH1	2.47	0.77
2:B:111:SER:OG	2:B:148:VAL:C	2.15	0.77
1:D:635:GLY:HA3	4:9:341:ILE:CD1	2.14	0.77
1:D:793:ARG:NH2	3:F:147:MET:CG	2.48	0.77
1:G:834:LEU:CD1	2:H:51:PHE:CE1	2.67	0.77
1:P:219:GLU:O	1:P:223:ILE:HG13	1.84	0.77
2:Q:117:LEU:HB2	2:Q:147:ASN:HD21	1.47	0.77
4:X:223:PHE:HD2	4:X:312:ARG:HH21	1.32	0.77
4:Y:287:ILE:CG1	4:0:201:VAL:CG2	0.84	0.77
4:5:223:PHE:HD2	4:5:312:ARG:HH21	1.32	0.77
1:A:219:GLU:O	1:A:223:ILE:HG13	1.84	0.77
1:D:94:MET:CE	1:D:101:ALA:HB1	2.15	0.77
1:D:642:LYS:HG2	4:9:22:ALA:HA	1.65	0.77
1:D:769:ALA:HA	1:D:771:LEU:N	1.99	0.77
1:G:639:GLY:CA	4:V:345:ILE:N	2.47	0.77
1:G:795:ARG:NH2	3:I:116:GLU:CD	2.38	0.77
1:P:94:MET:CE	1:P:101:ALA:HB1	2.15	0.77
1:A:93:MET:HG2	1:A:715:VAL:HG22	1.67	0.76
1:A:94:MET:CE	1:A:101:ALA:HB1	2.15	0.76
1:A:623:PHE:CG	1:A:623:PHE:CA	2.68	0.76
1:D:629:GLU:HA	1:D:643:GLY:C	2.05	0.76
1:D:795:ARG:CB	3:F:35:ARG:NH2	2.46	0.76
1:D:814:PHE:N	2:E:127:ARG:NH1	2.32	0.76
1:P:116:TYR:O	1:P:153:PRO:HB2	1.85	0.76
1:P:623:PHE:CG	1:P:623:PHE:CA	2.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:X:291:LYS:CD	4:Z:243:PRO:HB2	2.15	0.76
4:1:287:ILE:HG12	4:3:202:THR:HA	1.67	0.76
1:A:496:PHE:CD2	1:A:514:ASP:HA	2.19	0.76
1:A:725:ARG:HG3	1:A:733:PRO:HA	1.67	0.76
1:D:642:LYS:CG	4:9:23:GLY:H	1.77	0.76
1:D:793:ARG:HH21	3:F:147:MET:HE2	1.49	0.76
1:G:94:MET:CE	1:G:101:ALA:HB1	2.15	0.76
1:G:116:TYR:O	1:G:153:PRO:HB2	1.85	0.76
1:P:51:THR:O	1:P:62:VAL:HG13	1.84	0.76
1:P:732:ILE:HG23	1:P:747:LEU:CB	1.84	0.76
4:9:287:ILE:HB	4:W:204:ALA:N	1.97	0.76
4:0:173:HIS:HB3	4:1:267:ILE:HA	1.66	0.76
4:3:223:PHE:HD2	4:3:312:ARG:HH21	1.33	0.76
1:A:116:TYR:O	1:A:153:PRO:HB2	1.85	0.76
1:A:508:ILE:CG1	1:A:759:ALA:HB1	2.14	0.76
1:A:732:ILE:N	1:A:733:PRO:HD2	2.00	0.76
1:A:817:GLN:CD	2:B:127:ARG:HE	1.88	0.76
2:B:121:LEU:CG	2:B:128:PHE:HA	2.14	0.76
1:D:530:MET:HE3	4:9:354:GLN:HG2	1.64	0.76
1:D:721:LYS:CA	1:D:736:GLN:OE1	2.33	0.76
1:G:496:PHE:CD2	1:G:514:ASP:HA	2.19	0.76
1:P:641:LYS:CE	1:P:647:GLN:HB2	2.13	0.76
1:P:836:PHE:HB2	2:Q:161:GLU:OE1	1.85	0.76
1:A:506:GLU:OE1	1:A:741:LYS:HE3	1.85	0.76
1:A:664:LEU:O	1:A:667:THR:HB	1.86	0.76
1:A:735:GLY:C	1:A:743:ALA:HB2	1.82	0.76
1:A:817:GLN:HG3	2:B:127:ARG:HD3	1.67	0.76
1:D:507:GLY:HA3	1:D:762:HIS:CA	2.15	0.76
1:D:623:PHE:CG	1:D:623:PHE:CA	2.68	0.76
1:D:726:VAL:CB	1:D:782:MLY:HE3	2.02	0.76
1:G:788:THR:HG23	3:I:42:THR:CG2	2.04	0.76
1:P:641:LYS:CE	1:P:647:GLN:CG	2.61	0.76
3:R:49:ILE:N	3:R:52:ASN:HD22	1.82	0.76
1:A:529:PRO:C	4:8:354:GLN:CB	2.49	0.76
1:A:831:TRP:NE1	2:B:47:LEU:CD2	2.47	0.76
1:D:732:ILE:HG21	1:D:747:LEU:HD13	0.91	0.76
1:D:732:ILE:N	1:D:733:PRO:HD2	2.00	0.76
1:G:798:LEU:HD23	3:I:122:GLU:HB3	1.67	0.76
4:W:291:LYS:HB3	4:Y:244:ASP:HB3	1.66	0.76
4:Z:223:PHE:HD2	4:Z:312:ARG:HH21	1.33	0.76
1:A:795:ARG:CG	3:C:35:ARG:HH12	1.96	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:534:SER:O	4:9:351:THR:N	2.19	0.76
1:D:725:ARG:HG3	1:D:733:PRO:HA	1.68	0.76
1:P:530:MET:CG	4:0:354:GLN:CB	2.30	0.76
2:Q:121:LEU:CG	2:Q:128:PHE:HA	2.14	0.76
4:Y:291:LYS:CD	4:0:246:GLN:CB	2.25	0.76
4:2:322:PRO:HB2	4:4:244:ASP:HB2	1.65	0.76
1:D:506:GLU:HG3	1:D:764:MLY:HE3	0.78	0.76
1:D:664:LEU:O	1:D:667:THR:HB	1.86	0.76
1:D:800:ARG:NH1	3:F:149:VAL:CG1	2.31	0.76
1:G:623:PHE:CG	1:G:623:PHE:CA	2.68	0.76
1:G:732:ILE:N	1:G:733:PRO:HD2	2.00	0.76
1:G:795:ARG:NH2	3:I:116:GLU:CG	2.47	0.76
2:H:121:LEU:CG	2:H:128:PHE:HA	2.14	0.76
1:P:410:ASN:CG	4:0:334:GLU:CA	2.47	0.76
1:P:726:VAL:HG13	3:R:89:GLU:CD	2.06	0.76
1:P:831:TRP:CZ3	2:Q:34:ILE:HG12	2.21	0.76
4:9:290:ARG:NH1	4:W:202:THR:CG2	2.49	0.76
4:Z:287:ILE:CG1	4:1:202:THR:CB	2.63	0.76
4:0:113:LYS:HE2	4:1:252:ASN:OD1	1.86	0.76
1:D:292:MET:HE3	1:D:309:PRO:HA	1.67	0.76
1:D:797:PHE:CD2	3:F:126:LEU:HD21	2.18	0.76
1:D:800:ARG:HH11	3:F:149:VAL:C	1.87	0.76
2:E:121:LEU:CG	2:E:128:PHE:HA	2.14	0.76
1:G:642:LYS:CG	4:V:23:GLY:H	1.76	0.76
1:P:804:ARG:CA	1:P:807:VAL:CG1	2.64	0.76
1:A:636:LYS:O	1:A:637:LYS:HB2	1.86	0.76
1:A:769:ALA:C	1:A:772:LEU:N	2.34	0.76
1:D:839:MLY:HH13	2:E:159:HIS:CD2	2.17	0.76
1:G:218:LEU:HD22	1:G:222:ILE:HG12	1.66	0.76
1:G:636:LYS:O	1:G:637:LYS:HB2	1.86	0.76
1:G:649:VAL:CG1	1:G:649:VAL:CB	2.64	0.76
1:P:93:MET:HE3	1:P:764:MLY:CE	2.13	0.76
1:P:732:ILE:N	1:P:733:PRO:HD2	2.00	0.76
1:P:798:LEU:HD23	3:R:122:GLU:HB3	1.68	0.76
1:P:838:ILE:CD1	2:Q:54:MET:SD	2.74	0.76
4:1:223:PHE:HD2	4:1:312:ARG:HH21	1.32	0.76
1:D:116:TYR:O	1:D:153:PRO:HB2	1.85	0.76
1:D:649:VAL:CG1	1:D:649:VAL:CB	2.64	0.76
1:G:218:LEU:HB3	1:G:221:GLN:HG3	1.60	0.76
1:A:709:LYS:C	1:A:710:GLY:HA3	2.06	0.75
1:A:809:ARG:NH1	2:B:124:GLY:O	2.19	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:822:SER:HG	2:B:88:LEU:HA	1.47	0.75
1:G:534:SER:O	4:V:351:THR:N	2.20	0.75
1:G:664:LEU:O	1:G:667:THR:HB	1.86	0.75
1:G:721:LYS:CA	1:G:736:GLN:NE2	2.43	0.75
1:G:788:THR:HG22	3:I:42:THR:HG21	0.76	0.75
3:I:49:ILE:N	3:I:52:ASN:HD22	1.82	0.75
4:0:287:ILE:HG21	4:2:203:THR:HG21	1.65	0.75
1:A:534:SER:O	4:8:351:THR:N	2.18	0.75
2:B:150:TYR:C	2:B:151:LYS:CG	2.49	0.75
3:I:3:SER:O	3:I:4:LYS:HB2	1.84	0.75
1:P:502:GLU:OE2	1:P:760:PHE:C	2.24	0.75
1:P:664:LEU:O	1:P:667:THR:HB	1.86	0.75
1:P:831:TRP:HZ3	2:Q:34:ILE:HG12	1.52	0.75
4:8:290:ARG:NH1	4:V:202:THR:CG2	2.49	0.75
1:A:599:ASN:CA	1:A:649:VAL:CB	2.54	0.75
1:A:629:GLU:HA	1:A:643:GLY:C	2.05	0.75
1:A:649:VAL:CG1	1:A:649:VAL:CB	2.64	0.75
1:A:839:MLY:HH21	2:B:158:THR:HG22	1.69	0.75
1:D:538:GLU:O	4:9:349:LEU:HG	1.86	0.75
1:D:798:LEU:HD11	3:F:126:LEU:HG	1.68	0.75
1:G:95:THR:CB	1:G:713:SER:HB3	2.17	0.75
3:R:3:SER:O	3:R:4:LYS:HB2	1.84	0.75
4:8:290:ARG:HH22	4:V:202:THR:HG23	1.50	0.75
4:X:287:ILE:CG1	4:Z:201:VAL:CB	2.64	0.75
1:G:599:ASN:CA	1:G:649:VAL:CB	2.53	0.75
1:G:835:PHE:CZ	2:H:27:PHE:CD1	2.74	0.75
1:P:733:PRO:C	1:P:737:PHE:HD1	1.88	0.75
1:A:733:PRO:C	1:A:737:PHE:HD1	1.88	0.75
3:C:3:SER:O	3:C:4:LYS:HB2	1.84	0.75
1:D:538:GLU:OE2	4:9:355:MET:HE3	1.85	0.75
1:D:839:MLY:CH1	2:E:159:HIS:CB	2.64	0.75
1:G:629:GLU:HA	1:G:643:GLY:C	2.05	0.75
1:P:829:TRP:CH2	2:Q:84:PHE:HZ	2.01	0.75
4:Z:287:ILE:CG2	4:1:203:THR:N	2.49	0.75
1:G:93:MET:HA	1:G:714:ARG:CG	2.17	0.75
1:G:350:ALA:O	1:G:354:LEU:HB2	1.87	0.75
1:P:541:MET:O	4:0:143:TYR:CZ	2.40	0.75
4:Z:287:ILE:CD1	4:1:203:THR:N	2.48	0.75
1:A:641:LYS:HD2	1:A:647:GLN:OE1	1.81	0.75
1:G:817:GLN:CB	2:H:127:ARG:HD2	2.15	0.75
1:P:530:MET:HE1	4:0:355:MET:SD	2.26	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:534:SER:O	4:0:351:THR:N	2.19	0.75
1:P:538:GLU:O	4:0:349:LEU:HG	1.86	0.75
1:P:649:VAL:CG1	1:P:649:VAL:CB	2.64	0.75
4:7:253:GLU:HA	4:7:256:ARG:HG3	1.69	0.75
1:A:350:ALA:O	1:A:354:LEU:HB2	1.87	0.75
1:G:84:MLY:CH2	1:G:716:LEU:O	2.35	0.75
1:P:310:TYR:CE2	1:P:320:ILE:HD11	2.22	0.75
1:P:599:ASN:CA	1:P:649:VAL:CB	2.53	0.75
1:P:629:GLU:HA	1:P:643:GLY:C	2.05	0.75
1:P:721:LYS:CA	1:P:736:GLN:OE1	2.33	0.75
1:P:725:ARG:HG3	1:P:733:PRO:HA	1.67	0.75
1:D:218:LEU:HD22	1:D:222:ILE:HG12	1.67	0.75
1:G:95:THR:HA	1:G:713:SER:HA	1.69	0.75
1:G:310:TYR:CE2	1:G:320:ILE:HD11	2.22	0.75
1:P:218:LEU:HD22	1:P:222:ILE:HG12	1.67	0.75
1:P:729:ALA:HB2	3:R:89:GLU:CG	2.17	0.75
4:Z:324:THR:HG23	4:1:244:ASP:HA	1.67	0.75
4:0:110:LEU:CB	4:1:195:GLU:HG3	2.17	0.75
1:A:481:ASN:HD22	1:A:481:ASN:N	1.82	0.74
2:B:117:LEU:HB2	2:B:147:ASN:HD21	1.47	0.74
1:D:541:MET:O	4:9:143:TYR:CZ	2.40	0.74
1:D:733:PRO:C	1:D:737:PHE:HD1	1.88	0.74
1:D:798:LEU:CD1	3:F:126:LEU:CD1	2.65	0.74
4:9:253:GLU:HA	4:9:256:ARG:HG3	1.69	0.74
4:X:324:THR:CG2	4:Z:247:VAL:HG22	2.12	0.74
1:A:310:TYR:CE2	1:A:320:ILE:HD11	2.22	0.74
1:A:721:LYS:CA	1:A:736:GLN:OE1	2.33	0.74
2:E:111:SER:OG	2:E:148:VAL:C	2.15	0.74
2:E:117:LEU:HB2	2:E:147:ASN:HD21	1.47	0.74
1:G:510:TRP:CE3	1:G:768:MLY:HH11	2.21	0.74
1:P:726:VAL:CG1	3:R:89:GLU:HB2	2.09	0.74
4:7:288:ASP:H	4:9:203:THR:HG22	1.52	0.74
1:A:409:GLY:HA3	4:8:333:PRO:N	2.02	0.74
1:D:641:LYS:HD2	1:D:647:GLN:OE1	1.81	0.74
1:G:725:ARG:HG3	1:G:733:PRO:HA	1.67	0.74
1:G:795:ARG:CD	3:I:118:MET:CE	2.64	0.74
1:P:636:LYS:O	1:P:637:LYS:HB2	1.86	0.74
4:Y:287:ILE:HD13	4:0:205:GLU:HG3	1.68	0.74
4:Y:291:LYS:HE3	4:0:242:LEU:HB3	1.69	0.74
4:1:253:GLU:HA	4:1:256:ARG:HG3	1.69	0.74
4:1:287:ILE:HG23	4:3:202:THR:HB	0.76	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1:322:PRO:CB	4:3:244:ASP:CB	2.65	0.74
1:A:149:GLN:NE2	1:A:718:ALA:HB3	2.03	0.74
1:A:501:GLU:HG2	1:A:762:HIS:ND1	1.97	0.74
1:A:707:CYS:SG	1:A:714:ARG:NH1	2.60	0.74
1:D:732:ILE:N	1:D:733:PRO:CD	2.51	0.74
1:G:481:ASN:HD22	1:G:481:ASN:N	1.82	0.74
1:G:529:PRO:C	4:V:354:GLN:CB	2.50	0.74
1:P:640:LYS:O	4:0:23:GLY:O	2.06	0.74
1:P:726:VAL:CB	3:R:89:GLU:HB3	2.17	0.74
4:0:253:GLU:HA	4:0:256:ARG:HG3	1.69	0.74
1:D:310:TYR:CE2	1:D:320:ILE:HD11	2.22	0.74
1:G:436:MLY:HE3	1:G:626:TYR:CE1	2.23	0.74
1:P:215:GLN:NE2	1:P:336:SER:O	2.20	0.74
4:W:324:THR:CG2	4:Y:247:VAL:HG22	2.17	0.74
4:Y:253:GLU:HA	4:Y:256:ARG:HG3	1.69	0.74
4:3:253:GLU:HA	4:3:256:ARG:HG3	1.69	0.74
1:A:538:GLU:O	4:8:349:LEU:HG	1.86	0.74
1:D:640:LYS:O	4:9:23:GLY:O	2.06	0.74
1:G:215:GLN:NE2	1:G:336:SER:O	2.21	0.74
1:G:721:LYS:HG2	1:G:736:GLN:CD	1.86	0.74
1:G:721:LYS:CB	1:G:736:GLN:CD	2.56	0.74
1:G:733:PRO:C	1:G:737:PHE:HD1	1.88	0.74
1:G:829:TRP:CH2	2:H:87:LYS:HE2	2.22	0.74
4:5:253:GLU:HA	4:5:256:ARG:HG3	1.69	0.74
1:A:541:MET:O	4:8:143:TYR:CZ	2.40	0.74
1:A:795:ARG:CZ	3:C:43:ASN:H	1.99	0.74
1:D:646:PHE:CE2	1:D:652:LEU:HD21	2.15	0.74
1:D:735:GLY:CA	1:D:743:ALA:HA	2.18	0.74
1:P:92:ALA:O	1:P:714:ARG:NE	2.21	0.74
1:P:272:MLY:HH13	1:P:435:GLU:OE1	1.88	0.74
1:P:538:GLU:HA	4:0:349:LEU:HD12	0.75	0.74
1:P:732:ILE:N	1:P:733:PRO:CD	2.51	0.74
1:P:795:ARG:HG2	3:R:118:MET:SD	2.27	0.74
4:W:253:GLU:HA	4:W:256:ARG:HG3	1.69	0.74
4:Y:287:ILE:CG2	4:0:201:VAL:HG22	2.16	0.74
4:Z:253:GLU:HA	4:Z:256:ARG:HG3	1.70	0.74
1:A:709:LYS:O	1:A:710:GLY:HA3	1.88	0.74
1:G:537:GLU:HG3	4:V:350:SER:O	1.79	0.74
1:G:735:GLY:CA	1:G:743:ALA:HA	2.18	0.74
1:P:795:ARG:HH21	3:R:116:GLU:HB3	0.92	0.74
4:V:253:GLU:HA	4:V:256:ARG:HG3	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Z:287:ILE:HG21	4:1:202:THR:C	2.06	0.74
4:3:288:ASP:CB	4:5:203:THR:CG2	2.66	0.74
1:A:732:ILE:N	1:A:733:PRO:CD	2.51	0.74
1:A:768:MLY:HG2	1:A:771:LEU:HD13	1.69	0.74
2:E:114:LYS:HA	2:E:146:GLY:C	2.03	0.74
2:E:130:PRO:O	2:E:132:GLU:N	2.21	0.74
1:G:538:GLU:HA	4:V:349:LEU:HD12	0.74	0.74
1:G:732:ILE:N	1:G:733:PRO:CD	2.51	0.74
1:G:783:LEU:O	1:G:787:ILE:CB	2.35	0.74
1:P:529:PRO:C	4:0:354:GLN:CB	2.48	0.74
1:P:820:VAL:HG11	2:Q:136:MET:HE3	1.70	0.74
1:P:834:LEU:HD11	2:Q:54:MET:HG3	0.76	0.74
4:0:287:ILE:HG21	4:2:203:THR:HG22	1.69	0.74
4:1:287:ILE:HG23	4:3:202:THR:OG1	1.88	0.74
1:A:218:LEU:HB3	1:A:221:GLN:HG3	1.61	0.74
1:A:757:GLN:HB3	1:A:771:LEU:CG	2.11	0.74
1:A:822:SER:OG	2:B:88:LEU:CA	2.35	0.74
2:B:130:PRO:O	2:B:132:GLU:N	2.21	0.74
1:D:486:MLY:HH13	1:D:527:GLU:OE1	1.88	0.74
1:G:838:ILE:HD11	2:H:54:MET:HE1	1.70	0.74
2:H:130:PRO:O	2:H:132:GLU:N	2.21	0.74
1:P:538:GLU:OE2	4:0:355:MET:HE3	1.86	0.74
4:X:287:ILE:HG23	4:Z:201:VAL:HG23	1.68	0.74
1:A:640:LYS:O	4:8:23:GLY:O	2.06	0.73
1:G:556:ASP:CG	4:X:47:MET:HE2	1.45	0.73
1:P:725:ARG:HH11	3:R:92:ARG:C	1.90	0.73
1:P:829:TRP:HZ3	2:Q:84:PHE:HZ	1.34	0.73
4:9:288:ASP:H	4:W:203:THR:HG22	1.52	0.73
1:A:215:GLN:NE2	1:A:336:SER:O	2.20	0.73
1:A:272:MLY:HH13	1:A:435:GLU:OE1	1.88	0.73
1:A:505:MLY:CD	1:A:762:HIS:HB3	2.19	0.73
1:A:505:MLY:HB3	1:A:762:HIS:H	1.53	0.73
1:A:505:MLY:CG	1:A:741:LYS:HZ2	2.00	0.73
1:D:640:LYS:O	1:D:645:SER:OG	2.06	0.73
1:G:149:GLN:HG2	1:G:763:THR:CB	2.17	0.73
1:G:813:ILE:CG2	2:H:128:PHE:HE1	1.99	0.73
1:P:166:MET:HE3	1:P:254:PHE:CD2	2.24	0.73
1:P:486:MLY:HH13	1:P:527:GLU:OE1	1.88	0.73
1:P:735:GLY:CA	1:P:743:ALA:HA	2.18	0.73
1:P:739:ASP:CB	1:P:742:LYS:HB3	2.12	0.73
4:8:288:ASP:H	4:V:203:THR:HG22	1.52	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:X:253:GLU:HA	4:X:256:ARG:HG3	1.70	0.73
4:Z:322:PRO:HB2	4:1:244:ASP:HB3	1.70	0.73
1:A:502:GLU:HA	1:A:762:HIS:CA	2.16	0.73
1:A:505:MLY:HB2	1:A:762:HIS:N	2.04	0.73
1:A:538:GLU:HA	4:8:349:LEU:HD12	0.74	0.73
1:A:542:PHE:CD2	4:8:143:TYR:CE1	2.77	0.73
1:D:272:MLY:HH13	1:D:435:GLU:OE1	1.87	0.73
1:D:350:ALA:O	1:D:354:LEU:HB2	1.87	0.73
1:D:409:GLY:HA3	4:9:333:PRO:N	2.03	0.73
1:D:767:PHE:C	1:D:771:LEU:HD11	2.07	0.73
1:G:410:ASN:OD1	4:V:335:ARG:N	2.21	0.73
1:P:350:ALA:O	1:P:354:LEU:HB2	1.87	0.73
1:P:831:TRP:CZ3	2:Q:34:ILE:CD1	2.71	0.73
4:Y:291:LYS:CD	4:0:246:GLN:N	2.51	0.73
4:3:287:ILE:HB	4:5:203:THR:HG22	1.69	0.73
1:D:21:GLU:O	1:D:25:ILE:HG13	1.89	0.73
1:D:410:ASN:OD1	4:9:335:ARG:N	2.22	0.73
1:D:538:GLU:HA	4:9:349:LEU:HD12	0.74	0.73
1:D:542:PHE:CD2	4:9:143:TYR:CE1	2.77	0.73
1:D:814:PHE:HD1	2:E:127:ARG:NH2	1.81	0.73
1:G:409:GLY:HA3	4:V:333:PRO:N	2.03	0.73
1:P:839:MLY:CH1	2:Q:159:HIS:CD2	2.72	0.73
4:2:253:GLU:HA	4:2:256:ARG:HG3	1.69	0.73
1:A:237:THR:HG22	1:A:239:ARG:H	1.54	0.73
1:A:530:MET:CE	4:8:355:MET:SD	2.76	0.73
1:A:534:SER:CA	4:8:351:THR:HA	2.18	0.73
1:A:735:GLY:CA	1:A:743:ALA:HA	2.18	0.73
2:B:144:VAL:CB	2:B:153:ILE:HD11	2.19	0.73
1:D:190:MLY:HE3	1:D:230:GLU:OE2	1.89	0.73
1:D:215:GLN:NE2	1:D:336:SER:O	2.20	0.73
1:D:436:MLY:HE3	1:D:626:TYR:CE1	2.23	0.73
1:D:721:LYS:CB	1:D:736:GLN:CD	2.56	0.73
1:G:272:MLY:HH13	1:G:435:GLU:OE1	1.88	0.73
1:G:538:GLU:O	4:V:349:LEU:HG	1.87	0.73
1:G:795:ARG:HB3	3:I:35:ARG:HH22	1.51	0.73
2:H:114:LYS:HA	2:H:146:GLY:C	2.02	0.73
1:P:487:LEU:O	1:P:490:PHE:HB3	1.88	0.73
2:Q:130:PRO:O	2:Q:132:GLU:N	2.21	0.73
1:A:436:MLY:HE3	1:A:626:TYR:CE1	2.23	0.73
1:A:797:PHE:HD1	3:C:149:VAL:CG1	2.01	0.73
1:D:410:ASN:CG	4:9:334:GLU:CA	2.47	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:530:MET:CG	4:V:354:GLN:CB	2.30	0.73
1:G:536:LEU:HD13	1:G:550:PHE:CZ	2.24	0.73
1:G:541:MET:O	4:V:143:TYR:CZ	2.40	0.73
1:G:757:GLN:CG	1:G:776:GLU:HG3	2.09	0.73
3:R:24:LYS:CA	3:R:63:ILE:O	2.37	0.73
4:8:253:GLU:HA	4:8:256:ARG:HG3	1.69	0.73
4:4:253:GLU:HA	4:4:256:ARG:HG3	1.69	0.73
1:A:501:GLU:CB	1:A:762:HIS:HD1	2.00	0.73
1:A:530:MET:HE3	4:8:354:GLN:HG2	1.67	0.73
1:D:487:LEU:O	1:D:490:PHE:HB3	1.89	0.73
1:G:190:MLY:HE3	1:G:230:GLU:OE2	1.89	0.73
1:G:487:LEU:O	1:G:490:PHE:HB3	1.89	0.73
3:I:24:LYS:CA	3:I:63:ILE:O	2.37	0.73
1:P:410:ASN:OD1	4:0:335:ARG:N	2.21	0.73
1:P:530:MET:CE	4:0:355:MET:SD	2.77	0.73
4:X:287:ILE:C	4:Z:205:GLU:OE1	2.26	0.73
1:D:797:PHE:CE1	3:F:146:ILE:HD13	2.24	0.73
1:D:802:GLU:O	1:D:806:MET:HG3	1.89	0.73
1:G:802:GLU:O	1:G:806:MET:HG3	1.89	0.73
1:P:290:GLN:C	1:P:331:LEU:HD12	2.09	0.73
1:P:441:MET:O	1:P:445:ILE:HG13	1.88	0.73
1:P:536:LEU:HD13	1:P:550:PHE:CZ	2.24	0.73
1:P:721:LYS:CB	1:P:736:GLN:CD	2.56	0.73
1:A:190:MLY:HE3	1:A:230:GLU:OE2	1.89	0.73
1:G:486:MLY:HH13	1:G:527:GLU:OE1	1.88	0.73
1:G:640:LYS:O	4:V:23:GLY:O	2.06	0.73
1:P:542:PHE:CD2	4:0:143:TYR:CE1	2.77	0.73
4:Z:287:ILE:HG23	4:1:202:THR:HB	0.80	0.73
1:A:131:TRP:C	1:A:132:LEU:HD12	2.09	0.73
1:A:487:LEU:O	1:A:490:PHE:HB3	1.89	0.73
1:A:536:LEU:HD13	1:A:550:PHE:CZ	2.24	0.73
3:C:24:LYS:CA	3:C:63:ILE:O	2.37	0.73
1:D:131:TRP:C	1:D:132:LEU:HD12	2.09	0.73
1:D:530:MET:CE	4:9:355:MET:SD	2.77	0.73
1:D:618:THR:O	1:D:622:LEU:HD13	1.89	0.73
1:D:636:LYS:O	1:D:637:LYS:HB2	1.86	0.73
2:E:144:VAL:CB	2:E:153:ILE:HD11	2.19	0.73
1:G:131:TRP:C	1:G:132:LEU:HD12	2.09	0.73
1:G:218:LEU:HB2	1:G:221:GLN:CG	2.09	0.73
4:7:290:ARG:NH1	4:9:202:THR:CG2	2.49	0.73
1:A:486:MLY:HH13	1:A:527:GLU:OE1	1.88	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:149:GLN:OE1	1:G:762:HIS:CB	2.36	0.72
1:G:732:ILE:HG21	1:G:747:LEU:HD13	0.91	0.72
1:P:295:MLY:HG3	1:P:332:MET:CE	2.19	0.72
1:P:797:PHE:CE2	3:R:126:LEU:CD2	2.72	0.72
4:Y:292:ASP:OD1	4:0:244:ASP:CB	2.30	0.72
4:0:110:LEU:CB	4:1:195:GLU:CB	2.64	0.72
4:1:287:ILE:HG21	4:3:204:ALA:N	2.03	0.72
4:2:288:ASP:H	4:4:203:THR:CG2	1.98	0.72
1:A:21:GLU:O	1:A:25:ILE:HG13	1.89	0.72
1:D:214:MET:HA	1:D:340:ILE:HD11	1.70	0.72
1:D:508:ILE:CG2	1:D:766:PHE:CD1	2.73	0.72
1:D:831:TRP:CD1	2:E:67:MET:HE2	2.17	0.72
1:D:831:TRP:CZ2	2:E:47:LEU:C	2.63	0.72
1:G:214:MET:HA	1:G:340:ILE:HD11	1.70	0.72
1:P:409:GLY:HA3	4:0:333:PRO:N	2.03	0.72
4:1:287:ILE:CG1	4:3:202:THR:HA	2.18	0.72
4:1:288:ASP:N	4:3:203:THR:CG2	2.52	0.72
1:A:753:VAL:HG12	1:A:775:LEU:CG	2.18	0.72
1:D:441:MET:O	1:D:445:ILE:HG13	1.88	0.72
1:D:800:ARG:CD	3:F:149:VAL:CA	2.52	0.72
3:F:4:LYS:N	3:F:5:ALA:O	2.16	0.72
1:P:36:SER:O	1:P:52:ILE:HG12	1.90	0.72
1:P:436:MLY:HE3	1:P:626:TYR:CE1	2.23	0.72
1:P:534:SER:CA	4:0:351:THR:HA	2.19	0.72
4:9:290:ARG:HH22	4:W:202:THR:HG23	1.50	0.72
4:V:286:ASP:OD1	4:X:203:THR:N	2.23	0.72
4:1:287:ILE:HB	4:3:203:THR:CB	2.19	0.72
4:2:290:ARG:NH2	4:4:202:THR:HG22	1.97	0.72
1:A:290:GLN:C	1:A:331:LEU:HD12	2.09	0.72
1:A:556:ASP:HA	4:V:49:GLN:O	1.70	0.72
1:D:166:MET:HE1	1:D:254:PHE:HB2	1.70	0.72
1:G:441:MET:O	1:G:445:ILE:HG13	1.88	0.72
1:G:800:ARG:HB3	3:I:149:VAL:CG2	2.18	0.72
1:P:21:GLU:O	1:P:25:ILE:HG13	1.89	0.72
1:P:93:MET:HE3	1:P:764:MLY:NZ	2.05	0.72
1:P:618:THR:O	1:P:622:LEU:HD13	1.89	0.72
1:P:640:LYS:O	1:P:645:SER:OG	2.06	0.72
4:V:325:MET:CE	4:X:244:ASP:OD2	2.34	0.72
4:X:287:ILE:HG13	4:Z:201:VAL:CG2	2.16	0.72
1:A:176:LEU:N	1:A:176:LEU:HD12	2.05	0.72
1:G:36:SER:O	1:G:52:ILE:HG12	1.90	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:217:THR:C	1:G:221:GLN:HE21	1.92	0.72
1:G:290:GLN:C	1:G:331:LEU:HD12	2.09	0.72
2:H:144:VAL:CB	2:H:153:ILE:HD11	2.19	0.72
4:1:167:GLU:OE1	4:3:43:VAL:O	2.07	0.72
1:A:295:MLY:HG3	1:A:332:MET:CE	2.19	0.72
1:A:519:LEU:HD12	1:A:519:LEU:N	2.04	0.72
1:A:768:MLY:CG	1:A:771:LEU:HD13	2.19	0.72
1:A:819:ASN:N	2:B:90:GLY:HA3	2.03	0.72
1:D:536:LEU:HD13	1:D:550:PHE:CZ	2.24	0.72
1:G:768:MLY:CE	1:G:772:LEU:CD2	2.67	0.72
1:G:788:THR:HG23	3:I:42:THR:CB	2.19	0.72
1:P:131:TRP:C	1:P:132:LEU:HD12	2.10	0.72
1:P:762:HIS:H	1:P:762:HIS:CD2	2.07	0.72
4:2:287:ILE:CD1	4:4:203:THR:HB	2.19	0.72
1:A:441:MET:O	1:A:445:ILE:HG13	1.88	0.72
1:A:553:MLY:NZ	4:V:45:VAL:HA	1.84	0.72
1:D:217:THR:C	1:D:221:GLN:HE21	1.93	0.72
1:D:290:GLN:C	1:D:331:LEU:HD12	2.09	0.72
1:D:486:MLY:HH22	1:D:527:GLU:OE2	1.90	0.72
1:D:534:SER:CA	4:9:351:THR:HA	2.19	0.72
1:G:295:MLY:HG3	1:G:332:MET:CE	2.20	0.72
1:G:519:LEU:HD12	1:G:519:LEU:N	2.05	0.72
1:P:214:MET:HA	1:P:340:ILE:HD11	1.70	0.72
1:P:818:TYR:HB3	2:Q:90:GLY:HA3	0.73	0.72
4:1:3:ASP:HA	4:1:6:THR:CB	2.18	0.72
4:2:3:ASP:HA	4:2:6:THR:CB	2.18	0.72
1:A:410:ASN:OD1	4:8:335:ARG:N	2.22	0.72
1:A:836:PHE:CZ	2:B:160:GLY:N	2.55	0.72
1:D:546:THR:HG22	1:D:548:THR:N	2.05	0.72
1:D:754:ASP:HB3	1:D:757:GLN:HG2	1.72	0.72
1:G:542:PHE:CD2	4:V:143:TYR:CE1	2.78	0.72
1:G:618:THR:O	1:G:622:LEU:HD13	1.89	0.72
1:P:237:THR:HG22	1:P:239:ARG:H	1.54	0.72
1:P:733:PRO:C	1:P:737:PHE:CD1	2.62	0.72
4:W:324:THR:HG23	4:Y:247:VAL:HG22	1.70	0.72
4:1:287:ILE:HB	4:3:203:THR:N	2.04	0.72
4:3:3:ASP:HA	4:3:6:THR:CB	2.18	0.72
1:A:754:ASP:HB3	1:A:757:GLN:HG2	1.72	0.72
1:D:36:SER:O	1:D:52:ILE:HG12	1.90	0.72
1:D:176:LEU:HD12	1:D:176:LEU:N	2.05	0.72
1:D:530:MET:CG	4:9:354:GLN:CB	2.30	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:721:LYS:HG2	1:D:736:GLN:CD	1.86	0.72
1:G:14:ALA:HB3	1:G:15:PRO:HD3	1.72	0.72
1:G:530:MET:HE3	4:V:354:GLN:HG2	1.69	0.72
1:G:534:SER:CA	4:V:351:THR:HA	2.19	0.72
1:G:556:ASP:OD2	4:X:47:MET:HE2	1.87	0.72
1:P:93:MET:HG2	1:P:714:ARG:C	2.09	0.72
1:P:190:MLY:HE3	1:P:230:GLU:OE2	1.89	0.72
4:8:3:ASP:HA	4:8:6:THR:CB	2.18	0.72
4:Z:288:ASP:CG	4:1:203:THR:HG23	2.07	0.72
1:A:218:LEU:HB2	1:A:221:GLN:CG	2.10	0.72
1:A:486:MLY:HH22	1:A:527:GLU:OE2	1.90	0.72
1:A:798:LEU:CD1	3:C:126:LEU:HD11	2.18	0.72
1:D:793:ARG:CZ	3:F:147:MET:CG	2.66	0.72
1:G:486:MLY:HH22	1:G:527:GLU:OE2	1.90	0.72
1:P:530:MET:HE2	4:0:354:GLN:HG3	1.71	0.72
1:P:785:GLU:C	1:P:788:THR:HB	2.06	0.72
1:P:806:MET:C	1:P:807:VAL:N	2.43	0.72
1:A:36:SER:O	1:A:52:ILE:HG12	1.90	0.71
1:A:502:GLU:CB	1:A:761:GLY:CA	2.62	0.71
1:A:798:LEU:HD13	3:C:126:LEU:HD11	1.70	0.71
1:A:802:GLU:O	1:A:806:MET:HG3	1.89	0.71
1:D:508:ILE:HG23	1:D:766:PHE:CD1	2.25	0.71
1:D:557:GLU:N	4:W:48:GLY:HA2	1.90	0.71
1:G:640:LYS:O	1:G:645:SER:OG	2.06	0.71
2:H:136:MET:O	2:H:140:PHE:HB2	1.90	0.71
4:1:287:ILE:HG21	4:3:202:THR:C	2.09	0.71
1:A:14:ALA:HB3	1:A:15:PRO:HD3	1.72	0.71
1:A:217:THR:C	1:A:221:GLN:HE21	1.93	0.71
1:A:530:MET:CG	4:8:354:GLN:CB	2.30	0.71
2:B:117:LEU:HD12	2:B:147:ASN:CA	2.20	0.71
2:H:150:TYR:C	2:H:151:LYS:CG	2.48	0.71
1:P:723:ARG:HD3	1:P:779:ARG:NH1	2.05	0.71
4:Y:287:ILE:HG12	4:0:201:VAL:HG22	0.71	0.71
1:A:505:MLY:CG	1:A:741:LYS:NZ	2.48	0.71
1:A:733:PRO:C	1:A:737:PHE:CD1	2.62	0.71
1:G:530:MET:CE	4:V:355:MET:SD	2.78	0.71
1:G:176:LEU:HD12	1:G:176:LEU:N	2.05	0.71
1:G:754:ASP:HB3	1:G:757:GLN:HG2	1.72	0.71
2:H:117:LEU:CB	2:H:147:ASN:ND2	2.35	0.71
1:P:754:ASP:HB3	1:P:757:GLN:HG2	1.72	0.71
1:P:786:ILE:C	1:P:788:THR:N	2.44	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Q:144:VAL:CB	2:Q:153:ILE:HD11	2.19	0.71
4:W:3:ASP:HA	4:W:6:THR:CB	2.18	0.71
4:X:3:ASP:HA	4:X:6:THR:CB	2.18	0.71
4:Z:3:ASP:HA	4:Z:6:THR:CB	2.18	0.71
4:2:290:ARG:NH2	4:4:202:THR:HG21	1.60	0.71
1:A:214:MET:HA	1:A:340:ILE:HD11	1.71	0.71
1:D:795:ARG:NH2	3:F:43:ASN:CB	2.50	0.71
1:D:815:CYS:SG	2:E:92:ASP:CG	2.68	0.71
1:G:21:GLU:O	1:G:25:ILE:HG13	1.89	0.71
1:G:817:GLN:NE2	2:H:127:ARG:CB	2.47	0.71
1:P:86:ASP:OD2	1:P:87:MLY:HH13	1.91	0.71
1:P:791:GLN:NE2	3:R:114:LEU:O	2.24	0.71
4:W:324:THR:HG23	4:Y:247:VAL:H	1.45	0.71
4:5:3:ASP:HA	4:5:6:THR:CB	2.18	0.71
1:A:217:THR:O	1:A:220:ASP:HB2	1.91	0.71
1:A:245:ARG:HD3	1:A:271:GLU:OE1	1.90	0.71
2:B:136:MET:O	2:B:140:PHE:HB2	1.90	0.71
1:D:217:THR:O	1:D:220:ASP:HB2	1.90	0.71
1:G:86:ASP:OD2	1:G:87:MLY:HH13	1.91	0.71
1:G:733:PRO:C	1:G:737:PHE:CD1	2.62	0.71
1:P:217:THR:C	1:P:221:GLN:HE21	1.92	0.71
1:P:217:THR:O	1:P:220:ASP:HB2	1.91	0.71
1:A:538:GLU:OE2	4:8:355:MET:HE3	1.88	0.71
3:F:24:LYS:CA	3:F:63:ILE:O	2.37	0.71
1:P:519:LEU:N	1:P:519:LEU:HD12	2.04	0.71
1:P:798:LEU:CD2	3:R:122:GLU:HB3	2.20	0.71
4:Z:287:ILE:HG21	4:1:204:ALA:N	2.06	0.71
4:2:287:ILE:CG2	4:4:204:ALA:H	2.04	0.71
4:2:287:ILE:HB	4:4:204:ALA:H	1.55	0.71
4:2:322:PRO:HB2	4:4:244:ASP:HB3	1.70	0.71
1:A:508:ILE:HD13	1:A:759:ALA:HB1	0.74	0.71
1:A:538:GLU:CD	4:8:355:MET:HE1	2.11	0.71
1:D:72:VAL:HG13	1:D:76:GLN:CB	2.19	0.71
1:D:237:THR:HG22	1:D:239:ARG:H	1.54	0.71
1:D:557:GLU:N	4:W:48:GLY:HA3	1.90	0.71
1:D:767:PHE:O	1:D:771:LEU:HD11	1.90	0.71
1:D:819:ASN:HB2	2:E:90:GLY:O	1.91	0.71
1:G:237:THR:HG22	1:G:239:ARG:H	1.54	0.71
1:P:14:ALA:HB3	1:P:15:PRO:HD3	1.72	0.71
1:A:721:LYS:CB	1:A:736:GLN:CD	2.56	0.71
1:A:762:HIS:H	1:A:762:HIS:CD2	2.08	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:295:MLY:HG3	1:D:332:MET:CE	2.20	0.71
1:D:519:LEU:HD12	1:D:519:LEU:N	2.05	0.71
1:P:93:MET:HG2	1:P:714:ARG:CG	2.17	0.71
1:D:14:ALA:HB3	1:D:15:PRO:HD3	1.72	0.71
1:D:579:PHE:HD2	1:D:592:ILE:HD11	1.56	0.71
4:V:3:ASP:HA	4:V:6:THR:CB	2.18	0.71
4:0:173:HIS:CB	4:1:267:ILE:HA	2.21	0.71
1:D:56:GLU:CB	1:D:59:MLY:HB3	2.19	0.70
1:D:831:TRP:HZ2	2:E:47:LEU:CB	2.02	0.70
1:D:834:LEU:CD2	2:E:54:MET:CG	2.07	0.70
1:G:538:GLU:CD	4:V:355:MET:HE1	2.11	0.70
1:G:739:ASP:CB	1:G:742:LYS:HB3	2.12	0.70
2:H:117:LEU:HD12	2:H:147:ASN:CA	2.20	0.70
1:P:641:LYS:HD2	4:0:348:SER:HA	1.73	0.70
4:7:3:ASP:HA	4:7:6:THR:CB	2.18	0.70
4:7:290:ARG:HH22	4:9:202:THR:HG23	1.50	0.70
4:0:173:HIS:CD2	4:1:268:GLY:HA3	2.25	0.70
1:A:809:ARG:CZ	2:B:124:GLY:HA2	2.21	0.70
1:D:218:LEU:HB2	1:D:221:GLN:CG	2.09	0.70
1:G:274:ARG:NH2	1:G:282:GLU:OE1	2.24	0.70
1:P:176:LEU:HD12	1:P:176:LEU:N	2.05	0.70
1:P:546:THR:HG22	1:P:548:THR:N	2.05	0.70
2:Q:117:LEU:HD12	2:Q:147:ASN:CA	2.19	0.70
4:Y:286:ASP:OD2	4:0:204:ALA:HB3	1.91	0.70
4:0:3:ASP:HA	4:0:6:THR:CB	2.18	0.70
1:A:618:THR:O	1:A:622:LEU:HD13	1.89	0.70
1:A:641:LYS:HD2	4:8:348:SER:HA	1.73	0.70
1:A:793:ARG:HH21	3:C:147:MET:CG	2.04	0.70
1:D:86:ASP:OD2	1:D:87:MLY:HH13	1.91	0.70
1:D:123:CYS:HB2	1:D:158:ILE:HD11	1.73	0.70
1:D:245:ARG:HD3	1:D:271:GLU:OE1	1.90	0.70
1:D:577:ALA:O	1:D:578:HIS:CG	2.45	0.70
1:D:733:PRO:C	1:D:737:PHE:CD1	2.62	0.70
1:D:839:MLY:NZ	2:E:159:HIS:CB	2.54	0.70
1:G:245:ARG:HD3	1:G:271:GLU:OE1	1.90	0.70
1:G:836:PHE:CE1	2:H:159:HIS:HA	2.25	0.70
1:P:206:LYS:HD3	1:P:217:THR:HG23	0.71	0.70
1:P:486:MLY:HH22	1:P:527:GLU:OE2	1.90	0.70
1:P:577:ALA:O	1:P:578:HIS:CG	2.45	0.70
1:P:806:MET:C	1:P:807:VAL:CB	2.59	0.70
1:P:836:PHE:CD2	2:Q:160:GLY:O	2.44	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Q:144:VAL:CG1	2:Q:153:ILE:HD13	2.20	0.70
4:0:114:ALA:HB2	4:1:196:ARG:NH1	2.06	0.70
2:B:117:LEU:CB	2:B:147:ASN:OD1	2.39	0.70
1:D:206:LYS:HD3	1:D:217:THR:HG23	0.71	0.70
3:F:48:LYS:HB3	3:F:52:ASN:HD21	1.57	0.70
1:P:783:LEU:CG	1:P:786:ILE:HD12	2.14	0.70
1:P:791:GLN:OE1	3:R:116:GLU:N	2.24	0.70
2:Q:136:MET:O	2:Q:140:PHE:HB2	1.90	0.70
1:D:641:LYS:HD2	4:9:348:SER:HA	1.73	0.70
1:G:538:GLU:OE2	4:V:355:MET:HE3	1.87	0.70
1:A:504:MLY:CG	1:A:762:HIS:CE1	2.75	0.70
1:A:557:GLU:N	4:V:48:GLY:HA3	1.90	0.70
1:A:810:ARG:HG2	1:A:810:ARG:HH11	1.57	0.70
1:A:831:TRP:CH2	2:B:50:THR:HB	2.26	0.70
3:C:48:LYS:HB3	3:C:52:ASN:HD21	1.57	0.70
2:E:136:MET:O	2:E:140:PHE:HB2	1.90	0.70
1:G:123:CYS:HB2	1:G:158:ILE:HD11	1.73	0.70
1:G:206:LYS:HD3	1:G:217:THR:HG23	0.71	0.70
1:G:410:ASN:CG	4:V:334:GLU:CA	2.47	0.70
1:G:553:MLY:HH12	4:X:45:VAL:CG2	2.21	0.70
1:G:810:ARG:HG2	1:G:810:ARG:HH11	1.56	0.70
1:P:245:ARG:HD3	1:P:271:GLU:OE1	1.90	0.70
1:P:579:PHE:HD2	1:P:592:ILE:HD11	1.57	0.70
4:7:1:ASP:HA	4:7:4:GLU:HB3	1.74	0.70
1:A:72:VAL:HG13	1:A:76:GLN:CB	2.19	0.70
1:A:550:PHE:HA	4:V:46:GLY:HA3	1.66	0.70
1:A:707:CYS:SG	1:A:714:ARG:HD2	2.31	0.70
1:D:630:ALA:O	4:9:25:ASP:HB2	1.92	0.70
1:P:93:MET:HG3	1:P:714:ARG:CG	2.16	0.70
4:9:1:ASP:HA	4:9:4:GLU:HB3	1.74	0.70
1:A:56:GLU:CB	1:A:59:MLY:HB3	2.20	0.70
1:A:123:CYS:HB2	1:A:158:ILE:HD11	1.73	0.70
1:D:213:LYS:HA	1:D:220:ASP:OD1	1.92	0.70
3:F:25:ILE:O	3:F:63:ILE:HB	1.92	0.70
1:G:557:GLU:HA	4:X:48:GLY:CA	2.18	0.70
1:G:641:LYS:HD2	4:V:348:SER:HA	1.73	0.70
1:G:769:ALA:O	1:G:773:GLY:HA2	1.91	0.70
1:P:123:CYS:HB2	1:P:158:ILE:HD11	1.73	0.70
1:P:166:MET:HE3	1:P:254:PHE:HD2	1.56	0.70
4:X:287:ILE:HG13	4:Z:201:VAL:CB	2.22	0.70
4:5:1:ASP:HA	4:5:4:GLU:HB3	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:640:LYS:O	1:A:645:SER:OG	2.06	0.70
1:A:795:ARG:HD3	3:C:35:ARG:NH2	2.04	0.70
1:G:215:GLN:CA	1:G:340:ILE:CG2	2.63	0.70
1:G:768:MLY:CD	1:G:772:LEU:HB3	2.03	0.70
1:P:274:ARG:NH2	1:P:282:GLU:OE1	2.24	0.70
4:9:3:ASP:HA	4:9:6:THR:CB	2.17	0.70
4:W:1:ASP:HA	4:W:4:GLU:HB3	1.74	0.70
1:D:709:LYS:O	1:D:710:GLY:HA2	1.92	0.70
1:G:579:PHE:HD2	1:G:592:ILE:HD11	1.57	0.70
1:G:782:MLY:C	1:G:783:LEU:HD12	2.22	0.70
3:I:25:ILE:O	3:I:63:ILE:HB	1.92	0.70
1:P:218:LEU:HB2	1:P:221:GLN:CG	2.09	0.70
1:P:839:MLY:HH11	2:Q:159:HIS:CD2	2.27	0.70
4:V:1:ASP:HA	4:V:4:GLU:HB3	1.74	0.70
1:A:757:GLN:CG	1:A:771:LEU:HD12	2.22	0.69
1:G:217:THR:O	1:G:220:ASP:HB2	1.91	0.69
2:H:111:SER:OG	2:H:148:VAL:HG12	1.92	0.69
1:P:213:LYS:HA	1:P:220:ASP:OD1	1.92	0.69
1:P:541:MET:CG	4:0:345:ILE:O	2.40	0.69
1:P:542:PHE:HA	4:0:143:TYR:HE1	1.34	0.69
1:P:786:ILE:O	1:P:787:ILE:C	2.29	0.69
4:Y:1:ASP:HA	4:Y:4:GLU:HB3	1.74	0.69
4:0:110:LEU:HB3	4:1:195:GLU:CG	2.20	0.69
4:3:1:ASP:HA	4:3:4:GLU:HB3	1.74	0.69
1:A:274:ARG:NH2	1:A:282:GLU:OE1	2.24	0.69
1:A:579:PHE:HD2	1:A:592:ILE:HD11	1.57	0.69
1:D:732:ILE:CG2	1:D:747:LEU:HD11	1.26	0.69
1:D:795:ARG:HH11	3:F:35:ARG:NH1	1.90	0.69
1:P:56:GLU:CB	1:P:59:MLY:HB3	2.19	0.69
1:P:802:GLU:OE1	1:P:802:GLU:HA	1.92	0.69
4:X:1:ASP:HA	4:X:4:GLU:HB3	1.74	0.69
4:Y:3:ASP:HA	4:Y:6:THR:CB	2.18	0.69
4:Z:322:PRO:HB3	4:1:244:ASP:CG	2.11	0.69
1:A:166:MET:HE1	1:A:254:PHE:HB2	1.74	0.69
1:A:553:MLY:HG2	4:V:47:MET:N	2.07	0.69
1:D:810:ARG:HG2	1:D:810:ARG:HH11	1.57	0.69
1:G:530:MET:HE2	4:V:354:GLN:HG3	1.74	0.69
1:P:630:ALA:O	4:0:25:ASP:HB2	1.91	0.69
1:A:505:MLY:CD	1:A:762:HIS:O	2.40	0.69
3:C:25:ILE:O	3:C:63:ILE:HB	1.92	0.69
1:D:274:ARG:NH2	1:D:282:GLU:OE1	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:577:ALA:O	1:G:578:HIS:CG	2.45	0.69
1:G:642:LYS:HB3	4:V:21:PHE:O	1.92	0.69
1:G:762:HIS:H	1:G:762:HIS:CD2	2.07	0.69
1:G:831:TRP:NE1	2:H:67:MET:HG2	1.93	0.69
1:P:630:ALA:O	4:O:25:ASP:CB	2.41	0.69
4:8:1:ASP:HA	4:8:4:GLU:HB3	1.74	0.69
4:V:325:MET:CE	4:X:244:ASP:CB	2.70	0.69
1:A:505:MLY:HD3	1:A:762:HIS:O	1.92	0.69
1:D:791:GLN:NE2	3:F:116:GLU:H	1.88	0.69
1:G:546:THR:HG22	1:G:548:THR:N	2.05	0.69
1:P:782:MLY:C	1:P:783:LEU:HD12	2.22	0.69
1:P:815:CYS:O	1:P:819:ASN:HB2	1.93	0.69
4:Z:1:ASP:HA	4:Z:4:GLU:HB3	1.74	0.69
1:A:86:ASP:OD2	1:A:87:MLY:HH13	1.91	0.69
1:A:123:CYS:HB2	1:A:158:ILE:CD1	2.23	0.69
1:A:577:ALA:O	1:A:578:HIS:CG	2.45	0.69
1:A:757:GLN:OE1	1:A:771:LEU:HD12	1.92	0.69
1:D:643:GLY:N	4:9:24:ASP:CA	2.46	0.69
1:G:732:ILE:CG2	1:G:747:LEU:HD11	1.26	0.69
1:G:831:TRP:NE1	2:H:67:MET:CB	2.39	0.69
1:P:215:GLN:CA	1:P:340:ILE:CG2	2.63	0.69
1:P:804:ARG:O	1:P:807:VAL:HG12	1.92	0.69
3:R:48:LYS:HB3	3:R:52:ASN:HD21	1.57	0.69
1:A:506:GLU:HB3	1:A:760:PHE:O	1.92	0.69
1:A:546:THR:HG22	1:A:548:THR:N	2.05	0.69
1:A:782:MLY:C	1:A:783:LEU:HD12	2.22	0.69
2:B:111:SER:OG	2:B:148:VAL:HG12	1.92	0.69
1:D:739:ASP:CB	1:D:742:LYS:HB3	2.12	0.69
1:P:807:VAL:O	1:P:810:ARG:HB2	1.93	0.69
4:X:287:ILE:O	4:Z:205:GLU:CD	2.31	0.69
4:4:3:ASP:HA	4:4:6:THR:CB	2.18	0.69
1:A:643:GLY:N	4:8:24:ASP:CA	2.46	0.69
1:D:630:ALA:O	4:9:25:ASP:CB	2.41	0.69
1:D:762:HIS:H	1:D:762:HIS:CD2	2.08	0.69
1:D:782:MLY:C	1:D:783:LEU:HD12	2.22	0.69
1:D:818:TYR:HB3	2:E:90:GLY:H	1.56	0.69
1:G:56:GLU:CB	1:G:59:MLY:HB3	2.19	0.69
1:G:166:MET:HE1	1:G:254:PHE:HB2	1.73	0.69
1:G:787:ILE:HG22	1:G:788:THR:N	2.07	0.69
1:P:91:MET:HE3	1:P:119:SER:HB2	1.75	0.69
1:P:95:THR:HA	1:P:712:PRO:HB2	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:803:TYR:O	1:P:807:VAL:HB	1.92	0.69
1:P:831:TRP:CZ3	2:Q:34:ILE:HD13	2.28	0.69
3:R:25:ILE:O	3:R:63:ILE:HB	1.92	0.69
4:2:1:ASP:HA	4:2:4:GLU:HB3	1.74	0.69
1:A:508:ILE:HD13	1:A:759:ALA:HB3	1.63	0.69
1:A:795:ARG:HD2	3:C:35:ARG:HH12	0.55	0.69
1:A:815:CYS:O	2:B:90:GLY:HA3	1.92	0.69
1:D:550:PHE:HA	4:W:46:GLY:HA3	1.66	0.69
1:D:807:VAL:O	1:D:810:ARG:HB2	1.93	0.69
3:F:3:SER:O	3:F:4:LYS:CB	2.41	0.69
1:P:93:MET:SD	1:P:714:ARG:O	2.51	0.69
4:Y:291:LYS:HD2	4:0:246:GLN:CA	2.23	0.69
4:Y:291:LYS:HE2	4:0:244:ASP:O	1.56	0.69
1:A:166:MET:HE3	1:A:254:PHE:CD2	2.27	0.69
1:D:795:ARG:HH22	3:F:43:ASN:HB2	1.56	0.69
2:E:111:SER:OG	2:E:148:VAL:HG12	1.92	0.69
1:G:807:VAL:O	1:G:810:ARG:HB2	1.93	0.69
1:G:815:CYS:O	1:G:819:ASN:HB2	1.93	0.69
1:P:123:CYS:HB2	1:P:158:ILE:CD1	2.23	0.69
1:P:538:GLU:CD	4:0:355:MET:HE1	2.13	0.69
1:P:787:ILE:HG22	1:P:788:THR:N	2.07	0.69
2:Q:111:SER:OG	2:Q:148:VAL:HG12	1.92	0.69
1:A:84:MLY:HH11	1:A:724:TYR:CE1	2.27	0.68
1:A:807:VAL:O	1:A:810:ARG:HB2	1.93	0.68
1:D:787:ILE:HG22	1:D:788:THR:N	2.07	0.68
3:I:3:SER:O	3:I:4:LYS:CB	2.41	0.68
1:P:810:ARG:HH11	1:P:810:ARG:HG2	1.56	0.68
4:0:1:ASP:HA	4:0:4:GLU:HB3	1.74	0.68
4:1:1:ASP:HA	4:1:4:GLU:HB3	1.74	0.68
1:A:91:MET:HE3	1:A:119:SER:HB2	1.75	0.68
1:A:206:LYS:HD3	1:A:217:THR:HG23	0.71	0.68
1:D:815:CYS:O	1:D:819:ASN:HB2	1.93	0.68
1:G:72:VAL:HG13	1:G:76:GLN:CB	2.19	0.68
1:G:652:LEU:O	1:G:655:GLU:N	2.27	0.68
1:G:797:PHE:CE2	3:I:126:LEU:HD22	2.28	0.68
1:P:72:VAL:HG13	1:P:76:GLN:CB	2.19	0.68
1:P:148:ARG:HH21	1:P:764:MLY:HH21	1.57	0.68
4:5:160:THR:HG21	4:5:274:ILE:HD11	1.76	0.68
1:A:831:TRP:CZ3	2:B:34:ILE:CB	2.77	0.68
1:D:507:GLY:CA	1:D:762:HIS:CG	2.75	0.68
1:D:537:GLU:HG3	4:9:350:SER:O	1.79	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:553:MLY:HG2	4:W:47:MET:N	2.07	0.68
1:P:537:GLU:HG3	4:0:350:SER:O	1.78	0.68
4:7:160:THR:HG21	4:7:274:ILE:HD11	1.76	0.68
4:9:160:THR:HG21	4:9:274:ILE:HD11	1.76	0.68
4:Z:287:ILE:HG21	4:1:203:THR:N	2.08	0.68
1:A:787:ILE:HG22	1:A:788:THR:N	2.07	0.68
1:A:797:PHE:CE2	3:C:126:LEU:HD23	1.98	0.68
2:B:117:LEU:CB	2:B:147:ASN:ND2	2.35	0.68
1:D:533:PHE:O	1:D:537:GLU:HG2	1.93	0.68
1:D:538:GLU:CD	4:9:355:MET:CE	2.62	0.68
1:D:541:MET:CG	4:9:345:ILE:O	2.41	0.68
1:D:831:TRP:CZ2	2:E:47:LEU:O	2.45	0.68
1:G:834:LEU:HD13	2:H:51:PHE:HE1	1.57	0.68
1:P:62:VAL:HG12	1:P:63:MLY:O	1.93	0.68
1:A:28:GLN:HE22	1:A:723:ARG:NH2	1.92	0.68
1:A:52:ILE:HD13	1:A:52:ILE:N	2.08	0.68
1:A:541:MET:CG	4:8:345:ILE:O	2.41	0.68
1:D:123:CYS:HB2	1:D:158:ILE:CD1	2.23	0.68
1:G:52:ILE:HD13	1:G:52:ILE:N	2.09	0.68
2:H:117:LEU:CB	2:H:147:ASN:OD1	2.39	0.68
1:P:550:PHE:HE2	1:P:592:ILE:HG23	1.59	0.68
4:W:160:THR:HG21	4:W:274:ILE:HD11	1.76	0.68
1:A:501:GLU:CB	1:A:762:HIS:ND1	2.55	0.68
1:G:503:TYR:HH	1:G:711:PHE:HD2	1.41	0.68
1:G:553:MLY:CD	4:X:45:VAL:HG12	2.23	0.68
4:0:113:LYS:HE3	4:1:252:ASN:HB3	1.75	0.68
4:3:324:THR:HG21	4:5:244:ASP:N	1.80	0.68
1:A:830:PRO:HG2	2:B:67:MET:HE1	0.69	0.68
1:D:52:ILE:HD13	1:D:52:ILE:N	2.09	0.68
1:G:123:CYS:HB2	1:G:158:ILE:CD1	2.23	0.68
1:G:408:VAL:HG12	4:V:332:PRO:HB3	1.76	0.68
1:P:786:ILE:CB	1:P:787:ILE:N	2.57	0.68
2:Q:114:LYS:HA	2:Q:146:GLY:C	2.03	0.68
4:4:153:LEU:HD11	4:4:274:ILE:HG13	1.76	0.68
2:E:117:LEU:HD12	2:E:147:ASN:CA	2.20	0.68
1:G:213:LYS:HA	1:G:220:ASP:OD1	1.92	0.68
1:G:550:PHE:HE2	1:G:592:ILE:HG23	1.59	0.68
1:G:838:ILE:HD13	2:H:33:VAL:CG1	2.23	0.68
4:2:153:LEU:HD11	4:2:274:ILE:HG13	1.76	0.68
1:A:94:MET:O	1:A:713:SER:CB	2.40	0.68
1:A:408:VAL:HG12	4:8:332:PRO:HB3	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:550:PHE:HE2	1:D:592:ILE:HG23	1.59	0.68
1:G:166:MET:HE3	1:G:254:PHE:CD2	2.28	0.68
1:P:823:PHE:CD1	2:Q:160:GLY:HA2	2.29	0.68
3:R:48:LYS:C	3:R:52:ASN:HD21	1.96	0.68
4:Y:160:THR:HG21	4:Y:274:ILE:HD11	1.76	0.68
1:A:166:MET:HE3	1:A:254:PHE:HD2	1.59	0.68
1:A:213:LYS:HA	1:A:220:ASP:OD1	1.92	0.68
1:A:652:LEU:O	1:A:655:GLU:N	2.27	0.68
1:D:612:GLN:NE2	1:D:627:GLY:N	2.43	0.68
1:G:533:PHE:O	1:G:537:GLU:HG2	1.93	0.68
1:G:541:MET:CG	4:V:345:ILE:O	2.41	0.68
1:P:806:MET:O	1:P:807:VAL:HG22	1.93	0.68
1:P:823:PHE:HE1	2:Q:160:GLY:HA2	1.57	0.68
1:A:630:ALA:O	4:8:25:ASP:HB2	1.92	0.67
3:C:102:VAL:HG23	3:C:139:TYR:HD1	1.60	0.67
2:E:117:LEU:CG	2:E:147:ASN:HB3	2.24	0.67
1:P:612:GLN:NE2	1:P:627:GLY:N	2.43	0.67
4:8:153:LEU:HD11	4:8:274:ILE:HG13	1.76	0.67
1:A:292:MET:HE3	1:A:309:PRO:HA	1.75	0.67
1:A:533:PHE:O	1:A:537:GLU:HG2	1.93	0.67
1:A:550:PHE:HE2	1:A:592:ILE:HG23	1.59	0.67
1:A:802:GLU:OE1	1:A:802:GLU:HA	1.92	0.67
1:G:789:ALA:HB2	3:I:81:GLN:HG2	1.74	0.67
3:I:48:LYS:C	3:I:52:ASN:HD21	1.97	0.67
1:P:538:GLU:CD	4:0:355:MET:CE	2.62	0.67
1:P:546:THR:H	1:P:549:SER:HB3	1.59	0.67
4:4:1:ASP:HA	4:4:4:GLU:HB3	1.74	0.67
1:A:815:CYS:O	1:A:819:ASN:HB2	1.93	0.67
1:D:62:VAL:HG12	1:D:63:MLY:O	1.93	0.67
1:D:642:LYS:HB3	4:9:21:PHE:O	1.93	0.67
1:D:802:GLU:OE1	1:D:802:GLU:HA	1.93	0.67
1:G:58:GLY:HA2	1:G:74:GLU:OE1	1.95	0.67
1:G:290:GLN:O	1:G:331:LEU:HD12	1.95	0.67
1:G:784:ALA:O	1:G:788:THR:HB	1.94	0.67
3:I:48:LYS:HB3	3:I:52:ASN:HD21	1.56	0.67
2:Q:117:LEU:CG	2:Q:147:ASN:HB3	2.25	0.67
4:Y:153:LEU:HD11	4:Y:274:ILE:HG13	1.76	0.67
4:0:172:PRO:CB	4:1:191:LYS:NZ	2.57	0.67
1:A:538:GLU:CD	4:8:355:MET:CE	2.62	0.67
1:A:630:ALA:O	4:8:25:ASP:CB	2.41	0.67
1:A:768:MLY:HB3	1:A:771:LEU:CG	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:141:PRO:O	2:B:145:ALA:CB	2.43	0.67
1:G:538:GLU:CD	4:V:355:MET:CE	2.62	0.67
1:G:643:GLY:N	4:V:24:ASP:CA	2.47	0.67
1:G:802:GLU:OE1	1:G:802:GLU:HA	1.93	0.67
2:H:117:LEU:CG	2:H:147:ASN:HB3	2.24	0.67
1:P:290:GLN:O	1:P:331:LEU:HD12	1.95	0.67
1:P:642:LYS:HB3	4:O:21:PHE:O	1.93	0.67
4:V:160:THR:HG21	4:V:274:ILE:HD11	1.76	0.67
4:O:153:LEU:HD11	4:O:274:ILE:HG13	1.76	0.67
4:O:160:THR:HG21	4:O:274:ILE:HD11	1.76	0.67
4:1:287:ILE:CG2	4:3:202:THR:OG1	2.42	0.67
1:A:739:ASP:CB	1:A:742:LYS:HB3	2.12	0.67
1:A:795:ARG:HH21	3:C:116:GLU:CB	2.05	0.67
1:A:814:PHE:HD1	2:B:127:ARG:NH2	1.90	0.67
3:C:3:SER:O	3:C:4:LYS:CB	2.41	0.67
1:D:834:LEU:HG	2:E:54:MET:HB3	1.76	0.67
1:P:652:LEU:O	1:P:655:GLU:N	2.27	0.67
4:W:153:LEU:HD11	4:W:274:ILE:HG13	1.76	0.67
4:Z:160:THR:HG21	4:Z:274:ILE:HD11	1.76	0.67
4:3:160:THR:HG21	4:3:274:ILE:HD11	1.76	0.67
3:F:49:ILE:HA	3:F:52:ASN:ND2	2.05	0.67
1:G:374:GLN:HG3	1:G:375:ALA:H	1.60	0.67
1:P:93:MET:HG2	1:P:714:ARG:CA	2.24	0.67
1:P:834:LEU:CG	2:Q:54:MET:HG3	2.24	0.67
3:R:3:SER:O	3:R:4:LYS:CB	2.41	0.67
4:Y:291:LYS:HG2	4:O:245:GLY:H	1.57	0.67
4:3:288:ASP:OD2	4:5:203:THR:CB	2.42	0.67
1:A:642:LYS:HB3	4:8:21:PHE:O	1.93	0.67
1:A:793:ARG:CZ	3:C:147:MET:HG2	2.24	0.67
1:D:290:GLN:O	1:D:331:LEU:HD12	1.95	0.67
1:G:166:MET:HE3	1:G:254:PHE:HD2	1.60	0.67
1:G:556:ASP:OD2	4:X:47:MET:CE	2.39	0.67
1:G:768:MLY:HH12	1:G:772:LEU:CD2	2.24	0.67
1:P:131:TRP:O	1:P:132:LEU:HD12	1.95	0.67
1:P:723:ARG:CD	1:P:779:ARG:NH1	2.57	0.67
1:P:818:TYR:HB3	2:Q:90:GLY:O	1.93	0.67
4:8:160:THR:HG21	4:8:274:ILE:HD11	1.76	0.67
4:X:160:THR:HG21	4:X:274:ILE:HD11	1.76	0.67
1:A:62:VAL:HG12	1:A:63:MLY:O	1.93	0.67
1:A:814:PHE:CB	2:B:127:ARG:HH22	2.08	0.67
1:A:838:ILE:HD12	2:B:54:MET:SD	2.34	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:58:GLY:HA2	1:D:74:GLU:OE1	1.95	0.67
1:D:374:GLN:HG3	1:D:375:ALA:H	1.60	0.67
1:D:537:GLU:C	4:9:351:THR:H	1.98	0.67
1:D:652:LEU:O	1:D:655:GLU:N	2.27	0.67
1:D:831:TRP:CZ2	2:E:47:LEU:HA	2.29	0.67
3:F:24:LYS:HA	3:F:63:ILE:O	1.95	0.67
1:P:537:GLU:C	4:0:351:THR:H	1.98	0.67
1:P:819:ASN:OD1	2:Q:92:ASP:O	2.13	0.67
1:P:831:TRP:NE1	2:Q:51:PHE:HZ	1.92	0.67
2:Q:141:PRO:O	2:Q:145:ALA:CB	2.43	0.67
3:C:24:LYS:HA	3:C:63:ILE:O	1.95	0.67
1:D:480:ILE:HG22	1:D:481:ASN:ND2	2.09	0.67
1:P:533:PHE:O	1:P:537:GLU:HG2	1.93	0.67
1:P:800:ARG:HH11	3:R:149:VAL:HG13	1.58	0.67
2:Q:117:LEU:CB	2:Q:147:ASN:OD1	2.39	0.67
4:W:324:THR:HG22	4:Y:247:VAL:HG13	1.77	0.67
4:Z:288:ASP:OD1	4:1:203:THR:HG23	1.95	0.67
4:2:160:THR:HG21	4:2:274:ILE:HD11	1.76	0.67
1:A:648:THR:CB	4:8:350:SER:OG	2.43	0.67
3:C:48:LYS:C	3:C:52:ASN:HD21	1.97	0.67
1:D:339:ASP:OD1	1:D:348:MLY:HH13	1.95	0.67
1:P:726:VAL:HA	3:R:89:GLU:CG	2.24	0.67
1:P:735:GLY:C	1:P:743:ALA:HB1	1.84	0.67
1:P:804:ARG:C	1:P:807:VAL:CG1	2.63	0.67
4:V:153:LEU:HD11	4:V:274:ILE:HG13	1.76	0.67
4:Y:291:LYS:CB	4:0:246:GLN:N	2.42	0.67
1:A:61:THR:HG23	1:A:71:THR:OG1	1.94	0.66
1:A:93:MET:CE	1:A:716:LEU:H	2.07	0.66
1:D:546:THR:H	1:D:549:SER:HB3	1.59	0.66
3:F:48:LYS:C	3:F:52:ASN:HD21	1.96	0.66
1:G:62:VAL:HG12	1:G:63:MLY:O	1.94	0.66
1:G:131:TRP:O	1:G:132:LEU:HD12	1.94	0.66
1:G:795:ARG:HD2	3:I:35:ARG:HH22	1.60	0.66
1:G:835:PHE:CD1	2:H:30:ALA:CB	2.78	0.66
2:H:141:PRO:O	2:H:145:ALA:CB	2.43	0.66
1:P:52:ILE:HD13	1:P:52:ILE:N	2.09	0.66
1:P:58:GLY:HA2	1:P:74:GLU:OE1	1.95	0.66
1:P:408:VAL:HG12	4:0:332:PRO:HB3	1.76	0.66
3:R:24:LYS:HA	3:R:63:ILE:O	1.96	0.66
4:X:153:LEU:HD11	4:X:274:ILE:HG13	1.76	0.66
4:Y:287:ILE:CG1	4:0:201:VAL:HG22	0.72	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:58:GLY:HA2	1:A:74:GLU:OE1	1.94	0.66
1:A:217:THR:O	1:A:221:GLN:HG2	1.95	0.66
2:B:117:LEU:CG	2:B:147:ASN:HB3	2.25	0.66
1:D:530:MET:CG	4:9:354:GLN:CG	2.71	0.66
2:E:141:PRO:O	2:E:145:ALA:CB	2.43	0.66
1:G:557:GLU:HB2	4:X:47:MET:C	2.16	0.66
1:G:599:ASN:OD1	1:G:649:VAL:N	2.29	0.66
3:I:24:LYS:HA	3:I:63:ILE:O	1.95	0.66
1:P:541:MET:O	4:0:143:TYR:OH	2.13	0.66
3:R:4:LYS:N	3:R:5:ALA:O	2.16	0.66
4:9:153:LEU:HD11	4:9:274:ILE:HG13	1.76	0.66
4:3:288:ASP:CB	4:5:203:THR:HG21	2.25	0.66
1:A:374:GLN:HG3	1:A:375:ALA:H	1.60	0.66
1:A:546:THR:H	1:A:549:SER:HB3	1.60	0.66
1:A:793:ARG:HH22	3:C:147:MET:HE2	1.51	0.66
1:D:732:ILE:HG23	1:D:747:LEU:CB	1.85	0.66
1:D:797:PHE:CD1	3:F:149:VAL:HG11	2.29	0.66
1:G:217:THR:O	1:G:221:GLN:HG2	1.95	0.66
1:G:292:MET:HE3	1:G:309:PRO:HA	1.77	0.66
1:G:823:PHE:HE1	2:H:160:GLY:CA	2.07	0.66
1:P:480:ILE:HG22	1:P:481:ASN:ND2	2.10	0.66
1:P:541:MET:HG2	4:0:345:ILE:C	2.16	0.66
4:1:160:THR:HG21	4:1:274:ILE:HD11	1.75	0.66
1:D:174:SER:O	1:D:670:HIS:HB2	1.96	0.66
1:D:635:GLY:O	4:9:341:ILE:HG21	1.95	0.66
1:G:78:PHE:HB3	1:G:98:HIS:CD2	2.30	0.66
1:P:418:THR:HG22	1:P:419:VAL:N	2.11	0.66
1:P:800:ARG:CB	3:R:149:VAL:HG21	2.11	0.66
1:P:819:ASN:HB3	2:Q:157:ILE:HG21	1.75	0.66
1:P:823:PHE:CE1	2:Q:156:VAL:HG13	2.31	0.66
1:P:833:MLY:HA	2:Q:161:GLU:OE1	1.95	0.66
4:Z:153:LEU:HD11	4:Z:274:ILE:HG13	1.76	0.66
1:A:78:PHE:HB3	1:A:98:HIS:CD2	2.30	0.66
1:A:131:TRP:O	1:A:132:LEU:HD12	1.94	0.66
1:A:226:ASN:HB2	1:A:227:PRO:HD3	1.78	0.66
1:D:322:VAL:HB	1:D:325:ILE:CD1	2.26	0.66
1:D:541:MET:O	4:9:143:TYR:OH	2.14	0.66
1:G:537:GLU:C	4:V:351:THR:H	1.99	0.66
1:P:599:ASN:OD1	1:P:649:VAL:N	2.29	0.66
1:P:635:GLY:O	4:0:341:ILE:HG21	1.95	0.66
1:P:648:THR:CB	4:0:350:SER:OG	2.43	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:541:MET:HG2	4:8:345:ILE:C	2.16	0.66
1:D:599:ASN:OD1	1:D:649:VAL:N	2.28	0.66
1:D:648:THR:CB	4:9:350:SER:OG	2.43	0.66
1:D:767:PHE:O	1:D:771:LEU:HD13	1.94	0.66
2:E:141:PRO:O	2:E:145:ALA:HB2	1.96	0.66
1:G:61:THR:HG23	1:G:71:THR:OG1	1.94	0.66
1:G:757:GLN:OE1	1:G:772:LEU:C	2.33	0.66
1:G:795:ARG:CZ	3:I:116:GLU:OE2	2.43	0.66
1:P:502:GLU:OE2	1:P:761:GLY:N	2.28	0.66
1:P:643:GLY:N	4:0:24:ASP:CA	2.46	0.66
2:Q:141:PRO:O	2:Q:145:ALA:HB2	1.96	0.66
4:V:288:ASP:H	4:X:204:ALA:H	1.43	0.66
1:A:290:GLN:O	1:A:331:LEU:HD12	1.95	0.66
1:A:501:GLU:HA	1:A:762:HIS:ND1	2.04	0.66
1:D:131:TRP:O	1:D:132:LEU:HD12	1.95	0.66
1:D:418:THR:HG22	1:D:419:VAL:N	2.11	0.66
1:D:793:ARG:NE	3:F:147:MET:HA	2.10	0.66
1:G:819:ASN:CG	2:H:92:ASP:CB	2.60	0.66
3:I:48:LYS:O	3:I:52:ASN:CG	2.34	0.66
1:P:374:GLN:HG3	1:P:375:ALA:H	1.59	0.66
4:0:167:GLU:OE2	4:2:42:GLY:HA3	1.95	0.66
4:2:287:ILE:HG22	4:4:204:ALA:HB3	1.76	0.66
1:A:506:GLU:H	1:A:761:GLY:HA2	1.61	0.66
1:A:612:GLN:NE2	1:A:627:GLY:N	2.43	0.66
1:A:732:ILE:HG21	1:A:747:LEU:HD11	0.73	0.66
1:A:800:ARG:CG	3:C:149:VAL:CG2	2.59	0.66
1:D:161:ASN:O	1:D:165:PHE:HB2	1.96	0.66
1:D:612:GLN:HE22	1:D:627:GLY:N	1.94	0.66
1:D:769:ALA:CA	1:D:771:LEU:CA	2.60	0.66
1:D:822:SER:OG	2:E:88:LEU:HD21	1.91	0.66
1:D:839:MLY:CH1	2:E:159:HIS:HB3	2.25	0.66
1:G:91:MET:HE3	1:G:119:SER:HB2	1.78	0.66
1:G:161:ASN:O	1:G:165:PHE:HB2	1.96	0.66
1:G:612:GLN:NE2	1:G:627:GLY:N	2.43	0.66
1:G:717:TYR:HD1	1:G:744:SER:HG	1.44	0.66
3:I:102:VAL:HG23	3:I:139:TYR:HD1	1.59	0.66
1:P:800:ARG:HH11	3:R:149:VAL:C	1.98	0.66
1:A:838:ILE:CD1	2:B:54:MET:SD	2.83	0.66
1:D:61:THR:HG23	1:D:71:THR:OG1	1.95	0.66
2:E:146:GLY:O	2:E:147:ASN:HB2	1.96	0.66
3:F:102:VAL:HG23	3:F:139:TYR:HD1	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:418:THR:HG22	1:G:419:VAL:N	2.11	0.66
1:G:789:ALA:CA	3:I:81:GLN:NE2	2.59	0.66
1:P:322:VAL:HB	1:P:325:ILE:CD1	2.26	0.66
2:Q:146:GLY:O	2:Q:147:ASN:HB2	1.96	0.66
4:7:153:LEU:HD11	4:7:274:ILE:HG13	1.76	0.66
4:3:153:LEU:HD11	4:3:274:ILE:HG13	1.76	0.66
1:A:418:THR:HG22	1:A:419:VAL:N	2.11	0.66
1:A:480:ILE:HG22	1:A:481:ASN:N	2.11	0.66
1:A:505:MLY:CB	1:A:741:LYS:HZ2	2.09	0.66
1:A:538:GLU:HA	4:8:349:LEU:HB3	1.78	0.66
1:A:830:PRO:HB2	2:B:51:PHE:HZ	1.49	0.66
1:D:78:PHE:HB3	1:D:98:HIS:CD2	2.30	0.66
1:D:797:PHE:CE2	3:F:126:LEU:HD21	2.15	0.66
1:G:174:SER:O	1:G:670:HIS:HB2	1.96	0.66
1:G:783:LEU:O	1:G:787:ILE:CA	2.43	0.66
1:G:817:GLN:HE21	2:H:127:ARG:HB2	1.57	0.66
1:P:61:THR:HG23	1:P:71:THR:OG1	1.95	0.66
1:P:93:MET:CB	1:P:714:ARG:HG3	2.26	0.66
1:P:339:ASP:OD1	1:P:348:MLY:HH13	1.95	0.66
1:P:530:MET:CA	4:0:354:GLN:CB	2.74	0.66
1:P:813:ILE:HG21	2:Q:128:PHE:HE1	1.61	0.66
4:1:287:ILE:CG1	4:3:202:THR:HB	2.26	0.66
4:5:153:LEU:HD11	4:5:274:ILE:HG13	1.76	0.66
1:A:161:ASN:O	1:A:165:PHE:HB2	1.96	0.65
1:A:480:ILE:HG22	1:A:481:ASN:ND2	2.10	0.65
1:D:217:THR:O	1:D:221:GLN:HG2	1.95	0.65
1:D:408:VAL:HG12	4:9:332:PRO:HB3	1.76	0.65
1:G:635:GLY:O	4:V:341:ILE:HG21	1.95	0.65
1:G:642:LYS:CD	4:V:24:ASP:O	2.43	0.65
1:G:789:ALA:HB1	3:I:81:GLN:HE21	1.58	0.65
1:P:217:THR:O	1:P:221:GLN:HG2	1.95	0.65
1:P:831:TRP:HH2	2:Q:34:ILE:HG23	1.56	0.65
4:0:110:LEU:CB	4:1:195:GLU:CG	2.74	0.65
1:A:295:MLY:HG3	1:A:332:MET:HE1	1.77	0.65
1:A:499:GLU:OE2	1:A:766:PHE:CE2	2.49	0.65
1:A:499:GLU:CD	1:A:766:PHE:HZ	1.98	0.65
2:B:117:LEU:HD11	2:B:147:ASN:HB3	1.76	0.65
2:B:146:GLY:O	2:B:147:ASN:HB2	1.96	0.65
3:C:4:LYS:N	3:C:5:ALA:O	2.17	0.65
1:G:546:THR:H	1:G:549:SER:HB3	1.59	0.65
1:G:838:ILE:CD1	2:H:33:VAL:HG11	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Z:167:GLU:OE1	4:1:44:MET:HA	1.95	0.65
4:4:160:THR:HG21	4:4:274:ILE:HD11	1.76	0.65
1:A:339:ASP:OD1	1:A:348:MLY:HH13	1.95	0.65
1:A:466:GLY:HA2	1:A:484:ASN:HD21	1.61	0.65
1:A:530:MET:CG	4:8:354:GLN:CG	2.71	0.65
1:A:530:MET:CA	4:8:354:GLN:CB	2.74	0.65
1:A:599:ASN:OD1	1:A:649:VAL:N	2.29	0.65
3:C:45:GLU:O	3:C:49:ILE:HG13	1.97	0.65
2:H:141:PRO:O	2:H:145:ALA:HB2	1.96	0.65
1:P:166:MET:HE1	1:P:254:PHE:HB2	1.78	0.65
1:P:466:GLY:HA2	1:P:484:ASN:HD21	1.61	0.65
1:P:612:GLN:HE22	1:P:627:GLY:N	1.94	0.65
1:P:818:TYR:C	2:Q:90:GLY:O	2.34	0.65
1:P:823:PHE:HD1	2:Q:156:VAL:O	1.73	0.65
4:0:368:SER:HB2	4:1:231:ALA:O	1.96	0.65
4:1:153:LEU:HD11	4:1:274:ILE:HG13	1.76	0.65
4:2:324:THR:HG21	4:4:243:PRO:C	2.11	0.65
1:A:174:SER:O	1:A:670:HIS:HB2	1.96	0.65
1:A:505:MLY:CE	1:A:762:HIS:O	2.45	0.65
1:A:537:GLU:C	4:8:351:THR:H	1.99	0.65
1:D:691:VAL:O	1:D:695:LEU:HD13	1.97	0.65
1:D:831:TRP:HH2	2:E:47:LEU:C	1.99	0.65
1:G:144:ARG:NH1	1:G:160:ASP:OD1	2.29	0.65
1:G:226:ASN:HB2	1:G:227:PRO:HD3	1.78	0.65
1:G:541:MET:HG2	4:V:345:ILE:C	2.17	0.65
1:G:648:THR:CB	4:V:350:SER:OG	2.44	0.65
1:G:768:MLY:CD	1:G:772:LEU:CD2	2.75	0.65
1:G:835:PHE:CE2	2:H:27:PHE:HE1	2.14	0.65
2:H:146:GLY:O	2:H:147:ASN:HB2	1.96	0.65
1:P:78:PHE:HB3	1:P:98:HIS:CD2	2.30	0.65
1:P:805:ALA:HA	1:P:808:GLU:H	1.62	0.65
4:Z:287:ILE:HG13	4:1:202:THR:HA	1.78	0.65
1:A:94:MET:HE1	1:A:101:ALA:HB1	1.79	0.65
1:A:144:ARG:NH1	1:A:160:ASP:OD1	2.29	0.65
1:A:322:VAL:HB	1:A:325:ILE:CD1	2.26	0.65
1:A:530:MET:HE2	4:8:354:GLN:HG3	1.78	0.65
2:B:114:LYS:HA	2:B:146:GLY:C	2.03	0.65
1:D:642:LYS:HA	4:9:21:PHE:O	1.96	0.65
1:G:322:VAL:HB	1:G:325:ILE:CD1	2.26	0.65
1:G:466:GLY:HA2	1:G:484:ASN:ND2	2.12	0.65
1:G:541:MET:O	4:V:143:TYR:OH	2.13	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:218:LEU:HA	1:P:221:GLN:HG3	1.71	0.65
1:P:466:GLY:HA2	1:P:484:ASN:ND2	2.12	0.65
4:2:148:THR:HG21	4:4:45:VAL:CG2	2.26	0.65
1:A:800:ARG:NH1	3:C:149:VAL:HG13	2.10	0.65
1:D:541:MET:HG2	4:9:345:ILE:C	2.16	0.65
1:D:831:TRP:CA	2:E:51:PHE:CE1	2.78	0.65
1:G:480:ILE:HG22	1:G:481:ASN:N	2.11	0.65
1:P:174:SER:O	1:P:670:HIS:HB2	1.95	0.65
4:Z:287:ILE:HB	4:1:203:THR:CB	2.27	0.65
4:1:287:ILE:CD1	4:3:203:THR:H	2.05	0.65
1:A:797:PHE:CD2	3:C:126:LEU:HD21	2.31	0.65
1:D:226:ASN:HB2	1:D:227:PRO:HD3	1.78	0.65
1:D:530:MET:CA	4:9:354:GLN:CB	2.74	0.65
1:D:822:SER:O	1:D:825:ASN:HB2	1.97	0.65
1:G:107:MLY:HB3	1:G:686:MET:CE	2.27	0.65
1:G:797:PHE:CE1	3:I:149:VAL:CG1	2.77	0.65
3:I:45:GLU:O	3:I:49:ILE:HG13	1.97	0.65
1:P:642:LYS:HA	4:0:21:PHE:O	1.96	0.65
3:R:45:GLU:O	3:R:49:ILE:HG13	1.96	0.65
1:A:791:GLN:OE1	3:C:116:GLU:CB	2.45	0.65
1:A:822:SER:O	1:A:825:ASN:HB2	1.97	0.65
1:D:94:MET:HE1	1:D:101:ALA:HB1	1.79	0.65
1:D:166:MET:HE3	1:D:254:PHE:CD2	2.32	0.65
1:D:466:GLY:HA2	1:D:484:ASN:ND2	2.12	0.65
1:D:507:GLY:HA2	1:D:762:HIS:CG	2.31	0.65
1:G:553:MLY:O	4:X:46:GLY:CA	2.45	0.65
1:G:691:VAL:O	1:G:695:LEU:HD13	1.97	0.65
1:P:725:ARG:NE	1:P:737:PHE:HE1	1.95	0.65
1:A:691:VAL:O	1:A:695:LEU:HD13	1.97	0.65
3:C:48:LYS:O	3:C:52:ASN:CG	2.35	0.65
1:D:466:GLY:HA2	1:D:484:ASN:HD21	1.61	0.65
1:D:815:CYS:HG	2:E:92:ASP:CG	2.00	0.65
1:G:217:THR:HB	1:G:220:ASP:OD2	1.97	0.65
1:G:538:GLU:HA	4:V:349:LEU:HB3	1.79	0.65
3:I:49:ILE:HA	3:I:52:ASN:ND2	2.05	0.65
1:P:93:MET:HE1	1:P:764:MLY:CE	2.15	0.65
1:P:161:ASN:O	1:P:165:PHE:HB2	1.96	0.65
1:P:210:GLN:O	1:P:211:SER:OG	2.15	0.65
1:P:217:THR:HB	1:P:220:ASP:OD2	1.97	0.65
1:P:226:ASN:HB2	1:P:227:PRO:HD3	1.77	0.65
3:R:48:LYS:O	3:R:52:ASN:CG	2.34	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:W:325:MET:SD	4:Y:244:ASP:CG	2.75	0.65
1:A:218:LEU:HA	1:A:221:GLN:HG3	1.71	0.65
1:A:502:GLU:HG3	1:A:761:GLY:H	1.58	0.65
1:A:541:MET:O	4:8:143:TYR:OH	2.14	0.65
1:A:725:ARG:NE	1:A:737:PHE:HE1	1.95	0.65
1:G:480:ILE:HG22	1:G:481:ASN:ND2	2.10	0.65
1:G:800:ARG:HH11	3:I:149:VAL:HG22	1.61	0.65
1:P:538:GLU:HA	4:0:349:LEU:HB3	1.78	0.65
1:P:636:LYS:O	1:P:637:LYS:CB	2.45	0.65
1:P:691:VAL:O	1:P:695:LEU:HD13	1.96	0.65
1:A:797:PHE:CE1	3:C:146:ILE:HD13	2.32	0.64
1:D:278:GLN:CG	1:D:317:GLU:HB2	2.27	0.64
1:D:479:CYS:HB3	1:D:653:PHE:CE2	2.32	0.64
1:D:793:ARG:HH22	3:F:147:MET:CE	2.07	0.64
3:F:48:LYS:O	3:F:52:ASN:CG	2.34	0.64
1:P:506:GLU:CG	1:P:760:PHE:HD1	2.07	0.64
1:P:797:PHE:CD2	3:R:126:LEU:CD2	2.80	0.64
3:R:3:SER:HG	3:R:5:ALA:N	1.95	0.64
1:A:642:LYS:CD	4:8:24:ASP:O	2.42	0.64
1:A:818:TYR:CB	2:B:89:LYS:HB2	2.27	0.64
3:C:49:ILE:HA	3:C:52:ASN:ND2	2.05	0.64
3:F:3:SER:HG	3:F:5:ALA:N	1.95	0.64
1:G:466:GLY:HA2	1:G:484:ASN:HD21	1.61	0.64
1:G:557:GLU:HB2	4:X:47:MET:N	2.11	0.64
1:G:725:ARG:NE	1:G:737:PHE:HE1	1.95	0.64
1:G:768:MLY:CG	1:G:772:LEU:HB3	2.27	0.64
1:P:296:MLY:HH11	1:P:348:MLY:HH21	1.78	0.64
1:P:725:ARG:NH1	3:R:92:ARG:CD	2.57	0.64
1:P:783:LEU:HD12	1:P:783:LEU:N	2.13	0.64
2:Q:140:PHE:HB3	2:Q:144:VAL:CG1	2.27	0.64
3:R:102:VAL:HG23	3:R:139:TYR:HD1	1.59	0.64
1:A:707:CYS:CB	1:A:714:ARG:NH1	2.60	0.64
1:A:797:PHE:HD1	3:C:149:VAL:HG12	1.62	0.64
1:D:202:SER:CA	1:D:207:LYS:HE3	2.27	0.64
1:D:793:ARG:HG3	3:F:146:ILE:HG22	1.79	0.64
1:G:339:ASP:OD1	1:G:348:MLY:HH13	1.95	0.64
1:G:636:LYS:O	1:G:637:LYS:CB	2.45	0.64
4:2:288:ASP:N	4:4:203:THR:CG2	2.56	0.64
1:D:636:LYS:O	1:D:637:LYS:CB	2.45	0.64
1:D:806:MET:O	1:D:809:ARG:HB2	1.98	0.64
3:F:45:GLU:O	3:F:49:ILE:HG13	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:735:GLY:O	1:G:743:ALA:HA	1.94	0.64
1:G:750:GLY:HA3	3:I:114:LEU:HD11	1.78	0.64
1:P:144:ARG:NH1	1:P:160:ASP:OD1	2.29	0.64
4:Y:288:ASP:OD1	4:0:242:LEU:HD21	1.97	0.64
1:A:218:LEU:CD2	1:A:222:ILE:HG12	2.28	0.64
1:A:466:GLY:HA2	1:A:484:ASN:ND2	2.12	0.64
1:A:635:GLY:O	4:8:341:ILE:HG21	1.96	0.64
1:A:642:LYS:HA	4:8:21:PHE:O	1.96	0.64
1:A:836:PHE:CB	2:B:161:GLU:OE1	2.45	0.64
2:E:117:LEU:CB	2:E:147:ASN:OD1	2.39	0.64
1:G:530:MET:CA	4:V:354:GLN:CB	2.75	0.64
1:G:636:LYS:HG3	4:V:334:GLU:CD	2.18	0.64
1:P:735:GLY:O	1:P:743:ALA:HA	1.94	0.64
1:P:831:TRP:CH2	2:Q:34:ILE:CG2	2.81	0.64
1:A:479:CYS:HB3	1:A:653:PHE:CE2	2.32	0.64
1:A:612:GLN:HE22	1:A:627:GLY:N	1.94	0.64
2:B:141:PRO:O	2:B:145:ALA:HB2	1.96	0.64
3:C:3:SER:HG	3:C:5:ALA:N	1.96	0.64
1:D:144:ARG:NH1	1:D:160:ASP:OD1	2.30	0.64
1:G:612:GLN:HE22	1:G:627:GLY:N	1.94	0.64
1:G:757:GLN:OE1	1:G:772:LEU:HB3	1.98	0.64
1:P:479:CYS:HB3	1:P:653:PHE:CE2	2.33	0.64
1:P:795:ARG:HG3	3:R:118:MET:HE3	1.75	0.64
4:Y:287:ILE:HD12	4:0:205:GLU:HG3	1.76	0.64
1:A:296:MLY:HH11	1:A:348:MLY:HH21	1.78	0.64
1:D:411:GLU:N	4:9:333:PRO:HB2	2.11	0.64
1:D:530:MET:HE2	4:9:354:GLN:HG3	1.80	0.64
1:D:537:GLU:C	4:9:351:THR:N	2.51	0.64
2:E:149:ASP:OD2	2:E:150:TYR:C	2.36	0.64
1:G:406:VAL:HG12	1:G:407:GLY:N	2.13	0.64
1:G:822:SER:O	1:G:825:ASN:HB2	1.97	0.64
1:G:835:PHE:CE2	2:H:27:PHE:CE1	2.85	0.64
2:H:117:LEU:HD11	2:H:147:ASN:HB3	1.76	0.64
1:P:636:LYS:HG3	4:0:334:GLU:CD	2.17	0.64
1:P:838:ILE:HD12	2:Q:54:MET:SD	2.38	0.64
1:A:217:THR:HB	1:A:220:ASP:OD2	1.97	0.64
1:A:642:LYS:CA	4:8:21:PHE:O	2.46	0.64
1:D:541:MET:HG2	4:9:345:ILE:O	1.98	0.64
1:G:296:MLY:HH11	1:G:348:MLY:HH21	1.79	0.64
1:P:642:LYS:CA	4:0:21:PHE:O	2.45	0.64
1:P:822:SER:O	1:P:825:ASN:HB2	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:W:190:MET:SD	4:W:209:VAL:HG11	2.38	0.64
4:2:190:MET:SD	4:2:209:VAL:HG11	2.38	0.64
1:A:636:LYS:HG3	4:8:334:GLU:CD	2.17	0.64
1:A:783:LEU:HD12	1:A:783:LEU:N	2.13	0.64
1:A:806:MET:O	1:A:809:ARG:HB2	1.98	0.64
1:A:822:SER:OG	2:B:87:LYS:C	2.35	0.64
1:D:217:THR:HB	1:D:220:ASP:OD2	1.97	0.64
1:D:508:ILE:CG2	1:D:766:PHE:CE1	2.78	0.64
1:D:725:ARG:NE	1:D:737:PHE:HE1	1.95	0.64
1:D:814:PHE:HE1	2:E:127:ARG:HH21	1.36	0.64
1:G:788:THR:O	3:I:42:THR:CG2	2.42	0.64
1:G:835:PHE:HD1	2:H:30:ALA:CB	2.11	0.64
1:P:406:VAL:HG12	1:P:407:GLY:N	2.13	0.64
1:P:541:MET:HG2	4:0:345:ILE:O	1.98	0.64
1:P:797:PHE:HE2	3:R:126:LEU:HD23	1.63	0.64
4:0:190:MET:SD	4:0:209:VAL:HG11	2.38	0.64
1:A:537:GLU:HB3	1:A:648:THR:HB	1.80	0.64
1:A:809:ARG:CZ	2:B:124:GLY:CA	2.76	0.64
2:B:117:LEU:CG	2:B:147:ASN:CB	2.76	0.64
1:G:133:PRO:O	1:G:136:ASN:HB2	1.98	0.64
1:G:530:MET:CG	4:V:354:GLN:CG	2.72	0.64
1:G:537:GLU:C	4:V:351:THR:N	2.51	0.64
1:G:732:ILE:HG21	1:G:747:LEU:HD11	0.73	0.64
1:G:835:PHE:CD1	2:H:30:ALA:HB2	2.33	0.64
3:I:3:SER:HG	3:I:5:ALA:N	1.96	0.64
1:P:218:LEU:CD2	1:P:222:ILE:HG12	2.28	0.64
1:P:724:TYR:HB3	1:P:727:LEU:HD12	1.80	0.64
2:Q:149:ASP:OD2	2:Q:150:TYR:C	2.36	0.64
3:R:49:ILE:HA	3:R:52:ASN:ND2	2.06	0.64
4:V:324:THR:HG23	4:X:247:VAL:H	1.61	0.64
4:0:173:HIS:CD2	4:1:268:GLY:CA	2.80	0.64
4:4:190:MET:SD	4:4:209:VAL:HG11	2.38	0.64
1:A:133:PRO:O	1:A:136:ASN:HB2	1.98	0.63
1:D:107:MLY:HB3	1:D:686:MET:CE	2.27	0.63
1:G:806:MET:O	1:G:809:ARG:HB2	1.98	0.63
1:P:292:MET:HE3	1:P:309:PRO:HA	1.78	0.63
1:P:480:ILE:HG22	1:P:481:ASN:N	2.12	0.63
1:P:636:LYS:N	4:0:334:GLU:OE1	2.31	0.63
1:A:406:VAL:HG12	1:A:407:GLY:N	2.13	0.63
1:A:800:ARG:HD2	3:C:149:VAL:CG2	2.29	0.63
2:B:144:VAL:HA	2:B:153:ILE:HD11	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:530:MET:HE3	4:9:354:GLN:CG	2.23	0.63
1:D:543:PRO:HG2	4:9:143:TYR:O	1.98	0.63
1:D:636:LYS:HG3	4:9:334:GLU:CD	2.17	0.63
1:D:642:LYS:CG	4:9:22:ALA:C	2.67	0.63
1:G:411:GLU:N	4:V:333:PRO:HB2	2.11	0.63
1:P:537:GLU:C	4:0:351:THR:N	2.51	0.63
1:P:537:GLU:HB3	1:P:648:THR:HB	1.80	0.63
1:P:724:TYR:HD1	1:P:727:LEU:HD11	1.64	0.63
1:P:831:TRP:CZ3	2:Q:34:ILE:CG1	2.82	0.63
2:Q:146:GLY:O	2:Q:147:ASN:CB	2.46	0.63
4:X:324:THR:CB	4:Z:246:GLN:HA	2.28	0.63
1:A:411:GLU:N	4:8:333:PRO:HB2	2.11	0.63
1:A:498:LEU:CD2	1:A:764:MLY:HH22	2.27	0.63
2:B:149:ASP:OD2	2:B:150:TYR:C	2.37	0.63
1:D:537:GLU:HB3	1:D:648:THR:HB	1.80	0.63
1:D:636:LYS:N	4:9:334:GLU:OE1	2.31	0.63
1:D:642:LYS:CA	4:9:21:PHE:O	2.46	0.63
2:E:117:LEU:CG	2:E:147:ASN:CB	2.76	0.63
2:E:132:GLU:O	2:E:136:MET:HG2	1.99	0.63
2:E:146:GLY:O	2:E:147:ASN:CB	2.46	0.63
1:G:506:GLU:HG2	1:G:759:ALA:HB1	1.78	0.63
1:G:541:MET:HG2	4:V:345:ILE:O	1.98	0.63
2:H:140:PHE:HB3	2:H:144:VAL:CG1	2.28	0.63
2:H:149:ASP:OD2	2:H:150:TYR:C	2.36	0.63
1:P:732:ILE:HG22	1:P:747:LEU:CD1	1.55	0.63
4:V:190:MET:SD	4:V:209:VAL:HG11	2.38	0.63
4:0:167:GLU:HG3	4:2:40:HIS:HB3	1.78	0.63
1:A:107:MLY:HB3	1:A:686:MET:CE	2.27	0.63
1:A:127:ASN:HD22	1:A:128:PRO:CD	2.11	0.63
1:A:541:MET:HG2	4:8:345:ILE:O	1.98	0.63
1:A:636:LYS:N	4:8:334:GLU:OE1	2.31	0.63
2:B:121:LEU:HA	2:B:128:PHE:CG	2.34	0.63
2:B:140:PHE:HB3	2:B:144:VAL:CG1	2.28	0.63
1:D:296:MLY:HH11	1:D:348:MLY:HH21	1.79	0.63
1:D:534:SER:C	4:9:351:THR:CA	2.47	0.63
1:D:538:GLU:HA	4:9:349:LEU:HB3	1.78	0.63
1:D:769:ALA:CB	1:D:771:LEU:N	2.62	0.63
1:D:831:TRP:CZ3	2:E:50:THR:HB	2.33	0.63
2:E:140:PHE:HB3	2:E:144:VAL:CG1	2.28	0.63
1:G:127:ASN:HD22	1:G:128:PRO:CD	2.11	0.63
1:G:577:ALA:O	1:G:578:HIS:CD2	2.51	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:771:LEU:O	1:G:774:LEU:N	2.32	0.63
1:G:784:ALA:O	1:G:788:THR:CB	2.45	0.63
1:P:544:LYS:HB2	4:0:147:ARG:HA	1.80	0.63
1:P:819:ASN:OD1	2:Q:92:ASP:N	2.28	0.63
4:2:257:CYS:HB3	4:2:258:PRO:HD3	1.81	0.63
4:2:287:ILE:CB	4:4:204:ALA:H	2.11	0.63
1:A:537:GLU:C	4:8:351:THR:N	2.52	0.63
1:D:793:ARG:CZ	3:F:147:MET:HE3	2.29	0.63
1:G:218:LEU:CD2	1:G:222:ILE:HG12	2.28	0.63
1:G:757:GLN:OE1	1:G:772:LEU:O	2.16	0.63
1:G:768:MLY:HE2	1:G:772:LEU:CD2	2.29	0.63
1:P:771:LEU:O	1:P:774:LEU:N	2.32	0.63
1:P:786:ILE:C	1:P:789:ALA:H	2.02	0.63
4:7:190:MET:SD	4:7:209:VAL:HG11	2.38	0.63
4:8:190:MET:SD	4:8:209:VAL:HG11	2.38	0.63
4:9:190:MET:SD	4:9:209:VAL:HG11	2.38	0.63
4:9:257:CYS:HB3	4:9:258:PRO:HD3	1.81	0.63
4:X:291:LYS:HE3	4:Z:243:PRO:HB2	0.63	0.63
1:A:541:MET:CA	4:8:143:TYR:OH	2.47	0.63
1:A:724:TYR:HB3	1:A:727:LEU:HD12	1.80	0.63
1:A:724:TYR:HD1	1:A:727:LEU:HD11	1.64	0.63
2:B:144:VAL:CG1	2:B:153:ILE:HD13	2.19	0.63
1:D:538:GLU:HA	4:9:349:LEU:CG	2.28	0.63
1:D:732:ILE:HG21	1:D:747:LEU:HD11	0.72	0.63
1:G:642:LYS:HA	4:V:21:PHE:O	1.97	0.63
1:G:788:THR:CG2	3:I:42:THR:CB	2.75	0.63
1:G:835:PHE:CZ	2:H:27:PHE:CE1	2.87	0.63
1:P:107:MLY:HB3	1:P:686:MET:CE	2.27	0.63
1:P:127:ASN:HD22	1:P:128:PRO:CD	2.11	0.63
1:P:530:MET:HE3	4:0:354:GLN:HG2	1.76	0.63
4:W:257:CYS:HB3	4:W:258:PRO:HD3	1.81	0.63
4:Y:257:CYS:HB3	4:Y:258:PRO:HD3	1.81	0.63
1:A:202:SER:CA	1:A:207:LYS:HE3	2.27	0.63
1:A:752:ASP:HB3	1:A:782:MLY:HD3	1.79	0.63
1:D:541:MET:SD	4:9:346:LEU:O	2.48	0.63
1:D:541:MET:CA	4:9:143:TYR:OH	2.47	0.63
1:D:771:LEU:O	1:D:774:LEU:N	2.32	0.63
1:D:783:LEU:HD12	1:D:783:LEU:N	2.13	0.63
1:G:541:MET:CA	4:V:143:TYR:OH	2.47	0.63
1:G:636:LYS:N	4:V:334:GLU:OE1	2.31	0.63
2:H:121:LEU:HA	2:H:128:PHE:CG	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:132:GLU:O	2:H:136:MET:HG2	1.98	0.63
1:P:133:PRO:O	1:P:136:ASN:HB2	1.98	0.63
1:P:541:MET:CA	4:0:143:TYR:OH	2.46	0.63
1:P:642:LYS:CG	4:0:22:ALA:C	2.67	0.63
4:5:257:CYS:HB3	4:5:258:PRO:HD3	1.81	0.63
1:A:278:GLN:CG	1:A:317:GLU:HB2	2.27	0.63
1:A:636:LYS:O	1:A:637:LYS:CB	2.45	0.63
1:A:817:GLN:CG	2:B:127:ARG:NE	2.62	0.63
2:B:146:GLY:O	2:B:147:ASN:CB	2.46	0.63
1:D:91:MET:HE3	1:D:119:SER:HB2	1.81	0.63
1:D:480:ILE:HG22	1:D:481:ASN:N	2.11	0.63
1:D:834:LEU:HD21	2:E:54:MET:CB	2.21	0.63
1:G:479:CYS:HB3	1:G:653:PHE:CE2	2.33	0.63
1:G:724:TYR:HB3	1:G:727:LEU:HD12	1.80	0.63
1:G:797:PHE:CE2	3:I:126:LEU:CD2	2.82	0.63
1:P:251:ARG:HB2	1:P:264:ASP:CB	2.29	0.63
1:P:730:SER:C	1:P:733:PRO:HD2	2.20	0.63
2:Q:144:VAL:HA	2:Q:153:ILE:HD11	1.80	0.63
4:0:257:CYS:HB3	4:0:258:PRO:HD3	1.81	0.63
1:A:97:LEU:CD2	1:A:712:PRO:CA	2.76	0.63
1:D:141:LEU:H	1:D:141:LEU:HD12	1.64	0.63
1:D:577:ALA:O	1:D:578:HIS:CD2	2.51	0.63
1:D:839:MLY:HH11	2:E:159:HIS:CB	2.28	0.63
2:E:144:VAL:CG1	2:E:153:ILE:HD13	2.19	0.63
3:F:24:LYS:HB3	3:F:63:ILE:H	1.64	0.63
1:G:542:PHE:CZ	1:G:553:MLY:HH11	2.34	0.63
1:G:642:LYS:CA	4:V:21:PHE:O	2.46	0.63
1:G:795:ARG:HH21	3:I:116:GLU:HB3	0.59	0.63
1:G:819:ASN:ND2	2:H:92:ASP:HB2	2.13	0.63
1:P:577:ALA:O	1:P:578:HIS:CD2	2.51	0.63
1:P:642:LYS:CD	4:0:340:TRP:CZ3	2.79	0.63
3:R:24:LYS:HB3	3:R:63:ILE:H	1.64	0.63
4:4:257:CYS:HB3	4:4:258:PRO:HD3	1.81	0.63
1:A:809:ARG:NH2	2:B:124:GLY:CA	2.62	0.62
2:B:132:GLU:O	2:B:136:MET:HG2	1.98	0.62
1:D:166:MET:HE3	1:D:254:PHE:HD2	1.63	0.62
1:D:538:GLU:CD	4:9:355:MET:HE1	2.16	0.62
1:D:544:LYS:HB2	4:9:147:ARG:HA	1.80	0.62
1:D:735:GLY:O	1:D:743:ALA:HA	1.94	0.62
1:G:725:ARG:NE	1:G:737:PHE:CE1	2.67	0.62
2:H:117:LEU:CG	2:H:147:ASN:CB	2.76	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:148:ARG:HH21	1:P:764:MLY:CH2	2.11	0.62
4:7:257:CYS:HB3	4:7:258:PRO:HD3	1.81	0.62
4:X:190:MET:SD	4:X:209:VAL:HG11	2.38	0.62
4:X:286:ASP:OD1	4:Z:203:THR:N	2.32	0.62
4:Z:190:MET:SD	4:Z:209:VAL:HG11	2.38	0.62
4:5:190:MET:SD	4:5:209:VAL:HG11	2.38	0.62
1:A:541:MET:C	4:8:143:TYR:CZ	2.73	0.62
1:A:544:LYS:HB2	4:8:147:ARG:HA	1.80	0.62
1:D:127:ASN:HD22	1:D:128:PRO:CD	2.11	0.62
1:D:133:PRO:O	1:D:136:ASN:HB2	1.98	0.62
1:D:218:LEU:CD2	1:D:222:ILE:HG12	2.28	0.62
1:D:251:ARG:HB2	1:D:264:ASP:CB	2.29	0.62
1:D:551:MLY:C	4:W:46:GLY:O	2.47	0.62
1:D:553:MLY:O	4:W:48:GLY:HA2	1.99	0.62
1:P:94:MET:HE1	1:P:101:ALA:HB1	1.80	0.62
1:P:534:SER:C	4:0:351:THR:CA	2.47	0.62
4:8:257:CYS:HB3	4:8:258:PRO:HD3	1.81	0.62
4:3:190:MET:SD	4:3:209:VAL:HG11	2.38	0.62
1:A:506:GLU:CG	1:A:761:GLY:N	2.50	0.62
1:A:577:ALA:O	1:A:578:HIS:CD2	2.52	0.62
1:A:578:HIS:CB	1:A:592:ILE:HD12	2.30	0.62
1:A:730:SER:C	1:A:733:PRO:HD2	2.20	0.62
1:A:834:LEU:HD12	2:B:54:MET:CB	2.28	0.62
1:D:578:HIS:CB	1:D:592:ILE:HD12	2.30	0.62
1:D:724:TYR:HB3	1:D:727:LEU:HD12	1.80	0.62
1:D:769:ALA:CA	1:D:771:LEU:N	2.61	0.62
1:G:278:GLN:CG	1:G:317:GLU:HB2	2.27	0.62
1:P:93:MET:HE3	1:P:764:MLY:CH1	2.29	0.62
1:P:141:LEU:HD12	1:P:141:LEU:H	1.64	0.62
1:P:530:MET:CG	4:0:354:GLN:CG	2.72	0.62
1:P:578:HIS:CB	1:P:592:ILE:HD12	2.30	0.62
1:P:726:VAL:HG13	3:R:89:GLU:CG	2.28	0.62
1:P:786:ILE:CA	1:P:787:ILE:N	2.59	0.62
1:P:798:LEU:CD2	3:R:126:LEU:HD11	2.24	0.62
4:3:257:CYS:HB3	4:3:258:PRO:HD3	1.81	0.62
1:A:542:PHE:CZ	1:A:553:MLY:HH11	2.34	0.62
1:A:771:LEU:O	1:A:774:LEU:N	2.32	0.62
1:D:755:HIS:HA	1:D:758:TYR:HE1	1.64	0.62
1:G:278:GLN:HG3	1:G:318:GLY:N	2.15	0.62
1:G:537:GLU:HB3	1:G:648:THR:HB	1.81	0.62
1:G:730:SER:C	1:G:733:PRO:HD2	2.20	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:783:LEU:HD12	1:G:783:LEU:N	2.13	0.62
1:P:726:VAL:O	3:R:89:GLU:OE2	2.16	0.62
4:9:361:GLU:HB3	4:9:369:ILE:HG12	1.82	0.62
4:W:361:GLU:HB3	4:W:369:ILE:HG12	1.82	0.62
4:X:287:ILE:CG2	4:Z:201:VAL:CG2	2.77	0.62
4:1:190:MET:SD	4:1:209:VAL:HG11	2.38	0.62
1:A:274:ARG:HB2	1:A:285:TYR:CE2	2.34	0.62
1:A:725:ARG:NE	1:A:737:PHE:CE1	2.67	0.62
1:D:406:VAL:HG12	1:D:407:GLY:N	2.13	0.62
1:D:725:ARG:NE	1:D:737:PHE:CE1	2.67	0.62
1:D:730:SER:C	1:D:733:PRO:HD2	2.20	0.62
1:D:732:ILE:HG22	1:D:747:LEU:CD1	1.55	0.62
1:G:302:MET:HG2	1:G:303:LEU:CD1	2.30	0.62
1:G:578:HIS:CB	1:G:592:ILE:HD12	2.30	0.62
1:G:813:ILE:CG2	2:H:128:PHE:CZ	2.81	0.62
1:P:836:PHE:HE2	2:Q:160:GLY:C	1.91	0.62
4:Y:190:MET:SD	4:Y:209:VAL:HG11	2.38	0.62
1:A:278:GLN:HG3	1:A:318:GLY:N	2.15	0.62
1:A:499:GLU:CD	1:A:766:PHE:CZ	2.72	0.62
1:A:504:MLY:HG3	1:A:762:HIS:CE1	2.33	0.62
1:A:553:MLY:O	4:V:48:GLY:HA2	1.99	0.62
1:A:831:TRP:CD1	2:B:51:PHE:HZ	2.16	0.62
1:D:580:SER:HA	1:D:588:VAL:O	2.00	0.62
1:D:724:TYR:HD1	1:D:727:LEU:HD11	1.64	0.62
2:E:117:LEU:HD11	2:E:147:ASN:HB3	1.76	0.62
1:G:543:PRO:HG2	4:V:143:TYR:O	1.99	0.62
1:G:544:LYS:HB2	4:V:147:ARG:HA	1.80	0.62
1:G:795:ARG:HH22	3:I:116:GLU:CD	2.02	0.62
1:G:800:ARG:NH1	3:I:149:VAL:C	2.52	0.62
2:H:146:GLY:O	2:H:147:ASN:CB	2.46	0.62
1:P:797:PHE:CD2	3:R:126:LEU:HD22	2.34	0.62
2:Q:111:SER:OG	2:Q:148:VAL:CG1	2.48	0.62
4:7:361:GLU:HB3	4:7:369:ILE:HG12	1.82	0.62
4:1:288:ASP:OD2	4:3:203:THR:CG2	2.44	0.62
4:5:361:GLU:HB3	4:5:369:ILE:HG12	1.82	0.62
1:A:161:ASN:HA	1:A:164:GLN:HE21	1.63	0.62
1:A:210:GLN:O	1:A:211:SER:OG	2.15	0.62
1:A:251:ARG:HB2	1:A:264:ASP:CB	2.29	0.62
1:A:643:GLY:H	4:8:23:GLY:C	2.02	0.62
1:D:542:PHE:CZ	1:D:553:MLY:HH11	2.34	0.62
1:G:154:HIS:CE1	1:G:156:PHE:CD2	2.88	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:530:MET:HE3	4:V:354:GLN:CG	2.28	0.62
1:G:580:SER:HA	1:G:588:VAL:O	2.00	0.62
2:H:111:SER:OG	2:H:148:VAL:CG1	2.47	0.62
1:P:278:GLN:HG3	1:P:318:GLY:N	2.15	0.62
1:P:541:MET:C	4:O:143:TYR:CZ	2.72	0.62
1:P:725:ARG:NE	1:P:737:PHE:CE1	2.67	0.62
2:Q:132:GLU:O	2:Q:136:MET:HG2	1.98	0.62
4:Z:361:GLU:HB3	4:Z:369:ILE:HG12	1.82	0.62
1:A:542:PHE:N	4:8:143:TYR:OH	2.33	0.62
1:A:799:MET:SD	3:C:32:ASP:O	2.58	0.62
1:A:836:PHE:CE1	2:B:160:GLY:N	2.67	0.62
1:G:94:MET:HE1	1:G:101:ALA:HB1	1.79	0.62
1:G:99:GLU:OE2	1:G:696:ARG:NH2	2.30	0.62
1:G:800:ARG:CB	3:I:149:VAL:HG21	2.22	0.62
3:I:50:LEU:O	3:I:53:PRO:HD2	2.00	0.62
1:P:274:ARG:HB2	1:P:285:TYR:CE2	2.34	0.62
4:X:257:CYS:HB3	4:X:258:PRO:HD3	1.81	0.62
4:O:75:ILE:HG21	4:1:197:GLY:CA	2.29	0.62
1:A:551:MLY:C	4:V:46:GLY:O	2.47	0.62
1:A:580:SER:HA	1:A:588:VAL:O	2.00	0.62
1:A:732:ILE:HG22	1:A:747:LEU:CD1	1.55	0.62
1:D:829:TRP:NE1	2:E:67:MET:HG2	2.10	0.62
2:E:114:LYS:HG3	2:E:146:GLY:HA2	1.82	0.62
1:G:541:MET:C	4:V:143:TYR:CZ	2.73	0.62
1:G:579:PHE:CE1	1:G:581:LEU:HD13	2.35	0.62
1:P:541:MET:HE2	4:O:346:LEU:HD12	1.81	0.62
1:P:643:GLY:H	4:O:23:GLY:C	2.02	0.62
1:P:804:ARG:O	1:P:807:VAL:CB	2.47	0.62
4:X:287:ILE:O	4:Z:205:GLU:OE1	2.18	0.62
4:Y:361:GLU:HB3	4:Y:369:ILE:HG12	1.82	0.62
4:3:324:THR:CG2	4:5:244:ASP:C	2.55	0.62
1:A:822:SER:HG	2:B:87:LYS:C	1.99	0.62
1:D:541:MET:HE2	4:9:346:LEU:HD12	1.82	0.62
2:E:144:VAL:HA	2:E:153:ILE:HD11	1.80	0.62
1:G:274:ARG:HB2	1:G:285:TYR:CE2	2.34	0.62
1:G:510:TRP:CZ3	1:G:768:MLY:HH11	2.34	0.62
1:G:542:PHE:N	4:V:143:TYR:OH	2.33	0.62
1:G:642:LYS:CG	4:V:22:ALA:C	2.67	0.62
1:P:93:MET:HE3	1:P:764:MLY:HH12	1.80	0.62
4:8:361:GLU:HB3	4:8:369:ILE:HG12	1.82	0.62
4:V:257:CYS:HB3	4:V:258:PRO:HD3	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:V:361:GLU:HB3	4:V:369:ILE:HG12	1.82	0.62
4:1:287:ILE:CD1	4:3:203:THR:N	2.62	0.62
1:A:520:ALA:O	1:A:524:GLU:HG2	2.00	0.61
1:A:579:PHE:CE1	1:A:581:LEU:HD13	2.35	0.61
1:D:530:MET:CG	4:9:354:GLN:HG3	2.30	0.61
1:D:642:LYS:CD	4:9:24:ASP:O	2.42	0.61
1:D:797:PHE:HD1	3:F:149:VAL:CG1	2.13	0.61
2:E:121:LEU:HA	2:E:128:PHE:CG	2.34	0.61
1:G:202:SER:CA	1:G:207:LYS:HE3	2.28	0.61
1:P:92:ALA:O	1:P:714:ARG:CG	2.48	0.61
1:P:541:MET:SD	4:0:346:LEU:O	2.48	0.61
1:P:542:PHE:CB	4:0:143:TYR:HE1	2.13	0.61
4:V:286:ASP:OD2	4:X:203:THR:CG2	2.47	0.61
4:Z:257:CYS:HB3	4:Z:258:PRO:HD3	1.81	0.61
4:1:257:CYS:HB3	4:1:258:PRO:HD3	1.81	0.61
4:2:361:GLU:HB3	4:2:369:ILE:HG12	1.82	0.61
1:A:141:LEU:H	1:A:141:LEU:HD12	1.64	0.61
1:A:302:MET:HG2	1:A:303:LEU:CD1	2.30	0.61
3:C:52:ASN:N	3:C:53:PRO:HD2	2.15	0.61
1:D:161:ASN:HA	1:D:164:GLN:HE21	1.64	0.61
1:D:274:ARG:HB2	1:D:285:TYR:CE2	2.34	0.61
1:D:278:GLN:HG3	1:D:318:GLY:N	2.15	0.61
1:D:541:MET:C	4:9:143:TYR:CZ	2.73	0.61
1:D:542:PHE:CB	4:9:143:TYR:HE1	2.13	0.61
2:E:34:ILE:O	2:E:46:ASP:HB3	2.01	0.61
2:E:117:LEU:CB	2:E:147:ASN:ND2	2.35	0.61
1:G:161:ASN:HA	1:G:164:GLN:HE21	1.63	0.61
1:G:295:MLY:HG3	1:G:332:MET:HE1	1.82	0.61
1:G:520:ALA:O	1:G:524:GLU:HG2	2.00	0.61
1:P:542:PHE:CZ	1:P:553:MLY:HH11	2.34	0.61
1:P:580:SER:HA	1:P:588:VAL:O	2.00	0.61
2:Q:121:LEU:HA	2:Q:128:PHE:CG	2.34	0.61
4:Z:324:THR:CG2	4:1:244:ASP:HA	2.29	0.61
1:A:542:PHE:CB	4:8:143:TYR:HE1	2.12	0.61
1:D:302:MET:HG2	1:D:303:LEU:CD1	2.30	0.61
1:D:819:ASN:CB	2:E:90:GLY:O	2.48	0.61
2:E:111:SER:OG	2:E:148:VAL:CG1	2.48	0.61
3:I:4:LYS:N	3:I:5:ALA:O	2.16	0.61
1:P:278:GLN:CG	1:P:317:GLU:HB2	2.27	0.61
1:P:769:ALA:HB3	1:P:770:GLY:N	2.13	0.61
4:X:324:THR:HB	4:Z:247:VAL:H	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Y:291:LYS:CB	4:0:246:GLN:HB2	2.29	0.61
4:Z:324:THR:OG1	4:1:244:ASP:CA	2.48	0.61
4:0:75:ILE:HG21	4:1:197:GLY:HA2	1.82	0.61
1:A:643:GLY:O	1:A:644:SER:CB	2.48	0.61
1:D:643:GLY:H	4:9:23:GLY:C	2.02	0.61
1:G:251:ARG:HB2	1:G:264:ASP:CB	2.29	0.61
1:G:769:ALA:C	1:G:773:GLY:HA3	2.21	0.61
3:I:24:LYS:HB3	3:I:63:ILE:H	1.64	0.61
1:P:99:GLU:OE2	1:P:696:ARG:NH2	2.30	0.61
1:P:302:MET:HG2	1:P:303:LEU:CD1	2.29	0.61
1:P:520:ALA:O	1:P:524:GLU:HG2	2.00	0.61
1:P:538:GLU:HA	4:0:349:LEU:CG	2.28	0.61
1:P:623:PHE:CG	1:P:623:PHE:HA	2.35	0.61
1:P:732:ILE:HG21	1:P:747:LEU:HD11	0.73	0.61
2:Q:114:LYS:HG3	2:Q:146:GLY:HA2	1.82	0.61
2:Q:144:VAL:HG12	2:Q:153:ILE:HD11	1.75	0.61
4:3:322:PRO:CB	4:5:244:ASP:CG	2.54	0.61
1:A:154:HIS:CE1	1:A:156:PHE:CD2	2.88	0.61
3:C:24:LYS:HB3	3:C:63:ILE:H	1.64	0.61
1:G:141:LEU:H	1:G:141:LEU:HD12	1.64	0.61
1:G:800:ARG:CD	3:I:149:VAL:CG2	2.57	0.61
1:P:154:HIS:CE1	1:P:156:PHE:CD2	2.88	0.61
1:P:161:ASN:HA	1:P:164:GLN:HE21	1.64	0.61
1:P:411:GLU:N	4:0:333:PRO:HB2	2.11	0.61
1:P:542:PHE:N	4:0:143:TYR:OH	2.32	0.61
1:P:642:LYS:CD	4:0:24:ASP:O	2.43	0.61
4:4:361:GLU:HB3	4:4:369:ILE:HG12	1.82	0.61
1:A:639:GLY:N	4:8:344:SER:C	2.54	0.61
1:A:831:TRP:CE3	2:B:34:ILE:CG1	2.81	0.61
2:B:111:SER:OG	2:B:148:VAL:CG1	2.48	0.61
1:D:154:HIS:CE1	1:D:156:PHE:CD2	2.88	0.61
1:D:542:PHE:N	4:9:143:TYR:OH	2.33	0.61
1:D:623:PHE:CG	1:D:623:PHE:HA	2.36	0.61
1:D:769:ALA:CB	1:D:770:GLY:HA3	2.21	0.61
3:F:63:ILE:HG22	3:F:64:THR:O	2.01	0.61
1:G:643:GLY:H	4:V:23:GLY:C	2.02	0.61
1:G:686:MET:HG3	1:G:691:VAL:HG21	1.83	0.61
1:G:724:TYR:HD1	1:G:727:LEU:HD11	1.64	0.61
1:P:524:GLU:O	1:P:528:MLY:HB3	2.01	0.61
1:P:639:GLY:N	4:0:344:SER:C	2.54	0.61
1:P:643:GLY:O	1:P:644:SER:CB	2.49	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:0:361:GLU:HB3	4:0:369:ILE:HG12	1.82	0.61
1:A:217:THR:C	1:A:221:GLN:HG2	2.21	0.61
1:A:721:LYS:HG2	1:A:736:GLN:CD	1.86	0.61
1:D:99:GLU:OE2	1:D:696:ARG:NH2	2.30	0.61
1:D:520:ALA:O	1:D:524:GLU:HG2	2.00	0.61
1:D:793:ARG:HE	3:F:147:MET:HG2	0.81	0.61
1:D:798:LEU:HD13	3:F:126:LEU:CD1	2.25	0.61
1:G:124:VAL:CG1	1:G:675:ILE:HD13	2.31	0.61
1:G:842:LEU:CG	2:H:29:GLU:CB	2.73	0.61
1:P:530:MET:CG	4:0:354:GLN:HG3	2.30	0.61
1:P:579:PHE:CE1	1:P:581:LEU:HD13	2.35	0.61
1:P:686:MET:HG3	1:P:691:VAL:HG21	1.83	0.61
1:A:81:ASN:OD1	1:A:96:HIS:HB2	2.00	0.61
1:A:97:LEU:HD23	1:A:712:PRO:CA	2.31	0.61
1:A:98:HIS:HB3	1:A:100:PRO:CD	2.25	0.61
1:A:642:LYS:CG	4:8:22:ALA:C	2.67	0.61
1:A:686:MET:HG3	1:A:691:VAL:HG21	1.83	0.61
1:A:797:PHE:CZ	3:C:146:ILE:HD13	2.35	0.61
3:C:50:LEU:O	3:C:53:PRO:HD2	2.00	0.61
1:D:507:GLY:O	1:D:761:GLY:HA2	1.96	0.61
1:D:643:GLY:O	1:D:644:SER:CB	2.48	0.61
1:G:98:HIS:HB3	1:G:100:PRO:CD	2.25	0.61
2:H:144:VAL:HA	2:H:153:ILE:HD11	1.80	0.61
1:P:40:VAL:HG22	1:P:41:VAL:N	2.16	0.61
1:P:795:ARG:CG	3:R:118:MET:HE3	2.27	0.61
3:R:52:ASN:N	3:R:53:PRO:HD2	2.15	0.61
4:X:287:ILE:HG23	4:Z:201:VAL:CG2	2.31	0.61
4:1:361:GLU:HB3	4:1:369:ILE:HG12	1.82	0.61
1:A:623:PHE:CG	1:A:623:PHE:HA	2.36	0.61
1:A:717:TYR:HD1	1:A:744:SER:HG	1.48	0.61
1:A:768:MLY:CA	1:A:771:LEU:HB2	2.30	0.61
1:D:686:MET:HG3	1:D:691:VAL:HG21	1.83	0.61
1:G:538:GLU:HA	4:V:349:LEU:CG	2.28	0.61
1:G:578:HIS:CD2	1:G:591:ASN:HA	2.31	0.61
1:G:643:GLY:O	1:G:644:SER:CB	2.48	0.61
4:1:287:ILE:CG1	4:3:202:THR:CB	2.79	0.61
4:2:324:THR:CG2	4:4:243:PRO:C	2.57	0.61
1:A:40:VAL:HG22	1:A:41:VAL:N	2.16	0.61
1:A:124:VAL:CG1	1:A:675:ILE:HD13	2.31	0.61
1:A:156:PHE:CD1	1:A:195:TYR:CD1	2.89	0.61
1:A:541:MET:HE2	4:8:346:LEU:HD12	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:557:GLU:HG3	1:A:557:GLU:O	2.00	0.61
3:C:63:ILE:HG22	3:C:64:THR:O	2.01	0.61
1:D:217:THR:C	1:D:221:GLN:HG2	2.21	0.61
1:D:578:HIS:CD2	1:D:591:ASN:HA	2.31	0.61
3:F:52:ASN:N	3:F:53:PRO:HD2	2.16	0.61
1:G:40:VAL:HG22	1:G:41:VAL:N	2.16	0.61
1:G:217:THR:C	1:G:221:GLN:HG2	2.21	0.61
1:G:524:GLU:O	1:G:528:MLY:HB3	2.01	0.61
1:G:553:MLY:HB2	4:X:46:GLY:HA3	1.83	0.61
4:7:223:PHE:HD2	4:7:312:ARG:NH2	1.99	0.61
4:4:223:PHE:HD2	4:4:312:ARG:NH2	1.99	0.61
1:A:506:GLU:HB2	1:A:761:GLY:N	2.13	0.60
1:D:40:VAL:HG22	1:D:41:VAL:N	2.16	0.60
1:D:579:PHE:CE1	1:D:581:LEU:HD13	2.35	0.60
1:G:557:GLU:HG3	1:G:557:GLU:O	2.00	0.60
1:G:732:ILE:HG22	1:G:747:LEU:CD1	1.55	0.60
1:P:723:ARG:CD	1:P:779:ARG:HH11	2.15	0.60
1:P:732:ILE:CG2	1:P:747:LEU:HD11	1.26	0.60
4:9:223:PHE:HD2	4:9:312:ARG:NH2	1.99	0.60
4:Y:223:PHE:HD2	4:Y:312:ARG:NH2	1.99	0.60
4:Y:291:LYS:HB3	4:0:246:GLN:HB2	1.80	0.60
4:0:166:TYR:CE2	4:2:40:HIS:HB3	2.29	0.60
4:2:322:PRO:CB	4:4:244:ASP:HB2	2.26	0.60
1:D:7:MET:HE3	1:D:14:ALA:HB1	1.84	0.60
1:D:557:GLU:HG3	1:D:557:GLU:O	2.00	0.60
1:D:837:MLY:O	1:D:840:PRO:HD2	2.02	0.60
1:G:542:PHE:CB	4:V:143:TYR:HE1	2.13	0.60
1:P:755:HIS:HA	1:P:758:TYR:HE1	1.65	0.60
1:P:818:TYR:CB	2:Q:90:GLY:HA2	2.20	0.60
2:Q:34:ILE:O	2:Q:46:ASP:HB3	2.01	0.60
3:R:63:ILE:HG22	3:R:64:THR:O	2.01	0.60
4:X:361:GLU:HB3	4:X:369:ILE:HG12	1.82	0.60
4:5:223:PHE:HD2	4:5:312:ARG:NH2	1.99	0.60
1:A:530:MET:CG	4:8:354:GLN:HG3	2.30	0.60
1:D:813:ILE:HD13	2:E:128:PHE:HE1	1.67	0.60
1:G:149:GLN:HG2	1:G:763:THR:HG1	1.60	0.60
1:G:642:LYS:CD	4:V:340:TRP:CZ3	2.80	0.60
1:G:818:TYR:HB3	2:H:90:GLY:HA3	1.84	0.60
1:G:829:TRP:CZ3	2:H:87:LYS:NZ	2.60	0.60
1:P:665:ARG:C	1:P:667:THR:H	2.05	0.60
1:P:834:LEU:CD2	2:Q:54:MET:HG3	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1:223:PHE:HD2	4:1:312:ARG:NH2	1.99	0.60
4:3:361:GLU:HB3	4:3:369:ILE:HG12	1.82	0.60
1:A:538:GLU:HA	4:8:349:LEU:CG	2.27	0.60
1:D:81:ASN:OD1	1:D:96:HIS:HB2	2.00	0.60
1:D:95:THR:HG23	1:D:96:HIS:ND1	2.17	0.60
1:D:124:VAL:CG1	1:D:675:ILE:HD13	2.31	0.60
1:D:798:LEU:HD11	3:F:126:LEU:CD1	2.25	0.60
1:G:81:ASN:OD1	1:G:96:HIS:HB2	2.00	0.60
2:H:114:LYS:HG3	2:H:146:GLY:HA2	1.82	0.60
1:P:797:PHE:HE2	3:R:126:LEU:CD2	2.14	0.60
4:X:223:PHE:HD2	4:X:312:ARG:NH2	1.99	0.60
1:A:40:VAL:HG22	1:A:41:VAL:H	1.67	0.60
1:A:505:MLY:HD3	1:A:762:HIS:HA	0.67	0.60
1:A:550:PHE:CE2	1:A:592:ILE:HG23	2.37	0.60
1:A:642:LYS:CD	4:8:340:TRP:CZ3	2.79	0.60
2:B:114:LYS:HG3	2:B:146:GLY:HA2	1.82	0.60
1:D:60:VAL:O	1:D:71:THR:HA	2.02	0.60
3:F:50:LEU:O	3:F:53:PRO:HD2	2.00	0.60
1:G:38:VAL:HB	1:G:52:ILE:HD11	1.84	0.60
1:G:530:MET:CG	4:V:354:GLN:HG3	2.30	0.60
1:G:732:ILE:HG23	1:G:747:LEU:CB	1.85	0.60
1:G:813:ILE:HG23	2:H:128:PHE:HZ	1.66	0.60
3:I:52:ASN:N	3:I:53:PRO:HD2	2.16	0.60
4:8:223:PHE:HD2	4:8:312:ARG:NH2	1.99	0.60
4:X:287:ILE:O	4:Z:205:GLU:OE2	2.19	0.60
1:A:38:VAL:HB	1:A:52:ILE:HD11	1.84	0.60
1:A:542:PHE:CD1	4:8:143:TYR:CE1	2.90	0.60
1:A:553:MLY:NZ	4:V:45:VAL:HG13	2.16	0.60
1:A:818:TYR:CG	2:B:89:LYS:HB2	2.37	0.60
1:D:38:VAL:HB	1:D:52:ILE:HD11	1.84	0.60
1:D:124:VAL:HG13	1:D:675:ILE:HD13	1.84	0.60
1:G:541:MET:HE2	4:V:346:LEU:HD12	1.82	0.60
1:P:93:MET:HG2	1:P:714:ARG:HB2	1.80	0.60
1:P:649:VAL:HA	1:P:649:VAL:HG22	1.81	0.60
4:0:113:LYS:CE	4:1:252:ASN:OD1	2.50	0.60
4:0:223:PHE:HD2	4:0:312:ARG:NH2	1.99	0.60
1:A:524:GLU:O	1:A:528:MLY:HB3	2.01	0.60
1:A:665:ARG:C	1:A:667:THR:H	2.05	0.60
2:B:130:PRO:HA	2:B:133:ILE:HD12	1.83	0.60
1:D:783:LEU:O	1:D:787:ILE:N	2.28	0.60
1:G:599:ASN:CB	1:G:649:VAL:HB	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:665:ARG:C	1:G:667:THR:H	2.05	0.60
1:G:730:SER:OG	3:I:109:HIS:CG	2.55	0.60
1:G:797:PHE:CE1	3:I:149:VAL:HG12	2.34	0.60
1:P:38:VAL:HB	1:P:52:ILE:HD11	1.83	0.60
1:P:40:VAL:HG22	1:P:41:VAL:H	1.67	0.60
1:P:81:ASN:OD1	1:P:96:HIS:HB2	2.00	0.60
1:A:578:HIS:CD2	1:A:591:ASN:HA	2.31	0.60
1:A:769:ALA:N	1:A:771:LEU:HB2	2.16	0.60
1:A:831:TRP:CE3	2:B:34:ILE:HG12	2.36	0.60
1:A:839:MLY:NZ	2:B:159:HIS:HB3	2.16	0.60
3:C:46:ILE:O	3:C:50:LEU:CG	2.47	0.60
1:D:524:GLU:O	1:D:528:MLY:HB3	2.01	0.60
1:D:797:PHE:CD1	3:F:149:VAL:CG1	2.83	0.60
4:5:287:ILE:H	4:5:287:ILE:HD12	1.67	0.60
1:D:49:MLY:HH13	1:D:108:GLU:OE2	2.02	0.60
1:D:536:LEU:HD13	1:D:550:PHE:CE1	2.37	0.60
1:D:793:ARG:HE	3:F:147:MET:CB	2.13	0.60
1:G:787:ILE:O	1:G:790:THR:N	2.35	0.60
2:H:34:ILE:O	2:H:46:ASP:HB3	2.01	0.60
1:P:124:VAL:HG13	1:P:675:ILE:HD13	1.84	0.60
1:P:536:LEU:HD13	1:P:550:PHE:CE1	2.37	0.60
1:P:548:THR:HG21	4:2:49:GLN:CB	2.31	0.60
4:8:287:ILE:H	4:8:287:ILE:HD12	1.67	0.60
4:3:223:PHE:HD2	4:3:312:ARG:NH2	1.99	0.60
1:A:95:THR:HG23	1:A:96:HIS:ND1	2.17	0.60
1:G:40:VAL:HG22	1:G:41:VAL:H	1.67	0.60
1:G:60:VAL:O	1:G:71:THR:HA	2.02	0.60
1:G:156:PHE:CD1	1:G:195:TYR:CD1	2.90	0.60
1:P:49:MLY:HH13	1:P:108:GLU:OE2	2.02	0.60
1:P:502:GLU:CD	1:P:761:GLY:CA	2.60	0.60
1:P:506:GLU:HG3	1:P:760:PHE:CD1	2.24	0.60
1:P:546:THR:HG22	1:P:547:ASP:N	2.17	0.60
1:P:837:MLY:O	1:P:840:PRO:HD2	2.02	0.60
2:Q:130:PRO:HA	2:Q:133:ILE:HD12	1.84	0.60
3:R:50:LEU:O	3:R:53:PRO:HD2	2.00	0.60
4:0:113:LYS:NZ	4:1:253:GLU:H	1.99	0.60
1:A:599:ASN:CB	1:A:649:VAL:HB	2.32	0.59
1:A:817:GLN:NE2	2:B:127:ARG:HE	2.00	0.59
1:D:40:VAL:HG22	1:D:41:VAL:H	1.67	0.59
1:D:546:THR:HG22	1:D:547:ASP:N	2.17	0.59
1:D:814:PHE:N	2:E:127:ARG:HH11	1.99	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:546:THR:HG22	1:G:547:ASP:N	2.17	0.59
1:G:623:PHE:CG	1:G:623:PHE:HA	2.36	0.59
1:G:816:ILE:HD11	2:H:100:ALA:HB1	1.83	0.59
3:I:63:ILE:HG22	3:I:64:THR:O	2.01	0.59
1:P:95:THR:HG23	1:P:96:HIS:ND1	2.17	0.59
1:P:202:SER:CA	1:P:207:LYS:HE3	2.27	0.59
1:P:217:THR:C	1:P:221:GLN:HG2	2.22	0.59
1:P:557:GLU:HG3	1:P:557:GLU:O	2.00	0.59
1:P:721:LYS:HG2	1:P:736:GLN:CD	1.86	0.59
1:P:787:ILE:O	1:P:790:THR:N	2.35	0.59
1:P:836:PHE:CB	2:Q:161:GLU:OE1	2.50	0.59
4:0:110:LEU:HD22	4:1:191:LYS:CD	2.32	0.59
4:2:223:PHE:HD2	4:2:312:ARG:NH2	1.99	0.59
1:A:502:GLU:OE2	1:A:717:TYR:HE2	1.84	0.59
1:A:546:THR:HG22	1:A:547:ASP:N	2.17	0.59
2:B:34:ILE:O	2:B:46:ASP:HB3	2.01	0.59
1:D:542:PHE:CD1	4:9:143:TYR:CE1	2.90	0.59
1:D:642:LYS:CD	4:9:340:TRP:CZ3	2.79	0.59
1:G:95:THR:HG23	1:G:96:HIS:ND1	2.17	0.59
1:G:550:PHE:CE2	1:G:592:ILE:HG23	2.37	0.59
1:G:797:PHE:CD2	3:I:126:LEU:HD22	2.37	0.59
1:P:599:ASN:CB	1:P:649:VAL:HB	2.32	0.59
4:9:287:ILE:H	4:9:287:ILE:HD12	1.67	0.59
4:3:287:ILE:H	4:3:287:ILE:HD12	1.67	0.59
1:A:127:ASN:ND2	1:A:128:PRO:HD2	2.17	0.59
1:A:553:MLY:CE	4:V:45:VAL:CA	2.49	0.59
1:A:837:MLY:O	1:A:840:PRO:HD2	2.02	0.59
1:D:665:ARG:C	1:D:667:THR:H	2.05	0.59
1:D:839:MLY:CH2	2:E:159:HIS:HB3	2.33	0.59
1:G:776:GLU:O	1:G:779:ARG:HB3	2.02	0.59
1:P:60:VAL:O	1:P:71:THR:HA	2.02	0.59
1:P:124:VAL:CG1	1:P:675:ILE:HD13	2.32	0.59
4:Z:223:PHE:HD2	4:Z:312:ARG:NH2	1.99	0.59
1:A:93:MET:CE	1:A:715:VAL:HA	2.27	0.59
1:A:543:PRO:HG2	4:8:143:TYR:O	1.98	0.59
1:D:550:PHE:CE2	1:D:592:ILE:HG23	2.37	0.59
1:G:838:ILE:HD13	2:H:33:VAL:HG11	1.85	0.59
3:I:52:ASN:N	3:I:53:PRO:CD	2.65	0.59
1:P:97:LEU:CD2	1:P:712:PRO:HA	2.33	0.59
1:P:550:PHE:CE2	1:P:592:ILE:HG23	2.37	0.59
3:R:52:ASN:N	3:R:53:PRO:CD	2.65	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:7:287:ILE:HD12	4:7:287:ILE:H	1.67	0.59
4:Y:287:ILE:H	4:Y:287:ILE:HD12	1.67	0.59
1:A:505:MLY:CH1	1:A:762:HIS:CB	2.81	0.59
1:A:839:MLY:HH13	2:B:159:HIS:CG	2.25	0.59
1:D:156:PHE:CD1	1:D:195:TYR:CD1	2.90	0.59
1:D:210:GLN:O	1:D:211:SER:OG	2.15	0.59
1:D:265:ILE:HG22	1:D:266:GLU:N	2.18	0.59
1:D:530:MET:HA	4:9:354:GLN:CB	2.29	0.59
3:F:102:VAL:HG11	3:F:107:LEU:HB2	1.84	0.59
1:G:835:PHE:CE1	2:H:30:ALA:HB2	2.37	0.59
1:G:838:ILE:CD1	2:H:33:VAL:CG1	2.80	0.59
2:Q:140:PHE:O	2:Q:141:PRO:C	2.33	0.59
4:0:173:HIS:CD2	4:1:268:GLY:N	2.71	0.59
1:A:536:LEU:HD13	1:A:550:PHE:CE1	2.37	0.59
1:A:755:HIS:HA	1:A:758:TYR:HE1	1.64	0.59
1:G:837:MLY:O	1:G:840:PRO:HD2	2.02	0.59
1:P:127:ASN:ND2	1:P:128:PRO:HD2	2.16	0.59
1:P:481:ASN:N	1:P:481:ASN:ND2	2.51	0.59
1:P:578:HIS:CD2	1:P:591:ASN:HA	2.31	0.59
1:P:709:LYS:N	1:P:710:GLY:N	2.49	0.59
4:0:114:ALA:CB	4:1:196:ARG:HD3	2.29	0.59
1:A:768:MLY:C	1:A:771:LEU:HB3	2.32	0.59
1:D:599:ASN:CB	1:D:649:VAL:HB	2.32	0.59
1:G:124:VAL:HG13	1:G:675:ILE:HD13	1.84	0.59
1:G:195:TYR:O	1:G:199:ILE:HG23	2.03	0.59
1:G:542:PHE:CD1	4:V:143:TYR:CE1	2.91	0.59
4:Y:287:ILE:CB	4:0:199:SER:O	2.49	0.59
4:Y:288:ASP:HA	4:0:242:LEU:CD2	2.33	0.59
1:A:787:ILE:O	1:A:790:THR:N	2.35	0.59
1:A:799:MET:SD	3:C:32:ASP:C	2.80	0.59
3:C:102:VAL:HG11	3:C:107:LEU:HB2	1.85	0.59
1:D:230:GLU:O	1:D:234:ASN:HB2	2.03	0.59
1:D:646:PHE:CD2	1:D:652:LEU:CD1	2.85	0.59
3:F:52:ASN:N	3:F:53:PRO:CD	2.65	0.59
1:G:127:ASN:ND2	1:G:128:PRO:HD2	2.17	0.59
1:G:536:LEU:HD13	1:G:550:PHE:CE1	2.37	0.59
1:G:800:ARG:HH11	3:I:149:VAL:C	2.06	0.59
1:G:817:GLN:NE2	2:H:128:PHE:CE1	2.71	0.59
2:H:130:PRO:HA	2:H:133:ILE:HD12	1.84	0.59
1:P:724:TYR:CZ	1:P:776:GLU:OE2	2.32	0.59
2:Q:117:LEU:HD11	2:Q:147:ASN:HB3	1.76	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:60:VAL:O	1:A:71:THR:HA	2.02	0.59
1:A:195:TYR:O	1:A:199:ILE:HG23	2.03	0.59
1:A:529:PRO:HG3	4:8:353:GLN:OE1	2.03	0.59
1:D:787:ILE:O	1:D:790:THR:N	2.35	0.59
1:D:798:LEU:CD1	3:F:126:LEU:CG	2.61	0.59
2:H:144:VAL:CG1	2:H:153:ILE:HD13	2.20	0.59
1:P:156:PHE:CD1	1:P:195:TYR:CD1	2.90	0.59
1:P:542:PHE:CD1	4:0:143:TYR:CE1	2.90	0.59
1:P:804:ARG:CA	1:P:807:VAL:HB	2.32	0.59
1:A:116:TYR:HB2	1:A:153:PRO:O	2.03	0.59
1:A:464:ILE:HG22	1:A:465:ALA:N	2.18	0.59
3:C:52:ASN:N	3:C:53:PRO:CD	2.65	0.59
1:P:92:ALA:HB1	1:P:714:ARG:HH11	1.66	0.59
1:P:195:TYR:O	1:P:199:ILE:HG23	2.03	0.59
1:P:265:ILE:HG22	1:P:266:GLU:N	2.18	0.59
1:P:538:GLU:O	1:P:541:MET:HB2	2.03	0.59
1:P:549:SER:OG	1:P:550:PHE:N	2.35	0.59
1:P:726:VAL:C	3:R:89:GLU:CD	2.59	0.59
4:0:287:ILE:H	4:0:287:ILE:HD12	1.67	0.59
1:A:135:TYR:N	1:A:135:TYR:CD1	2.70	0.58
1:D:48:VAL:HG22	1:D:49:MLY:N	2.18	0.58
1:D:124:VAL:HG13	1:D:675:ILE:CD1	2.33	0.58
1:D:549:SER:OG	1:D:550:PHE:N	2.36	0.58
1:D:553:MLY:NZ	4:W:45:VAL:HG13	2.16	0.58
1:D:776:GLU:O	1:D:779:ARG:HB3	2.03	0.58
2:E:144:VAL:HG12	2:E:153:ILE:HD11	1.75	0.58
1:G:124:VAL:HG13	1:G:675:ILE:CD1	2.33	0.58
1:G:503:TYR:OH	1:G:711:PHE:HD2	1.86	0.58
1:P:141:LEU:O	1:P:144:ARG:HB3	2.03	0.58
1:P:629:GLU:HB3	1:P:645:SER:N	2.18	0.58
4:V:286:ASP:OD1	4:X:202:THR:HB	2.02	0.58
1:A:149:GLN:CD	1:A:718:ALA:HB3	2.23	0.58
1:A:538:GLU:O	1:A:541:MET:HB2	2.04	0.58
1:A:776:GLU:O	1:A:779:ARG:HB3	2.03	0.58
1:D:116:TYR:HB2	1:D:153:PRO:O	2.03	0.58
1:D:141:LEU:O	1:D:144:ARG:HB3	2.03	0.58
1:D:218:LEU:N	1:D:221:GLN:HE21	2.01	0.58
1:D:612:GLN:HE22	1:D:627:GLY:HA2	1.66	0.58
1:D:797:PHE:HD1	3:F:149:VAL:HG12	1.68	0.58
1:G:7:MET:HE3	1:G:14:ALA:HB1	1.84	0.58
1:G:601:ASP:N	1:G:602:PRO:HD3	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Y:292:ASP:OD1	4:0:244:ASP:HA	2.02	0.58
1:A:230:GLU:O	1:A:234:ASN:HB2	2.03	0.58
1:D:195:TYR:O	1:D:199:ILE:HG23	2.03	0.58
1:D:538:GLU:O	1:D:541:MET:HB2	2.04	0.58
1:D:601:ASP:N	1:D:602:PRO:HD3	2.18	0.58
2:E:130:PRO:HA	2:E:133:ILE:HD12	1.84	0.58
1:G:538:GLU:O	1:G:541:MET:HB2	2.04	0.58
1:P:601:ASP:N	1:P:602:PRO:HD3	2.18	0.58
1:P:726:VAL:CA	3:R:89:GLU:HB3	2.33	0.58
1:A:99:GLU:OE2	1:A:696:ARG:NH2	2.30	0.58
1:A:646:PHE:CD2	1:A:652:LEU:CD1	2.85	0.58
1:A:707:CYS:HA	1:A:714:ARG:HH12	0.75	0.58
1:A:715:VAL:HG11	1:A:720:PHE:HD1	1.68	0.58
1:G:48:VAL:HG22	1:G:49:MLY:N	2.18	0.58
1:G:116:TYR:HB2	1:G:153:PRO:O	2.03	0.58
1:G:141:LEU:O	1:G:144:ARG:HB3	2.03	0.58
1:G:646:PHE:CD2	1:G:652:LEU:CD1	2.85	0.58
1:P:93:MET:HE1	1:P:764:MLY:HD2	1.69	0.58
1:P:135:TYR:N	1:P:135:TYR:CD1	2.70	0.58
1:P:464:ILE:HG22	1:P:465:ALA:N	2.18	0.58
1:P:643:GLY:HA2	4:0:24:ASP:OD1	2.03	0.58
1:P:715:VAL:HG11	1:P:720:PHE:HD1	1.68	0.58
4:Z:324:THR:HG23	4:1:244:ASP:CA	2.32	0.58
4:2:287:ILE:H	4:2:287:ILE:HD12	1.67	0.58
4:2:324:THR:CG2	4:4:243:PRO:O	2.49	0.58
1:D:135:TYR:N	1:D:135:TYR:CD1	2.70	0.58
1:D:507:GLY:HA3	1:D:762:HIS:CG	2.38	0.58
1:G:135:TYR:N	1:G:135:TYR:CD1	2.70	0.58
1:P:124:VAL:HG13	1:P:675:ILE:CD1	2.33	0.58
1:P:175:ILE:HA	1:P:670:HIS:O	2.04	0.58
4:V:223:PHE:HD2	4:V:312:ARG:NH2	1.99	0.58
4:W:223:PHE:HD2	4:W:312:ARG:NH2	1.99	0.58
4:W:286:ASP:OD1	4:Y:203:THR:HG22	2.04	0.58
4:Z:287:ILE:HD12	4:Z:287:ILE:H	1.67	0.58
4:1:167:GLU:OE1	4:3:44:MET:HA	2.03	0.58
4:1:287:ILE:H	4:1:287:ILE:HD12	1.67	0.58
4:4:287:ILE:H	4:4:287:ILE:HD12	1.67	0.58
1:A:48:VAL:HG22	1:A:49:MLY:N	2.18	0.58
1:A:800:ARG:NH1	3:C:149:VAL:O	2.36	0.58
1:D:464:ILE:HG22	1:D:465:ALA:N	2.18	0.58
1:D:676:ILE:HG23	1:D:676:ILE:O	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:793:ARG:HE	3:F:147:MET:CA	2.16	0.58
1:G:64:THR:HG22	1:G:65:GLU:N	2.19	0.58
1:G:210:GLN:O	1:G:211:SER:OG	2.15	0.58
1:G:230:GLU:O	1:G:234:ASN:HB2	2.03	0.58
1:P:218:LEU:N	1:P:221:GLN:HE21	2.01	0.58
1:P:646:PHE:CD2	1:P:652:LEU:CD1	2.85	0.58
1:A:64:THR:HG22	1:A:65:GLU:N	2.19	0.58
1:A:124:VAL:HG13	1:A:675:ILE:CD1	2.33	0.58
1:A:124:VAL:HG13	1:A:675:ILE:HD13	1.84	0.58
1:A:265:ILE:HG22	1:A:266:GLU:N	2.18	0.58
1:D:279:LEU:HB3	1:D:280:PRO:HD2	1.86	0.58
1:D:629:GLU:HB3	1:D:645:SER:N	2.18	0.58
1:D:813:ILE:O	1:D:817:GLN:N	2.30	0.58
1:G:49:MLY:HH13	1:G:108:GLU:OE2	2.02	0.58
1:G:642:LYS:CG	4:V:22:ALA:CA	2.80	0.58
1:A:175:ILE:HA	1:A:670:HIS:O	2.04	0.58
1:D:481:ASN:N	1:D:481:ASN:ND2	2.51	0.58
1:D:715:VAL:HG11	1:D:720:PHE:HD1	1.68	0.58
1:D:724:TYR:HE1	1:D:778:MET:CB	2.10	0.58
2:E:150:TYR:C	2:E:151:LYS:CG	2.48	0.58
1:G:254:PHE:CE2	1:G:459:ILE:HD12	2.39	0.58
1:P:254:PHE:CE2	1:P:459:ILE:HD12	2.39	0.58
1:P:529:PRO:HG3	4:O:353:GLN:OE1	2.04	0.58
1:P:676:ILE:O	1:P:676:ILE:HG23	2.03	0.58
1:P:795:ARG:HD2	3:R:35:ARG:HH12	1.69	0.58
1:P:818:TYR:CG	2:Q:90:GLY:HA2	2.38	0.58
1:D:175:ILE:HA	1:D:670:HIS:O	2.03	0.58
1:D:568:PRO:HG3	1:D:578:HIS:H	1.69	0.58
1:G:549:SER:OG	1:G:550:PHE:N	2.36	0.58
1:G:676:ILE:HG23	1:G:676:ILE:O	2.03	0.58
1:P:116:TYR:HB2	1:P:153:PRO:O	2.03	0.58
1:P:823:PHE:HB2	2:Q:157:ILE:HA	1.84	0.58
1:A:601:ASP:N	1:A:602:PRO:HD3	2.18	0.58
1:A:629:GLU:HB3	1:A:645:SER:N	2.18	0.58
1:D:642:LYS:CG	4:9:22:ALA:CA	2.80	0.58
1:G:175:ILE:HA	1:G:670:HIS:O	2.03	0.58
1:G:599:ASN:CG	1:G:649:VAL:HB	2.25	0.58
1:G:649:VAL:HA	1:G:649:VAL:HG22	1.80	0.58
1:G:751:GLY:N	3:I:114:LEU:CD1	2.67	0.58
1:G:821:ARG:NH2	2:H:127:ARG:CG	2.63	0.58
1:P:64:THR:HG22	1:P:65:GLU:N	2.19	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:230:GLU:O	1:P:234:ASN:HB2	2.03	0.58
4:W:285:CYS:O	4:Y:202:THR:CG2	2.52	0.58
1:A:568:PRO:HG3	1:A:578:HIS:H	1.69	0.57
1:A:599:ASN:CG	1:A:649:VAL:HB	2.25	0.57
1:A:831:TRP:CD1	2:B:51:PHE:CZ	2.92	0.57
1:D:643:GLY:HA2	4:9:24:ASP:OD1	2.04	0.57
1:D:794:CYS:O	1:D:798:LEU:N	2.37	0.57
3:F:46:ILE:O	3:F:50:LEU:CG	2.47	0.57
1:G:529:PRO:HG3	4:V:353:GLN:OE1	2.04	0.57
1:P:543:PRO:HG2	4:0:143:TYR:O	1.98	0.57
2:Q:117:LEU:CG	2:Q:147:ASN:CB	2.76	0.57
3:R:102:VAL:HG11	3:R:107:LEU:HB2	1.85	0.57
4:Z:288:ASP:H	4:1:203:THR:CG2	2.17	0.57
1:A:409:GLY:HA3	4:8:333:PRO:CD	2.34	0.57
1:A:549:SER:OG	1:A:550:PHE:N	2.36	0.57
1:A:795:ARG:CG	3:C:35:ARG:NH2	2.67	0.57
1:D:322:VAL:HG11	1:D:325:ILE:HD11	1.86	0.57
1:D:635:GLY:HA3	4:9:334:GLU:CG	2.30	0.57
2:E:112:ILE:C	2:E:147:ASN:O	2.42	0.57
1:G:218:LEU:N	1:G:221:GLN:HE21	2.01	0.57
1:G:629:GLU:HB3	1:G:645:SER:N	2.18	0.57
1:G:755:HIS:HA	1:G:758:TYR:HE1	1.64	0.57
1:G:768:MLY:HH23	1:G:772:LEU:CB	2.34	0.57
1:G:813:ILE:O	1:G:817:GLN:N	2.30	0.57
1:P:279:LEU:HB3	1:P:280:PRO:HD2	1.86	0.57
1:P:776:GLU:O	1:P:779:ARG:HB3	2.02	0.57
1:P:800:ARG:NH1	3:R:149:VAL:HG13	2.18	0.57
1:A:49:MLY:HH13	1:A:108:GLU:OE2	2.03	0.57
1:D:295:MLY:HG3	1:D:332:MET:HE1	1.85	0.57
1:D:649:VAL:HA	1:D:649:VAL:HG23	1.82	0.57
1:G:265:ILE:HG22	1:G:266:GLU:N	2.18	0.57
1:G:634:GLY:N	4:V:25:ASP:O	2.31	0.57
1:P:7:MET:HE3	1:P:14:ALA:HB1	1.85	0.57
1:P:322:VAL:HG11	1:P:325:ILE:HD11	1.86	0.57
1:P:834:LEU:HD21	2:Q:54:MET:HE3	1.87	0.57
1:G:553:MLY:HH12	4:X:45:VAL:CG1	2.29	0.57
3:I:102:VAL:HG11	3:I:107:LEU:HB2	1.85	0.57
1:P:173:GLN:C	1:P:667:THR:HG23	2.25	0.57
2:Q:112:ILE:C	2:Q:147:ASN:O	2.42	0.57
1:A:7:MET:HE3	1:A:14:ALA:HB1	1.85	0.57
1:A:218:LEU:N	1:A:221:GLN:HE21	2.01	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:254:PHE:CE2	1:A:459:ILE:HD12	2.39	0.57
1:A:481:ASN:N	1:A:481:ASN:ND2	2.51	0.57
1:A:747:LEU:HD23	1:A:747:LEU:O	2.05	0.57
1:A:830:PRO:CD	2:B:67:MET:CE	2.77	0.57
1:D:64:THR:HG22	1:D:65:GLU:N	2.19	0.57
1:D:173:GLN:C	1:D:667:THR:HG23	2.25	0.57
1:G:279:LEU:HB3	1:G:280:PRO:HD2	1.86	0.57
1:G:639:GLY:N	4:V:344:SER:C	2.54	0.57
1:G:827:MLY:HH21	2:H:139:ALA:HB3	1.85	0.57
1:P:508:ILE:HD11	1:P:759:ALA:HB1	1.74	0.57
1:P:530:MET:HE3	4:0:355:MET:SD	2.44	0.57
1:P:568:PRO:HG3	1:P:578:HIS:H	1.69	0.57
1:P:717:TYR:HD1	1:P:744:SER:HG	1.52	0.57
1:P:723:ARG:HD3	1:P:779:ARG:HH11	1.68	0.57
1:P:786:ILE:O	1:P:789:ALA:N	2.36	0.57
4:X:288:ASP:HA	4:Z:205:GLU:OE1	2.04	0.57
4:Z:287:ILE:CG2	4:1:202:THR:C	2.73	0.57
4:0:172:PRO:CB	4:1:191:LYS:HZ3	2.16	0.57
1:A:141:LEU:O	1:A:144:ARG:HB3	2.03	0.57
1:A:676:ILE:HG23	1:A:676:ILE:O	2.03	0.57
3:C:102:VAL:HG23	3:C:139:TYR:CD1	2.39	0.57
1:D:506:GLU:O	1:D:763:THR:OG1	2.14	0.57
1:D:529:PRO:HG3	4:9:353:GLN:OE1	2.03	0.57
1:G:418:THR:HG22	1:G:419:VAL:H	1.69	0.57
1:P:48:VAL:HG22	1:P:49:MLY:N	2.18	0.57
1:P:409:GLY:HA3	4:0:333:PRO:CD	2.35	0.57
1:P:806:MET:C	1:P:807:VAL:CA	2.72	0.57
3:R:102:VAL:HG23	3:R:139:TYR:CD1	2.39	0.57
4:1:324:THR:HG23	4:3:244:ASP:HA	1.86	0.57
1:A:279:LEU:HB3	1:A:280:PRO:HD2	1.86	0.57
1:A:541:MET:SD	4:8:346:LEU:O	2.49	0.57
1:D:793:ARG:HH22	3:F:147:MET:HE2	1.63	0.57
1:G:508:ILE:HD11	1:G:759:ALA:HB2	1.86	0.57
1:P:726:VAL:HA	3:R:89:GLU:HG2	1.86	0.57
1:A:418:THR:HG22	1:A:419:VAL:H	1.69	0.57
1:D:109:ARG:O	1:D:114:MET:N	2.37	0.57
1:D:507:GLY:HA3	1:D:762:HIS:HB2	1.86	0.57
1:D:677:PRO:HB2	1:D:678:ASN:ND2	2.20	0.57
1:D:800:ARG:HD2	3:F:149:VAL:CG1	2.31	0.57
1:D:830:PRO:HG2	2:E:67:MET:CE	2.34	0.57
1:G:464:ILE:HG22	1:G:465:ALA:N	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:534:SER:C	4:V:351:THR:CA	2.48	0.57
1:G:795:ARG:HH22	3:I:116:GLU:CG	2.16	0.57
1:G:834:LEU:CD1	2:H:51:PHE:HE1	2.15	0.57
1:P:541:MET:HG2	4:0:345:ILE:CG2	2.35	0.57
1:A:505:MLY:CE	1:A:762:HIS:CA	2.80	0.57
1:A:642:LYS:CG	4:8:22:ALA:CA	2.81	0.57
1:A:839:MLY:HD2	2:B:159:HIS:CB	2.35	0.57
2:B:112:ILE:C	2:B:147:ASN:O	2.42	0.57
1:D:813:ILE:O	1:D:816:ILE:N	2.38	0.57
3:F:102:VAL:HG23	3:F:139:TYR:CD1	2.39	0.57
1:G:409:GLY:HA3	4:V:333:PRO:CD	2.35	0.57
1:G:557:GLU:HB2	4:X:47:MET:O	2.04	0.57
4:Y:287:ILE:HB	4:0:205:GLU:HG3	1.86	0.57
4:0:113:LYS:CE	4:1:252:ASN:CG	2.73	0.57
1:A:97:LEU:HD22	1:A:712:PRO:HB2	1.82	0.57
1:A:643:GLY:HA2	4:8:24:ASP:OD1	2.04	0.57
1:D:767:PHE:C	1:D:771:LEU:CD1	2.73	0.57
1:G:728:ASN:HA	3:I:113:THR:CB	2.34	0.57
1:G:813:ILE:O	1:G:816:ILE:N	2.37	0.57
1:P:822:SER:OG	2:Q:88:LEU:HD22	2.04	0.57
4:X:288:ASP:N	4:Z:205:GLU:OE1	2.38	0.57
4:2:290:ARG:NE	4:4:202:THR:HG21	2.15	0.57
1:A:93:MET:HE1	1:A:716:LEU:H	1.71	0.56
1:A:302:MET:HG2	1:A:303:LEU:HD13	1.87	0.56
1:A:541:MET:HG2	4:8:345:ILE:CG2	2.35	0.56
1:A:795:ARG:NH2	3:C:43:ASN:CB	2.42	0.56
1:A:813:ILE:O	1:A:817:GLN:N	2.30	0.56
1:D:254:PHE:CE2	1:D:459:ILE:HD12	2.39	0.56
1:G:93:MET:C	1:G:714:ARG:O	2.41	0.56
1:G:220:ASP:O	1:G:224:SER:N	2.27	0.56
1:P:797:PHE:CE2	3:R:126:LEU:HD22	2.40	0.56
4:0:75:ILE:CG2	4:1:197:GLY:HA2	2.34	0.56
4:0:166:TYR:OH	4:2:40:HIS:HB2	2.04	0.56
1:A:322:VAL:HG11	1:A:325:ILE:HD11	1.86	0.56
1:D:82:PRO:HD2	1:D:85:TYR:CD2	2.40	0.56
1:D:127:ASN:ND2	1:D:128:PRO:HD2	2.17	0.56
1:D:507:GLY:C	1:D:762:HIS:N	2.57	0.56
1:D:541:MET:HG2	4:9:345:ILE:CG2	2.35	0.56
1:G:677:PRO:HB2	1:G:678:ASN:ND2	2.20	0.56
1:G:715:VAL:HG11	1:G:720:PHE:HD1	1.68	0.56
1:G:795:ARG:CD	3:I:35:ARG:HH22	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:22:LYS:HA	1:P:25:ILE:HB	1.87	0.56
1:P:831:TRP:CZ2	2:Q:51:PHE:CZ	2.93	0.56
1:A:22:LYS:O	1:A:26:GLU:N	2.30	0.56
1:A:813:ILE:O	1:A:816:ILE:N	2.37	0.56
1:A:815:CYS:O	2:B:90:GLY:CA	2.54	0.56
3:C:52:ASN:HB2	3:C:53:PRO:CD	2.28	0.56
1:D:22:LYS:HA	1:D:25:ILE:HB	1.87	0.56
1:D:411:GLU:H	4:9:333:PRO:HG2	1.70	0.56
1:D:579:PHE:CD2	1:D:592:ILE:HD11	2.39	0.56
1:G:82:PRO:HD2	1:G:85:TYR:CD2	2.40	0.56
1:G:109:ARG:O	1:G:114:MET:N	2.37	0.56
1:G:338:ILE:HG21	1:G:348:MLY:HB3	1.87	0.56
1:G:649:VAL:HA	1:G:649:VAL:HG23	1.83	0.56
1:G:735:GLY:C	1:G:743:ALA:HB1	1.84	0.56
1:P:217:THR:HG22	1:P:218:LEU:O	2.05	0.56
1:P:599:ASN:CG	1:P:649:VAL:HB	2.25	0.56
1:P:612:GLN:HE22	1:P:627:GLY:HA2	1.66	0.56
1:P:677:PRO:HB2	1:P:678:ASN:ND2	2.20	0.56
1:P:747:LEU:O	1:P:747:LEU:HD23	2.05	0.56
1:P:813:ILE:O	1:P:816:ILE:N	2.37	0.56
4:W:365:ALA:HB3	4:W:369:ILE:HB	1.88	0.56
4:Y:292:ASP:OD1	4:0:244:ASP:CA	2.53	0.56
4:Y:365:ALA:HB3	4:Y:369:ILE:HB	1.88	0.56
4:2:287:ILE:HB	4:4:204:ALA:N	2.21	0.56
4:3:365:ALA:HB3	4:3:369:ILE:HB	1.88	0.56
1:A:95:THR:OG1	1:A:769:ALA:C	2.43	0.56
1:A:411:GLU:H	4:8:333:PRO:HG2	1.71	0.56
1:D:116:TYR:CE2	1:D:154:HIS:CD2	2.94	0.56
1:D:530:MET:CA	4:9:354:GLN:HB3	2.35	0.56
1:D:630:ALA:CA	4:9:25:ASP:OD2	2.53	0.56
1:D:797:PHE:CZ	3:F:146:ILE:HD13	2.40	0.56
1:G:410:ASN:CG	4:V:334:GLU:C	2.64	0.56
1:G:733:PRO:CA	1:G:737:PHE:HE1	2.19	0.56
1:P:530:MET:CA	4:0:354:GLN:HB3	2.35	0.56
1:P:834:LEU:CD1	2:Q:54:MET:HB3	2.36	0.56
4:7:365:ALA:HB3	4:7:369:ILE:HB	1.88	0.56
4:9:365:ALA:HB3	4:9:369:ILE:HB	1.88	0.56
1:A:173:GLN:C	1:A:667:THR:HG23	2.25	0.56
1:A:546:THR:HB	1:A:549:SER:H	1.71	0.56
1:D:217:THR:HG22	1:D:218:LEU:O	2.06	0.56
1:D:409:GLY:HA3	4:9:333:PRO:CD	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:800:ARG:HH11	3:F:149:VAL:CA	2.19	0.56
1:G:135:TYR:N	1:G:135:TYR:HD1	2.04	0.56
1:G:568:PRO:HG3	1:G:578:HIS:H	1.69	0.56
1:G:768:MLY:CH2	1:G:772:LEU:CB	2.82	0.56
1:P:630:ALA:CA	4:0:25:ASP:OD2	2.53	0.56
1:P:642:LYS:CA	4:0:22:ALA:C	2.70	0.56
1:P:813:ILE:O	1:P:817:GLN:N	2.30	0.56
1:P:834:LEU:HD21	2:Q:54:MET:HG3	1.88	0.56
3:R:46:ILE:O	3:R:50:LEU:CG	2.47	0.56
4:Z:288:ASP:CB	4:1:203:THR:HG21	2.35	0.56
1:A:7:MET:HE3	1:A:14:ALA:CB	2.36	0.56
1:A:109:ARG:O	1:A:114:MET:N	2.37	0.56
1:A:217:THR:HG22	1:A:218:LEU:O	2.05	0.56
1:A:435:GLU:O	1:A:438:PHE:HB3	2.06	0.56
1:A:530:MET:HE3	4:8:354:GLN:CG	2.26	0.56
1:A:725:ARG:HG3	1:A:733:PRO:CA	2.36	0.56
1:A:831:TRP:CZ2	2:B:34:ILE:CG2	2.82	0.56
1:D:418:THR:HG22	1:D:419:VAL:H	1.69	0.56
1:D:538:GLU:CG	4:9:351:THR:C	2.74	0.56
1:D:800:ARG:HH11	3:F:149:VAL:CB	2.17	0.56
1:G:302:MET:HG2	1:G:303:LEU:HD13	1.88	0.56
1:G:322:VAL:HG11	1:G:325:ILE:HD11	1.86	0.56
1:G:530:MET:HA	4:V:354:GLN:CB	2.30	0.56
1:G:783:LEU:HA	1:G:786:ILE:HB	1.87	0.56
1:P:82:PRO:HD2	1:P:85:TYR:CD2	2.40	0.56
1:P:116:TYR:CE2	1:P:154:HIS:CD2	2.94	0.56
1:P:295:MLY:HG3	1:P:332:MET:HE1	1.88	0.56
1:P:834:LEU:HD21	2:Q:54:MET:SD	2.45	0.56
4:W:325:MET:SD	4:Y:244:ASP:HB3	2.43	0.56
4:Y:287:ILE:HG21	4:0:199:SER:C	2.22	0.56
1:A:82:PRO:HD2	1:A:85:TYR:CD2	2.40	0.56
1:A:499:GLU:OE2	1:A:766:PHE:CZ	2.59	0.56
1:D:638:GLY:CA	4:9:345:ILE:H	2.19	0.56
1:G:435:GLU:O	1:G:438:PHE:HB3	2.06	0.56
1:G:529:PRO:CG	4:V:353:GLN:OE1	2.54	0.56
1:G:541:MET:HG2	4:V:345:ILE:CG2	2.35	0.56
1:G:604:ASN:OD1	1:G:607:VAL:HG23	2.06	0.56
1:G:643:GLY:HA2	4:V:24:ASP:OD1	2.04	0.56
1:P:109:ARG:O	1:P:114:MET:N	2.37	0.56
4:X:365:ALA:HB3	4:X:369:ILE:HB	1.88	0.56
4:Y:291:LYS:HB3	4:0:246:GLN:CG	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:206:LYS:HB3	1:A:217:THR:OG1	2.06	0.56
1:A:529:PRO:CG	4:8:353:GLN:OE1	2.53	0.56
1:A:794:CYS:O	1:A:798:LEU:N	2.36	0.56
1:D:733:PRO:CB	1:D:737:PHE:HE1	2.19	0.56
1:D:834:LEU:HD11	2:E:54:MET:HB2	0.74	0.56
1:G:725:ARG:HG3	1:G:733:PRO:CA	2.36	0.56
1:G:747:LEU:HD23	1:G:747:LEU:O	2.05	0.56
1:G:817:GLN:CB	2:H:127:ARG:HD3	2.18	0.56
3:I:102:VAL:HG23	3:I:139:TYR:CD1	2.39	0.56
4:1:365:ALA:HB3	4:1:369:ILE:HB	1.88	0.56
1:A:604:ASN:OD1	1:A:607:VAL:HG23	2.06	0.56
1:A:630:ALA:CA	4:8:25:ASP:OD2	2.53	0.56
1:A:642:LYS:CA	4:8:22:ALA:C	2.71	0.56
1:A:819:ASN:N	2:B:90:GLY:CA	2.67	0.56
1:D:792:ALA:HB1	3:F:40:ASN:HB3	1.87	0.56
1:G:538:GLU:CG	4:V:351:THR:C	2.73	0.56
1:G:707:CYS:CB	1:G:714:ARG:HH12	2.19	0.56
1:G:733:PRO:CB	1:G:737:PHE:HE1	2.19	0.56
1:P:32:PHE:CG	1:P:83:PRO:HD3	2.41	0.56
4:V:291:LYS:HD2	4:X:243:PRO:HB2	1.87	0.56
4:5:365:ALA:HB3	4:5:369:ILE:HB	1.88	0.56
1:A:338:ILE:HG21	1:A:348:MLY:HB3	1.87	0.56
1:A:534:SER:C	4:8:351:THR:CA	2.47	0.56
1:A:546:THR:HG21	1:A:548:THR:HB	1.88	0.56
1:A:629:GLU:O	1:A:643:GLY:HA3	2.06	0.56
1:D:530:MET:CB	4:9:354:GLN:HG3	2.36	0.56
1:D:629:GLU:O	1:D:643:GLY:HA3	2.06	0.56
1:G:206:LYS:HB3	1:G:217:THR:OG1	2.06	0.56
1:G:411:GLU:H	4:V:333:PRO:HG2	1.70	0.56
1:G:842:LEU:CD2	2:H:29:GLU:HB2	2.36	0.56
1:P:135:TYR:N	1:P:135:TYR:HD1	2.04	0.56
1:P:206:LYS:HB3	1:P:217:THR:OG1	2.06	0.56
4:2:365:ALA:HB3	4:2:369:ILE:HB	1.88	0.56
1:A:116:TYR:CE2	1:A:154:HIS:CD2	2.94	0.55
1:A:135:TYR:N	1:A:135:TYR:HD1	2.04	0.55
1:A:733:PRO:CA	1:A:737:PHE:HE1	2.19	0.55
1:D:32:PHE:CG	1:D:83:PRO:HD3	2.41	0.55
1:D:529:PRO:CG	4:9:353:GLN:OE1	2.53	0.55
1:D:546:THR:HG21	1:D:548:THR:HB	1.88	0.55
1:D:793:ARG:HH21	3:F:147:MET:CE	1.96	0.55
1:D:834:LEU:HG	2:E:54:MET:CB	2.32	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:123:VAL:O	3:F:127:MET:HG2	2.07	0.55
1:G:7:MET:HE3	1:G:14:ALA:CB	2.36	0.55
1:G:116:TYR:CE2	1:G:154:HIS:CD2	2.94	0.55
1:G:537:GLU:HB3	1:G:648:THR:CB	2.36	0.55
1:G:800:ARG:NH1	3:I:149:VAL:HG13	2.20	0.55
1:P:733:PRO:CB	1:P:737:PHE:HE1	2.19	0.55
1:P:817:GLN:NE2	2:Q:127:ARG:CG	2.69	0.55
4:V:365:ALA:HB3	4:V:369:ILE:HB	1.88	0.55
4:3:287:ILE:HG21	4:5:204:ALA:H	1.67	0.55
1:A:22:LYS:O	1:A:26:GLU:HG3	2.06	0.55
1:A:504:MLY:CG	1:A:762:HIS:NE2	2.67	0.55
1:A:529:PRO:CB	4:8:354:GLN:HA	2.36	0.55
1:A:733:PRO:CB	1:A:737:PHE:HE1	2.19	0.55
1:D:290:GLN:HG2	1:D:331:LEU:HA	1.87	0.55
1:D:406:VAL:HG12	1:D:407:GLY:H	1.71	0.55
1:D:435:GLU:O	1:D:438:PHE:HB3	2.06	0.55
1:D:537:GLU:HB3	1:D:648:THR:CB	2.36	0.55
1:D:599:ASN:CG	1:D:649:VAL:HB	2.25	0.55
1:D:747:LEU:HD23	1:D:747:LEU:O	2.05	0.55
1:D:798:LEU:HD13	3:F:126:LEU:CD2	2.27	0.55
1:G:173:GLN:C	1:G:667:THR:HG23	2.25	0.55
1:G:546:THR:HG21	1:G:548:THR:HB	1.88	0.55
1:G:612:GLN:HE22	1:G:627:GLY:HA2	1.66	0.55
1:G:629:GLU:O	1:G:643:GLY:HA3	2.06	0.55
1:G:759:ALA:O	1:G:766:PHE:N	2.32	0.55
1:G:838:ILE:HD13	2:H:33:VAL:HG12	1.88	0.55
1:P:529:PRO:CG	4:0:353:GLN:OE1	2.54	0.55
1:P:546:THR:HG21	1:P:548:THR:HB	1.88	0.55
1:P:638:GLY:CA	4:0:345:ILE:H	2.18	0.55
1:P:817:GLN:NE2	2:Q:128:PHE:CE1	2.74	0.55
3:R:123:VAL:O	3:R:127:MET:HG2	2.07	0.55
1:A:32:PHE:CG	1:A:83:PRO:HD3	2.42	0.55
1:A:530:MET:CB	4:8:354:GLN:HG3	2.36	0.55
1:A:733:PRO:O	1:A:737:PHE:CE1	2.53	0.55
1:A:735:GLY:O	1:A:743:ALA:HA	1.94	0.55
1:G:508:ILE:HG21	1:G:711:PHE:HZ	1.72	0.55
1:P:418:THR:HG22	1:P:419:VAL:H	1.69	0.55
1:P:530:MET:CB	4:0:354:GLN:HG3	2.36	0.55
1:P:629:GLU:O	1:P:643:GLY:HA3	2.06	0.55
4:8:365:ALA:HB3	4:8:369:ILE:HB	1.88	0.55
1:A:290:GLN:HG2	1:A:331:LEU:HA	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:677:PRO:HB2	1:A:678:ASN:ND2	2.20	0.55
1:D:646:PHE:CE2	1:D:652:LEU:CG	2.90	0.55
1:D:726:VAL:CB	1:D:782:MLY:HH22	2.36	0.55
1:D:831:TRP:HZ3	2:E:50:THR:HB	1.71	0.55
2:E:156:VAL:HA	2:E:159:HIS:O	2.07	0.55
1:G:552:ASN:C	4:X:47:MET:HE1	2.27	0.55
1:G:642:LYS:HG2	4:V:22:ALA:C	2.27	0.55
1:G:649:VAL:CG1	1:G:649:VAL:HA	2.35	0.55
1:P:406:VAL:HG12	1:P:407:GLY:H	1.71	0.55
1:P:733:PRO:CA	1:P:737:PHE:HE1	2.19	0.55
1:P:795:ARG:HH22	3:R:116:GLU:CB	1.85	0.55
1:A:818:TYR:HB3	2:B:89:LYS:CB	2.34	0.55
1:A:830:PRO:CB	2:B:51:PHE:CE1	2.85	0.55
1:D:135:TYR:N	1:D:135:TYR:HD1	2.04	0.55
1:D:290:GLN:NE2	1:D:334:THR:OG1	2.40	0.55
1:D:733:PRO:CA	1:D:737:PHE:HE1	2.19	0.55
1:G:22:LYS:HA	1:G:25:ILE:HB	1.87	0.55
1:P:22:LYS:O	1:P:26:GLU:HG3	2.07	0.55
1:P:93:MET:CG	1:P:714:ARG:CB	2.77	0.55
1:P:338:ILE:HG21	1:P:348:MLY:HB3	1.87	0.55
1:P:537:GLU:HB3	1:P:648:THR:CB	2.36	0.55
1:P:546:THR:HB	1:P:549:SER:H	1.71	0.55
1:P:640:LYS:C	1:P:645:SER:OG	2.44	0.55
4:W:286:ASP:OD2	4:Y:203:THR:CG2	2.47	0.55
4:X:288:ASP:N	4:Z:205:GLU:CD	2.60	0.55
4:1:148:THR:OG1	4:3:45:VAL:HG23	2.07	0.55
1:A:537:GLU:HB3	1:A:648:THR:CB	2.36	0.55
3:F:52:ASN:HB2	3:F:53:PRO:CD	2.28	0.55
1:G:406:VAL:HG12	1:G:407:GLY:H	1.71	0.55
1:G:546:THR:HB	1:G:549:SER:H	1.71	0.55
1:G:765:VAL:HG12	1:G:766:PHE:N	2.22	0.55
1:G:826:VAL:HG21	2:H:88:LEU:HD21	1.88	0.55
3:I:123:VAL:O	3:I:127:MET:HG2	2.07	0.55
2:Q:156:VAL:HA	2:Q:159:HIS:O	2.07	0.55
3:R:35:ARG:HA	3:R:39:GLN:O	2.07	0.55
4:V:288:ASP:N	4:X:204:ALA:H	2.03	0.55
1:G:640:LYS:C	1:G:645:SER:OG	2.44	0.55
1:G:646:PHE:CE2	1:G:652:LEU:CG	2.90	0.55
1:P:292:MET:HE1	1:P:309:PRO:CD	2.37	0.55
1:P:411:GLU:H	4:0:333:PRO:HG2	1.71	0.55
1:P:529:PRO:CB	4:0:354:GLN:HA	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:795:ARG:HE	3:R:118:MET:HE2	1.64	0.55
4:9:288:ASP:CA	4:W:204:ALA:HB2	2.31	0.55
1:A:530:MET:CA	4:8:354:GLN:HB3	2.34	0.55
1:A:646:PHE:CE2	1:A:652:LEU:CG	2.90	0.55
1:A:649:VAL:CG1	1:A:649:VAL:HA	2.35	0.55
2:B:156:VAL:HA	2:B:159:HIS:O	2.07	0.55
1:D:7:MET:HE3	1:D:14:ALA:CB	2.36	0.55
1:D:302:MET:HG2	1:D:303:LEU:HD13	1.88	0.55
1:D:546:THR:HB	1:D:549:SER:H	1.71	0.55
1:D:642:LYS:HG2	4:9:22:ALA:C	2.27	0.55
1:G:723:ARG:HH11	1:G:723:ARG:CG	2.20	0.55
1:P:345:ALA:O	1:P:349:THR:N	2.40	0.55
1:P:646:PHE:CE2	1:P:652:LEU:CG	2.90	0.55
4:Y:287:ILE:HG21	4:0:199:SER:HB3	1.88	0.55
4:0:365:ALA:HB3	4:0:369:ILE:HB	1.88	0.55
1:A:538:GLU:CG	4:8:351:THR:C	2.74	0.55
1:A:553:MLY:HG3	4:V:44:MET:O	2.07	0.55
1:A:629:GLU:CB	1:A:643:GLY:C	2.75	0.55
1:D:292:MET:HE1	1:D:309:PRO:CD	2.37	0.55
1:G:22:LYS:O	1:G:26:GLU:HG3	2.06	0.55
1:G:530:MET:CA	4:V:354:GLN:HB3	2.35	0.55
1:G:728:ASN:ND2	3:I:113:THR:HG1	2.04	0.55
1:P:530:MET:HA	4:0:354:GLN:CD	2.11	0.55
1:P:579:PHE:HE1	1:P:581:LEU:HD13	1.72	0.55
1:P:634:GLY:N	4:0:25:ASP:O	2.31	0.55
1:P:769:ALA:CA	1:P:770:GLY:N	2.70	0.55
1:P:794:CYS:O	1:P:798:LEU:N	2.37	0.55
1:P:795:ARG:CD	3:R:35:ARG:HH22	2.19	0.55
1:A:22:LYS:HA	1:A:25:ILE:HB	1.88	0.55
1:A:78:PHE:HB3	1:A:98:HIS:NE2	2.22	0.55
1:A:576:GLU:CG	1:A:577:ALA:N	2.43	0.55
1:A:579:PHE:HE1	1:A:581:LEU:HD13	1.72	0.55
1:A:630:ALA:HA	4:8:25:ASP:OD2	2.07	0.55
1:A:643:GLY:N	4:8:23:GLY:C	2.55	0.55
1:A:765:VAL:HG12	1:A:766:PHE:N	2.22	0.55
1:A:795:ARG:HH21	3:C:116:GLU:CD	2.04	0.55
1:D:345:ALA:O	1:D:349:THR:N	2.40	0.55
1:D:530:MET:HE3	4:9:354:GLN:CB	2.36	0.55
1:D:553:MLY:CE	4:W:45:VAL:CA	2.49	0.55
1:D:579:PHE:HE1	1:D:581:LEU:HD13	1.72	0.55
1:D:634:GLY:N	4:9:25:ASP:O	2.31	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:217:THR:HG22	1:G:218:LEU:O	2.06	0.55
1:G:290:GLN:HG2	1:G:331:LEU:HA	1.87	0.55
1:G:345:ALA:O	1:G:349:THR:N	2.40	0.55
1:G:813:ILE:HG23	2:H:128:PHE:CE1	2.30	0.55
3:I:35:ARG:HA	3:I:39:GLN:O	2.07	0.55
1:P:305:ILE:HG22	1:P:312:TYR:CZ	2.42	0.55
1:P:604:ASN:OD1	1:P:607:VAL:HG23	2.06	0.55
1:A:345:ALA:O	1:A:349:THR:N	2.40	0.54
1:A:410:ASN:CG	4:8:334:GLU:C	2.65	0.54
1:D:338:ILE:HG21	1:D:348:MLY:HB3	1.87	0.54
1:D:529:PRO:CB	4:9:354:GLN:HA	2.36	0.54
3:F:35:ARG:HA	3:F:39:GLN:O	2.07	0.54
1:G:135:TYR:HD2	1:G:191:ARG:HG2	1.72	0.54
1:G:817:GLN:HG3	2:H:128:PHE:CE1	2.42	0.54
1:P:302:MET:HG2	1:P:303:LEU:HD13	1.87	0.54
1:P:435:GLU:O	1:P:438:PHE:HB3	2.06	0.54
1:P:642:LYS:HG2	4:0:22:ALA:C	2.27	0.54
1:P:769:ALA:HB1	1:P:770:GLY:CA	2.37	0.54
1:P:804:ARG:O	1:P:807:VAL:CG1	2.54	0.54
4:4:365:ALA:HB3	4:4:369:ILE:HB	1.88	0.54
1:A:290:GLN:NE2	1:A:334:THR:OG1	2.40	0.54
1:A:508:ILE:HG13	1:A:760:PHE:O	2.07	0.54
1:A:640:LYS:C	1:A:645:SER:OG	2.44	0.54
1:A:795:ARG:CG	3:C:35:ARG:HH22	2.20	0.54
1:A:800:ARG:HD2	3:C:149:VAL:CA	2.30	0.54
3:C:35:ARG:HA	3:C:39:GLN:O	2.07	0.54
1:D:530:MET:HA	4:9:354:GLN:CD	2.11	0.54
1:D:629:GLU:CB	1:D:643:GLY:C	2.76	0.54
1:D:638:GLY:HA2	4:9:345:ILE:H	1.72	0.54
1:D:640:LYS:C	1:D:645:SER:OG	2.45	0.54
1:D:649:VAL:HA	1:D:649:VAL:HG22	1.80	0.54
1:G:10:PHE:O	1:G:12:GLU:N	2.41	0.54
1:G:32:PHE:CG	1:G:83:PRO:HD3	2.41	0.54
1:G:579:PHE:HE1	1:G:581:LEU:HD13	1.72	0.54
1:P:290:GLN:NE2	1:P:334:THR:OG1	2.40	0.54
1:P:290:GLN:HG2	1:P:331:LEU:HA	1.88	0.54
1:P:305:ILE:HG22	1:P:312:TYR:CE2	2.43	0.54
1:P:723:ARG:HH11	1:P:723:ARG:CG	2.20	0.54
1:P:726:VAL:HA	3:R:89:GLU:HB3	1.89	0.54
1:P:795:ARG:HB3	3:R:35:ARG:HH22	1.62	0.54
1:A:791:GLN:CD	3:C:116:GLU:HB2	2.27	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:114:LYS:N	2:B:146:GLY:O	2.40	0.54
2:B:144:VAL:HG12	2:B:153:ILE:HD11	1.75	0.54
1:G:78:PHE:HB3	1:G:98:HIS:NE2	2.23	0.54
1:G:305:ILE:HG22	1:G:312:TYR:CE2	2.42	0.54
1:G:529:PRO:CB	4:V:354:GLN:HA	2.37	0.54
1:G:629:GLU:CB	1:G:643:GLY:C	2.76	0.54
1:G:642:LYS:CA	4:V:22:ALA:C	2.70	0.54
1:G:751:GLY:H	3:I:114:LEU:CD1	2.17	0.54
1:G:831:TRP:CZ2	2:H:67:MET:SD	3.01	0.54
1:P:7:MET:HE3	1:P:14:ALA:CB	2.36	0.54
4:7:288:ASP:CA	4:9:204:ALA:HB2	2.32	0.54
4:V:291:LYS:HD2	4:X:243:PRO:CB	2.38	0.54
4:Y:288:ASP:OD1	4:0:242:LEU:CD2	2.55	0.54
4:3:324:THR:H	4:5:244:ASP:HA	1.73	0.54
1:D:22:LYS:O	1:D:26:GLU:HG3	2.07	0.54
1:D:206:LYS:HB3	1:D:217:THR:OG1	2.07	0.54
1:D:769:ALA:C	1:D:774:LEU:CD1	2.69	0.54
1:G:126:VAL:HG13	1:G:675:ILE:HG22	1.89	0.54
1:P:10:PHE:O	1:P:12:GLU:N	2.40	0.54
4:Y:287:ILE:CG2	4:0:201:VAL:CG2	2.76	0.54
1:A:10:PHE:O	1:A:12:GLU:N	2.40	0.54
1:A:97:LEU:HD23	1:A:712:PRO:HA	1.88	0.54
1:D:305:ILE:HG22	1:D:312:TYR:CE2	2.42	0.54
1:D:725:ARG:HG3	1:D:733:PRO:CA	2.36	0.54
1:G:638:GLY:CA	4:V:345:ILE:H	2.18	0.54
1:P:82:PRO:HD2	1:P:85:TYR:HD2	1.72	0.54
1:P:126:VAL:HG13	1:P:675:ILE:HG22	1.90	0.54
1:P:721:LYS:C	1:P:736:GLN:OE1	2.46	0.54
1:P:791:GLN:O	1:P:794:CYS:HB2	2.08	0.54
4:Z:148:THR:OG1	4:1:45:VAL:CG2	2.56	0.54
4:Z:365:ALA:HB3	4:Z:369:ILE:HB	1.88	0.54
1:A:135:TYR:HD2	1:A:191:ARG:HG2	1.72	0.54
1:A:406:VAL:HG12	1:A:407:GLY:H	1.71	0.54
1:A:757:GLN:CD	1:A:771:LEU:HD12	2.28	0.54
1:A:795:ARG:HG2	3:C:118:MET:CE	2.38	0.54
1:D:126:VAL:HG13	1:D:675:ILE:HG22	1.90	0.54
1:D:305:ILE:HG22	1:D:312:TYR:CZ	2.42	0.54
1:D:642:LYS:CA	4:9:22:ALA:C	2.71	0.54
1:D:765:VAL:HG12	1:D:766:PHE:N	2.22	0.54
1:D:797:PHE:HD2	3:F:126:LEU:CD2	2.15	0.54
1:G:38:VAL:CB	1:G:52:ILE:HD11	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:305:ILE:HG22	1:G:312:TYR:CZ	2.42	0.54
2:H:156:VAL:HA	2:H:159:HIS:O	2.07	0.54
1:P:135:TYR:HD2	1:P:191:ARG:HG2	1.73	0.54
1:P:493:HIS:ND1	1:P:514:ASP:OD2	2.41	0.54
1:P:642:LYS:CG	4:0:22:ALA:CA	2.80	0.54
1:P:736:GLN:HA	1:P:743:ALA:HB1	1.26	0.54
2:Q:121:LEU:CA	2:Q:128:PHE:CG	2.89	0.54
1:A:292:MET:HE1	1:A:309:PRO:CD	2.37	0.54
1:D:135:TYR:HD2	1:D:191:ARG:HG2	1.72	0.54
1:D:604:ASN:OD1	1:D:607:VAL:HG23	2.06	0.54
1:D:721:LYS:C	1:D:736:GLN:OE1	2.46	0.54
1:G:82:PRO:HD2	1:G:85:TYR:HD2	1.72	0.54
1:G:135:TYR:HD2	1:G:191:ARG:HD3	1.73	0.54
1:G:538:GLU:HG3	4:V:352:PHE:CA	2.38	0.54
1:G:556:ASP:OD2	4:X:44:MET:HG3	2.08	0.54
1:G:795:ARG:HG2	3:I:118:MET:SD	2.48	0.54
1:A:126:VAL:HG13	1:A:675:ILE:HG22	1.90	0.54
1:A:571:ALA:O	1:A:572:LYS:CB	2.56	0.54
2:B:149:ASP:CG	2:B:150:TYR:N	2.49	0.54
1:D:10:PHE:O	1:D:12:GLU:N	2.41	0.54
1:D:38:VAL:CB	1:D:52:ILE:HD11	2.38	0.54
1:G:292:MET:HE1	1:G:309:PRO:CD	2.37	0.54
1:G:791:GLN:O	1:G:794:CYS:HB2	2.08	0.54
1:P:823:PHE:CD1	2:Q:156:VAL:HG12	2.35	0.54
1:A:82:PRO:HD2	1:A:85:TYR:HD2	1.72	0.54
1:A:638:GLY:CA	4:8:345:ILE:H	2.19	0.54
2:B:140:PHE:O	2:B:141:PRO:C	2.33	0.54
1:D:538:GLU:CD	4:9:355:MET:HE3	2.27	0.54
1:G:290:GLN:NE2	1:G:334:THR:OG1	2.40	0.54
1:P:38:VAL:CB	1:P:52:ILE:HD11	2.38	0.54
1:P:630:ALA:HA	4:0:25:ASP:OD2	2.07	0.54
1:P:640:LYS:C	4:0:23:GLY:CA	2.64	0.54
1:P:649:VAL:CG1	1:P:649:VAL:HA	2.35	0.54
3:R:52:ASN:HB2	3:R:53:PRO:CD	2.28	0.54
4:W:288:ASP:H	4:Y:204:ALA:H	1.56	0.54
4:Z:322:PRO:CB	4:1:244:ASP:HB2	2.35	0.54
4:1:287:ILE:C	4:3:203:THR:HG22	2.29	0.54
4:3:287:ILE:HB	4:5:203:THR:CG2	2.35	0.54
1:A:829:TRP:HE1	2:B:67:MET:CG	2.20	0.54
1:D:98:HIS:HB3	1:D:100:PRO:CD	2.25	0.54
1:D:410:ASN:CG	4:9:334:GLU:C	2.65	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:732:ILE:HG23	1:D:747:LEU:CD1	1.04	0.54
1:G:797:PHE:HE2	3:I:126:LEU:HD22	1.73	0.54
1:P:78:PHE:HB3	1:P:98:HIS:NE2	2.22	0.54
1:P:538:GLU:CG	4:O:351:THR:C	2.73	0.54
1:P:579:PHE:CD2	1:P:592:ILE:HD11	2.40	0.54
1:P:798:LEU:HD22	3:R:126:LEU:CD1	2.31	0.54
4:Z:287:ILE:HG13	4:1:202:THR:CA	2.31	0.54
1:A:305:ILE:HG22	1:A:312:TYR:CE2	2.43	0.53
1:A:538:GLU:HG3	4:8:352:PHE:CA	2.38	0.53
1:A:732:ILE:HG23	1:A:747:LEU:CD1	1.04	0.53
3:C:123:VAL:O	3:C:127:MET:HG2	2.06	0.53
1:D:404:PRO:CG	1:D:417:GLU:HG3	2.38	0.53
1:D:630:ALA:HA	4:9:25:ASP:OD2	2.07	0.53
1:D:739:ASP:CB	1:D:742:LYS:CB	2.81	0.53
1:G:404:PRO:CG	1:G:417:GLU:HG3	2.38	0.53
1:G:481:ASN:N	1:G:481:ASN:ND2	2.51	0.53
1:G:721:LYS:C	1:G:736:GLN:OE1	2.46	0.53
1:P:154:HIS:CE1	1:P:156:PHE:HD2	2.26	0.53
4:8:288:ASP:CA	4:V:204:ALA:HB2	2.31	0.53
4:Z:287:ILE:HB	4:1:203:THR:CA	2.38	0.53
1:A:38:VAL:CB	1:A:52:ILE:HD11	2.38	0.53
1:A:218:LEU:N	1:A:221:GLN:HG2	2.24	0.53
1:A:305:ILE:HG22	1:A:312:TYR:CZ	2.43	0.53
1:A:404:PRO:CG	1:A:417:GLU:HG3	2.38	0.53
1:D:493:HIS:ND1	1:D:514:ASP:OD2	2.41	0.53
1:D:553:MLY:O	4:W:48:GLY:CA	2.56	0.53
1:D:723:ARG:CG	1:D:723:ARG:HH11	2.20	0.53
1:G:218:LEU:N	1:G:221:GLN:HG2	2.24	0.53
1:G:530:MET:CB	4:V:354:GLN:HG3	2.36	0.53
1:G:797:PHE:HE2	3:I:126:LEU:CD2	2.20	0.53
3:I:46:ILE:O	3:I:50:LEU:CG	2.47	0.53
1:P:32:PHE:CD1	1:P:83:PRO:HD3	2.43	0.53
1:P:765:VAL:HG12	1:P:766:PHE:N	2.22	0.53
4:V:324:THR:HG22	4:X:247:VAL:HG13	1.91	0.53
4:W:185:LEU:HD23	4:W:306:TYR:OH	2.09	0.53
1:A:638:GLY:HA2	4:8:345:ILE:H	1.72	0.53
1:A:642:LYS:HG2	4:8:22:ALA:C	2.28	0.53
1:D:32:PHE:CD1	1:D:83:PRO:HD3	2.43	0.53
1:G:794:CYS:O	1:G:798:LEU:N	2.37	0.53
2:H:146:GLY:O	2:H:147:ASN:ND2	2.41	0.53
1:P:629:GLU:CB	1:P:643:GLY:C	2.76	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:638:GLY:HA2	4:0:345:ILE:H	1.72	0.53
4:Y:185:LEU:HD23	4:Y:306:TYR:OH	2.09	0.53
4:0:110:LEU:HD23	4:1:195:GLU:OE2	2.08	0.53
4:1:287:ILE:HG13	4:3:202:THR:HA	1.91	0.53
4:2:148:THR:HG21	4:4:45:VAL:HG21	1.89	0.53
1:A:753:VAL:HG12	1:A:775:LEU:CD1	2.38	0.53
1:A:791:GLN:O	1:A:794:CYS:HB2	2.08	0.53
1:D:571:ALA:O	1:D:572:LYS:CB	2.56	0.53
1:D:640:LYS:C	4:9:23:GLY:CA	2.64	0.53
1:D:732:ILE:HG21	1:D:747:LEU:CD1	0.64	0.53
1:G:493:HIS:ND1	1:G:514:ASP:OD2	2.41	0.53
1:G:571:ALA:O	1:G:572:LYS:CB	2.56	0.53
1:G:642:LYS:CG	4:V:22:ALA:HA	2.37	0.53
1:G:661:MET:O	1:G:665:ARG:HG3	2.09	0.53
1:G:797:PHE:CE1	3:I:146:ILE:HA	2.43	0.53
3:I:92:ARG:HA	3:I:139:TYR:OH	2.08	0.53
1:P:538:GLU:HG3	4:0:352:PHE:CA	2.38	0.53
1:A:220:ASP:O	1:A:224:SER:N	2.27	0.53
1:A:493:HIS:ND1	1:A:514:ASP:OD2	2.41	0.53
1:A:553:MLY:O	4:V:48:GLY:CA	2.56	0.53
1:A:579:PHE:CD2	1:A:592:ILE:HD11	2.40	0.53
1:A:661:MET:O	1:A:665:ARG:HG3	2.09	0.53
1:A:721:LYS:C	1:A:736:GLN:OE1	2.46	0.53
1:D:82:PRO:HD2	1:D:85:TYR:HD2	1.72	0.53
1:D:135:TYR:HD2	1:D:191:ARG:HD3	1.73	0.53
1:D:218:LEU:CD2	1:D:222:ILE:CG1	2.86	0.53
1:D:470:PHE:O	1:D:473:ASN:ND2	2.40	0.53
1:D:759:ALA:O	1:D:766:PHE:N	2.32	0.53
1:D:822:SER:CB	2:E:88:LEU:CD2	2.85	0.53
1:G:733:PRO:O	1:G:737:PHE:CE1	2.53	0.53
1:P:571:ALA:O	1:P:572:LYS:CB	2.56	0.53
1:P:733:PRO:O	1:P:737:PHE:CE1	2.53	0.53
1:P:818:TYR:HB2	2:Q:90:GLY:O	2.08	0.53
4:Z:324:THR:OG1	4:1:244:ASP:N	2.41	0.53
1:A:156:PHE:HD1	1:A:195:TYR:CD1	2.27	0.53
1:A:502:GLU:OE2	1:A:717:TYR:CE2	2.60	0.53
1:A:791:GLN:OE1	3:C:116:GLU:HB2	2.07	0.53
1:D:78:PHE:HB3	1:D:98:HIS:NE2	2.22	0.53
1:D:404:PRO:HG3	1:D:417:GLU:HG3	1.91	0.53
1:G:530:MET:CE	4:V:354:GLN:HG3	2.34	0.53
1:G:584:TYR:CD1	1:G:585:ALA:N	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:638:GLY:HA2	4:V:345:ILE:H	1.72	0.53
2:H:121:LEU:CA	2:H:128:PHE:CG	2.89	0.53
1:P:135:TYR:HD2	1:P:191:ARG:HD3	1.73	0.53
1:P:599:ASN:CG	1:P:649:VAL:H	2.12	0.53
1:P:661:MET:O	1:P:665:ARG:HG3	2.09	0.53
2:Q:146:GLY:O	2:Q:147:ASN:ND2	2.41	0.53
4:Y:288:ASP:CG	4:0:205:GLU:CD	2.26	0.53
1:A:251:ARG:HB2	1:A:264:ASP:HB2	1.91	0.53
1:A:295:MLY:HE2	1:A:332:MET:HE1	1.90	0.53
1:D:529:PRO:HB2	4:9:354:GLN:HA	1.91	0.53
2:E:129:THR:O	2:E:133:ILE:HG13	2.09	0.53
1:G:295:MLY:HE2	1:G:332:MET:HE1	1.91	0.53
1:G:831:TRP:CE2	2:H:67:MET:HB3	2.44	0.53
1:P:831:TRP:CE2	2:Q:51:PHE:HZ	2.22	0.53
1:P:836:PHE:CZ	2:Q:160:GLY:O	2.60	0.53
3:R:92:ARG:HA	3:R:139:TYR:OH	2.08	0.53
1:A:505:MLY:NZ	1:A:762:HIS:C	2.57	0.53
1:D:584:TYR:CD1	1:D:585:ALA:N	2.77	0.53
1:D:661:MET:O	1:D:665:ARG:HG3	2.09	0.53
2:E:146:GLY:O	2:E:147:ASN:ND2	2.41	0.53
3:F:53:PRO:HB2	3:F:55:LYS:HG3	1.91	0.53
1:G:541:MET:SD	4:V:346:LEU:O	2.48	0.53
1:G:730:SER:OG	3:I:109:HIS:CD2	2.62	0.53
1:P:404:PRO:CG	1:P:417:GLU:HG3	2.38	0.53
1:P:584:TYR:CD1	1:P:585:ALA:N	2.77	0.53
1:P:643:GLY:N	4:0:23:GLY:C	2.55	0.53
1:P:708:ARG:CA	1:P:710:GLY:N	2.72	0.53
2:Q:114:LYS:N	2:Q:146:GLY:O	2.40	0.53
4:0:185:LEU:HD23	4:0:306:TYR:OH	2.09	0.53
4:4:185:LEU:HD23	4:4:306:TYR:OH	2.09	0.53
1:A:135:TYR:CD2	1:A:191:ARG:HG2	2.44	0.53
1:A:723:ARG:CG	1:A:723:ARG:HH11	2.20	0.53
1:D:42:HIS:HB3	1:D:45:GLN:O	2.09	0.53
1:D:599:ASN:CG	1:D:649:VAL:H	2.12	0.53
1:D:649:VAL:CG1	1:D:649:VAL:HA	2.35	0.53
1:G:42:HIS:HB3	1:G:45:GLN:O	2.09	0.53
1:G:579:PHE:CD2	1:G:592:ILE:HD11	2.40	0.53
1:G:599:ASN:CG	1:G:649:VAL:H	2.12	0.53
1:G:635:GLY:HA3	4:V:334:GLU:CG	2.30	0.53
1:P:410:ASN:CG	4:0:334:GLU:C	2.65	0.53
1:P:529:PRO:HB2	4:0:354:GLN:HA	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2:185:LEU:HD23	4:2:306:TYR:OH	2.09	0.53
1:A:42:HIS:HB3	1:A:45:GLN:O	2.09	0.53
1:A:135:TYR:HD2	1:A:191:ARG:HD3	1.74	0.53
1:A:539:GLU:OE2	4:V:45:VAL:C	2.47	0.53
1:A:584:TYR:CD1	1:A:585:ALA:N	2.77	0.53
1:A:636:LYS:HB2	4:8:334:GLU:OE1	2.08	0.53
1:A:642:LYS:CG	4:8:22:ALA:HA	2.38	0.53
1:A:818:TYR:HB2	2:B:89:LYS:C	2.29	0.53
1:G:135:TYR:CD2	1:G:191:ARG:HG2	2.44	0.53
1:G:404:PRO:HG3	1:G:417:GLU:HG3	1.91	0.53
1:G:636:LYS:HB2	4:V:334:GLU:OE1	2.09	0.53
1:P:42:HIS:HB3	1:P:45:GLN:O	2.09	0.53
1:P:156:PHE:HD1	1:P:195:TYR:CD1	2.27	0.53
1:P:404:PRO:HG3	1:P:417:GLU:HG3	1.91	0.53
1:P:793:ARG:NH2	3:R:147:MET:HE3	2.24	0.53
4:8:185:LEU:HD23	4:8:306:TYR:OH	2.09	0.53
4:5:185:LEU:HD23	4:5:306:TYR:OH	2.09	0.53
1:A:640:LYS:C	4:8:23:GLY:CA	2.64	0.52
2:B:114:LYS:O	2:B:147:ASN:ND2	2.41	0.52
1:D:135:TYR:CD2	1:D:191:ARG:HG2	2.44	0.52
1:D:277:PHE:CG	1:D:278:GLN:N	2.76	0.52
3:F:110:VAL:HG13	3:F:114:LEU:HD12	1.91	0.52
1:P:63:MLY:HG3	1:P:64:THR:H	1.75	0.52
1:P:277:PHE:CG	1:P:278:GLN:N	2.76	0.52
1:P:635:GLY:HA3	4:0:334:GLU:CG	2.30	0.52
1:P:725:ARG:HG3	1:P:733:PRO:CA	2.36	0.52
1:P:732:ILE:H	1:P:733:PRO:HD2	1.74	0.52
4:8:180:LEU:HD22	4:8:267:ILE:HD11	1.92	0.52
4:9:185:LEU:HD23	4:9:306:TYR:OH	2.09	0.52
1:A:529:PRO:HB2	4:8:354:GLN:HA	1.91	0.52
1:A:599:ASN:CG	1:A:649:VAL:H	2.12	0.52
1:A:783:LEU:O	1:A:787:ILE:N	2.28	0.52
1:A:817:GLN:HG3	2:B:127:ARG:CG	2.40	0.52
1:D:41:VAL:HG13	1:D:42:HIS:N	2.25	0.52
1:G:32:PHE:CD1	1:G:83:PRO:HD3	2.44	0.52
1:G:109:ARG:HD3	1:G:117:THR:HB	1.92	0.52
1:G:277:PHE:CG	1:G:278:GLN:N	2.76	0.52
1:G:819:ASN:CB	2:H:92:ASP:HB2	2.38	0.52
3:I:53:PRO:HB2	3:I:55:LYS:HG3	1.91	0.52
1:P:98:HIS:HB3	1:P:100:PRO:CD	2.25	0.52
1:P:197:ALA:O	1:P:201:ALA:HB2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:292:MET:CE	1:P:309:PRO:HA	2.39	0.52
4:5:180:LEU:HD22	4:5:267:ILE:HD11	1.92	0.52
1:A:277:PHE:CG	1:A:278:GLN:N	2.76	0.52
1:A:506:GLU:CD	1:A:717:TYR:OH	2.47	0.52
1:A:800:ARG:HH11	3:C:149:VAL:C	2.12	0.52
3:C:104:GLY:HA2	3:C:137:ILE:HD11	1.91	0.52
3:C:110:VAL:HG13	3:C:114:LEU:HD12	1.91	0.52
1:D:636:LYS:HB2	4:9:334:GLU:OE1	2.09	0.52
3:F:92:ARG:HA	3:F:139:TYR:OH	2.08	0.52
1:G:218:LEU:HA	1:G:221:GLN:HG3	1.71	0.52
1:G:292:MET:CE	1:G:309:PRO:HA	2.39	0.52
1:G:553:MLY:CB	4:X:45:VAL:O	2.57	0.52
1:G:727:LEU:O	3:I:114:LEU:HD23	2.10	0.52
1:P:636:LYS:HB2	4:0:334:GLU:OE1	2.09	0.52
1:P:724:TYR:HA	1:P:779:ARG:NH2	2.24	0.52
1:P:817:GLN:NE2	2:Q:127:ARG:CD	2.60	0.52
3:R:53:PRO:HB2	3:R:55:LYS:HG3	1.91	0.52
4:V:185:LEU:HD23	4:V:306:TYR:OH	2.09	0.52
1:A:292:MET:CE	1:A:309:PRO:HA	2.39	0.52
1:A:508:ILE:CD1	1:A:759:ALA:CA	2.75	0.52
1:A:798:LEU:HD13	3:C:126:LEU:HD21	1.75	0.52
1:A:829:TRP:NE1	2:B:67:MET:HG2	2.19	0.52
2:B:114:LYS:HA	2:B:147:ASN:HD22	1.75	0.52
2:B:146:GLY:O	2:B:147:ASN:ND2	2.41	0.52
1:D:556:ASP:HB3	4:W:43:VAL:HG12	1.91	0.52
1:G:251:ARG:HB2	1:G:264:ASP:HB2	1.91	0.52
1:G:530:MET:HE3	4:V:355:MET:SD	2.50	0.52
1:G:739:ASP:CB	1:G:742:LYS:CB	2.81	0.52
2:H:140:PHE:O	2:H:141:PRO:C	2.33	0.52
1:P:491:PHE:HD1	1:P:671:PHE:CE2	2.27	0.52
1:P:783:LEU:HA	1:P:786:ILE:CD1	2.39	0.52
1:P:800:ARG:NH1	3:R:149:VAL:O	2.42	0.52
2:Q:114:LYS:HA	2:Q:147:ASN:HD22	1.74	0.52
2:Q:114:LYS:O	2:Q:147:ASN:ND2	2.41	0.52
4:7:180:LEU:HD22	4:7:267:ILE:HD11	1.92	0.52
4:X:180:LEU:HD22	4:X:267:ILE:HD11	1.92	0.52
4:X:285:CYS:O	4:X:290:ARG:NH1	2.43	0.52
4:Y:285:CYS:O	4:Y:290:ARG:NH1	2.43	0.52
4:Z:185:LEU:HD23	4:Z:306:TYR:OH	2.09	0.52
4:0:113:LYS:HZ2	4:1:253:GLU:N	2.07	0.52
4:0:285:CYS:O	4:0:290:ARG:NH1	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1:180:LEU:HD22	4:1:267:ILE:HD11	1.92	0.52
4:3:180:LEU:HD22	4:3:267:ILE:HD11	1.92	0.52
1:A:32:PHE:CD1	1:A:83:PRO:HD3	2.44	0.52
1:A:63:MLY:HG3	1:A:64:THR:H	1.75	0.52
1:A:504:MLY:N	1:A:762:HIS:NE2	2.58	0.52
1:D:156:PHE:HD1	1:D:195:TYR:CD1	2.28	0.52
1:D:708:ARG:O	1:D:710:GLY:N	2.41	0.52
2:E:114:LYS:O	2:E:147:ASN:ND2	2.41	0.52
1:G:156:PHE:HD1	1:G:195:TYR:CD1	2.27	0.52
1:G:491:PHE:HD1	1:G:671:PHE:CE2	2.27	0.52
1:G:788:THR:C	3:I:42:THR:CG2	2.78	0.52
1:G:796:GLY:HA2	3:I:35:ARG:HD3	1.91	0.52
3:R:104:GLY:HA2	3:R:137:ILE:HD11	1.92	0.52
4:W:180:LEU:HD22	4:W:267:ILE:HD11	1.92	0.52
4:Z:324:THR:OG1	4:1:244:ASP:HA	2.09	0.52
4:1:285:CYS:O	4:1:290:ARG:NH1	2.43	0.52
4:1:288:ASP:OD1	4:3:203:THR:HG23	2.09	0.52
4:2:180:LEU:HD22	4:2:267:ILE:HD11	1.92	0.52
1:A:128:PRO:O	1:A:129:TYR:HB2	2.09	0.52
1:A:530:MET:HE3	4:8:354:GLN:CB	2.39	0.52
1:A:634:GLY:N	4:8:25:ASP:O	2.31	0.52
1:A:635:GLY:HA3	4:8:334:GLU:CG	2.30	0.52
3:C:92:ARG:HA	3:C:139:TYR:OH	2.09	0.52
1:G:135:TYR:HD2	1:G:191:ARG:CD	2.23	0.52
1:G:154:HIS:CE1	1:G:156:PHE:HD2	2.27	0.52
1:G:529:PRO:HB2	4:V:354:GLN:HA	1.92	0.52
1:G:797:PHE:CE2	3:I:146:ILE:HD12	2.42	0.52
1:G:831:TRP:HZ3	2:H:34:ILE:HG21	1.75	0.52
2:H:129:THR:O	2:H:133:ILE:HG13	2.09	0.52
1:P:218:LEU:N	1:P:221:GLN:HG2	2.24	0.52
2:Q:129:THR:O	2:Q:133:ILE:HG13	2.09	0.52
4:9:180:LEU:HD22	4:9:267:ILE:HD11	1.92	0.52
4:9:285:CYS:O	4:9:290:ARG:NH1	2.43	0.52
4:V:180:LEU:HD22	4:V:267:ILE:HD11	1.92	0.52
4:X:185:LEU:HD23	4:X:306:TYR:OH	2.09	0.52
4:2:285:CYS:O	4:2:290:ARG:NH1	2.43	0.52
4:3:185:LEU:HD23	4:3:306:TYR:OH	2.09	0.52
1:A:404:PRO:HG3	1:A:417:GLU:HG3	1.91	0.52
1:A:491:PHE:HD1	1:A:671:PHE:CE2	2.27	0.52
1:D:491:PHE:HD1	1:D:671:PHE:CE2	2.27	0.52
1:D:538:GLU:HA	4:9:349:LEU:CB	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:795:ARG:NH1	3:F:43:ASN:ND2	2.57	0.52
2:E:114:LYS:HA	2:E:147:ASN:HD22	1.74	0.52
1:G:63:MLY:HG3	1:G:64:THR:H	1.75	0.52
1:G:197:ALA:O	1:G:201:ALA:HB2	2.09	0.52
1:G:757:GLN:HG3	1:G:776:GLU:CD	2.26	0.52
1:G:789:ALA:CB	3:I:81:GLN:CG	2.77	0.52
1:G:834:LEU:CD1	2:H:51:PHE:CD1	2.93	0.52
2:H:112:ILE:C	2:H:147:ASN:O	2.42	0.52
1:P:128:PRO:O	1:P:129:TYR:HB2	2.09	0.52
1:P:135:TYR:CD2	1:P:191:ARG:HG2	2.44	0.52
4:7:185:LEU:HD23	4:7:306:TYR:OH	2.09	0.52
4:8:285:CYS:O	4:8:290:ARG:NH1	2.43	0.52
4:X:285:CYS:O	4:Z:202:THR:CG2	2.52	0.52
4:Y:180:LEU:HD22	4:Y:267:ILE:HD11	1.92	0.52
4:Z:180:LEU:HD22	4:Z:267:ILE:HD11	1.92	0.52
4:3:322:PRO:C	4:5:244:ASP:HB2	2.30	0.52
4:4:180:LEU:HD22	4:4:267:ILE:HD11	1.92	0.52
1:A:40:VAL:HG13	1:A:41:VAL:O	2.10	0.52
1:A:154:HIS:CE1	1:A:156:PHE:HD2	2.27	0.52
1:A:555:TYR:N	4:V:48:GLY:N	2.58	0.52
1:D:494:HIS:O	1:D:498:LEU:HB2	2.09	0.52
1:D:553:MLY:HG3	4:W:44:MET:O	2.07	0.52
1:D:555:TYR:N	4:W:48:GLY:N	2.58	0.52
3:F:104:GLY:HA2	3:F:137:ILE:HD11	1.92	0.52
1:G:494:HIS:O	1:G:498:LEU:HB2	2.09	0.52
1:G:556:ASP:OD1	4:X:47:MET:CE	2.27	0.52
1:G:725:ARG:O	1:G:729:ALA:HA	2.10	0.52
1:P:41:VAL:HG13	1:P:42:HIS:N	2.25	0.52
1:P:135:TYR:HD2	1:P:191:ARG:CD	2.23	0.52
1:P:831:TRP:CE3	2:Q:34:ILE:CD1	2.92	0.52
4:7:285:CYS:O	4:7:290:ARG:NH1	2.43	0.52
4:Y:287:ILE:CB	4:0:205:GLU:HG3	2.40	0.52
4:Z:148:THR:OG1	4:1:45:VAL:HG23	2.09	0.52
4:0:180:LEU:HD22	4:0:267:ILE:HD11	1.92	0.52
4:3:285:CYS:O	4:3:290:ARG:NH1	2.43	0.52
1:A:757:GLN:CD	1:A:771:LEU:CD1	2.78	0.52
3:C:53:PRO:HB2	3:C:55:LYS:HG3	1.91	0.52
1:D:63:MLY:HG3	1:D:64:THR:H	1.75	0.52
1:D:295:MLY:HE2	1:D:332:MET:HE1	1.91	0.52
1:G:768:MLY:HG2	1:G:772:LEU:HB3	1.92	0.52
1:P:195:TYR:CE2	1:P:199:ILE:CD1	2.93	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:725:ARG:HH12	3:R:92:ARG:CD	2.22	0.52
3:R:110:VAL:HG13	3:R:114:LEU:HD12	1.91	0.52
4:Y:291:LYS:CB	4:0:246:GLN:CB	2.86	0.52
4:Z:287:ILE:HG21	4:1:202:THR:OG1	2.04	0.52
1:A:221:GLN:HB2	1:A:449:LEU:HD11	1.92	0.52
1:A:742:LYS:O	1:A:745:GLU:HB2	2.10	0.52
1:D:40:VAL:HG13	1:D:41:VAL:O	2.10	0.52
1:D:128:PRO:O	1:D:129:TYR:HB2	2.09	0.52
1:D:195:TYR:CE2	1:D:199:ILE:CD1	2.93	0.52
1:D:218:LEU:N	1:D:221:GLN:HG2	2.24	0.52
1:G:232:PHE:CE1	1:G:287:ILE:HD13	2.45	0.52
1:G:578:HIS:O	1:G:579:PHE:HB3	2.10	0.52
1:G:757:GLN:OE1	1:G:772:LEU:CB	2.57	0.52
1:G:795:ARG:HD2	3:I:35:ARG:HH12	1.75	0.52
1:P:232:PHE:CE1	1:P:287:ILE:HD13	2.44	0.52
4:W:285:CYS:O	4:W:290:ARG:NH1	2.43	0.52
4:1:185:LEU:HD23	4:1:306:TYR:OH	2.09	0.52
1:A:41:VAL:HG13	1:A:42:HIS:N	2.25	0.51
1:A:232:PHE:CE1	1:A:287:ILE:HD13	2.45	0.51
1:A:538:GLU:HA	4:8:349:LEU:CB	2.39	0.51
1:D:507:GLY:HA3	1:D:762:HIS:N	2.24	0.51
1:D:538:GLU:HG3	4:9:352:PHE:CA	2.38	0.51
1:D:639:GLY:N	4:9:344:SER:C	2.54	0.51
1:D:733:PRO:O	1:D:737:PHE:CE1	2.54	0.51
1:D:791:GLN:OE1	3:F:116:GLU:HG3	2.09	0.51
2:E:112:ILE:HG23	2:E:147:ASN:HB3	1.93	0.51
2:E:114:LYS:N	2:E:146:GLY:O	2.40	0.51
1:G:212:GLY:O	1:G:213:LYS:HB2	2.10	0.51
1:G:221:GLN:HB2	1:G:449:LEU:HD11	1.92	0.51
1:G:530:MET:HG2	4:V:354:GLN:HB2	0.57	0.51
1:P:251:ARG:HB2	1:P:264:ASP:HB2	1.91	0.51
4:Y:287:ILE:HG12	4:0:201:VAL:CG2	1.46	0.51
4:Y:291:LYS:HB3	4:0:246:GLN:CA	2.39	0.51
4:Z:285:CYS:O	4:Z:290:ARG:NH1	2.43	0.51
1:A:212:GLY:O	1:A:213:LYS:HB2	2.10	0.51
1:A:408:VAL:CG1	4:8:332:PRO:HB3	2.40	0.51
1:A:559:LEU:HD23	1:A:559:LEU:C	2.31	0.51
1:A:612:GLN:HE22	1:A:627:GLY:HA2	1.66	0.51
1:A:646:PHE:CE2	1:A:652:LEU:CD2	2.87	0.51
1:A:798:LEU:CD1	3:C:126:LEU:CD1	2.89	0.51
1:A:831:TRP:CZ3	2:B:50:THR:CG2	2.89	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:154:HIS:CE1	1:D:156:PHE:HD2	2.27	0.51
1:D:221:GLN:HB2	1:D:449:LEU:HD11	1.92	0.51
1:D:791:GLN:O	1:D:794:CYS:HB2	2.08	0.51
1:D:797:PHE:CD1	3:F:146:ILE:HA	2.45	0.51
1:G:128:PRO:O	1:G:129:TYR:HB2	2.09	0.51
1:G:470:PHE:O	1:G:473:ASN:ND2	2.40	0.51
1:G:831:TRP:CD1	2:H:67:MET:HG2	2.45	0.51
1:G:834:LEU:HD21	2:H:34:ILE:HG12	1.91	0.51
1:P:795:ARG:HD2	3:R:35:ARG:HH22	1.75	0.51
4:X:288:ASP:CA	4:Z:205:GLU:OE1	2.58	0.51
4:0:110:LEU:HD22	4:1:191:LYS:HD2	1.92	0.51
4:4:285:CYS:O	4:4:290:ARG:NH1	2.43	0.51
4:5:285:CYS:O	4:5:290:ARG:NH1	2.43	0.51
1:A:109:ARG:HD3	1:A:117:THR:HB	1.92	0.51
1:A:217:THR:C	1:A:221:GLN:NE2	2.62	0.51
1:A:470:PHE:O	1:A:473:ASN:ND2	2.40	0.51
1:A:556:ASP:HB3	4:V:43:VAL:HG12	1.91	0.51
1:A:649:VAL:HA	1:A:649:VAL:HG22	1.80	0.51
1:A:814:PHE:HA	2:B:127:ARG:HH22	1.50	0.51
1:A:831:TRP:CH2	2:B:50:THR:CB	2.93	0.51
2:B:129:THR:O	2:B:133:ILE:HG13	2.10	0.51
3:C:52:ASN:CB	3:C:53:PRO:HD3	2.28	0.51
1:D:248:MLY:N	1:D:463:ASP:O	2.44	0.51
1:D:278:GLN:HG3	1:D:318:GLY:H	1.75	0.51
1:G:41:VAL:HG13	1:G:42:HIS:N	2.25	0.51
1:G:93:MET:HE1	1:G:763:THR:HB	1.92	0.51
1:G:538:GLU:HA	4:V:349:LEU:CB	2.40	0.51
1:G:768:MLY:HE2	1:G:772:LEU:HD23	1.91	0.51
3:I:100:GLY:O	3:I:138:ASN:HA	2.11	0.51
3:I:110:VAL:HG13	3:I:114:LEU:HD12	1.91	0.51
1:P:221:GLN:HB2	1:P:449:LEU:HD11	1.92	0.51
1:P:494:HIS:O	1:P:498:LEU:HB2	2.09	0.51
1:P:806:MET:O	1:P:807:VAL:CA	2.58	0.51
4:Y:292:ASP:CB	4:0:244:ASP:HB2	2.37	0.51
1:A:135:TYR:HD2	1:A:191:ARG:CD	2.23	0.51
1:A:735:GLY:C	1:A:743:ALA:HB1	1.84	0.51
1:D:508:ILE:HG21	1:D:766:PHE:CD1	2.45	0.51
1:D:642:LYS:HB2	4:9:24:ASP:O	1.88	0.51
1:G:195:TYR:CE2	1:G:199:ILE:CD1	2.93	0.51
1:G:408:VAL:CG1	4:V:332:PRO:HB3	2.41	0.51
1:G:631:GLU:C	4:V:25:ASP:HB2	2.31	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:114:LYS:O	2:H:147:ASN:ND2	2.42	0.51
1:P:642:LYS:HG2	4:O:21:PHE:C	2.29	0.51
1:P:806:MET:O	1:P:807:VAL:HA	2.11	0.51
4:V:285:CYS:O	4:V:290:ARG:NH1	2.43	0.51
1:A:13:ALA:C	1:A:15:PRO:HD2	2.31	0.51
1:A:418:THR:O	1:A:422:VAL:HG23	2.11	0.51
1:A:546:THR:CG2	1:A:548:THR:HB	2.41	0.51
1:D:13:ALA:C	1:D:15:PRO:HD2	2.31	0.51
1:D:135:TYR:HD2	1:D:191:ARG:CD	2.23	0.51
1:D:220:ASP:O	1:D:224:SER:N	2.27	0.51
1:D:400:ALA:HB1	1:D:606:THR:HG22	1.92	0.51
1:G:13:ALA:C	1:G:15:PRO:HD2	2.31	0.51
1:G:592:ILE:HG22	1:G:592:ILE:O	2.11	0.51
1:G:742:LYS:O	1:G:745:GLU:HB2	2.10	0.51
1:P:40:VAL:HG13	1:P:41:VAL:O	2.10	0.51
1:P:418:THR:CB	1:P:421:GLU:HG3	2.37	0.51
1:P:640:LYS:CA	1:P:645:SER:OG	2.58	0.51
1:P:820:VAL:HG11	2:Q:136:MET:SD	2.50	0.51
4:1:148:THR:OG1	4:3:45:VAL:CG2	2.59	0.51
1:A:149:GLN:NE2	1:A:718:ALA:CB	2.72	0.51
1:A:218:LEU:CD2	1:A:222:ILE:CG1	2.85	0.51
1:A:494:HIS:O	1:A:498:LEU:HB2	2.09	0.51
1:A:754:ASP:OD2	1:A:774:LEU:CD2	2.58	0.51
1:A:797:PHE:CE1	3:C:146:ILE:HA	2.45	0.51
1:D:212:GLY:O	1:D:213:LYS:HB2	2.11	0.51
1:D:332:MET:O	1:D:336:SER:OG	2.27	0.51
1:D:742:LYS:O	1:D:745:GLU:HB2	2.10	0.51
1:G:41:VAL:HG21	1:G:76:GLN:HG3	1.93	0.51
1:G:640:LYS:CA	1:G:645:SER:OG	2.58	0.51
2:H:114:LYS:HA	2:H:147:ASN:HD22	1.75	0.51
3:I:104:GLY:HA2	3:I:137:ILE:HD11	1.92	0.51
1:P:212:GLY:O	1:P:213:LYS:HB2	2.11	0.51
1:P:295:MLY:HE2	1:P:332:MET:HE1	1.91	0.51
4:X:287:ILE:CG1	4:Z:201:VAL:N	2.51	0.51
4:2:324:THR:HG23	4:4:244:ASP:O	1.64	0.51
1:A:38:VAL:CG1	1:A:39:PHE:N	2.74	0.51
1:A:202:SER:HB2	1:A:207:LYS:NZ	2.26	0.51
1:A:248:MLY:N	1:A:463:ASP:O	2.44	0.51
1:A:578:HIS:O	1:A:579:PHE:HB3	2.11	0.51
1:A:793:ARG:NH2	3:C:147:MET:HG2	2.25	0.51
1:A:818:TYR:CB	2:B:89:LYS:C	2.79	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:109:ARG:HD3	1:D:117:THR:HB	1.92	0.51
1:D:251:ARG:HB2	1:D:264:ASP:HB2	1.91	0.51
1:D:411:GLU:H	4:9:333:PRO:CG	2.24	0.51
1:D:418:THR:O	1:D:422:VAL:HG23	2.11	0.51
1:D:507:GLY:HA2	1:D:762:HIS:ND1	2.26	0.51
3:F:100:GLY:O	3:F:138:ASN:HA	2.11	0.51
1:G:40:VAL:HG13	1:G:41:VAL:O	2.10	0.51
1:G:202:SER:HB2	1:G:207:LYS:NZ	2.26	0.51
1:G:732:ILE:H	1:G:733:PRO:CD	2.23	0.51
1:P:220:ASP:O	1:P:224:SER:N	2.27	0.51
1:P:248:MLY:N	1:P:463:ASP:O	2.44	0.51
1:P:418:THR:O	1:P:422:VAL:HG23	2.11	0.51
1:P:723:ARG:NE	1:P:779:ARG:HH11	2.08	0.51
1:P:725:ARG:O	1:P:729:ALA:HA	2.10	0.51
4:Y:287:ILE:HG13	4:0:201:VAL:CG2	0.17	0.51
4:0:110:LEU:HD22	4:1:191:LYS:HD3	1.92	0.51
1:A:195:TYR:CE2	1:A:199:ILE:CD1	2.93	0.51
1:A:530:MET:HG2	4:8:354:GLN:HB2	0.57	0.51
1:A:675:ILE:CG2	1:A:676:ILE:N	2.74	0.51
1:A:687:GLU:O	1:A:691:VAL:HG23	2.11	0.51
1:A:754:ASP:HB2	1:A:774:LEU:HD23	1.91	0.51
2:B:117:LEU:HG	2:B:147:ASN:HB3	1.93	0.51
1:D:41:VAL:HG21	1:D:76:GLN:HG3	1.92	0.51
1:D:539:GLU:OE2	4:W:45:VAL:C	2.47	0.51
1:D:631:GLU:C	4:9:25:ASP:HB2	2.31	0.51
1:D:640:LYS:CA	1:D:645:SER:OG	2.58	0.51
1:G:22:LYS:O	1:G:26:GLU:N	2.29	0.51
1:G:311:ASP:HB2	1:G:312:TYR:CE1	2.46	0.51
1:G:400:ALA:HB1	1:G:606:THR:HG22	1.93	0.51
1:G:559:LEU:HD23	1:G:559:LEU:C	2.31	0.51
1:G:576:GLU:CG	1:G:577:ALA:N	2.43	0.51
1:P:92:ALA:O	1:P:714:ARG:CZ	2.59	0.51
1:P:538:GLU:CD	4:0:355:MET:HE3	2.29	0.51
4:9:287:ILE:HG22	4:W:204:ALA:HB3	1.91	0.51
4:1:322:PRO:HB3	4:3:244:ASP:CG	2.31	0.51
1:A:400:ALA:HB1	1:A:606:THR:HG22	1.93	0.51
1:A:757:GLN:HG3	1:A:771:LEU:CD1	2.35	0.51
1:D:197:ALA:O	1:D:201:ALA:HB2	2.09	0.51
1:D:202:SER:HB2	1:D:207:LYS:NZ	2.26	0.51
1:D:218:LEU:N	1:D:221:GLN:CG	2.74	0.51
1:D:237:THR:O	1:D:240:ASN:O	2.29	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:793:ARG:NE	3:F:147:MET:CA	2.73	0.51
2:E:121:LEU:CA	2:E:128:PHE:CG	2.89	0.51
1:G:418:THR:O	1:G:422:VAL:HG23	2.11	0.51
1:P:592:ILE:HG22	1:P:592:ILE:O	2.11	0.51
1:P:631:GLU:C	4:0:25:ASP:HB2	2.32	0.51
4:8:287:ILE:HG22	4:V:204:ALA:HB3	1.91	0.51
1:A:197:ALA:O	1:A:201:ALA:HB2	2.10	0.51
1:A:311:ASP:HB2	1:A:312:TYR:CE1	2.46	0.51
1:A:725:ARG:O	1:A:729:ALA:HA	2.10	0.51
1:A:732:ILE:H	1:A:733:PRO:CD	2.23	0.51
1:A:800:ARG:HD2	3:C:149:VAL:CB	2.41	0.51
1:D:218:LEU:HA	1:D:221:GLN:HG3	1.71	0.51
1:D:834:LEU:CG	2:E:54:MET:HB3	2.34	0.51
2:E:117:LEU:HG	2:E:147:ASN:HB3	1.93	0.51
1:G:429:LEU:O	1:G:433:VAL:HG23	2.11	0.51
1:G:553:MLY:HH13	4:X:45:VAL:CG1	2.25	0.51
1:G:732:ILE:H	1:G:733:PRO:HD2	1.74	0.51
1:G:762:HIS:CD2	1:G:762:HIS:N	2.78	0.51
2:H:114:LYS:N	2:H:146:GLY:O	2.40	0.51
1:P:13:ALA:C	1:P:15:PRO:HD2	2.31	0.51
1:P:109:ARG:HD3	1:P:117:THR:HB	1.92	0.51
1:P:202:SER:HB2	1:P:207:LYS:NZ	2.26	0.51
1:P:559:LEU:C	1:P:559:LEU:HD23	2.31	0.51
4:1:322:PRO:HB2	4:3:244:ASP:HB3	1.89	0.51
1:A:169:ASP:OD1	1:A:169:ASP:N	2.44	0.50
1:A:642:LYS:HB2	4:8:24:ASP:O	1.88	0.50
1:D:292:MET:HE1	1:D:309:PRO:HD3	1.93	0.50
1:D:310:TYR:CE2	1:D:320:ILE:CD1	2.94	0.50
1:D:311:ASP:HB2	1:D:312:TYR:CE1	2.46	0.50
1:D:592:ILE:O	1:D:592:ILE:HG22	2.11	0.50
1:D:725:ARG:O	1:D:729:ALA:HA	2.10	0.50
1:G:687:GLU:O	1:G:691:VAL:HG23	2.11	0.50
2:H:137:TRP:CA	2:H:145:ALA:CB	2.82	0.50
1:P:41:VAL:HG21	1:P:76:GLN:HG3	1.93	0.50
1:P:687:GLU:O	1:P:691:VAL:HG23	2.11	0.50
1:P:834:LEU:HD11	2:Q:54:MET:HB3	1.81	0.50
3:R:100:GLY:O	3:R:138:ASN:HA	2.11	0.50
4:Z:287:ILE:C	4:1:203:THR:HG22	2.31	0.50
4:3:287:ILE:HG22	4:5:204:ALA:HB3	1.91	0.50
1:A:501:GLU:HB3	1:A:762:HIS:HB2	1.92	0.50
1:A:506:GLU:OE2	1:A:760:PHE:CD2	2.64	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:232:PHE:CE1	1:D:287:ILE:HD13	2.45	0.50
1:D:291:ILE:HA	1:D:331:LEU:CD1	2.39	0.50
1:D:346:ASP:O	1:D:349:THR:HB	2.11	0.50
1:D:578:HIS:O	1:D:579:PHE:HB3	2.11	0.50
1:D:642:LYS:HG2	4:9:21:PHE:C	2.30	0.50
1:D:733:PRO:CA	1:D:737:PHE:CE1	2.94	0.50
3:F:49:ILE:CA	3:F:52:ASN:ND2	2.53	0.50
1:G:38:VAL:CG1	1:G:39:PHE:N	2.74	0.50
1:G:629:GLU:CB	1:G:645:SER:N	2.74	0.50
1:G:813:ILE:HG21	2:H:128:PHE:CE1	2.44	0.50
1:P:237:THR:O	1:P:240:ASN:O	2.29	0.50
1:P:295:MLY:HG3	1:P:332:MET:HE2	1.92	0.50
1:P:400:ALA:HB1	1:P:606:THR:HG22	1.93	0.50
1:P:408:VAL:CG1	4:0:332:PRO:HB3	2.40	0.50
4:7:287:ILE:HG22	4:9:204:ALA:HB3	1.91	0.50
4:0:114:ALA:HB2	4:1:196:ARG:CZ	2.41	0.50
1:A:154:HIS:CD2	1:A:155:ILE:H	2.30	0.50
1:D:687:GLU:O	1:D:691:VAL:HG23	2.11	0.50
1:D:797:PHE:HA	3:F:149:VAL:CG1	2.42	0.50
1:G:248:MLY:N	1:G:463:ASP:O	2.44	0.50
1:G:418:THR:CB	1:G:421:GLU:HG3	2.37	0.50
1:G:733:PRO:CA	1:G:737:PHE:CE1	2.95	0.50
1:G:757:GLN:CD	1:G:776:GLU:HG2	2.32	0.50
2:H:117:LEU:HG	2:H:147:ASN:HB3	1.93	0.50
1:P:310:TYR:CE2	1:P:320:ILE:CD1	2.94	0.50
1:P:346:ASP:O	1:P:349:THR:HB	2.11	0.50
4:Z:287:ILE:HG13	4:1:202:THR:CB	2.42	0.50
1:A:733:PRO:CA	1:A:737:PHE:CE1	2.94	0.50
1:A:739:ASP:CB	1:A:742:LYS:CB	2.81	0.50
1:A:797:PHE:CD1	3:C:149:VAL:HG12	2.39	0.50
3:C:100:GLY:O	3:C:138:ASN:HA	2.11	0.50
1:D:530:MET:HG2	4:9:354:GLN:HB2	0.57	0.50
1:D:831:TRP:HH2	2:E:47:LEU:CA	2.15	0.50
1:P:429:LEU:O	1:P:433:VAL:HG23	2.12	0.50
1:P:530:MET:HG2	4:0:354:GLN:HB2	0.57	0.50
1:P:642:LYS:CG	4:0:22:ALA:HA	2.37	0.50
4:0:172:PRO:CB	4:1:191:LYS:HZ1	2.21	0.50
1:A:218:LEU:N	1:A:221:GLN:CG	2.74	0.50
1:A:530:MET:HE3	4:8:355:MET:SD	2.51	0.50
1:D:546:THR:CG2	1:D:548:THR:HB	2.41	0.50
1:D:675:ILE:CG2	1:D:676:ILE:N	2.74	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:218:LEU:N	1:G:221:GLN:CG	2.74	0.50
1:G:237:THR:O	1:G:240:ASN:O	2.29	0.50
1:G:538:GLU:OE1	4:V:351:THR:HB	2.12	0.50
1:P:38:VAL:CG1	1:P:39:PHE:N	2.74	0.50
1:P:470:PHE:O	1:P:473:ASN:ND2	2.40	0.50
1:P:546:THR:CG2	1:P:548:THR:HB	2.41	0.50
4:W:285:CYS:O	4:Y:202:THR:HG22	2.12	0.50
1:A:642:LYS:CB	4:8:24:ASP:O	2.59	0.50
2:B:112:ILE:HG23	2:B:147:ASN:HB3	1.93	0.50
1:D:154:HIS:CD2	1:D:155:ILE:H	2.30	0.50
1:D:408:VAL:CG1	4:9:332:PRO:HB3	2.41	0.50
1:D:530:MET:CE	4:9:354:GLN:HG3	2.35	0.50
1:D:642:LYS:CG	4:9:22:ALA:HA	2.37	0.50
1:D:732:ILE:O	1:D:736:GLN:HG3	2.12	0.50
1:G:346:ASP:O	1:G:349:THR:HB	2.11	0.50
1:G:411:GLU:H	4:V:333:PRO:CG	2.24	0.50
1:G:546:THR:CG2	1:G:548:THR:HB	2.41	0.50
1:G:646:PHE:CE2	1:G:652:LEU:CD2	2.87	0.50
1:G:813:ILE:HG21	2:H:128:PHE:HE1	1.74	0.50
1:P:217:THR:C	1:P:221:GLN:NE2	2.62	0.50
1:P:804:ARG:HA	1:P:807:VAL:HG12	1.90	0.50
1:A:237:THR:O	1:A:240:ASN:O	2.29	0.50
1:A:346:ASP:O	1:A:349:THR:HB	2.11	0.50
1:A:471:ASP:HB3	1:A:573:GLY:O	2.12	0.50
1:A:592:ILE:O	1:A:592:ILE:HG22	2.11	0.50
1:A:631:GLU:C	4:8:25:ASP:HB2	2.32	0.50
1:A:754:ASP:OD2	1:A:774:LEU:HD21	2.12	0.50
1:D:38:VAL:CG1	1:D:39:PHE:N	2.74	0.50
1:D:429:LEU:O	1:D:433:VAL:HG23	2.11	0.50
1:D:601:ASP:N	1:D:602:PRO:CD	2.75	0.50
1:D:715:VAL:O	1:D:764:MLY:HB3	2.12	0.50
1:D:818:TYR:CB	2:E:89:LYS:C	2.78	0.50
1:G:267:THR:HG21	1:G:438:PHE:HE2	1.76	0.50
1:G:530:MET:HE3	4:V:354:GLN:CB	2.41	0.50
1:G:601:ASP:N	1:G:602:PRO:CD	2.75	0.50
1:G:675:ILE:CG2	1:G:676:ILE:N	2.74	0.50
1:P:311:ASP:HB2	1:P:312:TYR:CE1	2.46	0.50
1:P:538:GLU:HA	4:0:349:LEU:CB	2.40	0.50
1:P:732:ILE:O	1:P:736:GLN:HG3	2.12	0.50
4:V:322:PRO:HB3	4:X:246:GLN:HG2	1.92	0.50
1:A:41:VAL:HG21	1:A:76:GLN:HG3	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:93:MET:O	1:A:713:SER:HB3	2.12	0.50
1:A:640:LYS:CA	1:A:645:SER:OG	2.58	0.50
1:A:759:ALA:O	1:A:766:PHE:N	2.32	0.50
1:D:559:LEU:HD23	1:D:559:LEU:C	2.31	0.50
1:D:643:GLY:N	4:9:23:GLY:C	2.55	0.50
1:D:814:PHE:CB	2:E:127:ARG:HH12	2.23	0.50
1:G:757:GLN:CG	1:G:776:GLU:CD	2.80	0.50
2:H:121:LEU:HA	2:H:128:PHE:CD2	2.47	0.50
1:P:632:GLY:HA3	1:P:643:GLY:N	2.17	0.50
1:P:675:ILE:CG2	1:P:676:ILE:N	2.74	0.50
1:P:742:LYS:O	1:P:745:GLU:HB2	2.11	0.50
1:P:785:GLU:O	1:P:788:THR:CA	2.58	0.50
1:P:804:ARG:C	1:P:807:VAL:HG12	2.30	0.50
2:Q:117:LEU:HG	2:Q:147:ASN:HB3	1.93	0.50
1:A:128:PRO:O	1:A:683:PRO:HB3	2.12	0.50
1:A:538:GLU:OE1	4:8:351:THR:HB	2.12	0.50
1:A:836:PHE:HE1	2:B:159:HIS:HA	1.76	0.50
2:B:121:LEU:HA	2:B:128:PHE:CD2	2.46	0.50
1:D:797:PHE:HD2	3:F:126:LEU:HD21	1.75	0.50
1:G:128:PRO:O	1:G:683:PRO:HB3	2.12	0.50
1:G:728:ASN:CG	3:I:113:THR:OG1	2.50	0.50
1:P:218:LEU:N	1:P:221:GLN:CG	2.74	0.50
1:P:547:ASP:O	1:P:550:PHE:HB3	2.12	0.50
4:Z:318:THR:HA	4:Z:327:ILE:HG12	1.94	0.50
4:3:70:PRO:HG3	4:3:81:ASP:HB3	1.94	0.50
1:A:97:LEU:CD2	1:A:712:PRO:C	2.80	0.49
1:A:501:GLU:C	1:A:762:HIS:CE1	2.48	0.49
1:A:502:GLU:OE2	1:A:764:MLY:N	2.43	0.49
1:D:176:LEU:N	1:D:176:LEU:CD1	2.75	0.49
1:D:251:ARG:O	1:D:263:ALA:HA	2.12	0.49
1:D:538:GLU:OE1	4:9:351:THR:HB	2.12	0.49
1:P:192:VAL:O	1:P:195:TYR:HB3	2.12	0.49
1:P:839:MLY:N	1:P:840:PRO:CD	2.75	0.49
4:8:70:PRO:HG3	4:8:81:ASP:HB3	1.94	0.49
4:W:318:THR:HA	4:W:327:ILE:HG12	1.94	0.49
4:0:318:THR:HA	4:0:327:ILE:HG12	1.94	0.49
4:4:70:PRO:HG3	4:4:81:ASP:HB3	1.94	0.49
1:A:278:GLN:HG3	1:A:318:GLY:H	1.75	0.49
1:A:409:GLY:N	1:A:636:LYS:CD	2.70	0.49
1:A:411:GLU:H	4:8:333:PRO:CG	2.25	0.49
1:A:418:THR:CB	1:A:421:GLU:HG3	2.37	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:267:THR:HG21	1:D:438:PHE:HE2	1.76	0.49
1:D:646:PHE:HE2	1:D:652:LEU:CG	2.25	0.49
1:D:793:ARG:HG3	3:F:146:ILE:CG2	2.41	0.49
1:D:831:TRP:HZ2	2:E:47:LEU:C	2.13	0.49
1:D:839:MLY:HB2	1:D:840:PRO:HD3	1.94	0.49
1:G:93:MET:HA	1:G:714:ARG:CB	2.42	0.49
1:G:168:THR:HG22	1:G:169:ASP:OD1	2.12	0.49
1:G:169:ASP:OD1	1:G:169:ASP:N	2.44	0.49
1:G:715:VAL:HG12	1:G:716:LEU:O	2.13	0.49
2:H:112:ILE:HG23	2:H:147:ASN:HB3	1.93	0.49
3:I:52:ASN:HB2	3:I:53:PRO:CD	2.28	0.49
1:P:128:PRO:O	1:P:683:PRO:HB3	2.12	0.49
1:P:538:GLU:OE1	4:0:351:THR:HB	2.13	0.49
1:P:578:HIS:O	1:P:579:PHE:HB3	2.11	0.49
1:P:595:TRP:CD1	1:P:595:TRP:N	2.80	0.49
1:P:629:GLU:CA	1:P:643:GLY:C	2.73	0.49
1:P:804:ARG:O	1:P:807:VAL:CA	2.60	0.49
2:Q:112:ILE:HG23	2:Q:147:ASN:HB3	1.92	0.49
4:5:318:THR:HA	4:5:327:ILE:HG12	1.94	0.49
1:G:20:SER:HB3	1:G:23:GLU:OE1	2.12	0.49
1:G:217:THR:C	1:G:221:GLN:NE2	2.62	0.49
1:G:547:ASP:O	1:G:550:PHE:HB3	2.12	0.49
1:G:715:VAL:O	1:G:764:MLY:HB3	2.12	0.49
1:G:793:ARG:HD3	3:I:40:ASN:HD21	1.77	0.49
1:G:820:VAL:HG11	2:H:136:MET:CE	2.42	0.49
2:H:114:LYS:HG3	2:H:137:TRP:CZ2	2.48	0.49
1:P:154:HIS:CD2	1:P:155:ILE:H	2.30	0.49
1:P:411:GLU:H	4:0:333:PRO:CG	2.24	0.49
1:P:543:PRO:CD	4:0:146:GLY:O	2.61	0.49
1:P:715:VAL:O	1:P:764:MLY:HB3	2.12	0.49
1:P:733:PRO:CA	1:P:737:PHE:CE1	2.95	0.49
1:P:786:ILE:O	1:P:790:THR:N	2.39	0.49
2:Q:114:LYS:HG3	2:Q:137:TRP:CZ2	2.48	0.49
4:V:299:MET:HE2	4:V:331:ALA:HB2	1.94	0.49
4:X:318:THR:HA	4:X:327:ILE:HG12	1.95	0.49
4:Y:288:ASP:CA	4:0:242:LEU:HD23	2.37	0.49
4:Y:318:THR:HA	4:Y:327:ILE:HG12	1.95	0.49
4:1:318:THR:HA	4:1:327:ILE:HG12	1.94	0.49
1:A:251:ARG:O	1:A:263:ALA:HA	2.12	0.49
1:A:429:LEU:O	1:A:433:VAL:HG23	2.11	0.49
1:A:795:ARG:NH2	3:C:116:GLU:CG	2.75	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:817:GLN:HB2	2:B:127:ARG:CZ	2.43	0.49
1:D:595:TRP:N	1:D:595:TRP:CD1	2.80	0.49
1:D:813:ILE:HG22	2:E:127:ARG:HH11	1.77	0.49
1:D:813:ILE:CD1	2:E:128:PHE:HE1	2.24	0.49
1:D:839:MLY:N	1:D:840:PRO:CD	2.75	0.49
1:G:732:ILE:O	1:G:736:GLN:HG3	2.12	0.49
1:G:788:THR:HG23	3:I:42:THR:HB	1.93	0.49
1:P:169:ASP:N	1:P:169:ASP:OD1	2.44	0.49
1:P:471:ASP:HB3	1:P:573:GLY:O	2.12	0.49
1:P:739:ASP:OD1	1:P:740:SER:N	2.45	0.49
4:7:318:THR:HA	4:7:327:ILE:HG12	1.94	0.49
4:V:318:THR:HA	4:V:327:ILE:HG12	1.94	0.49
4:2:318:THR:HA	4:2:327:ILE:HG12	1.94	0.49
4:4:318:THR:HA	4:4:327:ILE:HG12	1.94	0.49
1:D:64:THR:CG2	1:D:65:GLU:N	2.76	0.49
1:D:169:ASP:OD1	1:D:169:ASP:N	2.44	0.49
1:D:629:GLU:CA	1:D:643:GLY:C	2.73	0.49
2:E:140:PHE:HB3	2:E:144:VAL:HG12	1.94	0.49
1:G:103:LEU:C	1:G:103:LEU:HD12	2.33	0.49
1:G:154:HIS:CD2	1:G:155:ILE:H	2.30	0.49
1:G:642:LYS:HA	4:V:22:ALA:C	2.33	0.49
1:G:795:ARG:HE	3:I:118:MET:HE1	0.68	0.49
1:G:800:ARG:CB	3:I:149:VAL:CG2	2.86	0.49
1:P:251:ARG:O	1:P:263:ALA:HA	2.12	0.49
4:7:70:PRO:HG3	4:7:81:ASP:HB3	1.94	0.49
4:2:70:PRO:HG3	4:2:81:ASP:HB3	1.94	0.49
4:3:318:THR:HA	4:3:327:ILE:HG12	1.94	0.49
1:A:103:LEU:C	1:A:103:LEU:HD12	2.33	0.49
1:A:267:THR:HG21	1:A:438:PHE:HE2	1.76	0.49
1:A:739:ASP:OD1	1:A:740:SER:N	2.46	0.49
2:B:114:LYS:HG3	2:B:137:TRP:CZ2	2.48	0.49
1:D:168:THR:HG22	1:D:169:ASP:OD1	2.12	0.49
1:D:739:ASP:OD1	1:D:740:SER:N	2.45	0.49
2:E:114:LYS:HG3	2:E:137:TRP:CZ2	2.47	0.49
2:E:128:PHE:O	2:E:133:ILE:HD11	2.13	0.49
1:G:192:VAL:O	1:G:195:TYR:HB3	2.13	0.49
1:G:214:MET:HA	1:G:340:ILE:CD1	2.41	0.49
1:G:471:ASP:HB3	1:G:573:GLY:O	2.12	0.49
1:G:642:LYS:HG2	4:V:21:PHE:C	2.30	0.49
1:G:739:ASP:OD1	1:G:740:SER:N	2.46	0.49
2:H:128:PHE:O	2:H:133:ILE:HD11	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:50:LEU:O	3:I:55:LYS:HB2	2.13	0.49
1:P:278:GLN:HG3	1:P:318:GLY:H	1.76	0.49
1:P:601:ASP:N	1:P:602:PRO:CD	2.75	0.49
1:P:629:GLU:CB	1:P:645:SER:N	2.73	0.49
1:P:707:CYS:HB3	1:P:714:ARG:HH22	1.78	0.49
4:8:318:THR:HA	4:8:327:ILE:HG12	1.95	0.49
4:9:318:THR:HA	4:9:327:ILE:HG12	1.95	0.49
4:0:124:PHE:CZ	4:0:132:MET:HG3	2.48	0.49
4:0:253:GLU:HA	4:0:256:ARG:CG	2.42	0.49
4:1:124:PHE:CZ	4:1:132:MET:HG3	2.48	0.49
4:3:287:ILE:CB	4:5:204:ALA:H	2.24	0.49
1:A:20:SER:HB3	1:A:23:GLU:OE1	2.13	0.49
1:A:505:MLY:CB	1:A:762:HIS:CB	2.85	0.49
1:A:530:MET:CE	4:8:354:GLN:HG3	2.35	0.49
1:A:715:VAL:HG12	1:A:716:LEU:O	2.13	0.49
1:A:732:ILE:O	1:A:736:GLN:HG3	2.12	0.49
1:A:839:MLY:N	1:A:840:PRO:CD	2.75	0.49
2:B:93:PRO:O	2:B:97:ILE:HG13	2.13	0.49
1:D:290:GLN:HG2	1:D:331:LEU:CA	2.43	0.49
1:D:405:ARG:HB2	1:D:414:THR:OG1	2.13	0.49
1:D:543:PRO:CD	4:9:146:GLY:O	2.61	0.49
1:D:715:VAL:HG12	1:D:716:LEU:O	2.12	0.49
1:G:290:GLN:HG2	1:G:331:LEU:CA	2.43	0.49
1:P:267:THR:HG21	1:P:438:PHE:HE2	1.76	0.49
1:P:646:PHE:HE2	1:P:652:LEU:CG	2.25	0.49
4:V:70:PRO:HG3	4:V:81:ASP:HB3	1.94	0.49
4:Z:124:PHE:CZ	4:Z:132:MET:HG3	2.48	0.49
1:A:41:VAL:CG1	1:A:42:HIS:N	2.75	0.49
1:A:173:GLN:OE1	1:A:668:HIS:HB3	2.13	0.49
1:A:547:ASP:O	1:A:550:PHE:HB3	2.12	0.49
1:A:601:ASP:N	1:A:602:PRO:CD	2.75	0.49
1:A:642:LYS:HG2	4:8:21:PHE:C	2.30	0.49
1:A:715:VAL:O	1:A:764:MLY:HB3	2.12	0.49
1:A:720:PHE:CD2	1:A:744:SER:HB3	2.48	0.49
2:B:137:TRP:CA	2:B:145:ALA:CB	2.82	0.49
1:D:20:SER:HB3	1:D:23:GLU:OE1	2.13	0.49
1:D:103:LEU:C	1:D:103:LEU:HD12	2.33	0.49
1:D:128:PRO:O	1:D:683:PRO:HB3	2.12	0.49
1:D:471:ASP:HB3	1:D:573:GLY:O	2.12	0.49
1:D:547:ASP:O	1:D:550:PHE:HB3	2.12	0.49
1:D:553:MLY:NZ	4:W:45:VAL:CA	2.58	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:642:LYS:HA	4:9:22:ALA:C	2.33	0.49
1:G:291:ILE:HA	1:G:331:LEU:CD1	2.39	0.49
1:G:543:PRO:CD	4:V:146:GLY:O	2.61	0.49
1:G:642:LYS:HG3	4:V:23:GLY:CA	2.31	0.49
1:G:798:LEU:HA	1:G:798:LEU:HD12	1.36	0.49
1:G:820:VAL:HG11	2:H:136:MET:HE3	1.94	0.49
1:P:168:THR:HG22	1:P:169:ASP:OD1	2.12	0.49
1:P:173:GLN:OE1	1:P:668:HIS:HB3	2.13	0.49
1:P:251:ARG:HB2	1:P:264:ASP:HB3	1.95	0.49
1:P:312:TYR:N	1:P:312:TYR:CD1	2.81	0.49
4:V:124:PHE:CZ	4:V:132:MET:HG3	2.48	0.49
4:Y:124:PHE:CZ	4:Y:132:MET:HG3	2.48	0.49
4:0:70:PRO:HG3	4:0:81:ASP:HB3	1.94	0.49
4:3:124:PHE:CZ	4:3:132:MET:HG3	2.48	0.49
4:4:124:PHE:CZ	4:4:132:MET:HG3	2.48	0.49
1:A:97:LEU:HD23	1:A:712:PRO:CB	2.42	0.49
1:A:192:VAL:O	1:A:195:TYR:HB3	2.13	0.49
1:A:817:GLN:HG3	2:B:127:ARG:NE	2.28	0.49
1:D:41:VAL:CG1	1:D:42:HIS:N	2.75	0.49
1:D:51:THR:C	1:D:62:VAL:HG13	2.32	0.49
1:D:756:THR:O	1:D:758:TYR:N	2.45	0.49
1:D:793:ARG:CG	3:F:146:ILE:HG22	2.43	0.49
1:G:97:LEU:HD13	1:G:97:LEU:N	2.27	0.49
1:G:173:GLN:OE1	1:G:668:HIS:HB3	2.13	0.49
1:G:409:GLY:N	1:G:636:LYS:CD	2.71	0.49
1:G:538:GLU:HA	4:V:351:THR:H	1.77	0.49
1:G:553:MLY:O	4:X:46:GLY:HA3	2.12	0.49
1:G:756:THR:O	1:G:758:TYR:N	2.45	0.49
1:G:839:MLY:N	1:G:840:PRO:CD	2.75	0.49
1:P:97:LEU:HD13	1:P:97:LEU:N	2.28	0.49
1:P:642:LYS:HA	4:0:22:ALA:C	2.33	0.49
1:P:715:VAL:HG12	1:P:716:LEU:O	2.12	0.49
1:P:759:ALA:O	1:P:766:PHE:N	2.32	0.49
2:Q:121:LEU:HA	2:Q:128:PHE:CD2	2.47	0.49
2:Q:140:PHE:HB3	2:Q:144:VAL:HG12	1.94	0.49
4:7:120:THR:HG21	4:7:370:VAL:HG11	1.95	0.49
4:8:124:PHE:CZ	4:8:132:MET:HG3	2.48	0.49
4:Z:70:PRO:HG3	4:Z:81:ASP:HB3	1.94	0.49
4:Z:198:TYR:CZ	4:Z:248:ILE:HG13	2.48	0.49
4:1:198:TYR:CZ	4:1:248:ILE:HG13	2.48	0.49
4:2:322:PRO:C	4:4:244:ASP:HB2	2.33	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:213:LYS:O	4:5:217:CYS:HB2	2.13	0.49
1:A:168:THR:HG22	1:A:169:ASP:OD1	2.12	0.49
1:A:642:LYS:HA	4:8:22:ALA:C	2.34	0.49
1:A:732:ILE:H	1:A:733:PRO:HD2	1.74	0.49
1:A:817:GLN:OE1	2:B:127:ARG:NH2	2.46	0.49
3:C:49:ILE:CA	3:C:52:ASN:ND2	2.53	0.49
1:D:237:THR:HG22	1:D:238:VAL:N	2.28	0.49
1:D:314:TYR:CZ	1:D:362:GLY:HA2	2.48	0.49
1:D:418:THR:CB	1:D:421:GLU:HG3	2.37	0.49
2:H:93:PRO:O	2:H:97:ILE:HG13	2.12	0.49
1:P:20:SER:HB3	1:P:23:GLU:OE1	2.13	0.49
1:P:237:THR:HG22	1:P:238:VAL:N	2.28	0.49
1:P:404:PRO:HD2	1:P:415:MLY:O	2.13	0.49
1:P:723:ARG:HH11	1:P:723:ARG:HG3	1.78	0.49
2:Q:121:LEU:O	2:Q:128:PHE:CG	2.61	0.49
4:9:70:PRO:HG3	4:9:81:ASP:HB3	1.94	0.49
4:2:213:LYS:O	4:2:217:CYS:HB2	2.13	0.49
4:2:253:GLU:HA	4:2:256:ARG:CG	2.42	0.49
4:3:198:TYR:CZ	4:3:248:ILE:HG13	2.48	0.49
4:3:299:MET:HE2	4:3:331:ALA:HB2	1.94	0.49
4:5:198:TYR:CZ	4:5:248:ILE:HG13	2.48	0.49
1:A:291:ILE:HA	1:A:331:LEU:CD1	2.39	0.48
1:A:312:TYR:N	1:A:312:TYR:CD1	2.81	0.48
1:A:499:GLU:OE1	1:A:499:GLU:HA	2.13	0.48
1:A:595:TRP:N	1:A:595:TRP:CD1	2.80	0.48
1:A:723:ARG:HH11	1:A:723:ARG:HG3	1.78	0.48
2:B:130:PRO:O	2:B:131:GLU:C	2.52	0.48
2:B:140:PHE:HB3	2:B:144:VAL:HG12	1.94	0.48
1:D:97:LEU:HD13	1:D:97:LEU:N	2.28	0.48
1:D:791:GLN:HE22	3:F:116:GLU:N	1.95	0.48
1:D:834:LEU:CD2	2:E:54:MET:CB	2.80	0.48
1:G:278:GLN:HG3	1:G:318:GLY:H	1.75	0.48
1:G:640:LYS:C	4:V:23:GLY:CA	2.64	0.48
1:G:720:PHE:CD2	1:G:744:SER:HB3	2.48	0.48
1:P:290:GLN:HG2	1:P:331:LEU:CA	2.43	0.48
1:P:291:ILE:HA	1:P:331:LEU:CD1	2.39	0.48
1:P:829:TRP:HZ3	2:Q:84:PHE:CZ	2.20	0.48
4:8:198:TYR:CZ	4:8:248:ILE:HG13	2.48	0.48
4:8:213:LYS:O	4:8:217:CYS:HB2	2.13	0.48
4:9:120:THR:HG21	4:9:370:VAL:HG11	1.95	0.48
4:X:70:PRO:HG3	4:X:81:ASP:HB3	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Z:324:THR:CG2	4:1:244:ASP:CA	2.86	0.48
4:O:113:LYS:HE3	4:1:252:ASN:CG	2.31	0.48
4:O:287:ILE:CG2	4:2:203:THR:HG21	2.41	0.48
1:A:543:PRO:CD	4:8:146:GLY:O	2.61	0.48
1:A:637:LYS:HD2	4:8:144:ALA:HB3	1.21	0.48
2:E:121:LEU:O	2:E:128:PHE:CG	2.61	0.48
1:G:64:THR:CG2	1:G:65:GLU:N	2.76	0.48
1:G:218:LEU:CD2	1:G:222:ILE:CG1	2.85	0.48
1:G:314:TYR:CZ	1:G:362:GLY:HA2	2.48	0.48
1:G:499:GLU:OE1	1:G:499:GLU:HA	2.13	0.48
1:G:595:TRP:N	1:G:595:TRP:CD1	2.80	0.48
3:I:49:ILE:CA	3:I:52:ASN:ND2	2.53	0.48
1:P:51:THR:C	1:P:62:VAL:HG13	2.32	0.48
1:P:817:GLN:OE1	2:Q:127:ARG:NH1	2.46	0.48
1:P:836:PHE:CD2	2:Q:161:GLU:CG	2.92	0.48
4:7:213:LYS:O	4:7:217:CYS:HB2	2.13	0.48
4:8:287:ILE:HA	4:V:202:THR:HG21	1.59	0.48
4:V:198:TYR:CZ	4:V:248:ILE:HG13	2.48	0.48
4:W:124:PHE:CZ	4:W:132:MET:HG3	2.48	0.48
4:X:198:TYR:CZ	4:X:248:ILE:HG13	2.48	0.48
4:O:198:TYR:CZ	4:O:248:ILE:HG13	2.48	0.48
4:5:124:PHE:CZ	4:5:132:MET:HG3	2.48	0.48
1:A:756:THR:O	1:A:758:TYR:N	2.46	0.48
1:D:192:VAL:O	1:D:195:TYR:HB3	2.13	0.48
1:D:217:THR:C	1:D:221:GLN:NE2	2.62	0.48
1:D:251:ARG:HB2	1:D:264:ASP:HB3	1.95	0.48
1:G:251:ARG:O	1:G:263:ALA:HA	2.12	0.48
1:G:797:PHE:CD2	3:I:126:LEU:CD2	2.95	0.48
1:P:214:MET:HA	1:P:340:ILE:CD1	2.41	0.48
1:P:314:TYR:CZ	1:P:362:GLY:HA2	2.48	0.48
1:P:839:MLY:HB2	1:P:840:PRO:HD3	1.94	0.48
4:W:120:THR:HG21	4:W:370:VAL:HG11	1.95	0.48
4:Y:70:PRO:HG3	4:Y:81:ASP:HB3	1.94	0.48
4:Y:198:TYR:CZ	4:Y:248:ILE:HG13	2.48	0.48
4:1:70:PRO:HG3	4:1:81:ASP:HB3	1.94	0.48
4:2:198:TYR:CZ	4:2:248:ILE:HG13	2.48	0.48
4:5:70:PRO:HG3	4:5:81:ASP:HB3	1.94	0.48
1:A:51:THR:C	1:A:62:VAL:HG13	2.32	0.48
1:A:97:LEU:HD23	1:A:712:PRO:HB3	1.93	0.48
1:A:218:LEU:HD22	1:A:222:ILE:HG13	1.95	0.48
1:D:292:MET:CE	1:D:309:PRO:HA	2.39	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:818:TYR:CG	2:E:89:LYS:C	2.86	0.48
1:G:237:THR:HG22	1:G:238:VAL:N	2.28	0.48
1:G:248:MLY:HE2	1:G:250:ILE:HD11	1.95	0.48
1:G:310:TYR:CE2	1:G:320:ILE:CD1	2.94	0.48
1:G:312:TYR:N	1:G:312:TYR:CD1	2.81	0.48
1:G:332:MET:O	1:G:336:SER:OG	2.27	0.48
2:H:121:LEU:O	2:H:128:PHE:CG	2.61	0.48
1:P:405:ARG:HB2	1:P:414:THR:OG1	2.13	0.48
1:P:689:GLU:O	1:P:689:GLU:HG2	2.14	0.48
2:Q:128:PHE:O	2:Q:133:ILE:HD11	2.13	0.48
4:V:253:GLU:HA	4:V:256:ARG:CG	2.42	0.48
4:W:70:PRO:HG3	4:W:81:ASP:HB3	1.94	0.48
4:X:213:LYS:O	4:X:217:CYS:HB2	2.13	0.48
4:Y:291:LYS:N	4:0:244:ASP:OD2	2.44	0.48
4:3:213:LYS:O	4:3:217:CYS:HB2	2.13	0.48
4:5:120:THR:HG21	4:5:370:VAL:HG11	1.95	0.48
1:A:314:TYR:CZ	1:A:362:GLY:HA2	2.48	0.48
1:A:406:VAL:CG1	1:A:407:GLY:N	2.77	0.48
1:A:542:PHE:CD2	4:8:143:TYR:CD1	3.02	0.48
1:A:617:MLY:O	1:A:620:ALA:HB3	2.14	0.48
1:D:173:GLN:OE1	1:D:668:HIS:HB3	2.13	0.48
1:D:689:GLU:O	1:D:689:GLU:HG2	2.14	0.48
1:D:814:PHE:HD1	2:E:127:ARG:NH1	2.06	0.48
2:E:121:LEU:HA	2:E:128:PHE:CD2	2.46	0.48
1:G:835:PHE:CE1	2:H:30:ALA:CB	2.96	0.48
1:P:41:VAL:CG1	1:P:42:HIS:N	2.75	0.48
1:P:64:THR:CG2	1:P:65:GLU:N	2.76	0.48
1:P:136:ASN:O	1:P:139:VAL:N	2.47	0.48
1:P:550:PHE:CE2	1:P:592:ILE:CG2	2.97	0.48
1:P:725:ARG:NE	1:P:733:PRO:CB	1.95	0.48
1:P:756:THR:O	1:P:758:TYR:N	2.46	0.48
4:7:198:TYR:CZ	4:7:248:ILE:HG13	2.48	0.48
4:8:120:THR:HG21	4:8:370:VAL:HG11	1.95	0.48
4:Y:213:LYS:O	4:Y:217:CYS:HB2	2.13	0.48
4:0:213:LYS:O	4:0:217:CYS:HB2	2.13	0.48
4:1:299:MET:HE2	4:1:331:ALA:HB2	1.95	0.48
4:4:213:LYS:O	4:4:217:CYS:HB2	2.13	0.48
1:A:64:THR:CG2	1:A:65:GLU:N	2.76	0.48
1:A:649:VAL:HA	1:A:649:VAL:HG23	1.83	0.48
3:C:50:LEU:O	3:C:55:LYS:HB2	2.13	0.48
1:D:136:ASN:O	1:D:139:VAL:N	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:289:TYR:OH	1:D:315:VAL:O	2.27	0.48
2:E:93:PRO:O	2:E:97:ILE:HG13	2.13	0.48
3:F:50:LEU:O	3:F:55:LYS:HB2	2.13	0.48
1:G:51:THR:C	1:G:62:VAL:HG13	2.32	0.48
1:G:218:LEU:HD22	1:G:222:ILE:HG13	1.95	0.48
1:G:723:ARG:HH11	1:G:723:ARG:HG3	1.78	0.48
1:G:765:VAL:CG1	1:G:766:PHE:N	2.77	0.48
1:G:795:ARG:CD	3:I:43:ASN:OD1	2.58	0.48
1:P:720:PHE:CD2	1:P:744:SER:HB3	2.48	0.48
2:Q:93:PRO:O	2:Q:97:ILE:HG13	2.12	0.48
4:9:213:LYS:O	4:9:217:CYS:HB2	2.13	0.48
4:V:213:LYS:O	4:V:217:CYS:HB2	2.13	0.48
4:V:285:CYS:O	4:X:202:THR:HG22	2.14	0.48
4:W:213:LYS:O	4:W:217:CYS:HB2	2.13	0.48
4:Y:120:THR:HG21	4:Y:370:VAL:HG11	1.95	0.48
4:1:213:LYS:O	4:1:217:CYS:HB2	2.13	0.48
4:3:120:THR:HG21	4:3:370:VAL:HG11	1.95	0.48
1:A:10:PHE:CD2	1:A:17:LEU:HD23	2.49	0.48
1:A:214:MET:HA	1:A:340:ILE:CD1	2.42	0.48
1:A:251:ARG:HB2	1:A:264:ASP:HB3	1.95	0.48
1:A:290:GLN:HG2	1:A:331:LEU:CA	2.43	0.48
1:A:556:ASP:CA	4:V:49:GLN:O	2.52	0.48
1:A:689:GLU:O	1:A:689:GLU:HG2	2.14	0.48
1:A:839:MLY:HB2	1:A:840:PRO:HD3	1.94	0.48
1:D:312:TYR:N	1:D:312:TYR:CD1	2.81	0.48
1:D:410:ASN:HD22	4:9:336:LYS:HE2	1.78	0.48
1:G:602:PRO:O	1:G:603:LEU:HD12	2.14	0.48
1:G:637:LYS:HD2	4:V:144:ALA:HB3	1.20	0.48
1:G:816:ILE:HD11	2:H:100:ALA:HB3	1.92	0.48
2:H:140:PHE:HB3	2:H:144:VAL:HG12	1.95	0.48
1:P:84:MLY:HH12	1:P:715:VAL:HG22	1.96	0.48
1:P:202:SER:HA	1:P:207:LYS:NZ	2.22	0.48
1:P:499:GLU:OE1	1:P:499:GLU:HA	2.13	0.48
1:P:732:ILE:HG23	1:P:747:LEU:CD1	1.05	0.48
4:9:198:TYR:CZ	4:9:248:ILE:HG13	2.48	0.48
4:W:198:TYR:CZ	4:W:248:ILE:HG13	2.48	0.48
4:Z:213:LYS:O	4:Z:217:CYS:HB2	2.13	0.48
4:Z:253:GLU:HA	4:Z:256:ARG:CG	2.42	0.48
4:1:253:GLU:HA	4:1:256:ARG:CG	2.42	0.48
4:2:124:PHE:CZ	4:2:132:MET:HG3	2.48	0.48
1:A:218:LEU:HA	1:A:221:GLN:H	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:310:TYR:CE2	1:A:320:ILE:CD1	2.94	0.48
1:A:817:GLN:CG	2:B:127:ARG:CD	2.85	0.48
1:D:10:PHE:CD2	1:D:17:LEU:HD23	2.49	0.48
1:D:134:VAL:C	1:D:136:ASN:H	2.16	0.48
1:D:154:HIS:CE1	1:D:156:PHE:CE2	3.02	0.48
1:G:251:ARG:HB2	1:G:264:ASP:HB3	1.95	0.48
1:G:404:PRO:HD2	1:G:415:MLY:O	2.13	0.48
1:G:546:THR:CG2	1:G:547:ASP:N	2.77	0.48
1:G:725:ARG:NE	1:G:733:PRO:CB	1.95	0.48
1:G:732:ILE:HG23	1:G:747:LEU:CD1	1.04	0.48
1:G:817:GLN:CB	2:H:127:ARG:HH11	2.27	0.48
1:P:410:ASN:HD22	4:0:336:LYS:HE2	1.78	0.48
2:Q:112:ILE:CG2	2:Q:147:ASN:O	2.62	0.48
3:R:50:LEU:O	3:R:55:LYS:HB2	2.13	0.48
4:7:124:PHE:CZ	4:7:132:MET:HG3	2.48	0.48
4:7:250:ILE:HG23	4:7:253:GLU:HG2	1.96	0.48
4:9:124:PHE:CZ	4:9:132:MET:HG3	2.48	0.48
4:V:120:THR:HG21	4:V:370:VAL:HG11	1.95	0.48
4:2:250:ILE:HG23	4:2:253:GLU:HG2	1.96	0.48
4:4:250:ILE:HG23	4:4:253:GLU:HG2	1.96	0.48
1:A:97:LEU:HD13	1:A:97:LEU:N	2.28	0.48
1:A:134:VAL:C	1:A:136:ASN:H	2.16	0.48
1:A:237:THR:HG22	1:A:238:VAL:N	2.28	0.48
1:A:404:PRO:HD2	1:A:415:MLY:O	2.13	0.48
1:A:795:ARG:HG2	3:C:118:MET:HE3	1.95	0.48
2:B:128:PHE:O	2:B:133:ILE:HD11	2.13	0.48
1:D:221:GLN:HG2	1:D:221:GLN:H	1.47	0.48
1:D:550:PHE:CE2	1:D:592:ILE:CG2	2.97	0.48
1:D:629:GLU:CB	1:D:645:SER:N	2.74	0.48
1:G:405:ARG:HB2	1:G:414:THR:OG1	2.13	0.48
1:G:689:GLU:O	1:G:689:GLU:HG2	2.14	0.48
1:G:830:PRO:HG2	2:H:67:MET:HE2	1.95	0.48
1:G:839:MLY:HB2	1:G:840:PRO:HD3	1.94	0.48
2:H:144:VAL:HG12	2:H:153:ILE:HD13	1.92	0.48
1:P:103:LEU:C	1:P:103:LEU:HD12	2.33	0.48
1:P:154:HIS:CE1	1:P:156:PHE:CE2	3.02	0.48
1:P:206:LYS:CE	1:P:217:THR:HG23	2.29	0.48
4:X:124:PHE:CZ	4:X:132:MET:HG3	2.48	0.48
4:X:250:ILE:HG23	4:X:253:GLU:HG2	1.96	0.48
4:Y:291:LYS:HD2	4:0:246:GLN:N	2.24	0.48
4:4:120:THR:HG21	4:4:370:VAL:HG11	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:250:ILE:HG23	4:5:253:GLU:HG2	1.96	0.48
1:A:292:MET:HE1	1:A:309:PRO:HD3	1.96	0.48
1:A:765:VAL:CG1	1:A:766:PHE:N	2.77	0.48
1:A:793:ARG:NH2	3:C:147:MET:CG	2.75	0.48
1:D:106:LEU:HD12	1:D:117:THR:HG21	1.96	0.48
1:D:218:LEU:HA	1:D:221:GLN:H	1.79	0.48
1:D:617:MLY:O	1:D:620:ALA:HB3	2.14	0.48
1:D:725:ARG:NE	1:D:733:PRO:CB	1.95	0.48
1:D:798:LEU:CD2	3:F:126:LEU:HD11	2.44	0.48
2:E:130:PRO:O	2:E:131:GLU:C	2.52	0.48
1:P:134:VAL:C	1:P:136:ASN:H	2.16	0.48
1:P:617:MLY:O	1:P:620:ALA:HB3	2.14	0.48
1:P:823:PHE:CZ	2:Q:156:VAL:HG11	2.47	0.48
4:8:250:ILE:HG23	4:8:253:GLU:HG2	1.96	0.48
4:9:250:ILE:HG23	4:9:253:GLU:HG2	1.96	0.48
4:X:120:THR:HG21	4:X:370:VAL:HG11	1.95	0.48
4:X:299:MET:HE2	4:X:331:ALA:HB2	1.95	0.48
4:0:120:THR:HG21	4:0:370:VAL:HG11	1.95	0.48
4:5:253:GLU:HA	4:5:256:ARG:CG	2.42	0.48
1:A:154:HIS:CE1	1:A:156:PHE:CE2	3.02	0.47
1:A:550:PHE:CE2	1:A:592:ILE:CG2	2.97	0.47
1:A:792:ALA:HB2	3:C:42:THR:HG22	1.95	0.47
1:D:542:PHE:CD2	4:9:143:TYR:CD1	3.02	0.47
1:D:578:HIS:HB3	1:D:592:ILE:CD1	2.38	0.47
1:D:720:PHE:CD2	1:D:744:SER:HB3	2.48	0.47
2:E:140:PHE:O	2:E:141:PRO:C	2.33	0.47
1:G:838:ILE:CD1	2:H:54:MET:HE1	2.33	0.47
2:H:130:PRO:O	2:H:131:GLU:C	2.52	0.47
1:P:636:LYS:O	4:0:144:ALA:HB1	2.14	0.47
4:Y:250:ILE:HG23	4:Y:253:GLU:HG2	1.96	0.47
4:Z:120:THR:HG21	4:Z:370:VAL:HG11	1.95	0.47
4:Z:250:ILE:HG23	4:Z:253:GLU:HG2	1.96	0.47
4:3:287:ILE:HG22	4:5:204:ALA:H	1.74	0.47
1:A:248:MLY:HE2	1:A:250:ILE:HD11	1.95	0.47
1:A:632:GLY:HA3	1:A:643:GLY:N	2.17	0.47
2:B:112:ILE:CG2	2:B:147:ASN:O	2.62	0.47
1:D:292:MET:HE3	1:D:309:PRO:CA	2.41	0.47
3:F:53:PRO:O	3:F:55:LYS:HG3	2.15	0.47
1:G:218:LEU:HA	1:G:221:GLN:H	1.79	0.47
1:G:617:MLY:O	1:G:620:ALA:HB3	2.14	0.47
1:G:789:ALA:CA	3:I:81:GLN:HE21	2.20	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:22:LYS:O	1:P:26:GLU:N	2.30	0.47
1:P:106:LEU:HD12	1:P:117:THR:HG21	1.96	0.47
1:P:538:GLU:HA	4:0:351:THR:H	1.77	0.47
1:P:542:PHE:CD2	4:0:143:TYR:CD1	3.02	0.47
1:P:726:VAL:HA	3:R:89:GLU:CB	2.43	0.47
2:Q:139:ALA:C	2:Q:141:PRO:HD3	2.32	0.47
4:W:250:ILE:HG23	4:W:253:GLU:HG2	1.96	0.47
1:A:214:MET:C	1:A:340:ILE:CD1	2.82	0.47
1:A:405:ARG:HB2	1:A:414:THR:OG1	2.13	0.47
1:A:602:PRO:O	1:A:603:LEU:HD12	2.14	0.47
1:A:831:TRP:CH2	2:B:47:LEU:HA	2.39	0.47
3:C:53:PRO:O	3:C:55:LYS:HG3	2.15	0.47
1:D:640:LYS:HD2	1:D:646:PHE:O	2.14	0.47
1:D:732:ILE:H	1:D:733:PRO:CD	2.23	0.47
1:D:838:ILE:C	1:D:840:PRO:HD2	2.34	0.47
1:G:640:LYS:HD2	1:G:646:PHE:O	2.14	0.47
1:G:724:TYR:HD1	1:G:727:LEU:CD1	2.27	0.47
1:G:800:ARG:HH11	3:I:149:VAL:HG13	1.79	0.47
2:H:137:TRP:CZ3	2:H:145:ALA:N	2.81	0.47
1:P:829:TRP:CH2	2:Q:84:PHE:CE1	3.02	0.47
3:R:49:ILE:CA	3:R:52:ASN:ND2	2.53	0.47
4:7:253:GLU:HA	4:7:256:ARG:CG	2.42	0.47
4:V:250:ILE:HG23	4:V:253:GLU:HG2	1.96	0.47
4:0:250:ILE:HG23	4:0:253:GLU:HG2	1.96	0.47
4:4:198:TYR:CZ	4:4:248:ILE:HG13	2.48	0.47
1:A:505:MLY:HB2	1:A:741:LYS:HZ2	1.79	0.47
1:A:834:LEU:CD2	2:B:54:MET:HG3	2.42	0.47
2:B:160:GLY:O	2:B:161:GLU:HG2	2.14	0.47
1:D:404:PRO:HD2	1:D:415:MLY:O	2.13	0.47
1:D:436:MLY:HE3	1:D:626:TYR:HE1	1.77	0.47
1:D:546:THR:CG2	1:D:547:ASP:N	2.77	0.47
1:D:568:PRO:HD3	1:D:579:PHE:HA	1.96	0.47
1:D:789:ALA:CB	3:F:87:PHE:HE2	2.27	0.47
2:E:160:GLY:O	2:E:161:GLU:HG2	2.14	0.47
1:G:10:PHE:CD2	1:G:17:LEU:HD23	2.49	0.47
1:G:154:HIS:CE1	1:G:156:PHE:CE2	3.02	0.47
1:G:410:ASN:HD22	4:V:336:LYS:HE2	1.79	0.47
1:G:640:LYS:HB3	1:G:645:SER:CB	2.42	0.47
1:G:789:ALA:HA	3:I:81:GLN:NE2	2.29	0.47
2:H:112:ILE:CG2	2:H:147:ASN:O	2.62	0.47
1:P:214:MET:C	1:P:340:ILE:CD1	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:804:ARG:CA	1:P:807:VAL:HG12	2.44	0.47
4:7:299:MET:HE2	4:7:331:ALA:HB2	1.96	0.47
4:W:287:ILE:HG13	4:Y:202:THR:HG23	1.72	0.47
4:Z:288:ASP:H	4:1:203:THR:HG22	1.69	0.47
1:A:210:GLN:C	1:A:211:SER:HG	2.15	0.47
1:A:783:LEU:HA	1:A:786:ILE:HB	1.96	0.47
1:D:22:LYS:O	1:D:26:GLU:N	2.29	0.47
1:D:87:MLY:HH12	1:D:87:MLY:HD3	1.61	0.47
1:D:188:ASN:ND2	1:D:674:CYS:SG	2.88	0.47
1:D:732:ILE:CG2	1:D:747:LEU:CD1	0.65	0.47
1:G:41:VAL:CG1	1:G:42:HIS:N	2.75	0.47
1:G:550:PHE:CE2	1:G:592:ILE:CG2	2.97	0.47
1:G:636:LYS:O	4:V:144:ALA:HB1	2.14	0.47
1:G:818:TYR:CB	2:H:90:GLY:HA3	2.44	0.47
1:G:819:ASN:ND2	2:H:90:GLY:C	2.68	0.47
1:G:838:ILE:C	1:G:840:PRO:HD2	2.34	0.47
1:P:546:THR:CG2	1:P:547:ASP:N	2.77	0.47
1:P:724:TYR:HD1	1:P:727:LEU:CD1	2.27	0.47
1:P:838:ILE:C	1:P:840:PRO:HD2	2.35	0.47
4:V:162:ASN:OD1	4:V:277:THR:HG22	2.15	0.47
4:W:325:MET:SD	4:Y:244:ASP:OD2	2.73	0.47
4:X:162:ASN:OD1	4:X:277:THR:HG22	2.15	0.47
4:Y:291:LYS:HB3	4:0:246:GLN:HG2	1.95	0.47
4:Z:162:ASN:OD1	4:Z:277:THR:HG22	2.15	0.47
4:1:250:ILE:HG23	4:1:253:GLU:HG2	1.96	0.47
4:2:120:THR:HG21	4:2:370:VAL:HG11	1.95	0.47
4:3:250:ILE:HG23	4:3:253:GLU:HG2	1.96	0.47
4:3:288:ASP:OD2	4:5:203:THR:OG1	2.32	0.47
4:4:299:MET:HE2	4:4:331:ALA:HB2	1.96	0.47
1:A:295:MLY:CG	1:A:332:MET:HE1	2.43	0.47
1:A:410:ASN:HD22	4:8:336:LYS:HE2	1.78	0.47
1:A:546:THR:CG2	1:A:547:ASP:N	2.77	0.47
1:D:214:MET:C	1:D:340:ILE:CD1	2.82	0.47
1:D:602:PRO:O	1:D:603:LEU:HD12	2.14	0.47
1:D:636:LYS:O	4:9:144:ALA:HB1	2.15	0.47
1:D:783:LEU:HA	1:D:786:ILE:HB	1.97	0.47
2:E:112:ILE:CG2	2:E:147:ASN:O	2.62	0.47
1:G:214:MET:C	1:G:340:ILE:CD1	2.83	0.47
1:G:346:ASP:O	1:G:350:ALA:N	2.46	0.47
1:G:542:PHE:CD2	4:V:143:TYR:CD1	3.03	0.47
1:G:642:LYS:CB	4:V:24:ASP:O	2.60	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:188:ASN:ND2	1:P:674:CYS:SG	2.88	0.47
1:P:602:PRO:O	1:P:603:LEU:HD12	2.14	0.47
1:P:725:ARG:HH12	3:R:92:ARG:CG	2.14	0.47
1:P:834:LEU:HD21	2:Q:54:MET:HE2	1.93	0.47
2:Q:144:VAL:HG12	2:Q:153:ILE:HD13	1.92	0.47
4:7:290:ARG:HH22	4:9:202:THR:CG2	2.17	0.47
4:W:253:GLU:HA	4:W:256:ARG:CG	2.42	0.47
4:X:290:ARG:NH2	4:Z:201:VAL:HG21	2.30	0.47
1:A:538:GLU:CD	4:8:355:MET:HE3	2.32	0.47
1:A:629:GLU:CB	1:A:645:SER:N	2.74	0.47
1:A:725:ARG:NE	1:A:733:PRO:CB	1.95	0.47
1:A:793:ARG:O	1:A:797:PHE:N	2.40	0.47
1:A:817:GLN:HG3	2:B:127:ARG:HG2	1.97	0.47
1:A:818:TYR:HB2	2:B:90:GLY:N	2.30	0.47
1:D:122:PHE:CE2	1:D:700:VAL:HA	2.50	0.47
1:D:295:MLY:HG3	1:D:332:MET:HE2	1.96	0.47
1:D:400:ALA:HB1	1:D:606:THR:CG2	2.45	0.47
1:D:406:VAL:CG1	1:D:407:GLY:N	2.77	0.47
1:D:725:ARG:CG	1:D:733:PRO:HA	2.43	0.47
1:G:93:MET:HG2	1:G:714:ARG:HB2	1.97	0.47
1:G:406:VAL:CG1	1:G:407:GLY:H	2.28	0.47
1:G:701:LEU:HA	1:G:701:LEU:HD12	1.55	0.47
1:G:732:ILE:HG21	1:G:747:LEU:CD1	0.64	0.47
1:G:790:THR:CG2	3:I:87:PHE:CD2	2.95	0.47
1:G:793:ARG:HD3	3:I:40:ASN:ND2	2.30	0.47
1:G:797:PHE:CD2	3:I:146:ILE:HD12	2.50	0.47
1:G:818:TYR:CD2	2:H:127:ARG:NH1	2.83	0.47
1:P:122:PHE:CE2	1:P:700:VAL:HA	2.50	0.47
1:P:206:LYS:HD2	1:P:217:THR:CG2	2.17	0.47
1:P:519:LEU:N	1:P:519:LEU:CD1	2.77	0.47
1:P:544:LYS:HD2	4:0:147:ARG:CB	2.36	0.47
1:P:568:PRO:HD3	1:P:579:PHE:HA	1.96	0.47
1:P:810:ARG:HG2	1:P:810:ARG:NH1	2.29	0.47
2:Q:160:GLY:O	2:Q:161:GLU:HG2	2.14	0.47
3:R:50:LEU:O	3:R:53:PRO:CD	2.63	0.47
4:7:162:ASN:OD1	4:7:277:THR:HG22	2.15	0.47
4:8:253:GLU:HA	4:8:256:ARG:CG	2.42	0.47
4:9:162:ASN:OD1	4:9:277:THR:HG22	2.15	0.47
4:V:285:CYS:O	4:X:202:THR:CG2	2.62	0.47
4:W:162:ASN:OD1	4:W:277:THR:HG22	2.15	0.47
4:Y:286:ASP:OD1	4:0:205:GLU:CD	2.52	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:162:ASN:OD1	4:3:277:THR:HG22	2.15	0.47
4:4:162:ASN:OD1	4:4:277:THR:HG22	2.15	0.47
4:5:162:ASN:OD1	4:5:277:THR:HG22	2.15	0.47
1:A:188:ASN:ND2	1:A:674:CYS:SG	2.88	0.47
1:A:406:VAL:CG1	1:A:407:GLY:H	2.28	0.47
1:A:640:LYS:HB3	1:A:645:SER:CB	2.42	0.47
1:A:646:PHE:HE2	1:A:652:LEU:CG	2.24	0.47
1:D:30:MLY:HB3	1:D:31:PRO:HD2	1.97	0.47
1:D:311:ASP:CB	1:D:312:TYR:CE1	2.98	0.47
1:G:106:LEU:HD12	1:G:117:THR:HG21	1.96	0.47
3:I:53:PRO:O	3:I:55:LYS:HG3	2.15	0.47
1:P:10:PHE:CD2	1:P:17:LEU:HD23	2.49	0.47
1:P:218:LEU:HA	1:P:221:GLN:H	1.79	0.47
1:P:248:MLY:HE2	1:P:250:ILE:HD11	1.95	0.47
1:P:400:ALA:HB1	1:P:606:THR:CG2	2.45	0.47
1:P:406:VAL:CG1	1:P:407:GLY:N	2.77	0.47
1:P:765:VAL:CG1	1:P:766:PHE:N	2.77	0.47
2:Q:137:TRP:CZ3	2:Q:145:ALA:N	2.81	0.47
4:0:162:ASN:OD1	4:0:277:THR:HG22	2.15	0.47
1:A:106:LEU:HD12	1:A:117:THR:HG21	1.96	0.47
1:A:530:MET:HA	4:8:354:GLN:CD	2.11	0.47
1:A:564:ASN:HD22	1:A:582:VAL:HB	1.79	0.47
3:F:50:LEU:O	3:F:53:PRO:CD	2.63	0.47
1:G:292:MET:HE1	1:G:309:PRO:HD3	1.97	0.47
1:G:695:LEU:HB3	1:G:701:LEU:HD22	1.97	0.47
1:P:559:LEU:HD23	1:P:560:GLY:N	2.30	0.47
1:P:578:HIS:HB3	1:P:592:ILE:CD1	2.38	0.47
1:P:640:LYS:C	4:0:23:GLY:C	2.74	0.47
1:P:714:ARG:HD3	1:P:766:PHE:CE2	2.50	0.47
1:P:732:ILE:H	1:P:733:PRO:CD	2.23	0.47
2:Q:137:TRP:CA	2:Q:145:ALA:CB	2.82	0.47
1:A:538:GLU:HA	4:8:351:THR:H	1.78	0.47
1:A:640:LYS:HD2	1:A:646:PHE:O	2.15	0.47
1:D:765:VAL:CG1	1:D:766:PHE:N	2.77	0.47
1:D:795:ARG:NH1	3:F:35:ARG:NH1	2.58	0.47
1:G:176:LEU:N	1:G:176:LEU:CD1	2.75	0.47
1:G:568:PRO:HD3	1:G:579:PHE:HA	1.97	0.47
1:G:715:VAL:CG1	1:G:720:PHE:HB2	2.45	0.47
2:H:160:GLY:O	2:H:161:GLU:HG2	2.15	0.47
1:P:82:PRO:HG2	1:P:85:TYR:CE2	2.50	0.47
1:P:798:LEU:HA	1:P:798:LEU:HD12	1.36	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Q:130:PRO:O	2:Q:131:GLU:C	2.52	0.47
3:R:53:PRO:O	3:R:55:LYS:HG3	2.14	0.47
4:Y:162:ASN:OD1	4:Y:277:THR:HG22	2.15	0.47
4:Y:299:MET:HE2	4:Y:331:ALA:HB2	1.97	0.47
4:1:120:THR:HG21	4:1:370:VAL:HG11	1.95	0.47
4:1:162:ASN:OD1	4:1:277:THR:HG22	2.15	0.47
1:A:122:PHE:CE2	1:A:700:VAL:HA	2.50	0.46
1:A:400:ALA:HB1	1:A:606:THR:CG2	2.45	0.46
1:A:695:LEU:HB3	1:A:701:LEU:HD22	1.97	0.46
1:A:714:ARG:HD3	1:A:766:PHE:CE2	2.51	0.46
2:B:88:LEU:HB3	2:B:91:ALA:HB2	1.97	0.46
2:B:139:ALA:C	2:B:141:PRO:HD3	2.33	0.46
1:D:248:MLY:HE2	1:D:250:ILE:HD11	1.96	0.46
1:D:508:ILE:CA	1:D:761:GLY:HA3	2.39	0.46
1:D:524:GLU:HB3	1:D:528:MLY:HG2	1.97	0.46
1:D:530:MET:HE3	4:9:355:MET:SD	2.54	0.46
1:D:789:ALA:C	3:F:87:PHE:HE2	2.18	0.46
1:D:830:PRO:HG3	2:E:63:GLU:OE1	2.15	0.46
1:G:122:PHE:CE2	1:G:700:VAL:HA	2.50	0.46
1:G:400:ALA:HB1	1:G:606:THR:CG2	2.45	0.46
1:G:564:ASN:HD22	1:G:582:VAL:HB	1.79	0.46
1:G:714:ARG:HD3	1:G:766:PHE:CE2	2.50	0.46
1:P:215:GLN:H	1:P:340:ILE:CD1	2.20	0.46
1:P:529:PRO:HB2	4:0:354:GLN:HB3	1.97	0.46
1:P:732:ILE:CG2	1:P:747:LEU:CD1	0.65	0.46
2:Q:137:TRP:CA	2:Q:145:ALA:HB2	2.37	0.46
4:Z:299:MET:HE2	4:Z:331:ALA:HB2	1.95	0.46
1:A:568:PRO:HD3	1:A:579:PHE:HA	1.96	0.46
1:A:709:LYS:O	1:A:710:GLY:CA	2.60	0.46
1:A:788:THR:CG2	3:C:42:THR:HG21	2.44	0.46
1:A:793:ARG:HH21	3:C:147:MET:HG2	1.79	0.46
1:A:838:ILE:C	1:A:840:PRO:HD2	2.35	0.46
1:D:82:PRO:HG2	1:D:85:TYR:CE2	2.50	0.46
1:D:448:GLN:C	1:D:450:ASP:H	2.19	0.46
1:D:499:GLU:OE1	1:D:499:GLU:HA	2.13	0.46
1:D:529:PRO:HB2	4:9:354:GLN:HB3	1.98	0.46
1:D:559:LEU:HD23	1:D:560:GLY:N	2.30	0.46
1:D:564:ASN:HD22	1:D:582:VAL:HB	1.79	0.46
1:D:789:ALA:C	3:F:87:PHE:CE2	2.88	0.46
1:G:406:VAL:CG1	1:G:407:GLY:N	2.77	0.46
1:G:410:ASN:HA	4:V:334:GLU:HB3	1.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:411:GLU:H	4:V:333:PRO:HB2	1.80	0.46
1:P:42:HIS:O	1:P:45:GLN:O	2.33	0.46
1:P:311:ASP:CB	1:P:312:TYR:CE1	2.98	0.46
1:P:496:PHE:CE2	1:P:514:ASP:HA	2.50	0.46
1:P:543:PRO:HD2	4:0:146:GLY:O	2.16	0.46
1:P:709:LYS:C	1:P:710:GLY:HA2	2.36	0.46
1:P:783:LEU:N	1:P:783:LEU:CD1	2.78	0.46
1:A:715:VAL:CG1	1:A:720:PHE:HB2	2.46	0.46
1:D:206:LYS:HD2	1:D:217:THR:CG2	2.17	0.46
1:D:695:LEU:HB3	1:D:701:LEU:HD22	1.97	0.46
1:G:206:LYS:HD2	1:G:217:THR:CG2	2.17	0.46
1:G:265:ILE:CG2	1:G:266:GLU:N	2.79	0.46
1:P:640:LYS:HD2	1:P:646:PHE:O	2.15	0.46
1:P:642:LYS:HA	4:0:21:PHE:C	2.36	0.46
1:P:804:ARG:CA	1:P:807:VAL:CB	2.91	0.46
1:P:818:TYR:CB	2:Q:90:GLY:C	2.53	0.46
4:0:6:THR:HG22	4:0:101:HIS:HA	1.98	0.46
4:0:289:ILE:HG22	4:2:64:ILE:CG2	2.45	0.46
4:1:288:ASP:H	4:3:203:THR:CG2	2.27	0.46
1:A:28:GLN:HE22	1:A:723:ARG:HH21	1.61	0.46
1:A:42:HIS:O	1:A:45:GLN:O	2.33	0.46
1:A:93:MET:HE1	1:A:715:VAL:HG13	1.97	0.46
1:A:311:ASP:CB	1:A:312:TYR:CE1	2.98	0.46
1:A:599:ASN:CG	1:A:649:VAL:CB	2.80	0.46
1:A:642:LYS:HA	4:8:21:PHE:C	2.36	0.46
1:A:830:PRO:HD2	2:B:67:MET:HE1	1.94	0.46
1:A:836:PHE:CE1	2:B:159:HIS:HA	2.50	0.46
1:D:42:HIS:O	1:D:45:GLN:O	2.33	0.46
1:D:265:ILE:CG2	1:D:266:GLU:N	2.78	0.46
1:D:641:LYS:CD	1:D:647:GLN:CG	2.72	0.46
1:D:714:ARG:HD3	1:D:766:PHE:CE2	2.50	0.46
1:D:732:ILE:H	1:D:733:PRO:HD2	1.74	0.46
1:G:92:ALA:C	1:G:764:MLY:HH12	2.36	0.46
1:G:215:GLN:H	1:G:340:ILE:CD1	2.20	0.46
1:G:335:ASP:OD1	1:G:348:MLY:NZ	2.49	0.46
1:G:496:PHE:CE2	1:G:514:ASP:HA	2.50	0.46
1:G:783:LEU:N	1:G:783:LEU:CD1	2.78	0.46
1:P:322:VAL:HB	1:P:325:ILE:HG13	1.98	0.46
1:P:643:GLY:CA	4:0:24:ASP:OD1	2.61	0.46
1:P:725:ARG:HH12	3:R:92:ARG:HD3	1.79	0.46
1:P:804:ARG:CA	1:P:807:VAL:HG11	2.32	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:8:162:ASN:OD1	4:8:277:THR:HG22	2.15	0.46
4:Y:6:THR:HG22	4:Y:101:HIS:HA	1.98	0.46
1:A:194:GLN:HE21	1:A:194:GLN:HB3	1.43	0.46
1:A:265:ILE:CG2	1:A:266:GLU:N	2.79	0.46
1:A:408:VAL:HG22	1:A:636:LYS:HG2	1.51	0.46
1:A:505:MLY:CH1	1:A:762:HIS:HB3	2.44	0.46
1:A:524:GLU:HB3	1:A:528:MLY:HG2	1.96	0.46
1:A:559:LEU:HD23	1:A:560:GLY:N	2.30	0.46
1:A:724:TYR:HD1	1:A:727:LEU:CD1	2.27	0.46
1:D:543:PRO:HD2	4:9:146:GLY:O	2.15	0.46
1:D:701:LEU:HA	1:D:701:LEU:HD12	1.55	0.46
1:G:134:VAL:C	1:G:136:ASN:H	2.16	0.46
1:G:311:ASP:CB	1:G:312:TYR:CE1	2.98	0.46
1:G:797:PHE:CG	3:I:149:VAL:HG11	2.31	0.46
1:P:374:GLN:NE2	1:P:403:TYR:CE1	2.84	0.46
1:P:411:GLU:H	4:0:333:PRO:HB2	1.81	0.46
1:P:448:GLN:C	1:P:450:ASP:H	2.19	0.46
1:P:540:CYS:N	4:0:349:LEU:HD11	2.31	0.46
1:P:629:GLU:HG2	1:P:643:GLY:C	2.35	0.46
1:P:782:MLY:O	1:P:786:ILE:HG13	2.16	0.46
4:9:287:ILE:HA	4:W:202:THR:HG21	1.59	0.46
4:W:6:THR:HG22	4:W:101:HIS:HA	1.98	0.46
4:Z:287:ILE:HG22	4:1:204:ALA:H	1.70	0.46
4:0:299:MET:HE2	4:0:331:ALA:HB2	1.98	0.46
4:1:288:ASP:OD1	4:3:203:THR:CG2	2.64	0.46
4:3:287:ILE:HG21	4:5:204:ALA:N	2.28	0.46
1:A:834:LEU:CD2	2:B:54:MET:HE3	2.42	0.46
1:D:214:MET:HA	1:D:340:ILE:CD1	2.42	0.46
1:D:335:ASP:OD1	1:D:348:MLY:NZ	2.49	0.46
1:D:519:LEU:N	1:D:519:LEU:CD1	2.77	0.46
1:D:543:PRO:CD	4:9:143:TYR:O	2.64	0.46
1:G:188:ASN:ND2	1:G:674:CYS:SG	2.88	0.46
1:G:374:GLN:NE2	1:G:403:TYR:CE1	2.84	0.46
1:G:524:GLU:HB3	1:G:528:MLY:HG2	1.96	0.46
1:G:642:LYS:HA	4:V:21:PHE:C	2.36	0.46
1:G:715:VAL:HG11	1:G:720:PHE:CD1	2.50	0.46
1:G:784:ALA:O	1:G:788:THR:CA	2.61	0.46
2:H:88:LEU:HB3	2:H:91:ALA:HB2	1.98	0.46
1:P:292:MET:HE1	1:P:309:PRO:CG	2.46	0.46
1:P:406:VAL:CG1	1:P:407:GLY:H	2.28	0.46
1:P:715:VAL:HG11	1:P:720:PHE:CD1	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:715:VAL:CG1	1:P:720:PHE:HB2	2.45	0.46
4:Y:287:ILE:HD13	4:0:205:GLU:CG	2.41	0.46
1:A:335:ASP:OD1	1:A:348:MLY:NZ	2.49	0.46
1:A:411:GLU:H	4:8:333:PRO:HB2	1.80	0.46
1:A:506:GLU:HB2	1:A:761:GLY:CA	2.44	0.46
1:D:406:VAL:CG1	1:D:407:GLY:H	2.28	0.46
1:D:640:LYS:HB3	1:D:645:SER:CB	2.42	0.46
1:D:723:ARG:HH11	1:D:723:ARG:HG3	1.79	0.46
1:G:139:VAL:HG12	1:G:143:TYR:HD2	1.81	0.46
1:G:361:TYR:O	1:G:364:LEU:HB2	2.16	0.46
1:P:335:ASP:OD1	1:P:348:MLY:NZ	2.49	0.46
1:P:543:PRO:CD	4:0:143:TYR:O	2.64	0.46
4:7:366:GLY:O	4:7:369:ILE:HG22	2.16	0.46
4:8:299:MET:HE2	4:8:331:ALA:HB2	1.97	0.46
4:X:253:GLU:HA	4:X:256:ARG:CG	2.42	0.46
4:1:287:ILE:HB	4:3:203:THR:CA	2.44	0.46
4:2:6:THR:HG22	4:2:101:HIS:HA	1.98	0.46
4:5:299:MET:HE2	4:5:331:ALA:HB2	1.97	0.46
1:A:82:PRO:HG2	1:A:85:TYR:CE2	2.50	0.46
1:A:361:TYR:O	1:A:364:LEU:HB2	2.16	0.46
1:A:496:PHE:CE2	1:A:514:ASP:HA	2.50	0.46
1:A:725:ARG:CG	1:A:733:PRO:HA	2.43	0.46
2:B:137:TRP:CZ3	2:B:145:ALA:N	2.81	0.46
1:D:361:TYR:O	1:D:364:LEU:HB2	2.16	0.46
1:D:640:LYS:C	4:9:23:GLY:C	2.74	0.46
1:G:42:HIS:O	1:G:45:GLN:O	2.33	0.46
1:G:82:PRO:HG2	1:G:85:TYR:CE2	2.50	0.46
1:G:543:PRO:HD2	4:V:146:GLY:O	2.15	0.46
1:G:795:ARG:HD2	3:I:43:ASN:OD1	2.15	0.46
1:P:206:LYS:HD3	1:P:217:THR:OG1	2.16	0.46
1:P:506:GLU:CG	1:P:760:PHE:CD1	2.95	0.46
1:P:524:GLU:HB3	1:P:528:MLY:HG2	1.96	0.46
1:P:564:ASN:HD22	1:P:582:VAL:HB	1.79	0.46
1:P:695:LEU:HB3	1:P:701:LEU:HD22	1.97	0.46
1:P:797:PHE:HD2	3:R:126:LEU:CD2	2.28	0.46
4:9:6:THR:HG22	4:9:101:HIS:HA	1.98	0.46
4:X:324:THR:HG21	4:Z:247:VAL:HG23	1.94	0.46
4:0:75:ILE:CG2	4:1:197:GLY:CA	2.92	0.46
1:A:292:MET:HE1	1:A:309:PRO:CG	2.46	0.46
1:A:326:ASP:O	1:A:330:GLU:HG2	2.16	0.46
1:A:410:ASN:HA	4:8:334:GLU:HB3	1.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:136:ASN:HA	1:D:137:PRO:HD3	1.49	0.46
1:D:496:PHE:CE2	1:D:514:ASP:HA	2.50	0.46
1:D:629:GLU:HG2	1:D:643:GLY:C	2.35	0.46
1:G:725:ARG:HH21	1:G:733:PRO:HB2	1.81	0.46
1:P:783:LEU:CD1	1:P:786:ILE:HD11	2.44	0.46
1:P:835:PHE:O	1:P:839:MLY:N	2.49	0.46
4:9:366:GLY:O	4:9:369:ILE:HG22	2.16	0.46
4:W:366:GLY:O	4:W:369:ILE:HG22	2.16	0.46
4:Z:287:ILE:HD13	4:1:203:THR:N	2.30	0.46
4:1:287:ILE:HG22	4:3:204:ALA:H	1.75	0.46
4:2:162:ASN:OD1	4:2:277:THR:HG22	2.15	0.46
4:4:6:THR:HG22	4:4:101:HIS:HA	1.97	0.46
4:5:6:THR:HG22	4:5:101:HIS:HA	1.98	0.46
1:A:89:GLU:CD	1:A:153:PRO:HD2	2.37	0.46
1:A:330:GLU:HG2	1:A:330:GLU:H	1.55	0.46
1:A:540:CYS:N	4:8:349:LEU:HD11	2.31	0.46
1:D:810:ARG:HG2	1:D:810:ARG:NH1	2.29	0.46
1:G:107:MLY:CB	1:G:686:MET:HE2	2.39	0.46
1:G:732:ILE:HG23	1:G:747:LEU:HD12	0.95	0.46
1:G:822:SER:OG	2:H:88:LEU:HA	2.16	0.46
1:G:835:PHE:O	1:G:839:MLY:N	2.49	0.46
1:P:346:ASP:O	1:P:350:ALA:N	2.45	0.46
1:P:502:GLU:HG3	1:P:760:PHE:O	2.16	0.46
4:5:366:GLY:O	4:5:369:ILE:HG22	2.16	0.46
1:A:139:VAL:HG12	1:A:143:TYR:HD2	1.81	0.45
1:A:322:VAL:HB	1:A:325:ILE:HG13	1.98	0.45
1:A:332:MET:O	1:A:336:SER:OG	2.27	0.45
1:A:640:LYS:C	4:8:23:GLY:C	2.74	0.45
1:A:707:CYS:CB	1:A:714:ARG:CZ	2.76	0.45
1:A:732:ILE:CG2	1:A:747:LEU:CD1	0.65	0.45
1:A:835:PHE:O	1:A:839:MLY:N	2.49	0.45
1:D:99:GLU:N	1:D:100:PRO:CD	2.79	0.45
1:D:374:GLN:NE2	1:D:403:TYR:CE1	2.84	0.45
1:D:410:ASN:HA	4:9:334:GLU:HB3	1.29	0.45
1:G:30:MLY:HB3	1:G:31:PRO:HD2	1.97	0.45
1:G:646:PHE:HE2	1:G:652:LEU:CG	2.25	0.45
1:G:823:PHE:CD1	2:H:156:VAL:O	2.58	0.45
1:P:292:MET:HE1	1:P:309:PRO:HD3	1.97	0.45
1:P:361:TYR:O	1:P:364:LEU:HB2	2.16	0.45
1:P:798:LEU:CD2	3:R:126:LEU:CD1	2.93	0.45
4:7:6:THR:HG22	4:7:101:HIS:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:7:190:MET:O	4:7:194:THR:HG23	2.16	0.45
4:9:324:THR:N	4:W:245:GLY:CA	2.69	0.45
4:X:223:PHE:CD2	4:X:259:GLU:HG3	2.52	0.45
4:0:366:GLY:O	4:0:369:ILE:HG22	2.16	0.45
1:A:519:LEU:N	1:A:519:LEU:CD1	2.77	0.45
1:A:783:LEU:N	1:A:783:LEU:CD1	2.79	0.45
3:C:50:LEU:O	3:C:53:PRO:CD	2.63	0.45
1:D:408:VAL:HG22	1:D:636:LYS:HG2	1.51	0.45
1:D:712:PRO:HG2	1:D:771:LEU:HB2	1.97	0.45
1:D:715:VAL:CG1	1:D:720:PHE:HB2	2.46	0.45
2:E:114:LYS:CG	2:E:146:GLY:HA2	2.46	0.45
1:G:89:GLU:CD	1:G:153:PRO:HD2	2.36	0.45
1:G:322:VAL:HB	1:G:325:ILE:HG13	1.98	0.45
1:G:418:THR:CG2	1:G:419:VAL:N	2.79	0.45
1:G:485:GLU:OE1	1:G:583:HIS:ND1	2.49	0.45
1:G:506:GLU:HG2	1:G:759:ALA:CB	2.44	0.45
1:G:529:PRO:HB2	4:V:354:GLN:HB3	1.98	0.45
1:G:559:LEU:HD23	1:G:560:GLY:N	2.30	0.45
1:P:89:GLU:CD	1:P:153:PRO:HD2	2.37	0.45
1:P:278:GLN:HE21	1:P:278:GLN:HB3	1.42	0.45
1:P:326:ASP:O	1:P:330:GLU:HG2	2.16	0.45
1:P:436:MLY:HE3	1:P:626:TYR:HE1	1.77	0.45
1:P:708:ARG:HA	1:P:710:GLY:N	2.31	0.45
1:P:726:VAL:CA	3:R:89:GLU:CD	2.85	0.45
1:P:739:ASP:CB	1:P:742:LYS:CB	2.81	0.45
1:P:829:TRP:HH2	2:Q:84:PHE:CE1	2.35	0.45
2:Q:112:ILE:O	2:Q:148:VAL:HA	2.16	0.45
4:Z:287:ILE:CG2	4:1:202:THR:CA	2.89	0.45
4:1:324:THR:OG1	4:3:243:PRO:C	2.53	0.45
4:2:366:GLY:O	4:2:369:ILE:HG22	2.16	0.45
4:3:223:PHE:CD2	4:3:259:GLU:HG3	2.52	0.45
4:4:366:GLY:O	4:4:369:ILE:HG22	2.16	0.45
1:A:374:GLN:NE2	1:A:403:TYR:CE1	2.84	0.45
1:A:543:PRO:HD2	4:8:146:GLY:O	2.15	0.45
1:A:791:GLN:HE22	3:C:115:GLY:C	2.09	0.45
1:A:794:CYS:O	1:A:797:PHE:HB3	2.17	0.45
1:D:89:GLU:CD	1:D:153:PRO:HD2	2.36	0.45
1:D:464:ILE:CG2	1:D:465:ALA:N	2.79	0.45
1:D:724:TYR:HD1	1:D:727:LEU:CD1	2.27	0.45
1:G:538:GLU:CD	4:V:355:MET:HE3	2.32	0.45
1:G:557:GLU:CB	4:X:47:MET:C	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:50:LEU:O	3:I:53:PRO:CD	2.63	0.45
1:P:99:GLU:N	1:P:100:PRO:CD	2.80	0.45
1:P:218:LEU:CD2	1:P:222:ILE:CG1	2.86	0.45
1:P:642:LYS:CB	4:0:24:ASP:O	2.60	0.45
1:P:732:ILE:CG2	1:P:747:LEU:HD12	0.35	0.45
4:8:190:MET:O	4:8:194:THR:HG23	2.16	0.45
4:9:299:MET:HE2	4:9:331:ALA:HB2	1.98	0.45
4:X:287:ILE:HG13	4:Z:201:VAL:HB	1.96	0.45
4:Y:190:MET:O	4:Y:194:THR:HG23	2.16	0.45
4:Y:223:PHE:CD2	4:Y:259:GLU:HG3	2.52	0.45
4:Y:253:GLU:HA	4:Y:256:ARG:CG	2.42	0.45
4:Y:366:GLY:O	4:Y:369:ILE:HG22	2.16	0.45
4:Z:32:PRO:HB2	4:Z:34:ILE:HD11	1.98	0.45
4:0:167:GLU:OE2	4:2:42:GLY:CA	2.63	0.45
4:0:289:ILE:HG22	4:2:64:ILE:HG22	1.99	0.45
4:3:190:MET:O	4:3:194:THR:HG23	2.16	0.45
1:A:30:MLY:HB3	1:A:31:PRO:HD2	1.97	0.45
1:A:179:GLY:O	1:A:185:LYS:HE2	2.17	0.45
1:A:529:PRO:HB2	4:8:354:GLN:HB3	1.98	0.45
1:A:642:LYS:NZ	4:8:340:TRP:O	2.50	0.45
1:A:643:GLY:CA	4:8:24:ASP:OD1	2.62	0.45
1:D:322:VAL:HB	1:D:325:ILE:HG13	1.98	0.45
1:D:418:THR:CG2	1:D:419:VAL:N	2.79	0.45
1:D:507:GLY:CA	1:D:762:HIS:N	2.79	0.45
1:D:642:LYS:CB	4:9:24:ASP:O	2.60	0.45
1:D:642:LYS:HA	4:9:21:PHE:C	2.36	0.45
1:D:642:LYS:NZ	4:9:340:TRP:O	2.50	0.45
1:D:725:ARG:HH21	1:D:733:PRO:HB2	1.81	0.45
1:G:210:GLN:C	1:G:211:SER:HG	2.15	0.45
1:G:543:PRO:CD	4:V:143:TYR:O	2.64	0.45
2:H:112:ILE:O	2:H:148:VAL:HA	2.16	0.45
3:I:52:ASN:CB	3:I:53:PRO:HD3	2.28	0.45
1:P:330:GLU:O	1:P:333:ALA:HB3	2.17	0.45
1:P:642:LYS:NZ	4:0:340:TRP:O	2.50	0.45
1:P:649:VAL:HA	1:P:649:VAL:HG23	1.83	0.45
4:7:223:PHE:CD2	4:7:259:GLU:HG3	2.52	0.45
4:8:223:PHE:CD2	4:8:259:GLU:HG3	2.51	0.45
4:W:299:MET:HE2	4:W:331:ALA:HB2	1.99	0.45
4:1:32:PRO:HB2	4:1:34:ILE:HD11	1.98	0.45
4:1:223:PHE:CD2	4:1:259:GLU:HG3	2.52	0.45
4:2:223:PHE:CD2	4:2:259:GLU:HG3	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:4:190:MET:O	4:4:194:THR:HG23	2.16	0.45
4:4:223:PHE:CD2	4:4:259:GLU:HG3	2.51	0.45
1:A:206:LYS:HD3	1:A:217:THR:OG1	2.16	0.45
1:A:667:THR:O	1:A:669:PRO:HD3	2.17	0.45
3:F:62:ALA:O	3:F:63:ILE:HG13	2.14	0.45
1:G:206:LYS:HD3	1:G:217:THR:OG1	2.16	0.45
1:G:411:GLU:H	4:V:333:PRO:CB	2.29	0.45
1:G:448:GLN:C	1:G:450:ASP:H	2.19	0.45
1:G:842:LEU:CD2	2:H:29:GLU:CB	2.95	0.45
1:P:443:ILE:HG22	1:P:444:ARG:N	2.29	0.45
1:P:476:GLU:OE2	1:P:598:MLY:HH13	2.16	0.45
1:P:568:PRO:CG	1:P:578:HIS:H	2.30	0.45
1:P:782:MLY:O	1:P:786:ILE:CG1	2.65	0.45
1:P:797:PHE:CE1	3:R:149:VAL:CG1	2.91	0.45
1:P:834:LEU:HD21	2:Q:54:MET:CG	2.46	0.45
4:9:223:PHE:CD2	4:9:259:GLU:HG3	2.51	0.45
4:V:6:THR:HG22	4:V:101:HIS:HA	1.98	0.45
4:V:223:PHE:CD2	4:V:259:GLU:HG3	2.52	0.45
4:W:286:ASP:HA	4:Y:202:THR:HG22	1.32	0.45
4:3:366:GLY:O	4:3:369:ILE:HG22	2.16	0.45
4:5:190:MET:O	4:5:194:THR:HG23	2.16	0.45
1:A:464:ILE:CG2	1:A:465:ALA:N	2.79	0.45
1:A:725:ARG:CG	1:A:733:PRO:CA	2.95	0.45
1:A:725:ARG:HA	1:A:732:ILE:HG22	1.99	0.45
1:A:768:MLY:O	1:A:771:LEU:HB3	2.17	0.45
1:D:206:LYS:HD3	1:D:217:THR:OG1	2.16	0.45
1:D:226:ASN:N	1:D:227:PRO:HD2	2.32	0.45
1:D:330:GLU:O	1:D:333:ALA:HB3	2.17	0.45
1:D:540:CYS:N	4:9:349:LEU:HD11	2.31	0.45
2:E:137:TRP:CZ3	2:E:145:ALA:N	2.81	0.45
1:G:173:GLN:HG3	1:G:670:HIS:HD2	1.82	0.45
1:G:186:THR:O	1:G:190:MLY:HG2	2.17	0.45
1:G:503:TYR:CZ	1:G:711:PHE:CD2	3.05	0.45
1:P:265:ILE:CG2	1:P:266:GLU:N	2.79	0.45
1:P:831:TRP:CE3	2:Q:34:ILE:HD13	2.52	0.45
4:9:253:GLU:HA	4:9:256:ARG:CG	2.42	0.45
4:V:171:LEU:HA	4:V:172:PRO:HD2	1.84	0.45
4:W:190:MET:O	4:W:194:THR:HG23	2.16	0.45
4:Z:6:THR:HG22	4:Z:101:HIS:HA	1.98	0.45
4:0:223:PHE:CD2	4:0:259:GLU:HG3	2.52	0.45
4:1:190:MET:O	4:1:194:THR:HG23	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2:190:MET:O	4:2:194:THR:HG23	2.16	0.45
4:2:299:MET:HE2	4:2:331:ALA:HB2	1.99	0.45
4:3:6:THR:HG22	4:3:101:HIS:HA	1.98	0.45
4:4:253:GLU:HA	4:4:256:ARG:CG	2.42	0.45
4:5:223:PHE:CD2	4:5:259:GLU:HG3	2.52	0.45
1:A:14:ALA:N	1:A:15:PRO:HD2	2.32	0.45
1:A:229:LEU:HD12	1:A:229:LEU:HA	1.75	0.45
1:A:296:MLY:O	1:A:299:LEU:HB2	2.17	0.45
1:A:418:THR:CG2	1:A:419:VAL:N	2.79	0.45
1:A:485:GLU:OE1	1:A:583:HIS:ND1	2.49	0.45
1:A:639:GLY:CA	4:8:344:SER:O	2.40	0.45
1:A:732:ILE:HG23	1:A:747:LEU:HD12	0.94	0.45
1:A:795:ARG:HE	3:C:118:MET:HE1	1.82	0.45
1:A:817:GLN:HE21	2:B:127:ARG:HG2	1.82	0.45
2:B:114:LYS:CG	2:B:146:GLY:HA2	2.46	0.45
1:D:139:VAL:HG12	1:D:143:TYR:HD2	1.81	0.45
1:D:214:MET:CA	1:D:340:ILE:HD11	2.45	0.45
1:D:488:GLN:O	1:D:491:PHE:HB3	2.17	0.45
1:G:667:THR:O	1:G:669:PRO:HD3	2.16	0.45
1:G:829:TRP:HZ3	2:H:84:PHE:CZ	2.34	0.45
1:P:136:ASN:HA	1:P:137:PRO:HD3	1.50	0.45
1:P:173:GLN:HG3	1:P:670:HIS:HD2	1.82	0.45
1:P:186:THR:O	1:P:190:MLY:HG2	2.17	0.45
1:P:732:ILE:HG21	1:P:747:LEU:CD1	0.63	0.45
1:P:839:MLY:NZ	2:Q:159:HIS:CD2	2.85	0.45
2:Q:88:LEU:HB3	2:Q:91:ALA:HB2	1.98	0.45
4:1:366:GLY:O	4:1:369:ILE:HG22	2.16	0.45
1:A:224:SER:O	1:A:227:PRO:HD2	2.17	0.45
1:A:411:GLU:H	4:8:333:PRO:CB	2.30	0.45
1:A:476:GLU:OE2	1:A:598:MLY:HH13	2.17	0.45
1:A:543:PRO:CD	4:8:143:TYR:O	2.64	0.45
1:A:839:MLY:HD2	2:B:159:HIS:HB3	1.98	0.45
1:D:179:GLY:O	1:D:185:LYS:HE2	2.17	0.45
1:D:296:MLY:O	1:D:299:LEU:HB2	2.17	0.45
1:D:322:VAL:CG1	1:D:325:ILE:HD11	2.47	0.45
1:D:789:ALA:HB1	3:F:87:PHE:CE2	2.51	0.45
1:D:835:PHE:O	1:D:839:MLY:N	2.49	0.45
1:G:292:MET:HE1	1:G:309:PRO:CG	2.46	0.45
1:G:540:CYS:N	4:V:349:LEU:HD11	2.31	0.45
1:G:819:ASN:CG	2:H:90:GLY:C	2.49	0.45
1:G:834:LEU:CD2	2:H:34:ILE:HG12	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:548:THR:CG2	4:2:49:GLN:HG3	2.47	0.45
1:P:838:ILE:HD11	2:Q:54:MET:SD	2.55	0.45
4:V:190:MET:O	4:V:194:THR:HG23	2.16	0.45
4:W:223:PHE:CD2	4:W:259:GLU:HG3	2.52	0.45
4:X:324:THR:HB	4:Z:246:GLN:CA	2.43	0.45
1:A:502:GLU:C	1:A:762:HIS:H	2.20	0.45
1:A:829:TRP:O	1:A:832:MET:N	2.50	0.45
1:D:326:ASP:O	1:D:330:GLU:HG2	2.16	0.45
1:D:831:TRP:HH2	2:E:47:LEU:HA	1.62	0.45
1:G:37:SER:O	1:G:38:VAL:HG23	2.17	0.45
1:G:179:GLY:O	1:G:185:LYS:HE2	2.17	0.45
1:G:464:ILE:CG2	1:G:465:ALA:N	2.80	0.45
1:G:642:LYS:HB2	4:V:24:ASP:O	1.89	0.45
1:P:30:MLY:HB3	1:P:31:PRO:HD2	1.97	0.45
1:P:226:ASN:N	1:P:227:PRO:HD2	2.32	0.45
1:P:692:LEU:HD23	1:P:692:LEU:HA	1.84	0.45
4:X:366:GLY:O	4:X:369:ILE:HG22	2.16	0.45
4:Y:32:PRO:HB2	4:Y:34:ILE:HD11	1.98	0.45
4:Z:223:PHE:CD2	4:Z:259:GLU:HG3	2.51	0.45
4:2:290:ARG:CZ	4:4:202:THR:HG22	2.37	0.45
4:5:32:PRO:HB2	4:5:34:ILE:HD11	1.98	0.45
1:A:55:MLY:HH23	1:A:60:VAL:HG22	1.99	0.45
1:A:97:LEU:HD21	1:A:712:PRO:C	2.37	0.45
1:A:136:ASN:O	1:A:139:VAL:N	2.47	0.45
1:A:186:THR:O	1:A:190:MLY:HG2	2.17	0.45
1:A:206:LYS:HD2	1:A:217:THR:CG2	2.17	0.45
1:A:448:GLN:C	1:A:450:ASP:H	2.19	0.45
1:A:534:SER:HB2	4:8:354:GLN:HE22	1.57	0.45
1:A:597:GLU:O	1:A:600:MLY:N	2.50	0.45
1:D:476:GLU:OE2	1:D:598:MLY:HH13	2.16	0.45
1:D:790:THR:HG1	3:F:87:PHE:HD2	1.64	0.45
1:D:794:CYS:O	1:D:797:PHE:HB3	2.16	0.45
1:D:834:LEU:HD13	2:E:51:PHE:HA	1.97	0.45
2:E:112:ILE:O	2:E:148:VAL:N	2.50	0.45
1:G:14:ALA:N	1:G:15:PRO:HD2	2.32	0.45
1:G:55:MLY:HH23	1:G:60:VAL:HG22	1.99	0.45
1:G:64:THR:HB	1:G:68:GLU:N	2.33	0.45
1:G:106:LEU:HD12	1:G:106:LEU:HA	1.80	0.45
1:G:436:MLY:HE3	1:G:626:TYR:HE1	1.77	0.45
1:G:642:LYS:NZ	4:V:340:TRP:O	2.50	0.45
1:G:675:ILE:HG23	1:G:676:ILE:N	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:757:GLN:HE22	1:G:772:LEU:HG	1.81	0.45
1:P:93:MET:CG	1:P:714:ARG:HB2	2.42	0.45
1:P:139:VAL:HG12	1:P:143:TYR:HD2	1.81	0.45
1:P:829:TRP:O	1:P:832:MET:N	2.50	0.45
4:8:6:THR:HG22	4:8:101:HIS:HA	1.98	0.45
4:9:190:MET:O	4:9:194:THR:HG23	2.16	0.45
4:V:32:PRO:HB2	4:V:34:ILE:HD11	1.98	0.45
4:V:287:ILE:HG13	4:X:202:THR:HG23	1.65	0.45
4:V:366:GLY:O	4:V:369:ILE:HG22	2.16	0.45
4:X:190:MET:O	4:X:194:THR:HG23	2.16	0.45
4:X:291:LYS:HE2	4:Z:243:PRO:CA	2.24	0.45
4:Z:366:GLY:O	4:Z:369:ILE:HG22	2.16	0.45
4:2:32:PRO:HB2	4:2:34:ILE:HD11	1.98	0.45
1:A:37:SER:O	1:A:38:VAL:HG23	2.17	0.44
1:A:830:PRO:HD2	2:B:67:MET:CE	2.47	0.44
1:D:103:LEU:HD22	1:D:692:LEU:HG	1.98	0.44
1:D:411:GLU:H	4:9:333:PRO:CB	2.30	0.44
1:D:538:GLU:HA	4:9:351:THR:H	1.77	0.44
1:D:689:GLU:HA	1:D:692:LEU:HB2	2.00	0.44
1:D:783:LEU:N	1:D:783:LEU:CD1	2.78	0.44
1:G:103:LEU:HD22	1:G:692:LEU:HG	1.98	0.44
1:G:322:VAL:CG1	1:G:325:ILE:HD11	2.47	0.44
1:G:476:GLU:OE2	1:G:598:MLY:HH13	2.17	0.44
1:G:488:GLN:O	1:G:491:PHE:HB3	2.17	0.44
2:H:129:THR:HG23	2:H:132:GLU:OE1	2.17	0.44
1:P:576:GLU:CG	1:P:577:ALA:N	2.44	0.44
1:P:597:GLU:O	1:P:600:MLY:N	2.50	0.44
4:0:32:PRO:HB2	4:0:34:ILE:HD11	1.98	0.44
4:4:32:PRO:HB2	4:4:34:ILE:HD11	1.98	0.44
1:A:64:THR:HB	1:A:68:GLU:N	2.33	0.44
1:A:354:LEU:HA	1:A:354:LEU:HD12	1.56	0.44
1:A:502:GLU:CD	1:A:764:MLY:O	2.56	0.44
1:A:612:GLN:NE2	1:A:627:GLY:H	2.14	0.44
1:A:711:PHE:HB3	1:A:766:PHE:HB3	1.99	0.44
1:D:195:TYR:CE2	1:D:199:ILE:HD12	2.52	0.44
1:D:834:LEU:CG	2:E:54:MET:CG	2.68	0.44
2:E:88:LEU:HB3	2:E:91:ALA:HB2	1.98	0.44
1:G:224:SER:O	1:G:227:PRO:HD2	2.17	0.44
1:G:530:MET:HA	4:V:354:GLN:CD	2.11	0.44
1:G:640:LYS:C	4:V:23:GLY:C	2.75	0.44
1:G:817:GLN:HG3	2:H:128:PHE:CZ	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:14:ALA:N	1:P:15:PRO:HD2	2.32	0.44
1:P:87:MLY:HH12	1:P:87:MLY:HD3	1.62	0.44
1:P:725:ARG:HA	1:P:732:ILE:HG22	1.99	0.44
1:P:797:PHE:CG	3:R:149:VAL:HG11	2.40	0.44
4:V:286:ASP:HA	4:X:202:THR:HG22	1.63	0.44
4:W:32:PRO:HB2	4:W:34:ILE:HD11	1.98	0.44
4:X:287:ILE:C	4:Z:205:GLU:OE2	2.33	0.44
4:0:190:MET:O	4:0:194:THR:HG23	2.16	0.44
4:3:32:PRO:HB2	4:3:34:ILE:HD11	1.98	0.44
1:A:206:LYS:CE	1:A:217:THR:HG23	2.29	0.44
1:A:725:ARG:HH21	1:A:733:PRO:HB2	1.81	0.44
1:D:597:GLU:O	1:D:600:MLY:N	2.50	0.44
1:D:711:PHE:HB3	1:D:766:PHE:HB3	1.99	0.44
1:D:725:ARG:CG	1:D:733:PRO:CA	2.95	0.44
1:G:99:GLU:N	1:G:100:PRO:CD	2.80	0.44
1:G:326:ASP:O	1:G:330:GLU:HG2	2.16	0.44
1:G:354:LEU:HD12	1:G:354:LEU:HA	1.56	0.44
1:G:725:ARG:CG	1:G:733:PRO:CA	2.95	0.44
2:H:137:TRP:CA	2:H:145:ALA:HB2	2.37	0.44
1:P:163:TYR:O	1:P:166:MET:HB3	2.17	0.44
1:P:322:VAL:CG1	1:P:325:ILE:HD11	2.47	0.44
1:P:332:MET:O	1:P:336:SER:OG	2.27	0.44
1:P:411:GLU:H	4:0:333:PRO:CB	2.30	0.44
1:P:486:MLY:HH22	1:P:527:GLU:CD	2.37	0.44
1:P:493:HIS:O	1:P:496:PHE:HB3	2.18	0.44
4:9:223:PHE:HB3	4:9:259:GLU:OE2	2.18	0.44
4:X:6:THR:HG22	4:X:101:HIS:HA	1.98	0.44
4:Y:287:ILE:CG2	4:0:199:SER:HB3	2.48	0.44
4:0:223:PHE:HB3	4:0:259:GLU:OE2	2.18	0.44
4:1:6:THR:HG22	4:1:101:HIS:HA	1.98	0.44
1:A:99:GLU:N	1:A:100:PRO:CD	2.80	0.44
1:A:136:ASN:HA	1:A:137:PRO:HD3	1.49	0.44
1:A:636:LYS:O	4:8:144:ALA:HB1	2.15	0.44
1:A:732:ILE:HG21	1:A:747:LEU:CD1	0.64	0.44
3:C:69:LEU:HB3	3:C:70:PRO:HD3	1.99	0.44
1:D:64:THR:HB	1:D:68:GLU:N	2.33	0.44
1:D:354:LEU:HD12	1:D:354:LEU:HA	1.56	0.44
1:D:692:LEU:O	1:D:696:ARG:HG3	2.18	0.44
1:D:725:ARG:HA	1:D:732:ILE:HG22	1.99	0.44
1:D:831:TRP:CH2	2:E:50:THR:HB	2.51	0.44
3:F:69:LEU:HB3	3:F:70:PRO:HD3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:195:TYR:CE2	1:G:199:ILE:HD12	2.52	0.44
1:G:296:MLY:O	1:G:299:LEU:HB2	2.17	0.44
1:G:818:TYR:CE2	2:H:127:ARG:NH1	2.76	0.44
1:G:835:PHE:HD1	2:H:30:ALA:HB1	1.82	0.44
1:P:155:ILE:HG22	1:P:156:PHE:N	2.33	0.44
1:P:194:GLN:HE21	1:P:194:GLN:HB3	1.43	0.44
1:P:214:MET:CA	1:P:340:ILE:HD11	2.45	0.44
1:P:409:GLY:N	1:P:636:LYS:CD	2.70	0.44
1:P:485:GLU:OE1	1:P:583:HIS:ND1	2.49	0.44
1:P:640:LYS:HB3	1:P:645:SER:CB	2.42	0.44
1:P:667:THR:O	1:P:669:PRO:HD3	2.17	0.44
4:0:113:LYS:NZ	4:1:253:GLU:N	2.63	0.44
4:2:171:LEU:HA	4:2:172:PRO:HD2	1.85	0.44
1:A:123:CYS:CB	1:A:158:ILE:HD13	2.48	0.44
1:A:675:ILE:HG23	1:A:676:ILE:N	2.32	0.44
1:A:839:MLY:CD	2:B:159:HIS:HB3	2.48	0.44
1:D:14:ALA:HB3	1:D:15:PRO:CD	2.45	0.44
1:D:163:TYR:O	1:D:166:MET:HB3	2.17	0.44
1:D:797:PHE:HA	3:F:149:VAL:HG13	1.99	0.44
1:G:123:CYS:CB	1:G:158:ILE:HD13	2.48	0.44
1:G:486:MLY:HH22	1:G:527:GLU:CD	2.37	0.44
2:H:144:VAL:HG12	2:H:153:ILE:HD11	1.75	0.44
1:P:103:LEU:HD22	1:P:692:LEU:HG	1.98	0.44
1:P:439:LEU:N	1:P:439:LEU:CD1	2.81	0.44
1:P:464:ILE:CG2	1:P:465:ALA:N	2.79	0.44
1:P:530:MET:HE3	4:0:354:GLN:CG	2.35	0.44
1:P:541:MET:CE	4:0:346:LEU:HD12	2.47	0.44
1:P:554:LEU:HD12	1:P:554:LEU:HA	1.77	0.44
1:P:689:GLU:HA	1:P:692:LEU:HB2	2.00	0.44
1:P:692:LEU:O	1:P:696:ARG:HG3	2.18	0.44
1:P:723:ARG:CG	1:P:723:ARG:NH1	2.79	0.44
1:P:725:ARG:HH21	1:P:733:PRO:HB2	1.81	0.44
1:P:800:ARG:NH1	3:R:149:VAL:C	2.69	0.44
1:P:819:ASN:C	2:Q:157:ILE:HG23	2.25	0.44
4:8:32:PRO:HB2	4:8:34:ILE:HD11	1.98	0.44
4:8:290:ARG:HH22	4:V:202:THR:CG2	2.17	0.44
4:8:366:GLY:O	4:8:369:ILE:HG22	2.16	0.44
4:0:173:HIS:CG	4:1:267:ILE:HA	2.52	0.44
4:4:223:PHE:HB3	4:4:259:GLU:OE2	2.18	0.44
1:A:123:CYS:HB2	1:A:158:ILE:HD13	2.00	0.44
1:A:226:ASN:N	1:A:227:PRO:HD2	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:485:GLU:HA	1:A:584:TYR:HE2	1.83	0.44
1:A:516:GLY:O	1:A:518:ASP:N	2.51	0.44
1:A:530:MET:CB	4:8:354:GLN:CB	2.95	0.44
1:A:692:LEU:O	1:A:696:ARG:HG3	2.18	0.44
3:C:101:THR:HA	3:C:137:ILE:O	2.18	0.44
1:D:14:ALA:N	1:D:15:PRO:HD2	2.32	0.44
1:D:123:CYS:CB	1:D:158:ILE:HD13	2.48	0.44
1:D:186:THR:O	1:D:190:MLY:HG2	2.17	0.44
1:D:493:HIS:O	1:D:496:PHE:HB3	2.18	0.44
1:D:632:GLY:HA3	1:D:643:GLY:N	2.17	0.44
1:D:667:THR:O	1:D:669:PRO:HD3	2.16	0.44
2:E:129:THR:HG23	2:E:132:GLU:OE1	2.18	0.44
1:G:330:GLU:O	1:G:333:ALA:HB3	2.17	0.44
1:G:503:TYR:CZ	1:G:711:PHE:CE2	3.01	0.44
1:G:597:GLU:O	1:G:600:MLY:N	2.50	0.44
1:G:629:GLU:HG2	1:G:643:GLY:C	2.36	0.44
1:G:723:ARG:CG	1:G:723:ARG:NH1	2.79	0.44
1:G:725:ARG:CG	1:G:733:PRO:HA	2.43	0.44
1:G:817:GLN:OE1	2:H:127:ARG:NE	2.45	0.44
1:P:64:THR:HB	1:P:68:GLU:N	2.32	0.44
1:P:106:LEU:HD12	1:P:106:LEU:HA	1.79	0.44
1:P:116:TYR:HE1	1:P:125:THR:HG1	1.64	0.44
1:P:123:CYS:CB	1:P:158:ILE:HD13	2.48	0.44
1:P:166:MET:CE	1:P:254:PHE:HB2	2.47	0.44
1:P:179:GLY:O	1:P:185:LYS:HE2	2.17	0.44
1:P:195:TYR:CE2	1:P:199:ILE:HD12	2.52	0.44
1:P:516:GLY:O	1:P:518:ASP:N	2.51	0.44
1:P:732:ILE:HG23	1:P:747:LEU:HD12	0.95	0.44
3:R:48:LYS:HA	3:R:48:LYS:HD3	1.17	0.44
4:2:223:PHE:HB3	4:2:259:GLU:OE2	2.18	0.44
4:3:253:GLU:HA	4:3:256:ARG:CG	2.42	0.44
4:3:287:ILE:CG2	4:5:204:ALA:N	2.68	0.44
4:5:223:PHE:HB3	4:5:259:GLU:OE2	2.18	0.44
1:A:486:MLY:HH22	1:A:527:GLU:CD	2.37	0.44
1:A:725:ARG:CZ	1:A:737:PHE:CZ	3.01	0.44
1:D:123:CYS:HB2	1:D:158:ILE:HD13	2.00	0.44
1:D:173:GLN:HG3	1:D:670:HIS:HD2	1.82	0.44
1:D:193:ILE:HD11	1:D:250:ILE:CD1	2.48	0.44
1:D:637:LYS:HD2	4:9:144:ALA:HB3	1.20	0.44
1:D:675:ILE:HG23	1:D:676:ILE:N	2.32	0.44
3:F:101:THR:HA	3:F:137:ILE:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:320:ILE:O	1:G:320:ILE:HG22	2.18	0.44
1:G:493:HIS:O	1:G:496:PHE:HB3	2.18	0.44
1:G:692:LEU:O	1:G:696:ARG:HG3	2.18	0.44
1:G:715:VAL:HG12	1:G:720:PHE:HB2	2.00	0.44
1:G:827:MLY:HH11	2:H:139:ALA:CB	2.47	0.44
1:P:107:MLY:CB	1:P:686:MET:HE2	2.38	0.44
1:P:224:SER:O	1:P:227:PRO:HD2	2.17	0.44
1:P:485:GLU:HA	1:P:584:TYR:HE2	1.83	0.44
4:7:32:PRO:HB2	4:7:34:ILE:HD11	1.98	0.44
4:V:290:ARG:NH1	4:X:202:THR:CG2	2.81	0.44
4:Z:223:PHE:HB3	4:Z:259:GLU:OE2	2.18	0.44
1:A:84:MLY:CH1	1:A:724:TYR:CE1	2.82	0.44
1:A:107:MLY:CB	1:A:686:MET:HE2	2.41	0.44
1:A:155:ILE:HG22	1:A:156:PHE:N	2.33	0.44
1:A:174:SER:OG	1:A:669:PRO:HA	2.18	0.44
1:A:195:TYR:CE2	1:A:199:ILE:HD12	2.52	0.44
1:A:320:ILE:O	1:A:320:ILE:HG22	2.18	0.44
1:A:322:VAL:CG1	1:A:325:ILE:HD11	2.47	0.44
1:A:506:GLU:HB2	1:A:761:GLY:HA2	1.99	0.44
1:A:639:GLY:H	4:8:344:SER:HB3	1.83	0.44
2:B:129:THR:HG23	2:B:132:GLU:OE1	2.18	0.44
1:D:37:SER:O	1:D:38:VAL:HG23	2.17	0.44
1:D:166:MET:CE	1:D:254:PHE:CD2	3.01	0.44
2:E:112:ILE:O	2:E:148:VAL:HA	2.17	0.44
3:F:48:LYS:HD3	3:F:48:LYS:HA	1.18	0.44
1:G:93:MET:HA	1:G:714:ARG:HB2	1.99	0.44
1:G:725:ARG:CZ	1:G:737:PHE:CZ	3.01	0.44
1:G:752:ASP:OD2	1:G:783:LEU:HB3	1.99	0.44
2:H:139:ALA:C	2:H:141:PRO:HD3	2.33	0.44
1:P:408:VAL:HG22	1:P:636:LYS:HG2	1.51	0.44
1:P:530:MET:HE3	4:0:354:GLN:CB	2.47	0.44
1:P:793:ARG:O	1:P:797:PHE:N	2.39	0.44
1:P:823:PHE:HE1	2:Q:156:VAL:HG13	1.79	0.44
2:Q:129:THR:HG23	2:Q:132:GLU:OE1	2.17	0.44
3:R:122:GLU:HA	3:R:125:GLU:OE1	2.18	0.44
4:9:32:PRO:HB2	4:9:34:ILE:HD11	1.98	0.44
4:W:223:PHE:HB3	4:W:259:GLU:OE2	2.18	0.44
4:X:32:PRO:HB2	4:X:34:ILE:HD11	1.98	0.44
4:Z:190:MET:O	4:Z:194:THR:HG23	2.16	0.44
4:Z:220:ALA:HB3	4:Z:223:PHE:CD1	2.53	0.44
4:0:205:GLU:O	4:0:208:ILE:HG22	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:14:ALA:N	1:A:15:PRO:CD	2.81	0.44
1:A:48:VAL:HA	1:A:104:TYR:OH	2.18	0.44
1:A:88:ILE:HG21	1:A:88:ILE:HD12	1.78	0.44
1:A:330:GLU:O	1:A:333:ALA:HB3	2.17	0.44
1:A:391:GLY:HA3	1:A:616:VAL:HG23	2.00	0.44
1:A:496:PHE:HB2	1:A:515:PHE:CD2	2.53	0.44
1:A:549:SER:C	4:V:45:VAL:O	2.56	0.44
1:A:568:PRO:CG	1:A:578:HIS:H	2.30	0.44
1:A:747:LEU:C	1:A:749:GLY:H	2.20	0.44
1:A:769:ALA:N	1:A:771:LEU:CB	2.79	0.44
1:A:787:ILE:HG23	1:A:791:GLN:HG3	2.00	0.44
1:A:797:PHE:CZ	3:C:146:ILE:CD1	3.00	0.44
3:C:122:GLU:HA	3:C:125:GLU:OE1	2.18	0.44
1:D:107:MLY:CB	1:D:686:MET:HE2	2.43	0.44
1:D:278:GLN:HE21	1:D:278:GLN:HB3	1.42	0.44
1:D:530:MET:CB	4:9:354:GLN:CB	2.95	0.44
1:D:568:PRO:CG	1:D:578:HIS:H	2.30	0.44
1:D:725:ARG:CZ	1:D:737:PHE:CZ	3.01	0.44
1:D:726:VAL:HB	1:D:782:MLY:CH2	2.48	0.44
1:D:834:LEU:HD13	2:E:51:PHE:HD1	1.83	0.44
1:G:48:VAL:HA	1:G:104:TYR:OH	2.18	0.44
1:G:163:TYR:O	1:G:166:MET:HB3	2.17	0.44
1:G:174:SER:OG	1:G:669:PRO:HA	2.18	0.44
1:G:226:ASN:N	1:G:227:PRO:HD2	2.32	0.44
1:G:278:GLN:HE21	1:G:278:GLN:HB3	1.42	0.44
1:G:540:CYS:C	4:V:349:LEU:HD21	2.36	0.44
1:G:578:HIS:HB3	1:G:592:ILE:CD1	2.38	0.44
1:G:747:LEU:C	1:G:749:GLY:H	2.20	0.44
1:G:747:LEU:C	1:G:749:GLY:N	2.71	0.44
1:P:715:VAL:HG12	1:P:720:PHE:HB2	2.00	0.44
1:P:831:TRP:NE1	2:Q:51:PHE:CZ	2.76	0.44
4:1:220:ALA:HB3	4:1:223:PHE:CD1	2.53	0.44
4:1:223:PHE:HB3	4:1:259:GLU:OE2	2.18	0.44
1:A:163:TYR:O	1:A:166:MET:HB3	2.17	0.43
1:A:309:PRO:C	1:A:311:ASP:H	2.22	0.43
1:A:488:GLN:O	1:A:491:PHE:HB3	2.17	0.43
1:A:554:LEU:HA	1:A:554:LEU:HD12	1.76	0.43
1:D:516:GLY:O	1:D:518:ASP:N	2.51	0.43
1:D:541:MET:CE	4:9:346:LEU:HD12	2.47	0.43
1:D:747:LEU:C	1:D:749:GLY:N	2.71	0.43
1:G:485:GLU:HA	1:G:584:TYR:HE2	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:496:PHE:HB2	1:G:515:PHE:CD2	2.53	0.43
1:G:836:PHE:CE2	2:H:160:GLY:N	2.71	0.43
3:I:11:LYS:HE2	3:I:11:LYS:HB3	1.83	0.43
3:I:101:THR:HA	3:I:137:ILE:O	2.18	0.43
3:I:122:GLU:HA	3:I:125:GLU:OE1	2.18	0.43
1:P:506:GLU:CG	1:P:760:PHE:N	2.62	0.43
1:P:794:CYS:O	1:P:797:PHE:HB3	2.17	0.43
4:8:171:LEU:HA	4:8:172:PRO:HD2	1.84	0.43
4:8:223:PHE:HB3	4:8:259:GLU:OE2	2.18	0.43
4:Y:205:GLU:O	4:Y:208:ILE:HG22	2.18	0.43
4:Y:287:ILE:CB	4:0:201:VAL:HG21	2.26	0.43
1:A:103:LEU:HD22	1:A:692:LEU:HG	1.98	0.43
1:A:173:GLN:HG3	1:A:670:HIS:HD2	1.82	0.43
1:A:193:ILE:HD11	1:A:250:ILE:CD1	2.48	0.43
1:A:201:ALA:O	1:A:202:SER:OG	2.36	0.43
1:A:202:SER:HA	1:A:207:LYS:NZ	2.22	0.43
1:A:541:MET:HB3	4:8:345:ILE:HG22	2.00	0.43
2:B:112:ILE:O	2:B:148:VAL:HA	2.17	0.43
2:B:144:VAL:HG12	2:B:153:ILE:HD13	1.92	0.43
3:C:119:THR:O	3:C:123:VAL:HG23	2.18	0.43
1:D:48:VAL:HA	1:D:104:TYR:OH	2.18	0.43
1:D:55:MLY:HH23	1:D:60:VAL:HG22	1.99	0.43
1:D:476:GLU:H	1:D:476:GLU:CD	2.22	0.43
1:D:556:ASP:CA	4:W:49:GLN:O	2.52	0.43
1:G:136:ASN:O	1:G:139:VAL:N	2.47	0.43
1:G:193:ILE:HD11	1:G:250:ILE:CD1	2.48	0.43
1:G:439:LEU:N	1:G:439:LEU:CD1	2.81	0.43
1:G:516:GLY:O	1:G:518:ASP:N	2.51	0.43
1:G:519:LEU:N	1:G:519:LEU:CD1	2.77	0.43
1:G:641:LYS:CE	1:G:647:GLN:CB	2.75	0.43
1:G:711:PHE:HB3	1:G:766:PHE:HB3	2.00	0.43
1:G:794:CYS:O	1:G:797:PHE:HB3	2.17	0.43
3:I:50:LEU:O	3:I:53:PRO:HG2	2.19	0.43
1:P:37:SER:O	1:P:38:VAL:HG23	2.17	0.43
1:P:48:VAL:HA	1:P:104:TYR:OH	2.18	0.43
1:P:266:GLU:OE1	1:P:659:MLY:NZ	2.51	0.43
1:P:296:MLY:O	1:P:299:LEU:HB2	2.17	0.43
1:P:488:GLN:O	1:P:491:PHE:HB3	2.17	0.43
1:P:797:PHE:CE1	3:R:146:ILE:HA	2.53	0.43
2:Q:114:LYS:CG	2:Q:146:GLY:HA2	2.46	0.43
4:7:223:PHE:HB3	4:7:259:GLU:OE2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:7:287:ILE:HA	4:9:202:THR:HG21	1.59	0.43
4:W:205:GLU:O	4:W:208:ILE:HG22	2.18	0.43
1:A:86:ASP:OD2	1:A:87:MLY:HH22	2.19	0.43
1:A:217:THR:HG22	1:A:218:LEU:N	2.34	0.43
1:A:295:MLY:CE	1:A:332:MET:CE	2.96	0.43
1:A:493:HIS:O	1:A:496:PHE:HB3	2.18	0.43
1:A:715:VAL:HG12	1:A:720:PHE:HB2	2.00	0.43
1:A:831:TRP:CH2	2:B:34:ILE:HG21	2.33	0.43
1:D:485:GLU:OE1	1:D:583:HIS:ND1	2.49	0.43
2:E:139:ALA:C	2:E:141:PRO:HD3	2.33	0.43
1:G:322:VAL:CG1	1:G:325:ILE:HG13	2.49	0.43
1:G:725:ARG:HA	1:G:732:ILE:HG22	1.99	0.43
3:I:119:THR:O	3:I:123:VAL:HG23	2.18	0.43
1:P:55:MLY:HH23	1:P:60:VAL:HG22	1.99	0.43
1:P:174:SER:OG	1:P:669:PRO:HA	2.18	0.43
4:9:205:GLU:O	4:9:208:ILE:HG22	2.19	0.43
4:V:223:PHE:HB3	4:V:259:GLU:OE2	2.18	0.43
4:W:193:LEU:O	4:W:198:TYR:HD2	2.01	0.43
4:X:193:LEU:O	4:X:198:TYR:HD2	2.01	0.43
4:Y:292:ASP:N	4:0:244:ASP:OD2	2.51	0.43
4:0:149:THR:HA	4:0:165:ILE:O	2.19	0.43
4:5:193:LEU:O	4:5:198:TYR:HD2	2.01	0.43
1:A:129:TYR:HD1	1:A:129:TYR:HA	1.65	0.43
1:A:400:ALA:CB	1:A:606:THR:HG22	2.49	0.43
1:A:439:LEU:N	1:A:439:LEU:CD1	2.81	0.43
1:A:485:GLU:OE2	1:A:584:TYR:N	2.50	0.43
1:D:144:ARG:HA	1:D:144:ARG:HD2	1.78	0.43
1:D:292:MET:CE	1:D:309:PRO:CA	2.97	0.43
1:D:485:GLU:OE2	1:D:584:TYR:N	2.50	0.43
1:D:725:ARG:CZ	1:D:737:PHE:CE1	3.02	0.43
1:D:798:LEU:HD12	1:D:798:LEU:HA	1.36	0.43
1:D:799:MET:CE	3:F:32:ASP:HB3	2.45	0.43
1:G:14:ALA:N	1:G:15:PRO:CD	2.81	0.43
1:G:295:MLY:CG	1:G:332:MET:HE1	2.48	0.43
1:G:391:GLY:HA3	1:G:616:VAL:HG23	2.01	0.43
1:G:643:GLY:CA	4:V:24:ASP:OD1	2.62	0.43
1:P:97:LEU:HD21	1:P:712:PRO:HA	1.98	0.43
1:P:129:TYR:HD1	1:P:129:TYR:HA	1.65	0.43
1:P:246:PHE:HB3	1:P:270:LEU:HD12	2.01	0.43
1:P:476:GLU:CD	1:P:476:GLU:H	2.22	0.43
1:P:530:MET:CB	4:0:354:GLN:CB	2.95	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:541:MET:HG2	4:0:345:ILE:HG22	2.00	0.43
1:P:548:THR:HG21	4:2:49:GLN:HB2	2.00	0.43
1:P:725:ARG:CG	1:P:733:PRO:CA	2.95	0.43
3:R:50:LEU:O	3:R:53:PRO:HG2	2.18	0.43
4:8:220:ALA:HB3	4:8:223:PHE:CD1	2.53	0.43
4:Y:220:ALA:HB3	4:Y:223:PHE:CD1	2.53	0.43
4:2:205:GLU:O	4:2:208:ILE:HG22	2.18	0.43
4:3:220:ALA:HB3	4:3:223:PHE:CD1	2.53	0.43
4:3:223:PHE:HB3	4:3:259:GLU:OE2	2.18	0.43
4:4:315:LYS:HD2	4:4:315:LYS:HA	1.92	0.43
1:A:175:ILE:C	1:A:176:LEU:HD12	2.38	0.43
1:A:534:SER:CB	4:8:351:THR:HA	2.49	0.43
1:A:747:LEU:C	1:A:749:GLY:N	2.71	0.43
2:B:112:ILE:O	2:B:148:VAL:N	2.50	0.43
3:C:50:LEU:O	3:C:53:PRO:HG2	2.18	0.43
1:D:541:MET:HB3	4:9:345:ILE:HG22	2.00	0.43
1:D:839:MLY:HH11	2:E:159:HIS:HB3	1.92	0.43
1:G:175:ILE:C	1:G:176:LEU:HD12	2.38	0.43
1:G:201:ALA:O	1:G:202:SER:OG	2.36	0.43
1:G:202:SER:HA	1:G:207:LYS:NZ	2.22	0.43
1:G:659:MLY:HD2	1:G:659:MLY:HH22	1.42	0.43
1:G:724:TYR:HB3	1:G:727:LEU:CD1	2.48	0.43
1:G:725:ARG:CZ	1:G:737:PHE:CE1	3.02	0.43
1:G:787:ILE:HG23	1:G:791:GLN:HG3	2.00	0.43
2:H:114:LYS:CG	2:H:146:GLY:HA2	2.46	0.43
3:I:69:LEU:HB3	3:I:70:PRO:HD3	1.99	0.43
1:P:40:VAL:HG23	1:P:76:GLN:O	2.19	0.43
1:P:711:PHE:HB3	1:P:766:PHE:HB3	2.00	0.43
1:P:747:LEU:C	1:P:749:GLY:N	2.72	0.43
2:Q:140:PHE:HA	2:Q:141:PRO:HD2	1.57	0.43
3:R:69:LEU:HB3	3:R:70:PRO:HD3	1.99	0.43
4:9:149:THR:HA	4:9:165:ILE:O	2.19	0.43
4:9:193:LEU:O	4:9:198:TYR:HD2	2.01	0.43
4:V:193:LEU:O	4:V:198:TYR:HD2	2.01	0.43
4:V:220:ALA:HB3	4:V:223:PHE:CD1	2.53	0.43
4:W:149:THR:HA	4:W:165:ILE:O	2.19	0.43
4:0:220:ALA:HB3	4:0:223:PHE:CD1	2.53	0.43
4:2:290:ARG:NH1	4:4:202:THR:CG2	2.75	0.43
4:5:149:THR:HA	4:5:165:ILE:O	2.19	0.43
1:A:87:MLY:HH12	1:A:87:MLY:HD3	1.62	0.43
1:A:296:MLY:HH11	1:A:348:MLY:CH2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:308:ASN:HA	1:A:309:PRO:HD2	1.88	0.43
1:A:322:VAL:CG1	1:A:325:ILE:HG13	2.49	0.43
1:A:500:GLN:HB2	1:A:512:PHE:CZ	2.54	0.43
1:A:715:VAL:HG11	1:A:720:PHE:CD1	2.50	0.43
1:A:725:ARG:CZ	1:A:737:PHE:CE1	3.02	0.43
2:B:140:PHE:HA	2:B:141:PRO:HD2	1.57	0.43
1:D:64:THR:CG2	1:D:65:GLU:H	2.32	0.43
1:D:224:SER:O	1:D:227:PRO:HD2	2.17	0.43
1:D:391:GLY:HA3	1:D:616:VAL:HG23	2.01	0.43
1:D:400:ALA:CB	1:D:606:THR:HG22	2.48	0.43
1:D:715:VAL:HG11	1:D:720:PHE:CD1	2.50	0.43
1:D:839:MLY:HH21	2:E:159:HIS:HB3	2.00	0.43
1:G:123:CYS:HB2	1:G:158:ILE:HD13	2.00	0.43
1:G:144:ARG:HA	1:G:144:ARG:HD2	1.78	0.43
1:G:292:MET:CE	1:G:309:PRO:CA	2.97	0.43
1:G:348:MLY:HH12	1:G:348:MLY:HD2	1.82	0.43
1:G:500:GLN:HB2	1:G:512:PHE:CZ	2.54	0.43
1:G:639:GLY:H	4:V:344:SER:HB3	1.83	0.43
1:G:689:GLU:HA	1:G:692:LEU:HB2	2.00	0.43
1:G:692:LEU:HD23	1:G:692:LEU:HA	1.84	0.43
1:G:818:TYR:C	2:H:90:GLY:HA3	2.39	0.43
1:P:64:THR:CG2	1:P:65:GLU:H	2.32	0.43
1:P:217:THR:HG22	1:P:218:LEU:N	2.34	0.43
1:P:292:MET:CE	1:P:309:PRO:CA	2.97	0.43
1:P:309:PRO:C	1:P:311:ASP:H	2.22	0.43
1:P:391:GLY:HA3	1:P:616:VAL:HG23	2.01	0.43
1:P:747:LEU:C	1:P:749:GLY:H	2.21	0.43
2:Q:112:ILE:O	2:Q:148:VAL:N	2.50	0.43
3:R:101:THR:HA	3:R:137:ILE:O	2.18	0.43
4:9:324:THR:O	4:W:244:ASP:HA	2.08	0.43
4:W:220:ALA:HB3	4:W:223:PHE:CD1	2.53	0.43
4:Y:149:THR:HA	4:Y:165:ILE:O	2.19	0.43
4:Y:223:PHE:HB3	4:Y:259:GLU:OE2	2.18	0.43
4:2:149:THR:HA	4:2:165:ILE:O	2.19	0.43
4:2:193:LEU:O	4:2:198:TYR:HD2	2.01	0.43
4:3:149:THR:HA	4:3:165:ILE:O	2.19	0.43
4:3:193:LEU:O	4:3:198:TYR:HD2	2.01	0.43
4:5:205:GLU:O	4:5:208:ILE:HG22	2.18	0.43
1:A:151:ALA:HB1	1:A:152:PRO:HD2	2.01	0.43
1:A:221:GLN:HG2	1:A:221:GLN:H	1.47	0.43
1:A:266:GLU:OE1	1:A:659:MLY:NZ	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:346:ASP:O	1:A:350:ALA:N	2.46	0.43
1:A:659:MLY:HD2	1:A:659:MLY:HH22	1.42	0.43
1:A:795:ARG:HH21	3:C:116:GLU:CG	2.32	0.43
1:A:797:PHE:CD1	3:C:146:ILE:HA	2.53	0.43
1:A:822:SER:HA	2:B:87:LYS:O	2.18	0.43
1:A:829:TRP:HZ3	2:B:84:PHE:CZ	2.36	0.43
1:D:109:ARG:CD	1:D:117:THR:HB	2.49	0.43
1:D:174:SER:OG	1:D:669:PRO:HA	2.18	0.43
1:D:292:MET:HE1	1:D:309:PRO:CG	2.49	0.43
1:D:322:VAL:CG1	1:D:325:ILE:HG13	2.49	0.43
1:D:442:VAL:O	1:D:445:ILE:HB	2.19	0.43
1:G:17:LEU:HA	1:G:17:LEU:HD12	1.67	0.43
1:G:266:GLU:OE1	1:G:659:MLY:NZ	2.51	0.43
1:G:400:ALA:CB	1:G:606:THR:HG22	2.49	0.43
1:G:408:VAL:HG22	1:G:636:LYS:HG2	1.52	0.43
1:G:476:GLU:H	1:G:476:GLU:CD	2.21	0.43
1:P:193:ILE:HD11	1:P:250:ILE:CD1	2.48	0.43
1:P:400:ALA:CB	1:P:606:THR:HG22	2.49	0.43
1:P:537:GLU:OE1	4:0:350:SER:HA	2.19	0.43
1:P:675:ILE:HG23	1:P:676:ILE:N	2.33	0.43
4:7:149:THR:HA	4:7:165:ILE:O	2.19	0.43
4:7:205:GLU:O	4:7:208:ILE:HG22	2.18	0.43
4:8:193:LEU:O	4:8:198:TYR:HD2	2.01	0.43
4:Z:193:LEU:O	4:Z:198:TYR:HD2	2.01	0.43
4:1:149:THR:HA	4:1:165:ILE:O	2.19	0.43
1:A:14:ALA:HB3	1:A:15:PRO:CD	2.46	0.43
1:A:40:VAL:HG23	1:A:76:GLN:O	2.19	0.43
1:A:292:MET:CE	1:A:309:PRO:CA	2.97	0.43
1:A:578:HIS:HB3	1:A:592:ILE:CD1	2.38	0.43
2:B:121:LEU:O	2:B:128:PHE:CG	2.61	0.43
1:D:246:PHE:HB3	1:D:270:LEU:HD12	2.01	0.43
1:D:320:ILE:O	1:D:320:ILE:HG22	2.18	0.43
1:D:485:GLU:HA	1:D:584:TYR:HE2	1.83	0.43
1:D:486:MLY:HH22	1:D:527:GLU:CD	2.37	0.43
1:D:639:GLY:H	4:9:344:SER:HB3	1.83	0.43
1:D:769:ALA:HA	1:D:770:GLY:C	2.19	0.43
1:G:151:ALA:HB1	1:G:152:PRO:HD2	2.01	0.43
1:G:195:TYR:CD2	1:G:199:ILE:HD13	2.54	0.43
1:G:541:MET:HG2	4:V:345:ILE:HG22	2.00	0.43
1:G:775:LEU:HD12	1:G:775:LEU:HA	1.71	0.43
1:P:485:GLU:OE2	1:P:584:TYR:N	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:502:GLU:OE1	1:P:761:GLY:HA3	2.19	0.43
1:P:529:PRO:HB3	4:0:354:GLN:HA	2.00	0.43
1:P:725:ARG:CZ	1:P:737:PHE:CE1	3.02	0.43
1:P:795:ARG:CD	3:R:118:MET:CE	2.61	0.43
1:P:823:PHE:CE1	2:Q:160:GLY:CA	2.96	0.43
3:R:62:ALA:O	3:R:63:ILE:HG13	2.14	0.43
4:7:324:THR:O	4:9:244:ASP:HA	2.09	0.43
4:Y:193:LEU:O	4:Y:198:TYR:HD2	2.01	0.43
4:Z:149:THR:HA	4:Z:165:ILE:O	2.19	0.43
4:3:322:PRO:CA	4:5:244:ASP:HB2	2.49	0.43
1:A:64:THR:CG2	1:A:65:GLU:H	2.32	0.43
1:A:109:ARG:CD	1:A:117:THR:HB	2.49	0.43
1:A:144:ARG:HA	1:A:144:ARG:HD2	1.78	0.43
1:A:692:LEU:HD23	1:A:692:LEU:HA	1.85	0.43
1:A:798:LEU:HD11	3:C:126:LEU:CD1	2.48	0.43
1:D:97:LEU:HD12	1:D:97:LEU:HA	1.67	0.43
1:D:549:SER:C	4:W:45:VAL:O	2.57	0.43
1:D:551:MLY:C	4:W:47:MET:HA	2.48	0.43
1:D:576:GLU:CG	1:D:577:ALA:N	2.44	0.43
1:D:793:ARG:NE	3:F:147:MET:CB	2.77	0.43
2:E:137:TRP:CA	2:E:145:ALA:HB2	2.38	0.43
3:F:50:LEU:O	3:F:53:PRO:HG2	2.19	0.43
1:G:40:VAL:HG23	1:G:76:GLN:O	2.19	0.43
1:G:64:THR:CG2	1:G:65:GLU:H	2.32	0.43
1:G:155:ILE:HG22	1:G:156:PHE:N	2.33	0.43
1:G:406:VAL:O	1:G:412:ALA:HA	2.19	0.43
1:G:568:PRO:CG	1:G:578:HIS:H	2.30	0.43
1:G:612:GLN:NE2	1:G:627:GLY:H	2.14	0.43
1:P:169:ASP:O	1:P:170:ARG:HB2	2.19	0.43
1:P:175:ILE:C	1:P:176:LEU:HD12	2.39	0.43
1:P:195:TYR:CD2	1:P:199:ILE:HD13	2.54	0.43
1:P:410:ASN:HA	4:0:334:GLU:HB3	1.29	0.43
1:P:449:LEU:HA	1:P:449:LEU:HD12	1.60	0.43
1:P:530:MET:CE	4:0:354:GLN:HG3	2.35	0.43
1:P:639:GLY:H	4:0:344:SER:HB3	1.83	0.43
1:P:642:LYS:HB3	4:0:24:ASP:HB2	1.37	0.43
1:P:701:LEU:HA	1:P:701:LEU:HD12	1.55	0.43
1:P:725:ARG:CZ	1:P:737:PHE:CZ	3.01	0.43
1:P:725:ARG:CZ	1:P:733:PRO:CB	2.83	0.43
1:P:762:HIS:CD2	1:P:762:HIS:N	2.78	0.43
1:P:776:GLU:O	1:P:780:ASP:N	2.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:8:149:THR:HA	4:8:165:ILE:O	2.19	0.43
4:8:287:ILE:CB	4:V:204:ALA:H	2.13	0.43
4:9:220:ALA:HB3	4:9:223:PHE:CD1	2.53	0.43
4:0:193:LEU:O	4:0:198:TYR:HD2	2.01	0.43
4:2:322:PRO:HB2	4:4:244:ASP:CG	2.17	0.43
4:3:217:CYS:C	4:3:218:TYR:HD1	2.22	0.43
4:3:287:ILE:HB	4:5:204:ALA:H	1.83	0.43
1:A:63:MLY:HD3	1:A:63:MLY:HH23	1.76	0.43
1:A:831:TRP:CZ3	2:B:34:ILE:HG21	2.38	0.43
1:D:40:VAL:HG23	1:D:76:GLN:O	2.19	0.43
1:D:169:ASP:O	1:D:170:ARG:HB2	2.19	0.43
1:D:266:GLU:OE1	1:D:659:MLY:NZ	2.51	0.43
3:F:122:GLU:HA	3:F:125:GLU:OE1	2.18	0.43
1:G:86:ASP:OD2	1:G:87:MLY:HH22	2.19	0.43
1:G:294:ASN:OD1	1:G:307:THR:HG21	2.19	0.43
1:G:553:MLY:CB	4:X:46:GLY:HA3	2.49	0.43
1:P:795:ARG:CD	3:R:43:ASN:OD1	2.64	0.43
2:Q:140:PHE:CD2	2:Q:144:VAL:HG11	2.54	0.43
3:R:119:THR:O	3:R:123:VAL:HG23	2.18	0.43
4:9:180:LEU:HD11	4:9:261:LEU:HD23	2.01	0.43
4:X:171:LEU:HA	4:X:172:PRO:HD2	1.84	0.43
4:X:220:ALA:HB3	4:X:223:PHE:CD1	2.53	0.43
4:1:193:LEU:O	4:1:198:TYR:HD2	2.01	0.43
4:1:217:CYS:C	4:1:218:TYR:HD1	2.22	0.43
4:2:220:ALA:HB3	4:2:223:PHE:CD1	2.53	0.43
4:3:315:LYS:HD2	4:3:315:LYS:HA	1.92	0.43
1:A:195:TYR:CD2	1:A:199:ILE:HD13	2.54	0.42
1:A:445:ILE:HG22	1:A:449:LEU:HD22	2.01	0.42
1:A:689:GLU:HA	1:A:692:LEU:HB2	2.00	0.42
1:D:14:ALA:N	1:D:15:PRO:CD	2.81	0.42
1:D:217:THR:HG22	1:D:218:LEU:N	2.34	0.42
1:D:398:LEU:HA	1:D:398:LEU:HD12	1.84	0.42
1:D:756:THR:HB	1:D:757:GLN:H	1.63	0.42
3:F:25:ILE:O	3:F:63:ILE:CB	2.66	0.42
1:G:217:THR:HG22	1:G:218:LEU:N	2.34	0.42
1:G:246:PHE:HB3	1:G:270:LEU:HD12	2.01	0.42
1:G:295:MLY:CE	1:G:332:MET:CE	2.97	0.42
1:G:442:VAL:O	1:G:445:ILE:HB	2.19	0.42
1:G:747:LEU:O	1:G:749:GLY:N	2.52	0.42
1:G:772:LEU:HA	1:G:772:LEU:HD12	1.82	0.42
1:G:793:ARG:O	1:G:797:PHE:N	2.39	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:63:MLY:HH23	1:P:63:MLY:HD3	1.76	0.42
1:P:86:ASP:OD2	1:P:87:MLY:HH22	2.18	0.42
1:P:91:MET:CE	1:P:119:SER:HB2	2.47	0.42
1:P:109:ARG:CD	1:P:117:THR:HB	2.49	0.42
1:P:173:GLN:HG3	1:P:670:HIS:CD2	2.54	0.42
1:P:201:ALA:O	1:P:202:SER:OG	2.36	0.42
1:P:294:ASN:OD1	1:P:307:THR:HG21	2.19	0.42
1:P:320:ILE:O	1:P:320:ILE:HG22	2.18	0.42
1:P:406:VAL:O	1:P:412:ALA:HA	2.19	0.42
4:W:180:LEU:HD11	4:W:261:LEU:HD23	2.01	0.42
4:X:223:PHE:HB3	4:X:259:GLU:OE2	2.18	0.42
4:X:315:LYS:HD2	4:X:315:LYS:HA	1.92	0.42
4:0:75:ILE:HG21	4:1:197:GLY:C	2.39	0.42
4:4:217:CYS:C	4:4:218:TYR:HD1	2.22	0.42
1:A:402:CYS:C	1:A:404:PRO:HD3	2.40	0.42
1:A:541:MET:HG2	4:8:345:ILE:HG22	2.00	0.42
1:A:776:GLU:O	1:A:780:ASP:N	2.45	0.42
1:A:798:LEU:HD11	3:C:126:LEU:HG	1.96	0.42
1:D:295:MLY:CE	1:D:332:MET:CE	2.97	0.42
1:D:309:PRO:C	1:D:311:ASP:H	2.22	0.42
1:D:439:LEU:N	1:D:439:LEU:CD1	2.81	0.42
1:D:443:ILE:HG22	1:D:444:ARG:N	2.29	0.42
1:D:445:ILE:HG22	1:D:449:LEU:HD22	2.01	0.42
1:D:723:ARG:CG	1:D:723:ARG:NH1	2.80	0.42
1:D:839:MLY:N	1:D:840:PRO:HD2	2.35	0.42
1:G:109:ARG:CD	1:G:117:THR:HB	2.49	0.42
1:G:632:GLY:HA3	1:G:643:GLY:N	2.17	0.42
1:G:642:LYS:HE2	4:V:344:SER:HA	1.56	0.42
1:P:62:VAL:HG12	1:P:63:MLY:N	2.34	0.42
1:P:62:VAL:O	1:P:69:THR:HA	2.20	0.42
1:P:418:THR:CG2	1:P:419:VAL:N	2.79	0.42
1:P:540:CYS:C	4:0:349:LEU:HD21	2.36	0.42
1:P:712:PRO:HB2	1:P:713:SER:H	1.61	0.42
1:P:729:ALA:HB2	3:R:89:GLU:OE1	2.18	0.42
1:P:786:ILE:O	1:P:787:ILE:O	2.36	0.42
4:7:180:LEU:HD11	4:7:261:LEU:HD23	2.02	0.42
4:8:180:LEU:HD11	4:8:261:LEU:HD23	2.01	0.42
4:V:149:THR:HA	4:V:165:ILE:O	2.19	0.42
4:0:180:LEU:HD11	4:0:261:LEU:HD23	2.01	0.42
4:3:205:GLU:O	4:3:208:ILE:HG22	2.18	0.42
4:4:205:GLU:O	4:4:208:ILE:HG22	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:217:CYS:C	4:5:218:TYR:HD1	2.23	0.42
1:A:213:LYS:HA	1:A:220:ASP:OD2	2.19	0.42
1:A:226:ASN:HB2	1:A:227:PRO:CD	2.47	0.42
1:A:369:MLY:HH22	1:A:369:MLY:HD3	1.79	0.42
1:A:406:VAL:O	1:A:412:ALA:HA	2.19	0.42
1:A:476:GLU:H	1:A:476:GLU:CD	2.22	0.42
1:A:636:LYS:CB	4:8:334:GLU:OE1	2.67	0.42
1:D:174:SER:HA	1:D:460:GLY:O	2.20	0.42
1:D:195:TYR:CD2	1:D:199:ILE:HD13	2.54	0.42
1:D:206:LYS:CE	1:D:217:THR:HG23	2.29	0.42
1:D:537:GLU:OE1	4:9:350:SER:HA	2.19	0.42
2:E:144:VAL:HG12	2:E:153:ILE:HD13	1.92	0.42
3:F:119:THR:O	3:F:123:VAL:HG23	2.18	0.42
1:G:14:ALA:HB3	1:G:15:PRO:CD	2.46	0.42
1:G:402:CYS:C	1:G:404:PRO:HD3	2.40	0.42
1:G:445:ILE:HG22	1:G:449:LEU:HD22	2.01	0.42
1:G:503:TYR:OH	1:G:711:PHE:CD2	2.67	0.42
3:I:63:ILE:CG2	3:I:64:THR:H	2.32	0.42
1:P:322:VAL:CG1	1:P:325:ILE:HG13	2.49	0.42
1:P:442:VAL:O	1:P:445:ILE:HB	2.19	0.42
1:P:496:PHE:HB2	1:P:515:PHE:CD2	2.54	0.42
1:P:599:ASN:CG	1:P:649:VAL:CB	2.80	0.42
4:7:220:ALA:HB3	4:7:223:PHE:CD1	2.53	0.42
4:V:217:CYS:C	4:V:218:TYR:HD1	2.22	0.42
4:W:217:CYS:C	4:W:218:TYR:HD1	2.22	0.42
4:W:288:ASP:N	4:Y:202:THR:OG1	2.23	0.42
4:X:222:ASP:OD1	4:X:224:GLU:HB3	2.20	0.42
4:0:217:CYS:C	4:0:218:TYR:HD1	2.23	0.42
4:3:222:ASP:OD1	4:3:224:GLU:HB3	2.20	0.42
4:4:149:THR:HA	4:4:165:ILE:O	2.19	0.42
1:A:278:GLN:HE21	1:A:278:GLN:HB3	1.41	0.42
1:A:505:MLY:CG	1:A:762:HIS:CB	2.97	0.42
1:A:544:LYS:HD2	4:8:147:ARG:CB	2.36	0.42
1:A:724:TYR:HB3	1:A:727:LEU:CD1	2.48	0.42
1:D:529:PRO:HB3	4:9:354:GLN:HA	2.00	0.42
1:D:715:VAL:HG12	1:D:720:PHE:HB2	2.00	0.42
1:D:732:ILE:HG23	1:D:747:LEU:HD12	0.94	0.42
1:D:795:ARG:CD	3:F:43:ASN:OD1	2.66	0.42
1:G:194:GLN:HE21	1:G:194:GLN:HB3	1.43	0.42
1:G:213:LYS:HA	1:G:220:ASP:OD2	2.19	0.42
1:G:295:MLY:HG3	1:G:332:MET:HE2	1.99	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:296:MLY:HH11	1:G:348:MLY:CH2	2.48	0.42
1:G:529:PRO:HB3	4:V:354:GLN:HA	2.01	0.42
1:G:534:SER:CB	4:V:351:THR:HA	2.50	0.42
1:G:544:LYS:HD2	4:V:147:ARG:CB	2.36	0.42
1:G:554:LEU:HD12	1:G:554:LEU:HA	1.77	0.42
1:G:568:PRO:O	1:G:570:PRO:HD3	2.19	0.42
1:P:174:SER:HA	1:P:460:GLY:O	2.20	0.42
1:P:541:MET:HG2	4:0:345:ILE:HG23	2.01	0.42
1:P:787:ILE:HG23	1:P:791:GLN:HG3	2.00	0.42
1:P:826:VAL:O	1:P:828:HIS:N	2.53	0.42
3:R:52:ASN:CB	3:R:53:PRO:CD	2.92	0.42
4:8:196:ARG:HH21	4:8:249:THR:HG23	1.85	0.42
4:V:180:LEU:HD11	4:V:261:LEU:HD23	2.02	0.42
4:V:222:ASP:OD1	4:V:224:GLU:HB3	2.19	0.42
4:Y:180:LEU:HD11	4:Y:261:LEU:HD23	2.01	0.42
4:Z:205:GLU:O	4:Z:208:ILE:HG22	2.18	0.42
4:0:166:TYR:CD2	4:2:40:HIS:CD2	3.06	0.42
4:1:287:ILE:CA	4:3:203:THR:HG22	2.48	0.42
4:3:180:LEU:HD11	4:3:261:LEU:HD23	2.02	0.42
4:4:180:LEU:HD11	4:4:261:LEU:HD23	2.01	0.42
4:4:193:LEU:O	4:4:198:TYR:HD2	2.01	0.42
4:5:180:LEU:HD11	4:5:261:LEU:HD23	2.01	0.42
1:A:11:GLY:O	1:A:14:ALA:HB3	2.20	0.42
1:A:246:PHE:HB3	1:A:270:LEU:HD12	2.01	0.42
1:A:529:PRO:HB3	4:8:354:GLN:HA	2.00	0.42
1:A:741:LYS:HG2	1:A:742:LYS:N	2.35	0.42
1:A:839:MLY:N	1:A:840:PRO:HD2	2.35	0.42
1:D:62:VAL:HG12	1:D:63:MLY:N	2.35	0.42
1:D:271:GLU:OE1	1:D:274:ARG:NH1	2.53	0.42
1:D:690:LEU:O	1:D:694:GLN:HG3	2.20	0.42
1:D:725:ARG:CZ	1:D:733:PRO:CB	2.83	0.42
1:D:747:LEU:O	1:D:749:GLY:N	2.52	0.42
1:D:747:LEU:C	1:D:749:GLY:H	2.21	0.42
1:D:830:PRO:HG2	2:E:67:MET:HE1	2.00	0.42
1:G:91:MET:CE	1:G:119:SER:HB2	2.48	0.42
1:G:732:ILE:CG2	1:G:747:LEU:CD1	0.65	0.42
1:P:295:MLY:CE	1:P:332:MET:CE	2.97	0.42
1:P:568:PRO:O	1:P:570:PRO:HD3	2.19	0.42
1:P:690:LEU:O	1:P:694:GLN:HG3	2.20	0.42
4:7:193:LEU:O	4:7:198:TYR:HD2	2.01	0.42
4:8:217:CYS:C	4:8:218:TYR:HD1	2.23	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1:205:GLU:O	4:1:208:ILE:HG22	2.18	0.42
4:1:222:ASP:OD1	4:1:224:GLU:HB3	2.20	0.42
4:2:315:LYS:HD2	4:2:315:LYS:HA	1.92	0.42
4:5:206:ARG:O	4:5:209:VAL:HG12	2.20	0.42
1:A:169:ASP:O	1:A:170:ARG:HB2	2.19	0.42
1:A:173:GLN:HG3	1:A:670:HIS:CD2	2.54	0.42
1:A:536:LEU:HD12	1:A:536:LEU:HA	1.69	0.42
1:A:550:PHE:C	4:V:46:GLY:CA	2.87	0.42
1:A:568:PRO:O	1:A:570:PRO:HD3	2.19	0.42
1:A:664:LEU:HA	1:A:664:LEU:HD12	1.53	0.42
1:A:772:LEU:HA	1:A:772:LEU:HD12	1.83	0.42
1:D:38:VAL:HG13	1:D:39:PHE:N	2.34	0.42
1:D:151:ALA:HB1	1:D:152:PRO:HD2	2.01	0.42
1:D:218:LEU:HD22	1:D:222:ILE:HG13	1.95	0.42
1:D:402:CYS:C	1:D:404:PRO:HD3	2.40	0.42
1:D:496:PHE:HB2	1:D:515:PHE:CD2	2.54	0.42
1:D:540:CYS:C	4:9:349:LEU:HD21	2.36	0.42
1:G:88:ILE:HG21	1:G:88:ILE:HD12	1.78	0.42
1:G:485:GLU:OE2	1:G:584:TYR:N	2.50	0.42
1:G:541:MET:N	4:V:349:LEU:CD2	2.69	0.42
1:P:14:ALA:N	1:P:15:PRO:CD	2.82	0.42
1:P:218:LEU:HD22	1:P:222:ILE:HG13	1.95	0.42
1:P:354:LEU:HA	1:P:354:LEU:HD12	1.56	0.42
1:P:402:CYS:C	1:P:404:PRO:HD3	2.40	0.42
1:P:534:SER:CB	4:0:351:THR:HA	2.49	0.42
1:P:541:MET:HB3	4:0:345:ILE:HG22	2.00	0.42
1:P:795:ARG:CZ	3:R:116:GLU:OE2	2.68	0.42
1:P:814:PHE:HD1	2:Q:127:ARG:NH1	2.17	0.42
4:8:205:GLU:O	4:8:208:ILE:HG22	2.18	0.42
4:8:206:ARG:O	4:8:209:VAL:HG12	2.20	0.42
4:X:217:CYS:C	4:X:218:TYR:HD1	2.23	0.42
4:Z:217:CYS:C	4:Z:218:TYR:HD1	2.23	0.42
4:1:180:LEU:HD11	4:1:261:LEU:HD23	2.01	0.42
4:1:196:ARG:HH21	4:1:249:THR:HG23	1.85	0.42
4:2:206:ARG:O	4:2:209:VAL:HG12	2.20	0.42
4:4:220:ALA:HB3	4:4:223:PHE:CD1	2.53	0.42
1:A:38:VAL:HG13	1:A:39:PHE:N	2.35	0.42
1:A:60:VAL:O	1:A:72:VAL:N	2.51	0.42
1:A:348:MLY:HH12	1:A:348:MLY:HD2	1.82	0.42
1:A:744:SER:O	1:A:748:LEU:HD12	2.20	0.42
1:A:754:ASP:HB2	1:A:774:LEU:CD2	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:754:ASP:N	1:A:778:MET:CE	2.83	0.42
1:A:795:ARG:HB2	3:C:35:ARG:NH1	2.30	0.42
1:A:826:VAL:O	1:A:828:HIS:N	2.53	0.42
1:A:831:TRP:CZ2	2:B:47:LEU:CA	2.59	0.42
2:B:140:PHE:CD2	2:B:144:VAL:HG11	2.54	0.42
1:D:62:VAL:O	1:D:69:THR:HA	2.20	0.42
1:D:175:ILE:C	1:D:176:LEU:HD12	2.39	0.42
1:D:294:ASN:OD1	1:D:307:THR:HG21	2.19	0.42
1:D:508:ILE:HG21	1:D:766:PHE:CE1	2.55	0.42
1:D:568:PRO:O	1:D:570:PRO:HD3	2.19	0.42
1:D:787:ILE:HG21	1:D:787:ILE:HD13	1.67	0.42
1:D:826:VAL:O	1:D:828:HIS:N	2.53	0.42
3:F:63:ILE:CG2	3:F:64:THR:H	2.32	0.42
1:G:60:VAL:O	1:G:72:VAL:N	2.51	0.42
1:G:97:LEU:HA	1:G:97:LEU:HD12	1.67	0.42
1:G:141:LEU:HD12	1:G:141:LEU:N	2.32	0.42
1:G:309:PRO:C	1:G:311:ASP:H	2.22	0.42
1:G:537:GLU:OE1	4:V:350:SER:HA	2.20	0.42
1:G:690:LEU:O	1:G:694:GLN:HG3	2.20	0.42
1:G:741:LYS:HG2	1:G:742:LYS:N	2.35	0.42
1:P:151:ALA:HB1	1:P:152:PRO:HD2	2.01	0.42
1:P:226:ASN:HB2	1:P:227:PRO:CD	2.47	0.42
1:P:747:LEU:O	1:P:749:GLY:N	2.53	0.42
4:W:206:ARG:O	4:W:209:VAL:HG12	2.20	0.42
4:X:149:THR:HA	4:X:165:ILE:O	2.19	0.42
4:Y:217:CYS:C	4:Y:218:TYR:HD1	2.22	0.42
4:Z:180:LEU:HD11	4:Z:261:LEU:HD23	2.01	0.42
4:0:206:ARG:O	4:0:209:VAL:HG12	2.20	0.42
4:0:222:ASP:OD1	4:0:224:GLU:HB3	2.20	0.42
4:2:180:LEU:HD11	4:2:261:LEU:HD23	2.02	0.42
4:4:206:ARG:O	4:4:209:VAL:HG12	2.20	0.42
1:A:141:LEU:HD12	1:A:141:LEU:N	2.32	0.42
1:A:195:TYR:CE2	1:A:199:ILE:HD13	2.55	0.42
1:A:436:MLY:HE3	1:A:626:TYR:HE1	1.77	0.42
1:A:442:VAL:O	1:A:445:ILE:HB	2.19	0.42
1:A:797:PHE:CD2	1:A:798:LEU:HD12	2.55	0.42
1:D:541:MET:SD	4:9:345:ILE:C	2.95	0.42
1:D:709:LYS:O	1:D:710:GLY:CA	2.65	0.42
1:D:818:TYR:HD2	2:E:89:LYS:C	2.07	0.42
2:E:140:PHE:CD2	2:E:144:VAL:HG11	2.54	0.42
1:G:536:LEU:HD12	1:G:536:LEU:HA	1.69	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:629:GLU:CA	1:G:643:GLY:C	2.73	0.42
1:G:664:LEU:HD12	1:G:664:LEU:HA	1.53	0.42
1:G:725:ARG:HA	1:G:732:ILE:CG2	2.50	0.42
1:G:768:MLY:CE	1:G:772:LEU:HD23	2.49	0.42
1:G:795:ARG:CB	3:I:35:ARG:CZ	2.97	0.42
1:P:462:LEU:HD11	1:P:464:ILE:CD1	2.50	0.42
1:P:464:ILE:HD13	1:P:464:ILE:HG21	1.69	0.42
4:V:205:GLU:O	4:V:208:ILE:HG22	2.18	0.42
4:X:180:LEU:HD11	4:X:261:LEU:HD23	2.02	0.42
4:Z:222:ASP:OD1	4:Z:224:GLU:HB3	2.19	0.42
4:0:110:LEU:CD2	4:1:195:GLU:OE2	2.67	0.42
4:1:206:ARG:O	4:1:209:VAL:HG12	2.20	0.42
4:3:193:LEU:HD11	4:3:250:ILE:HG13	2.02	0.42
4:3:324:THR:HG23	4:5:244:ASP:O	2.17	0.42
1:A:462:LEU:HD11	1:A:464:ILE:CD1	2.50	0.42
1:A:578:HIS:CD2	1:A:592:ILE:H	2.38	0.42
1:D:129:TYR:HD1	1:D:129:TYR:HA	1.65	0.42
1:D:346:ASP:O	1:D:350:ALA:N	2.46	0.42
1:D:534:SER:CB	4:9:351:THR:HA	2.49	0.42
1:D:541:MET:CG	4:9:345:ILE:C	2.87	0.42
1:D:836:PHE:CZ	2:E:160:GLY:CA	3.02	0.42
2:E:113:LYS:O	2:E:147:ASN:HB2	2.20	0.42
1:G:462:LEU:HD11	1:G:464:ILE:CD1	2.50	0.42
1:G:578:HIS:CD2	1:G:592:ILE:H	2.38	0.42
1:G:810:ARG:HG2	1:G:810:ARG:NH1	2.28	0.42
1:G:843:LYS:O	2:H:29:GLU:OE1	2.38	0.42
1:P:466:GLY:CA	1:P:484:ASN:HD21	2.32	0.42
1:P:508:ILE:CD1	1:P:759:ALA:HB1	2.42	0.42
1:P:578:HIS:CD2	1:P:592:ILE:H	2.38	0.42
4:7:217:CYS:C	4:7:218:TYR:HD1	2.23	0.42
4:7:222:ASP:OD1	4:7:224:GLU:HB3	2.20	0.42
4:8:193:LEU:HD11	4:8:250:ILE:HG13	2.02	0.42
4:9:206:ARG:O	4:9:209:VAL:HG12	2.20	0.42
4:9:217:CYS:C	4:9:218:TYR:HD1	2.23	0.42
4:X:206:ARG:O	4:X:209:VAL:HG12	2.20	0.42
4:Z:206:ARG:O	4:Z:209:VAL:HG12	2.20	0.42
4:1:193:LEU:HD11	4:1:250:ILE:HG13	2.02	0.42
4:2:196:ARG:HH21	4:2:249:THR:HG23	1.85	0.42
4:5:196:ARG:HH21	4:5:249:THR:HG23	1.85	0.42
4:5:221:LEU:HA	4:5:312:ARG:HG2	2.02	0.42
4:5:222:ASP:OD1	4:5:224:GLU:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:369:ILE:HG23	4:5:370:VAL:N	2.35	0.42
1:A:294:ASN:OD1	1:A:307:THR:HG21	2.19	0.42
1:A:537:GLU:OE1	4:8:350:SER:HA	2.19	0.42
1:A:793:ARG:HH22	3:C:147:MET:HE3	1.66	0.42
1:D:335:ASP:O	1:D:338:ILE:HB	2.20	0.42
1:D:541:MET:HG2	4:9:345:ILE:HG23	2.01	0.42
1:D:636:LYS:CB	4:9:334:GLU:OE1	2.68	0.42
1:D:726:VAL:CA	1:D:782:MLY:CH2	2.61	0.42
1:D:733:PRO:CB	1:D:737:PHE:CE1	3.02	0.42
1:D:787:ILE:HG23	1:D:791:GLN:HG3	2.01	0.42
1:G:38:VAL:HG13	1:G:39:PHE:N	2.35	0.42
1:G:166:MET:CE	1:G:254:PHE:HB2	2.46	0.42
1:G:206:LYS:CE	1:G:217:THR:HG23	2.30	0.42
1:G:229:LEU:HD12	1:G:229:LEU:HA	1.75	0.42
1:G:330:GLU:OE1	1:G:330:GLU:HA	2.20	0.42
1:P:135:TYR:HD2	1:P:191:ARG:CG	2.33	0.42
1:P:271:GLU:OE1	1:P:274:ARG:NH1	2.53	0.42
1:P:725:ARG:HA	1:P:732:ILE:CG2	2.50	0.42
4:7:369:ILE:HG23	4:7:370:VAL:N	2.35	0.42
4:9:369:ILE:HG23	4:9:370:VAL:N	2.35	0.42
4:Z:193:LEU:HD11	4:Z:250:ILE:HG13	2.02	0.42
4:Z:226:GLU:HG3	4:Z:255:PHE:CE2	2.55	0.42
4:2:217:CYS:C	4:2:218:TYR:HD1	2.23	0.42
4:3:148:THR:HG21	4:5:45:VAL:CG2	2.50	0.42
4:4:193:LEU:HD11	4:4:250:ILE:HG13	2.02	0.42
1:A:335:ASP:O	1:A:338:ILE:HB	2.20	0.41
1:A:839:MLY:HD2	2:B:159:HIS:CG	2.55	0.41
1:D:829:TRP:O	1:D:832:MET:N	2.50	0.41
1:G:129:TYR:HD1	1:G:129:TYR:HA	1.65	0.41
1:G:214:MET:CA	1:G:340:ILE:HD11	2.45	0.41
1:G:332:MET:H	1:G:332:MET:HG2	1.52	0.41
1:G:533:PHE:HD1	1:G:533:PHE:HA	1.79	0.41
1:G:541:MET:HB3	4:V:345:ILE:HG22	2.01	0.41
1:G:541:MET:CE	4:V:346:LEU:HD12	2.48	0.41
1:G:797:PHE:CD2	1:G:798:LEU:HD12	2.55	0.41
1:G:817:GLN:HB3	2:H:127:ARG:HH11	1.85	0.41
1:P:568:PRO:CG	1:P:578:HIS:N	2.83	0.41
1:P:800:ARG:HD2	3:R:149:VAL:CG2	2.37	0.41
1:P:836:PHE:CE1	2:Q:159:HIS:HA	2.51	0.41
4:7:221:LEU:HA	4:7:312:ARG:HG2	2.02	0.41
4:V:193:LEU:HD11	4:V:250:ILE:HG13	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:V:206:ARG:O	4:V:209:VAL:HG12	2.20	0.41
4:W:369:ILE:HG23	4:W:370:VAL:N	2.35	0.41
4:X:193:LEU:HD11	4:X:250:ILE:HG13	2.02	0.41
4:Z:369:ILE:HG23	4:Z:370:VAL:N	2.35	0.41
1:A:449:LEU:HD12	1:A:449:LEU:HA	1.60	0.41
1:A:747:LEU:O	1:A:749:GLY:N	2.52	0.41
3:C:96:LYS:H	3:C:96:LYS:HG3	1.66	0.41
1:D:91:MET:CE	1:D:119:SER:HB2	2.48	0.41
1:D:136:ASN:O	1:D:138:MLY:N	2.54	0.41
1:D:471:ASP:CB	1:D:573:GLY:O	2.68	0.41
1:D:500:GLN:HB2	1:D:512:PHE:CZ	2.54	0.41
1:D:842:LEU:N	1:D:842:LEU:CD1	2.83	0.41
1:G:369:MLY:HH22	1:G:369:MLY:HD3	1.79	0.41
1:G:539:GLU:OE2	1:G:553:MLY:HD3	2.20	0.41
1:G:553:MLY:C	4:X:46:GLY:HA3	2.50	0.41
2:H:113:LYS:O	2:H:147:ASN:HB2	2.20	0.41
2:H:149:ASP:OD2	2:H:150:TYR:CA	2.65	0.41
3:I:48:LYS:HD3	3:I:48:LYS:HA	1.17	0.41
3:I:95:ASP:OD1	3:I:139:TYR:HE1	2.04	0.41
1:P:195:TYR:CE2	1:P:199:ILE:HD13	2.55	0.41
1:P:445:ILE:HG22	1:P:449:LEU:HD22	2.02	0.41
1:P:642:LYS:HE2	4:0:344:SER:HA	1.56	0.41
1:P:673:ARG:HD2	1:P:673:ARG:HA	1.79	0.41
1:P:817:GLN:CD	2:Q:127:ARG:CB	2.87	0.41
4:9:193:LEU:HD11	4:9:250:ILE:HG13	2.02	0.41
4:9:196:ARG:HH21	4:9:249:THR:HG23	1.85	0.41
4:V:315:LYS:HD2	4:V:315:LYS:HA	1.92	0.41
4:Z:315:LYS:HD2	4:Z:315:LYS:HA	1.92	0.41
4:0:173:HIS:CG	4:1:267:ILE:C	2.94	0.41
4:2:193:LEU:HD11	4:2:250:ILE:HG13	2.02	0.41
4:3:196:ARG:HH21	4:3:249:THR:HG23	1.85	0.41
4:3:206:ARG:O	4:3:209:VAL:HG12	2.20	0.41
4:3:287:ILE:CB	4:5:203:THR:HG22	2.44	0.41
4:5:220:ALA:HB3	4:5:223:PHE:CD1	2.53	0.41
1:A:17:LEU:HD12	1:A:17:LEU:HA	1.67	0.41
3:C:63:ILE:CG2	3:C:64:THR:H	2.33	0.41
1:D:86:ASP:OD2	1:D:87:MLY:HH22	2.19	0.41
1:D:320:ILE:O	1:D:320:ILE:CG2	2.68	0.41
1:D:724:TYR:HB3	1:D:727:LEU:CD1	2.49	0.41
1:D:797:PHE:CZ	3:F:146:ILE:CD1	3.03	0.41
1:D:829:TRP:HA	1:D:830:PRO:HD2	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:135:TYR:HD2	1:G:191:ARG:CG	2.33	0.41
1:G:169:ASP:O	1:G:170:ARG:HB2	2.19	0.41
1:G:173:GLN:HG3	1:G:670:HIS:CD2	2.55	0.41
1:G:829:TRP:O	1:G:832:MET:N	2.50	0.41
1:G:842:LEU:N	1:G:842:LEU:CD1	2.82	0.41
1:P:296:MLY:HH11	1:P:348:MLY:CH2	2.48	0.41
1:P:815:CYS:SG	2:Q:92:ASP:CB	3.02	0.41
4:7:315:LYS:HD2	4:7:315:LYS:HA	1.92	0.41
4:8:226:GLU:HG3	4:8:255:PHE:CE2	2.55	0.41
4:V:196:ARG:HH21	4:V:249:THR:HG23	1.85	0.41
4:V:226:GLU:HG3	4:V:255:PHE:CE2	2.56	0.41
4:W:221:LEU:HA	4:W:312:ARG:HG2	2.02	0.41
4:Y:369:ILE:HG23	4:Y:370:VAL:N	2.35	0.41
4:0:221:LEU:HA	4:0:312:ARG:HG2	2.02	0.41
4:2:222:ASP:OD1	4:2:224:GLU:HB3	2.19	0.41
4:4:196:ARG:HH21	4:4:249:THR:HG23	1.85	0.41
4:4:369:ILE:HG23	4:4:370:VAL:N	2.35	0.41
1:A:106:LEU:HD12	1:A:106:LEU:HA	1.79	0.41
1:A:136:ASN:O	1:A:138:MLY:N	2.54	0.41
1:A:166:MET:CE	1:A:254:PHE:HB2	2.46	0.41
1:A:541:MET:HG2	4:8:345:ILE:HG23	2.01	0.41
1:A:568:PRO:CG	1:A:578:HIS:N	2.84	0.41
1:A:712:PRO:HB2	1:A:713:SER:H	1.61	0.41
3:C:11:LYS:HB3	3:C:11:LYS:HE2	1.83	0.41
1:D:173:GLN:HG3	1:D:670:HIS:CD2	2.55	0.41
1:D:356:GLY:HA2	1:D:359:MET:HG3	2.02	0.41
1:G:543:PRO:CG	4:V:146:GLY:O	2.66	0.41
1:G:795:ARG:HD2	3:I:35:ARG:NH2	2.32	0.41
2:H:140:PHE:CD2	2:H:144:VAL:HG11	2.55	0.41
1:P:25:ILE:HG23	1:P:29:ASN:HD22	1.85	0.41
1:P:204:GLU:N	1:P:207:LYS:HE3	2.23	0.41
1:P:539:GLU:OE2	1:P:553:MLY:HD3	2.20	0.41
4:8:369:ILE:HG23	4:8:370:VAL:N	2.35	0.41
4:9:221:LEU:HA	4:9:312:ARG:HG2	2.02	0.41
4:X:205:GLU:O	4:X:208:ILE:HG22	2.18	0.41
4:X:226:GLU:HG3	4:X:255:PHE:CE2	2.55	0.41
4:Y:193:LEU:HD11	4:Y:250:ILE:HG13	2.02	0.41
4:Y:196:ARG:HH21	4:Y:249:THR:HG23	1.85	0.41
4:Z:196:ARG:HH21	4:Z:249:THR:HG23	1.85	0.41
4:1:369:ILE:HG23	4:1:370:VAL:N	2.35	0.41
4:2:369:ILE:HG23	4:2:370:VAL:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:369:ILE:HG23	4:3:370:VAL:N	2.35	0.41
1:A:62:VAL:O	1:A:69:THR:HA	2.19	0.41
1:A:322:VAL:HA	1:A:323:PRO:HD3	1.87	0.41
1:A:471:ASP:CB	1:A:573:GLY:O	2.68	0.41
2:B:113:LYS:O	2:B:147:ASN:HB2	2.20	0.41
3:C:95:ASP:OD1	3:C:139:TYR:HE1	2.04	0.41
1:D:204:GLU:N	1:D:207:LYS:HE3	2.23	0.41
1:D:578:HIS:CD2	1:D:592:ILE:H	2.38	0.41
1:D:725:ARG:HA	1:D:732:ILE:CG2	2.50	0.41
1:D:741:LYS:HG2	1:D:742:LYS:N	2.35	0.41
1:D:744:SER:O	1:D:748:LEU:HD12	2.20	0.41
1:D:793:ARG:O	1:D:797:PHE:N	2.40	0.41
1:D:812:SER:O	1:D:816:ILE:HG13	2.21	0.41
3:F:56:GLU:OE1	3:F:59:ASN:ND2	2.54	0.41
1:G:330:GLU:HG2	1:G:330:GLU:H	1.54	0.41
1:G:335:ASP:O	1:G:338:ILE:HB	2.20	0.41
1:G:744:SER:O	1:G:748:LEU:HD12	2.20	0.41
1:G:812:SER:O	1:G:816:ILE:HG13	2.21	0.41
1:P:136:ASN:O	1:P:138:MLY:N	2.54	0.41
1:P:330:GLU:HG2	1:P:330:GLU:H	1.54	0.41
1:P:330:GLU:HA	1:P:330:GLU:OE1	2.20	0.41
1:P:356:GLY:HA2	1:P:359:MET:HG3	2.02	0.41
1:P:449:LEU:N	1:P:449:LEU:CD1	2.81	0.41
1:P:471:ASP:CB	1:P:573:GLY:O	2.68	0.41
1:P:506:GLU:CD	1:P:760:PHE:O	2.59	0.41
1:P:636:LYS:CB	4:0:334:GLU:OE1	2.68	0.41
1:P:741:LYS:HG2	1:P:742:LYS:N	2.35	0.41
4:7:206:ARG:O	4:7:209:VAL:HG12	2.20	0.41
4:W:193:LEU:HD11	4:W:250:ILE:HG13	2.02	0.41
4:W:222:ASP:OD1	4:W:224:GLU:HB3	2.20	0.41
4:Y:222:ASP:OD1	4:Y:224:GLU:HB3	2.19	0.41
4:1:315:LYS:HD2	4:1:315:LYS:HA	1.92	0.41
4:2:226:GLU:HG3	4:2:255:PHE:CE2	2.56	0.41
4:4:227:MET:O	4:4:230:ALA:HB3	2.21	0.41
1:A:25:ILE:HG23	1:A:29:ASN:HD22	1.85	0.41
1:A:541:MET:CE	4:8:346:LEU:HD12	2.48	0.41
1:A:732:ILE:CG2	1:A:747:LEU:HD11	1.26	0.41
1:A:774:LEU:HD23	1:A:778:MET:HE3	2.02	0.41
1:D:11:GLY:O	1:D:14:ALA:HB3	2.20	0.41
1:D:106:LEU:HD12	1:D:106:LEU:HA	1.80	0.41
1:D:135:TYR:CD2	1:D:191:ARG:HD3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:215:GLN:H	1:D:340:ILE:CD1	2.21	0.41
1:D:217:THR:CA	1:D:221:GLN:HE21	2.33	0.41
1:D:296:MLY:HH11	1:D:348:MLY:CH2	2.48	0.41
1:D:408:VAL:HA	1:D:636:LYS:HG3	1.03	0.41
1:D:641:LYS:HG3	1:D:647:GLN:HG2	1.71	0.41
1:G:25:ILE:HG23	1:G:29:ASN:HD22	1.85	0.41
1:G:62:VAL:O	1:G:69:THR:HA	2.20	0.41
1:G:136:ASN:O	1:G:138:MLY:N	2.54	0.41
1:G:471:ASP:CB	1:G:573:GLY:O	2.68	0.41
1:G:633:GLY:HA2	4:V:25:ASP:HA	1.26	0.41
1:G:838:ILE:HG12	2:H:33:VAL:HG11	2.03	0.41
1:G:839:MLY:N	1:G:840:PRO:HD2	2.35	0.41
1:P:193:ILE:CD1	1:P:250:ILE:HD13	2.51	0.41
1:P:320:ILE:O	1:P:320:ILE:CG2	2.68	0.41
1:P:500:GLN:HB2	1:P:512:PHE:CZ	2.54	0.41
1:P:612:GLN:NE2	1:P:627:GLY:H	2.14	0.41
1:P:733:PRO:CB	1:P:737:PHE:CE1	3.02	0.41
1:P:744:SER:O	1:P:748:LEU:HD12	2.20	0.41
3:R:56:GLU:OE1	3:R:59:ASN:ND2	2.54	0.41
3:R:95:ASP:OD1	3:R:139:TYR:HE1	2.03	0.41
4:7:193:LEU:HD11	4:7:250:ILE:HG13	2.02	0.41
4:8:288:ASP:OD1	4:V:204:ALA:HA	2.20	0.41
4:9:226:GLU:HG3	4:9:255:PHE:CE2	2.55	0.41
4:W:226:GLU:HG3	4:W:255:PHE:CE2	2.55	0.41
4:0:172:PRO:HB2	4:1:191:LYS:HZ3	1.67	0.41
4:0:193:LEU:HD11	4:0:250:ILE:HG13	2.02	0.41
4:1:288:ASP:CG	4:3:203:THR:HG23	2.29	0.41
4:1:288:ASP:CB	4:3:203:THR:HG21	2.43	0.41
4:4:32:PRO:HB2	4:4:34:ILE:CD1	2.51	0.41
4:4:222:ASP:OD1	4:4:224:GLU:HB3	2.19	0.41
4:5:193:LEU:HD11	4:5:250:ILE:HG13	2.02	0.41
4:5:226:GLU:HG3	4:5:255:PHE:CE2	2.55	0.41
1:A:62:VAL:HG12	1:A:63:MLY:N	2.35	0.41
1:A:193:ILE:HD11	1:A:250:ILE:HD12	2.03	0.41
1:A:443:ILE:HG22	1:A:444:ARG:N	2.29	0.41
1:A:775:LEU:HA	1:A:775:LEU:HD12	1.71	0.41
1:A:822:SER:CA	2:B:87:LYS:O	2.69	0.41
2:B:150:TYR:HB3	2:B:151:LYS:HG3	2.03	0.41
1:D:155:ILE:HG22	1:D:156:PHE:N	2.33	0.41
1:D:195:TYR:CE2	1:D:199:ILE:HD13	2.55	0.41
1:D:322:VAL:HG12	1:D:325:ILE:HG13	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:462:LEU:HD11	1:D:464:ILE:CD1	2.50	0.41
2:E:150:TYR:HB3	2:E:151:LYS:HG3	2.03	0.41
1:G:62:VAL:HG12	1:G:63:MLY:N	2.35	0.41
1:G:166:MET:CE	1:G:254:PHE:CD2	3.01	0.41
1:G:195:TYR:CE2	1:G:199:ILE:HD13	2.55	0.41
1:G:826:VAL:O	1:G:828:HIS:N	2.53	0.41
1:P:11:GLY:O	1:P:14:ALA:HB3	2.20	0.41
1:P:279:LEU:CB	1:P:280:PRO:HD2	2.49	0.41
1:P:629:GLU:HB3	1:P:643:GLY:C	2.41	0.41
1:P:725:ARG:CG	1:P:733:PRO:HA	2.43	0.41
1:P:812:SER:O	1:P:816:ILE:HG13	2.21	0.41
1:P:814:PHE:CD1	2:Q:127:ARG:NH1	2.88	0.41
2:Q:117:LEU:CG	2:Q:147:ASN:OD1	2.52	0.41
3:R:63:ILE:CG2	3:R:64:THR:H	2.33	0.41
4:7:288:ASP:OD1	4:9:204:ALA:HA	2.20	0.41
4:8:32:PRO:HB2	4:8:34:ILE:CD1	2.51	0.41
4:8:227:MET:O	4:8:230:ALA:HB3	2.21	0.41
4:9:222:ASP:OD1	4:9:224:GLU:HB3	2.19	0.41
4:V:32:PRO:HB2	4:V:34:ILE:CD1	2.51	0.41
4:V:369:ILE:HG23	4:V:370:VAL:N	2.35	0.41
4:X:324:THR:HB	4:Z:247:VAL:N	2.31	0.41
4:Y:287:ILE:HB	4:0:205:GLU:CG	2.50	0.41
4:Z:144:ALA:HB2	4:Z:342:GLY:CA	2.51	0.41
4:0:369:ILE:HG23	4:0:370:VAL:N	2.35	0.41
4:1:144:ALA:HB2	4:1:342:GLY:CA	2.51	0.41
4:1:226:GLU:HG3	4:1:255:PHE:CE2	2.55	0.41
4:2:287:ILE:HG13	4:4:202:THR:HG22	1.89	0.41
4:4:226:GLU:HG3	4:4:255:PHE:CE2	2.55	0.41
1:A:135:TYR:HD2	1:A:191:ARG:CG	2.33	0.41
1:A:829:TRP:HA	1:A:830:PRO:HD2	1.86	0.41
1:D:135:TYR:HD2	1:D:191:ARG:CG	2.33	0.41
2:E:140:PHE:HA	2:E:141:PRO:HD2	1.57	0.41
1:G:63:MLY:HH23	1:G:63:MLY:HD3	1.76	0.41
1:P:38:VAL:HG13	1:P:39:PHE:N	2.35	0.41
1:P:322:VAL:HG12	1:P:325:ILE:HG13	2.03	0.41
1:P:335:ASP:O	1:P:338:ILE:HB	2.20	0.41
1:P:657:LEU:O	1:P:657:LEU:HD12	2.21	0.41
1:P:839:MLY:N	1:P:840:PRO:HD2	2.35	0.41
4:7:226:GLU:HG3	4:7:255:PHE:CE2	2.55	0.41
4:8:222:ASP:OD1	4:8:224:GLU:HB3	2.20	0.41
4:8:315:LYS:HD2	4:8:315:LYS:HA	1.92	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:9:227:MET:O	4:9:230:ALA:HB3	2.21	0.41
4:Y:226:GLU:HG3	4:Y:255:PHE:CE2	2.55	0.41
4:Y:227:MET:O	4:Y:230:ALA:HB3	2.21	0.41
4:2:287:ILE:CD1	4:4:203:THR:CB	2.84	0.41
4:3:288:ASP:CA	4:5:203:THR:CG2	2.99	0.41
1:A:149:GLN:HE21	1:A:149:GLN:HB2	1.71	0.41
1:A:166:MET:CE	1:A:254:PHE:CD2	3.01	0.41
1:A:174:SER:HA	1:A:460:GLY:O	2.20	0.41
1:A:193:ILE:CD1	1:A:250:ILE:HD13	2.51	0.41
1:A:330:GLU:OE1	1:A:330:GLU:HA	2.20	0.41
1:A:540:CYS:C	4:8:349:LEU:HD21	2.36	0.41
1:A:657:LEU:HD12	1:A:657:LEU:O	2.21	0.41
1:A:725:ARG:HA	1:A:732:ILE:CG2	2.50	0.41
1:A:754:ASP:OD2	1:A:778:MET:CE	2.68	0.41
1:A:809:ARG:CZ	2:B:124:GLY:O	2.68	0.41
1:A:830:PRO:CG	2:B:67:MET:HE3	2.15	0.41
2:B:141:PRO:O	2:B:145:ALA:N	2.48	0.41
3:C:25:ILE:O	3:C:63:ILE:CB	2.66	0.41
3:C:56:GLU:OE1	3:C:59:ASN:ND2	2.54	0.41
1:D:193:ILE:HD11	1:D:250:ILE:HD12	2.03	0.41
1:D:295:MLY:CG	1:D:332:MET:CE	2.97	0.41
1:D:308:ASN:HA	1:D:309:PRO:HD2	1.88	0.41
1:D:348:MLY:HH12	1:D:348:MLY:HD2	1.81	0.41
1:D:406:VAL:O	1:D:412:ALA:HA	2.20	0.41
1:D:407:GLY:HA2	1:D:411:GLU:O	2.21	0.41
1:D:493:HIS:O	1:D:496:PHE:N	2.54	0.41
1:D:541:MET:HG2	4:9:345:ILE:HG22	2.00	0.41
1:D:797:PHE:CD2	1:D:798:LEU:HD12	2.55	0.41
1:D:819:ASN:CG	2:E:90:GLY:O	2.55	0.41
1:G:240:ASN:OD1	1:G:241:ASP:N	2.52	0.41
1:G:303:LEU:O	1:G:304:LEU:HB2	2.21	0.41
1:G:356:GLY:HA2	1:G:359:MET:HG3	2.02	0.41
1:G:436:MLY:CE	1:G:626:TYR:CE1	2.99	0.41
1:G:568:PRO:CG	1:G:578:HIS:N	2.83	0.41
1:G:625:THR:H	1:G:625:THR:HG22	1.48	0.41
1:G:730:SER:OG	3:I:109:HIS:HB3	2.21	0.41
3:I:25:ILE:O	3:I:63:ILE:CB	2.66	0.41
1:P:88:ILE:HG21	1:P:88:ILE:HD12	1.78	0.41
1:P:110:TYR:O	1:P:113:TRP:N	2.42	0.41
1:P:193:ILE:HD11	1:P:250:ILE:HD12	2.03	0.41
1:P:610:LEU:N	1:P:610:LEU:CD1	2.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:664:LEU:HD12	1:P:664:LEU:HA	1.52	0.41
1:P:724:TYR:HB3	1:P:727:LEU:CD1	2.48	0.41
1:P:831:TRP:CZ2	2:Q:47:LEU:CD2	3.04	0.41
4:9:32:PRO:HB2	4:9:34:ILE:CD1	2.51	0.41
4:W:32:PRO:HB2	4:W:34:ILE:CD1	2.51	0.41
4:W:227:MET:O	4:W:230:ALA:HB3	2.21	0.41
4:X:144:ALA:HB2	4:X:342:GLY:CA	2.51	0.41
4:X:196:ARG:HH21	4:X:249:THR:HG23	1.85	0.41
4:X:227:MET:O	4:X:230:ALA:HB3	2.21	0.41
4:X:369:ILE:HG23	4:X:370:VAL:N	2.35	0.41
4:Y:144:ALA:HB2	4:Y:342:GLY:CA	2.51	0.41
4:Y:206:ARG:O	4:Y:209:VAL:HG12	2.20	0.41
4:Y:221:LEU:HA	4:Y:312:ARG:HG2	2.03	0.41
4:0:32:PRO:HB2	4:0:34:ILE:CD1	2.51	0.41
4:0:144:ALA:HB2	4:0:342:GLY:CA	2.51	0.41
4:0:196:ARG:HH21	4:0:249:THR:HG23	1.85	0.41
4:0:226:GLU:HG3	4:0:255:PHE:CE2	2.55	0.41
4:0:287:ILE:CG2	4:2:203:THR:HG22	2.45	0.41
4:2:144:ALA:HB2	4:2:342:GLY:CA	2.51	0.41
4:3:324:THR:CG2	4:5:244:ASP:O	2.68	0.41
4:4:144:ALA:HB2	4:4:342:GLY:CA	2.51	0.41
4:5:32:PRO:HB2	4:5:34:ILE:CD1	2.51	0.41
1:A:172:ASN:OD1	1:A:457:TYR:HA	2.21	0.41
1:A:384:ASP:HA	1:A:394:SER:OG	2.21	0.41
1:A:554:LEU:N	4:V:46:GLY:O	2.52	0.41
1:D:25:ILE:HG23	1:D:29:ASN:HD22	1.85	0.41
1:D:193:ILE:CD1	1:D:250:ILE:HD13	2.51	0.41
1:D:279:LEU:CB	1:D:280:PRO:HD2	2.49	0.41
1:D:568:PRO:CG	1:D:578:HIS:N	2.84	0.41
1:D:629:GLU:HB3	1:D:643:GLY:C	2.41	0.41
1:G:11:GLY:O	1:G:14:ALA:HB3	2.20	0.41
1:G:49:MLY:HH23	1:G:80:MET:CE	2.51	0.41
1:G:636:LYS:CB	4:V:334:GLU:OE1	2.68	0.41
1:P:797:PHE:CD2	1:P:798:LEU:HD12	2.55	0.41
3:R:49:ILE:HD13	3:R:49:ILE:HG21	1.89	0.41
4:7:196:ARG:HH21	4:7:249:THR:HG23	1.85	0.41
4:X:32:PRO:HB2	4:X:34:ILE:CD1	2.51	0.41
4:1:227:MET:O	4:1:230:ALA:HB3	2.21	0.41
4:3:144:ALA:HB2	4:3:342:GLY:CA	2.51	0.41
4:4:219:VAL:HG22	4:4:258:PRO:CB	2.51	0.41
1:A:49:MLY:HH23	1:A:80:MET:CE	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:303:LEU:O	1:A:304:LEU:HB2	2.21	0.40
1:A:356:GLY:HA2	1:A:359:MET:HG3	2.02	0.40
1:A:528:MLY:HB2	1:A:529:PRO:HD2	2.03	0.40
1:A:690:LEU:O	1:A:694:GLN:HG3	2.20	0.40
1:A:723:ARG:CG	1:A:723:ARG:NH1	2.80	0.40
1:A:831:TRP:NE1	2:B:51:PHE:CZ	2.88	0.40
2:B:63:GLU:O	2:B:67:MET:HG3	2.21	0.40
1:D:172:ASN:OD1	1:D:457:TYR:HA	2.21	0.40
1:D:643:GLY:CA	4:9:24:ASP:OD1	2.62	0.40
1:G:51:THR:O	1:G:62:VAL:CG1	2.64	0.40
1:G:322:VAL:HB	1:G:325:ILE:HD12	2.02	0.40
1:G:541:MET:HG2	4:V:345:ILE:HG23	2.01	0.40
1:G:732:ILE:CG2	1:G:747:LEU:HD12	0.35	0.40
1:P:135:TYR:CD2	1:P:191:ARG:HD3	2.55	0.40
1:P:202:SER:HB2	1:P:207:LYS:HZ1	1.86	0.40
1:P:753:VAL:O	1:P:755:HIS:ND1	2.54	0.40
4:7:32:PRO:HB2	4:7:34:ILE:CD1	2.51	0.40
4:8:324:THR:N	4:V:245:GLY:CA	2.69	0.40
4:9:288:ASP:OD1	4:W:204:ALA:HA	2.21	0.40
4:W:144:ALA:HB2	4:W:342:GLY:CA	2.51	0.40
4:Z:221:LEU:HA	4:Z:312:ARG:HG2	2.02	0.40
4:1:219:VAL:HG22	4:1:258:PRO:CB	2.51	0.40
4:2:221:LEU:HA	4:2:312:ARG:HG2	2.02	0.40
4:3:120:THR:HG21	4:3:370:VAL:CG1	2.52	0.40
4:5:144:ALA:HB2	4:5:342:GLY:CA	2.51	0.40
1:A:110:TYR:O	1:A:113:TRP:N	2.42	0.40
1:A:193:ILE:HD13	1:A:252:ILE:HD11	2.03	0.40
1:A:322:VAL:HB	1:A:325:ILE:CG1	2.52	0.40
1:A:485:GLU:OE1	1:A:583:HIS:HB3	2.21	0.40
1:A:665:ARG:C	1:A:667:THR:N	2.74	0.40
1:A:800:ARG:CD	3:C:149:VAL:CG2	2.82	0.40
1:A:809:ARG:HH22	2:B:124:GLY:HA2	1.79	0.40
1:A:812:SER:O	1:A:816:ILE:HG13	2.21	0.40
1:A:831:TRP:CZ3	2:B:34:ILE:HD13	2.44	0.40
1:D:49:MLY:HH23	1:D:80:MET:CE	2.51	0.40
1:D:89:GLU:HB3	1:D:153:PRO:HG3	2.03	0.40
1:D:330:GLU:OE1	1:D:330:GLU:HA	2.21	0.40
1:D:610:LEU:N	1:D:610:LEU:CD1	2.84	0.40
1:D:657:LEU:HD12	1:D:657:LEU:O	2.21	0.40
1:D:659:MLY:HH22	1:D:659:MLY:HD2	1.42	0.40
1:G:217:THR:CA	1:G:221:GLN:HE21	2.33	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:665:ARG:C	1:G:667:THR:N	2.74	0.40
1:G:757:GLN:OE1	1:G:772:LEU:CA	2.69	0.40
1:G:835:PHE:CZ	2:H:27:PHE:HD1	2.30	0.40
1:G:838:ILE:CG1	2:H:33:VAL:HG11	2.51	0.40
2:H:141:PRO:CB	2:H:142:PRO:HD3	2.48	0.40
3:I:56:GLU:OE1	3:I:59:ASN:ND2	2.54	0.40
1:P:95:THR:HA	1:P:712:PRO:CB	2.47	0.40
1:P:172:ASN:OD1	1:P:457:TYR:HA	2.21	0.40
1:P:217:THR:CA	1:P:221:GLN:HE21	2.33	0.40
1:P:295:MLY:CD	1:P:332:MET:HE2	2.50	0.40
4:7:227:MET:O	4:7:230:ALA:HB3	2.21	0.40
4:8:219:VAL:HG22	4:8:258:PRO:CB	2.51	0.40
4:9:144:ALA:HB2	4:9:342:GLY:CA	2.51	0.40
4:Z:32:PRO:HB2	4:Z:34:ILE:CD1	2.51	0.40
4:Z:324:THR:CB	4:1:244:ASP:HA	2.51	0.40
4:2:32:PRO:HB2	4:2:34:ILE:CD1	2.51	0.40
4:2:227:MET:O	4:2:230:ALA:HB3	2.21	0.40
4:2:287:ILE:CG2	4:4:204:ALA:N	2.79	0.40
4:3:219:VAL:HG22	4:3:258:PRO:CB	2.52	0.40
1:A:72:VAL:O	1:A:73:LYS:O	2.39	0.40
1:A:436:MLY:CE	1:A:626:TYR:CE1	2.99	0.40
1:A:496:PHE:CG	1:A:514:ASP:HA	2.57	0.40
1:A:551:MLY:C	4:V:47:MET:HA	2.48	0.40
1:D:409:GLY:N	1:D:636:LYS:CD	2.71	0.40
1:D:599:ASN:OD1	1:D:649:VAL:C	2.60	0.40
1:D:793:ARG:CZ	3:F:147:MET:CB	2.98	0.40
1:G:174:SER:HA	1:G:460:GLY:O	2.20	0.40
1:G:193:ILE:HD11	1:G:250:ILE:HD12	2.04	0.40
1:G:496:PHE:CG	1:G:514:ASP:HA	2.57	0.40
1:G:533:PHE:O	1:G:537:GLU:N	2.49	0.40
1:G:553:MLY:HA	4:X:45:VAL:O	2.22	0.40
1:G:717:TYR:OH	1:G:760:PHE:HB3	2.21	0.40
2:H:112:ILE:O	2:H:148:VAL:N	2.50	0.40
1:P:17:LEU:HA	1:P:17:LEU:HD12	1.68	0.40
1:P:60:VAL:O	1:P:72:VAL:N	2.51	0.40
1:P:97:LEU:HD12	1:P:97:LEU:HA	1.67	0.40
1:P:289:TYR:OH	1:P:315:VAL:O	2.27	0.40
1:P:303:LEU:O	1:P:304:LEU:HB2	2.21	0.40
1:P:384:ASP:HA	1:P:394:SER:OG	2.21	0.40
1:P:485:GLU:OE1	1:P:583:HIS:HB3	2.21	0.40
2:Q:141:PRO:CB	2:Q:142:PRO:HD3	2.48	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:7:144:ALA:HB2	4:7:342:GLY:CA	2.51	0.40
4:V:221:LEU:HA	4:V:312:ARG:HG2	2.02	0.40
4:W:120:THR:HG21	4:W:370:VAL:CG1	2.52	0.40
4:Y:292:ASP:CG	4:0:244:ASP:CA	2.88	0.40
4:3:32:PRO:HB2	4:3:34:ILE:CD1	2.51	0.40
4:3:226:GLU:HG3	4:3:255:PHE:CE2	2.56	0.40
4:5:120:THR:HG21	4:5:370:VAL:CG1	2.52	0.40
1:A:493:HIS:O	1:A:496:PHE:N	2.54	0.40
2:B:139:ALA:O	2:B:141:PRO:CD	2.52	0.40
1:D:194:GLN:HE21	1:D:194:GLN:HB3	1.43	0.40
1:D:213:LYS:HA	1:D:220:ASP:OD2	2.19	0.40
1:D:322:VAL:HB	1:D:325:ILE:HD12	2.03	0.40
1:D:384:ASP:HA	1:D:394:SER:OG	2.21	0.40
1:D:403:TYR:HA	1:D:404:PRO:HD2	1.85	0.40
1:D:717:TYR:OH	1:D:760:PHE:HB3	2.21	0.40
1:D:799:MET:SD	3:F:32:ASP:CA	3.09	0.40
1:G:72:VAL:O	1:G:73:LYS:O	2.39	0.40
1:G:172:ASN:OD1	1:G:457:TYR:HA	2.21	0.40
1:G:193:ILE:CD1	1:G:250:ILE:HD13	2.51	0.40
1:G:384:ASP:HA	1:G:394:SER:OG	2.21	0.40
1:G:580:SER:O	1:G:581:LEU:HD12	2.22	0.40
1:G:642:LYS:HB3	4:V:24:ASP:HB2	1.38	0.40
1:G:728:ASN:HD21	3:I:110:VAL:HA	1.86	0.40
1:G:834:LEU:CD2	2:H:34:ILE:CD1	3.00	0.40
1:P:407:GLY:HA2	1:P:411:GLU:O	2.21	0.40
1:P:648:THR:CG2	1:P:651:ALA:CB	2.92	0.40
1:P:717:TYR:OH	1:P:760:PHE:HB3	2.21	0.40
2:Q:63:GLU:O	2:Q:67:MET:HG3	2.22	0.40
2:Q:150:TYR:HB3	2:Q:151:LYS:HG3	2.03	0.40
4:7:120:THR:HG21	4:7:370:VAL:CG1	2.52	0.40
4:7:171:LEU:HA	4:7:172:PRO:HD2	1.84	0.40
4:V:144:ALA:HB2	4:V:342:GLY:CA	2.51	0.40
4:V:219:VAL:HG22	4:V:258:PRO:CB	2.51	0.40
4:W:196:ARG:HH21	4:W:249:THR:HG23	1.85	0.40
4:Y:32:PRO:HB2	4:Y:34:ILE:CD1	2.51	0.40
4:0:120:THR:HG21	4:0:370:VAL:CG1	2.52	0.40
4:1:221:LEU:HA	4:1:312:ARG:HG2	2.02	0.40
4:5:227:MET:O	4:5:230:ALA:HB3	2.21	0.40
1:A:93:MET:C	1:A:713:SER:HB3	2.42	0.40
1:A:217:THR:CA	1:A:221:GLN:HE21	2.33	0.40
1:A:787:ILE:HD13	1:A:787:ILE:HG21	1.67	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:47:PHE:HE1	1:D:78:PHE:CE1	2.39	0.40
1:D:202:SER:HA	1:D:207:LYS:NZ	2.22	0.40
1:D:436:MLY:CE	1:D:626:TYR:CE1	2.99	0.40
1:D:496:PHE:CG	1:D:514:ASP:HA	2.57	0.40
1:D:538:GLU:O	1:D:541:MET:N	2.44	0.40
1:D:556:ASP:OD1	4:W:50:LYS:CG	2.69	0.40
1:D:612:GLN:NE2	1:D:627:GLY:H	2.14	0.40
1:D:664:LEU:HA	1:D:664:LEU:HD12	1.53	0.40
1:D:712:PRO:HB2	1:D:713:SER:H	1.61	0.40
2:E:140:PHE:HB3	2:E:144:VAL:HG11	2.03	0.40
2:E:149:ASP:O	2:E:150:TYR:CD1	2.75	0.40
3:F:95:ASP:OD1	3:F:139:TYR:HE1	2.04	0.40
1:G:322:VAL:HB	1:G:325:ILE:CG1	2.52	0.40
1:G:753:VAL:O	1:G:755:HIS:ND1	2.54	0.40
1:P:408:VAL:HA	1:P:636:LYS:HG3	1.03	0.40
1:P:580:SER:O	1:P:581:LEU:HD12	2.22	0.40
1:P:827:MLY:CH2	2:Q:139:ALA:CB	2.75	0.40
4:8:221:LEU:HA	4:8:312:ARG:HG2	2.02	0.40
4:V:88:HIS:HA	4:V:92:ASN:OD1	2.22	0.40
4:X:219:VAL:HG22	4:X:258:PRO:CB	2.51	0.40
4:Z:193:LEU:HD12	4:Z:193:LEU:HA	1.96	0.40
4:Z:227:MET:O	4:Z:230:ALA:HB3	2.21	0.40
4:1:32:PRO:HB2	4:1:34:ILE:CD1	2.51	0.40
4:1:120:THR:HG21	4:1:370:VAL:CG1	2.52	0.40
4:3:221:LEU:HA	4:3:312:ARG:HG2	2.02	0.40
4:3:250:ILE:HG22	4:3:254:ARG:HB2	2.04	0.40
4:4:221:LEU:HA	4:4:312:ARG:HG2	2.02	0.40
4:4:250:ILE:HG22	4:4:254:ARG:HB2	2.04	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [\(i\)](#)

### 5.3.1 Protein backbone [\(i\)](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	789/840 (94%)	651 (82%)	112 (14%)	26 (3%)	4	26
1	D	789/840 (94%)	651 (82%)	112 (14%)	26 (3%)	4	26
1	G	791/840 (94%)	650 (82%)	114 (14%)	27 (3%)	3	26
1	P	787/840 (94%)	648 (82%)	110 (14%)	29 (4%)	3	24
2	B	143/145 (99%)	126 (88%)	9 (6%)	8 (6%)	2	19
2	E	143/145 (99%)	126 (88%)	9 (6%)	8 (6%)	2	19
2	H	143/145 (99%)	126 (88%)	9 (6%)	8 (6%)	2	19
2	Q	143/145 (99%)	126 (88%)	9 (6%)	8 (6%)	2	19
3	C	143/147 (97%)	133 (93%)	10 (7%)	0	100	100
3	F	143/147 (97%)	133 (93%)	10 (7%)	0	100	100
3	I	143/147 (97%)	133 (93%)	10 (7%)	0	100	100
3	R	143/147 (97%)	133 (93%)	10 (7%)	0	100	100
4	0	370/375 (99%)	334 (90%)	30 (8%)	6 (2%)	9	44
4	1	370/375 (99%)	335 (90%)	29 (8%)	6 (2%)	9	44
4	2	370/375 (99%)	334 (90%)	30 (8%)	6 (2%)	9	44
4	3	370/375 (99%)	335 (90%)	29 (8%)	6 (2%)	9	44
4	4	370/375 (99%)	334 (90%)	30 (8%)	6 (2%)	9	44
4	5	370/375 (99%)	333 (90%)	31 (8%)	6 (2%)	9	44
4	7	370/375 (99%)	334 (90%)	30 (8%)	6 (2%)	9	44
4	8	370/375 (99%)	334 (90%)	30 (8%)	6 (2%)	9	44
4	9	370/375 (99%)	334 (90%)	30 (8%)	6 (2%)	9	44
4	V	370/375 (99%)	334 (90%)	30 (8%)	6 (2%)	9	44
4	W	370/375 (99%)	335 (90%)	29 (8%)	6 (2%)	9	44
4	X	370/375 (99%)	334 (90%)	30 (8%)	6 (2%)	9	44
4	Y	370/375 (99%)	334 (90%)	30 (8%)	6 (2%)	9	44
4	Z	370/375 (99%)	334 (90%)	30 (8%)	6 (2%)	9	44
All	All	9480/9778 (97%)	8314 (88%)	942 (10%)	224 (2%)	9	33

All (224) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	73	LYS
1	A	202	SER
1	A	572	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	712	PRO
1	A	729	ALA
1	A	757	GLN
1	A	762	HIS
2	B	131	GLU
2	B	141	PRO
1	D	73	LYS
1	D	202	SER
1	D	572	LYS
1	D	712	PRO
1	D	729	ALA
1	D	757	GLN
1	D	762	HIS
2	E	131	GLU
2	E	141	PRO
1	G	73	LYS
1	G	202	SER
1	G	572	LYS
1	G	712	PRO
1	G	729	ALA
1	G	757	GLN
1	G	762	HIS
2	H	131	GLU
2	H	141	PRO
1	P	73	LYS
1	P	202	SER
1	P	572	LYS
1	P	712	PRO
1	P	729	ALA
1	P	757	GLN
1	P	762	HIS
1	P	787	ILE
2	Q	131	GLU
2	Q	141	PRO
4	7	246	GLN
4	8	246	GLN
4	9	246	GLN
4	V	246	GLN
4	W	246	GLN
4	X	246	GLN
4	Y	246	GLN
4	Z	246	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	0	246	GLN
4	1	246	GLN
4	2	246	GLN
4	3	246	GLN
4	4	246	GLN
4	5	246	GLN
1	A	11	GLY
1	A	21	GLU
1	A	219	GLU
1	A	517	MET
1	A	532	ILE
1	A	637	LYS
2	B	130	PRO
2	B	147	ASN
2	B	151	LYS
2	B	161	GLU
1	D	11	GLY
1	D	21	GLU
1	D	219	GLU
1	D	517	MET
1	D	637	LYS
2	E	130	PRO
2	E	147	ASN
2	E	151	LYS
2	E	161	GLU
1	G	11	GLY
1	G	21	GLU
1	G	219	GLU
1	G	517	MET
1	G	532	ILE
1	G	637	LYS
1	G	785	GLU
2	H	130	PRO
2	H	147	ASN
2	H	151	LYS
1	P	11	GLY
1	P	21	GLU
1	P	219	GLU
1	P	517	MET
1	P	637	LYS
2	Q	130	PRO
2	Q	147	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	Q	151	LYS
2	Q	161	GLU
4	7	274	ILE
4	8	274	ILE
4	9	274	ILE
4	V	274	ILE
4	W	274	ILE
4	X	274	ILE
4	Y	274	ILE
4	Z	274	ILE
4	0	274	ILE
4	1	274	ILE
4	2	274	ILE
4	3	274	ILE
4	4	274	ILE
4	5	274	ILE
1	A	58	GLY
1	A	294	ASN
1	A	644	SER
1	D	58	GLY
1	D	294	ASN
1	D	532	ILE
1	D	644	SER
1	G	58	GLY
1	G	294	ASN
1	G	644	SER
2	H	161	GLU
1	P	58	GLY
1	P	294	ASN
1	P	532	ILE
1	P	644	SER
4	7	233	SER
4	8	233	SER
4	9	233	SER
4	V	233	SER
4	W	233	SER
4	X	233	SER
4	Y	233	SER
4	Z	233	SER
4	0	233	SER
4	1	233	SER
4	2	233	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	3	233	SER
4	4	233	SER
4	5	233	SER
1	A	435	GLU
1	A	817	GLN
1	D	269	LEU
1	D	435	GLU
1	D	817	GLN
1	G	435	GLU
1	G	817	GLN
1	P	435	GLU
1	P	817	GLN
4	7	2	GLU
4	7	253	GLU
4	8	2	GLU
4	9	2	GLU
4	9	253	GLU
4	V	2	GLU
4	V	253	GLU
4	W	2	GLU
4	W	253	GLU
4	X	2	GLU
4	Y	2	GLU
4	Y	253	GLU
4	Z	2	GLU
4	0	2	GLU
4	0	253	GLU
4	1	2	GLU
4	2	2	GLU
4	2	253	GLU
4	3	2	GLU
4	4	2	GLU
4	5	2	GLU
1	A	8	ALA
1	A	269	LEU
1	A	578	HIS
2	B	140	PHE
1	D	8	ALA
1	D	556	ASP
1	D	578	HIS
2	E	140	PHE
1	G	8	ALA

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	G	79	SER
1	G	269	LEU
1	G	556	ASP
1	G	578	HIS
2	H	140	PHE
1	P	8	ALA
1	P	269	LEU
1	P	578	HIS
2	Q	140	PHE
4	8	253	GLU
4	X	253	GLU
4	Z	253	GLU
4	1	253	GLU
4	3	253	GLU
4	4	253	GLU
4	5	253	GLU
1	A	79	SER
1	A	199	ILE
1	A	556	ASP
2	B	142	PRO
1	D	79	SER
1	D	199	ILE
2	E	142	PRO
1	G	199	ILE
2	H	142	PRO
1	P	79	SER
1	P	199	ILE
1	P	556	ASP
1	P	822	SER
2	Q	142	PRO
1	A	840	PRO
1	D	840	PRO
1	G	840	PRO
1	P	287	ILE
1	P	840	PRO
4	7	242	LEU
4	8	242	LEU
4	9	242	LEU
4	V	242	LEU
4	W	242	LEU
4	X	242	LEU
4	Y	242	LEU

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Mol	Chain	Res	Type
4	Z	242	LEU
4	0	242	LEU
4	1	242	LEU
4	2	242	LEU
4	3	242	LEU
4	4	242	LEU
4	5	242	LEU
1	A	287	ILE
1	D	287	ILE
1	G	287	ILE
1	P	786	ILE

### 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 PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	672/672 (100%)	513 (76%)	159 (24%)	1	4
1	D	672/672 (100%)	513 (76%)	159 (24%)	1	4
1	G	672/672 (100%)	512 (76%)	160 (24%)	0	4
1	P	672/672 (100%)	514 (76%)	158 (24%)	1	4
2	B	120/120 (100%)	119 (99%)	1 (1%)	81	89
2	E	120/120 (100%)	120 (100%)	0	100	100
2	H	120/120 (100%)	119 (99%)	1 (1%)	81	89
2	Q	120/120 (100%)	119 (99%)	1 (1%)	81	89
3	C	117/117 (100%)	112 (96%)	5 (4%)	29	53
3	F	117/117 (100%)	112 (96%)	5 (4%)	29	53
3	I	117/117 (100%)	112 (96%)	5 (4%)	29	53
3	R	117/117 (100%)	112 (96%)	5 (4%)	29	53
4	0	315/318 (99%)	269 (85%)	46 (15%)	3	15
4	1	315/318 (99%)	269 (85%)	46 (15%)	3	15
4	2	315/318 (99%)	269 (85%)	46 (15%)	3	15

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	3	315/318 (99%)	268 (85%)	47 (15%)	3	15
4	4	315/318 (99%)	269 (85%)	46 (15%)	3	15
4	5	315/318 (99%)	269 (85%)	46 (15%)	3	15
4	7	315/318 (99%)	268 (85%)	47 (15%)	3	15
4	8	315/318 (99%)	268 (85%)	47 (15%)	3	15
4	9	315/318 (99%)	268 (85%)	47 (15%)	3	15
4	V	315/318 (99%)	268 (85%)	47 (15%)	3	15
4	W	315/318 (99%)	268 (85%)	47 (15%)	3	15
4	X	315/318 (99%)	268 (85%)	47 (15%)	3	15
4	Y	315/318 (99%)	269 (85%)	46 (15%)	3	15
4	Z	315/318 (99%)	268 (85%)	47 (15%)	3	15
All	All	8046/8088 (100%)	6735 (84%)	1311 (16%)	5	13

All (1311) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	4	ASP
1	A	7	MET
1	A	12	GLU
1	A	15	PRO
1	A	17	LEU
1	A	20	SER
1	A	22	LYS
1	A	36	SER
1	A	37	SER
1	A	46	SER
1	A	61	THR
1	A	69	THR
1	A	70	LEU
1	A	72	VAL
1	A	73	LYS
1	A	75	ASP
1	A	76	GLN
1	A	97	LEU
1	A	106	LEU
1	A	109	ARG
1	A	114	MET
1	A	117	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	121	LEU
1	A	126	VAL
1	A	127	ASN
1	A	135	TYR
1	A	136	ASN
1	A	146	LYS
1	A	149	GLN
1	A	155	ILE
1	A	157	SER
1	A	158	ILE
1	A	159	SER
1	A	165	PHE
1	A	167	LEU
1	A	169	ASP
1	A	173	GLN
1	A	178	THR
1	A	185	LYS
1	A	186	THR
1	A	187	VAL
1	A	189	THR
1	A	191	ARG
1	A	193	ILE
1	A	194	GLN
1	A	198	THR
1	A	199	ILE
1	A	218	LEU
1	A	219	GLU
1	A	221	GLN
1	A	223	ILE
1	A	227	PRO
1	A	229	LEU
1	A	244	SER
1	A	245	ARG
1	A	251	ARG
1	A	264	ASP
1	A	273	SER
1	A	274	ARG
1	A	278	GLN
1	A	282	GLU
1	A	287	ILE
1	A	290	GLN
1	A	294	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	298	GLU
1	A	300	ILE
1	A	325	ILE
1	A	331	LEU
1	A	336	SER
1	A	351	ILE
1	A	354	LEU
1	A	364	LEU
1	A	365	LYS
1	A	372	GLU
1	A	376	GLU
1	A	381	GLU
1	A	389	LEU
1	A	392	LEU
1	A	394	SER
1	A	399	LYS
1	A	405	ARG
1	A	410	ASN
1	A	439	LEU
1	A	447	GLN
1	A	448	GLN
1	A	449	LEU
1	A	453	GLN
1	A	455	ARG
1	A	457	TYR
1	A	462	LEU
1	A	471	ASP
1	A	474	SER
1	A	480	ILE
1	A	487	LEU
1	A	495	MET
1	A	499	GLU
1	A	506	GLU
1	A	513	ILE
1	A	518	ASP
1	A	524	GLU
1	A	532	ILE
1	A	534	SER
1	A	537	GLU
1	A	543	PRO
1	A	549	SER
1	A	561	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	562	SER
1	A	563	ASN
1	A	569	LYS
1	A	580	SER
1	A	593	SER
1	A	597	GLU
1	A	604	ASN
1	A	608	ILE
1	A	610	LEU
1	A	615	SER
1	A	621	LEU
1	A	625	THR
1	A	664	LEU
1	A	666	SER
1	A	673	ARG
1	A	675	ILE
1	A	676	ILE
1	A	686	MET
1	A	689	GLU
1	A	690	LEU
1	A	693	HIS
1	A	698	ASN
1	A	701	LEU
1	A	702	GLU
1	A	704	ILE
1	A	708	ARG
1	A	713	SER
1	A	714	ARG
1	A	716	LEU
1	A	719	ASP
1	A	722	GLN
1	A	723	ARG
1	A	728	ASN
1	A	745	GLU
1	A	752	ASP
1	A	753	VAL
1	A	754	ASP
1	A	762	HIS
1	A	774	LEU
1	A	785	GLU
1	A	787	ILE
1	A	793	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	799	MET
1	A	802	GLU
1	A	804	ARG
1	A	810	ARG
1	A	816	ILE
1	A	822	SER
1	A	832	MET
1	A	834	LEU
1	A	838	ILE
1	A	842	LEU
1	A	843	LYS
2	B	142	PRO
3	C	48	LYS
3	C	68	PHE
3	C	83	THR
3	C	95	ASP
3	C	96	LYS
1	D	4	ASP
1	D	7	MET
1	D	12	GLU
1	D	15	PRO
1	D	17	LEU
1	D	20	SER
1	D	22	LYS
1	D	36	SER
1	D	37	SER
1	D	46	SER
1	D	61	THR
1	D	69	THR
1	D	70	LEU
1	D	72	VAL
1	D	73	LYS
1	D	75	ASP
1	D	76	GLN
1	D	97	LEU
1	D	106	LEU
1	D	109	ARG
1	D	114	MET
1	D	117	THR
1	D	121	LEU
1	D	126	VAL
1	D	127	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	D	135	TYR
1	D	136	ASN
1	D	146	LYS
1	D	149	GLN
1	D	155	ILE
1	D	157	SER
1	D	158	ILE
1	D	159	SER
1	D	165	PHE
1	D	167	LEU
1	D	169	ASP
1	D	173	GLN
1	D	178	THR
1	D	185	LYS
1	D	186	THR
1	D	187	VAL
1	D	189	THR
1	D	191	ARG
1	D	193	ILE
1	D	194	GLN
1	D	198	THR
1	D	199	ILE
1	D	218	LEU
1	D	219	GLU
1	D	221	GLN
1	D	223	ILE
1	D	229	LEU
1	D	244	SER
1	D	245	ARG
1	D	251	ARG
1	D	264	ASP
1	D	273	SER
1	D	274	ARG
1	D	278	GLN
1	D	282	GLU
1	D	287	ILE
1	D	290	GLN
1	D	294	ASN
1	D	298	GLU
1	D	300	ILE
1	D	325	ILE
1	D	331	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	D	336	SER
1	D	351	ILE
1	D	354	LEU
1	D	364	LEU
1	D	365	LYS
1	D	372	GLU
1	D	376	GLU
1	D	381	GLU
1	D	389	LEU
1	D	392	LEU
1	D	394	SER
1	D	399	LYS
1	D	405	ARG
1	D	410	ASN
1	D	439	LEU
1	D	447	GLN
1	D	448	GLN
1	D	449	LEU
1	D	453	GLN
1	D	455	ARG
1	D	457	TYR
1	D	462	LEU
1	D	471	ASP
1	D	474	SER
1	D	480	ILE
1	D	487	LEU
1	D	495	MET
1	D	499	GLU
1	D	506	GLU
1	D	513	ILE
1	D	518	ASP
1	D	524	GLU
1	D	532	ILE
1	D	534	SER
1	D	537	GLU
1	D	543	PRO
1	D	549	SER
1	D	561	LYS
1	D	562	SER
1	D	563	ASN
1	D	569	LYS
1	D	580	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	D	593	SER
1	D	597	GLU
1	D	604	ASN
1	D	608	ILE
1	D	610	LEU
1	D	615	SER
1	D	621	LEU
1	D	625	THR
1	D	664	LEU
1	D	666	SER
1	D	673	ARG
1	D	675	ILE
1	D	676	ILE
1	D	686	MET
1	D	689	GLU
1	D	690	LEU
1	D	693	HIS
1	D	698	ASN
1	D	701	LEU
1	D	702	GLU
1	D	704	ILE
1	D	708	ARG
1	D	713	SER
1	D	714	ARG
1	D	716	LEU
1	D	719	ASP
1	D	722	GLN
1	D	723	ARG
1	D	727	LEU
1	D	728	ASN
1	D	745	GLU
1	D	752	ASP
1	D	753	VAL
1	D	754	ASP
1	D	762	HIS
1	D	774	LEU
1	D	785	GLU
1	D	787	ILE
1	D	793	ARG
1	D	799	MET
1	D	802	GLU
1	D	804	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	D	810	ARG
1	D	816	ILE
1	D	822	SER
1	D	832	MET
1	D	834	LEU
1	D	838	ILE
1	D	842	LEU
1	D	843	LYS
3	F	48	LYS
3	F	68	PHE
3	F	83	THR
3	F	95	ASP
3	F	96	LYS
1	G	4	ASP
1	G	7	MET
1	G	12	GLU
1	G	15	PRO
1	G	17	LEU
1	G	20	SER
1	G	22	LYS
1	G	36	SER
1	G	37	SER
1	G	46	SER
1	G	61	THR
1	G	69	THR
1	G	70	LEU
1	G	72	VAL
1	G	73	LYS
1	G	75	ASP
1	G	76	GLN
1	G	97	LEU
1	G	106	LEU
1	G	109	ARG
1	G	114	MET
1	G	117	THR
1	G	121	LEU
1	G	126	VAL
1	G	127	ASN
1	G	135	TYR
1	G	136	ASN
1	G	146	LYS
1	G	149	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	G	155	ILE
1	G	157	SER
1	G	158	ILE
1	G	159	SER
1	G	165	PHE
1	G	167	LEU
1	G	169	ASP
1	G	173	GLN
1	G	178	THR
1	G	185	LYS
1	G	186	THR
1	G	187	VAL
1	G	191	ARG
1	G	193	ILE
1	G	194	GLN
1	G	198	THR
1	G	199	ILE
1	G	218	LEU
1	G	219	GLU
1	G	221	GLN
1	G	223	ILE
1	G	227	PRO
1	G	229	LEU
1	G	243	SER
1	G	244	SER
1	G	245	ARG
1	G	251	ARG
1	G	264	ASP
1	G	273	SER
1	G	274	ARG
1	G	278	GLN
1	G	282	GLU
1	G	287	ILE
1	G	290	GLN
1	G	294	ASN
1	G	298	GLU
1	G	300	ILE
1	G	325	ILE
1	G	331	LEU
1	G	336	SER
1	G	351	ILE
1	G	354	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	G	364	LEU
1	G	365	LYS
1	G	372	GLU
1	G	376	GLU
1	G	381	GLU
1	G	389	LEU
1	G	392	LEU
1	G	394	SER
1	G	399	LYS
1	G	405	ARG
1	G	410	ASN
1	G	439	LEU
1	G	447	GLN
1	G	448	GLN
1	G	449	LEU
1	G	453	GLN
1	G	455	ARG
1	G	457	TYR
1	G	462	LEU
1	G	471	ASP
1	G	474	SER
1	G	480	ILE
1	G	487	LEU
1	G	495	MET
1	G	499	GLU
1	G	506	GLU
1	G	513	ILE
1	G	518	ASP
1	G	524	GLU
1	G	532	ILE
1	G	534	SER
1	G	537	GLU
1	G	543	PRO
1	G	549	SER
1	G	561	LYS
1	G	562	SER
1	G	563	ASN
1	G	569	LYS
1	G	580	SER
1	G	593	SER
1	G	597	GLU
1	G	604	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	G	608	ILE
1	G	610	LEU
1	G	615	SER
1	G	621	LEU
1	G	625	THR
1	G	664	LEU
1	G	666	SER
1	G	673	ARG
1	G	675	ILE
1	G	676	ILE
1	G	686	MET
1	G	689	GLU
1	G	690	LEU
1	G	693	HIS
1	G	698	ASN
1	G	701	LEU
1	G	702	GLU
1	G	704	ILE
1	G	708	ARG
1	G	713	SER
1	G	714	ARG
1	G	716	LEU
1	G	719	ASP
1	G	722	GLN
1	G	723	ARG
1	G	727	LEU
1	G	728	ASN
1	G	745	GLU
1	G	752	ASP
1	G	753	VAL
1	G	754	ASP
1	G	762	HIS
1	G	774	LEU
1	G	785	GLU
1	G	787	ILE
1	G	793	ARG
1	G	799	MET
1	G	802	GLU
1	G	804	ARG
1	G	810	ARG
1	G	816	ILE
1	G	822	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	G	832	MET
1	G	834	LEU
1	G	838	ILE
1	G	842	LEU
1	G	843	LYS
2	H	142	PRO
3	I	48	LYS
3	I	68	PHE
3	I	83	THR
3	I	95	ASP
3	I	96	LYS
1	P	4	ASP
1	P	7	MET
1	P	12	GLU
1	P	15	PRO
1	P	17	LEU
1	P	20	SER
1	P	22	LYS
1	P	36	SER
1	P	37	SER
1	P	46	SER
1	P	61	THR
1	P	69	THR
1	P	70	LEU
1	P	72	VAL
1	P	73	LYS
1	P	75	ASP
1	P	76	GLN
1	P	97	LEU
1	P	106	LEU
1	P	109	ARG
1	P	114	MET
1	P	117	THR
1	P	121	LEU
1	P	126	VAL
1	P	127	ASN
1	P	135	TYR
1	P	136	ASN
1	P	146	LYS
1	P	149	GLN
1	P	155	ILE
1	P	157	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	P	158	ILE
1	P	159	SER
1	P	165	PHE
1	P	167	LEU
1	P	169	ASP
1	P	173	GLN
1	P	178	THR
1	P	185	LYS
1	P	186	THR
1	P	187	VAL
1	P	189	THR
1	P	191	ARG
1	P	193	ILE
1	P	194	GLN
1	P	198	THR
1	P	199	ILE
1	P	218	LEU
1	P	219	GLU
1	P	221	GLN
1	P	223	ILE
1	P	229	LEU
1	P	244	SER
1	P	245	ARG
1	P	251	ARG
1	P	264	ASP
1	P	273	SER
1	P	274	ARG
1	P	278	GLN
1	P	282	GLU
1	P	287	ILE
1	P	290	GLN
1	P	294	ASN
1	P	298	GLU
1	P	300	ILE
1	P	325	ILE
1	P	331	LEU
1	P	336	SER
1	P	351	ILE
1	P	354	LEU
1	P	364	LEU
1	P	365	LYS
1	P	372	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	P	376	GLU
1	P	381	GLU
1	P	389	LEU
1	P	392	LEU
1	P	394	SER
1	P	399	LYS
1	P	405	ARG
1	P	410	ASN
1	P	439	LEU
1	P	447	GLN
1	P	448	GLN
1	P	449	LEU
1	P	453	GLN
1	P	455	ARG
1	P	457	TYR
1	P	462	LEU
1	P	471	ASP
1	P	474	SER
1	P	480	ILE
1	P	487	LEU
1	P	495	MET
1	P	499	GLU
1	P	506	GLU
1	P	513	ILE
1	P	518	ASP
1	P	524	GLU
1	P	532	ILE
1	P	534	SER
1	P	537	GLU
1	P	543	PRO
1	P	549	SER
1	P	561	LYS
1	P	562	SER
1	P	563	ASN
1	P	569	LYS
1	P	580	SER
1	P	593	SER
1	P	597	GLU
1	P	604	ASN
1	P	608	ILE
1	P	610	LEU
1	P	615	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	P	621	LEU
1	P	625	THR
1	P	664	LEU
1	P	666	SER
1	P	673	ARG
1	P	675	ILE
1	P	676	ILE
1	P	686	MET
1	P	689	GLU
1	P	690	LEU
1	P	693	HIS
1	P	698	ASN
1	P	701	LEU
1	P	702	GLU
1	P	708	ARG
1	P	713	SER
1	P	714	ARG
1	P	716	LEU
1	P	719	ASP
1	P	722	GLN
1	P	723	ARG
1	P	727	LEU
1	P	728	ASN
1	P	745	GLU
1	P	752	ASP
1	P	753	VAL
1	P	754	ASP
1	P	762	HIS
1	P	774	LEU
1	P	785	GLU
1	P	787	ILE
1	P	793	ARG
1	P	799	MET
1	P	802	GLU
1	P	804	ARG
1	P	810	ARG
1	P	816	ILE
1	P	822	SER
1	P	832	MET
1	P	834	LEU
1	P	838	ILE
1	P	842	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	P	843	LYS
2	Q	142	PRO
3	R	48	LYS
3	R	68	PHE
3	R	83	THR
3	R	95	ASP
3	R	96	LYS
4	7	16	LEU
4	7	33	SER
4	7	34	ILE
4	7	37	ARG
4	7	66	THR
4	7	72	GLU
4	7	80	ASP
4	7	100	GLU
4	7	109	PRO
4	7	116	ARG
4	7	145	SER
4	7	153	LEU
4	7	159	VAL
4	7	180	LEU
4	7	191	LYS
4	7	196	ARG
4	7	199	SER
4	7	201	VAL
4	7	206	ARG
4	7	221	LEU
4	7	223	PHE
4	7	229	THR
4	7	239	SER
4	7	242	LEU
4	7	246	GLN
4	7	263	GLN
4	7	281	SER
4	7	283	MET
4	7	287	ILE
4	7	291	LYS
4	7	293	LEU
4	7	297	ASN
4	7	299	MET
4	7	312	ARG
4	7	315	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	7	318	THR
4	7	320	LEU
4	7	327	ILE
4	7	334	GLU
4	7	349	LEU
4	7	350	SER
4	7	351	THR
4	7	354	GLN
4	7	359	LYS
4	7	360	GLN
4	7	361	GLU
4	7	368	SER
4	8	16	LEU
4	8	33	SER
4	8	34	ILE
4	8	37	ARG
4	8	66	THR
4	8	72	GLU
4	8	80	ASP
4	8	100	GLU
4	8	109	PRO
4	8	116	ARG
4	8	145	SER
4	8	153	LEU
4	8	159	VAL
4	8	180	LEU
4	8	191	LYS
4	8	196	ARG
4	8	199	SER
4	8	201	VAL
4	8	206	ARG
4	8	221	LEU
4	8	223	PHE
4	8	229	THR
4	8	239	SER
4	8	242	LEU
4	8	246	GLN
4	8	263	GLN
4	8	281	SER
4	8	283	MET
4	8	287	ILE
4	8	291	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	8	293	LEU
4	8	297	ASN
4	8	299	MET
4	8	312	ARG
4	8	315	LYS
4	8	318	THR
4	8	320	LEU
4	8	327	ILE
4	8	334	GLU
4	8	349	LEU
4	8	350	SER
4	8	351	THR
4	8	354	GLN
4	8	359	LYS
4	8	360	GLN
4	8	361	GLU
4	8	368	SER
4	9	16	LEU
4	9	33	SER
4	9	34	ILE
4	9	37	ARG
4	9	66	THR
4	9	72	GLU
4	9	80	ASP
4	9	100	GLU
4	9	109	PRO
4	9	116	ARG
4	9	145	SER
4	9	153	LEU
4	9	159	VAL
4	9	180	LEU
4	9	191	LYS
4	9	196	ARG
4	9	199	SER
4	9	201	VAL
4	9	206	ARG
4	9	221	LEU
4	9	223	PHE
4	9	229	THR
4	9	239	SER
4	9	242	LEU
4	9	246	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	9	263	GLN
4	9	281	SER
4	9	283	MET
4	9	287	ILE
4	9	291	LYS
4	9	293	LEU
4	9	297	ASN
4	9	299	MET
4	9	312	ARG
4	9	315	LYS
4	9	318	THR
4	9	320	LEU
4	9	327	ILE
4	9	334	GLU
4	9	349	LEU
4	9	350	SER
4	9	351	THR
4	9	354	GLN
4	9	359	LYS
4	9	360	GLN
4	9	361	GLU
4	9	368	SER
4	V	16	LEU
4	V	33	SER
4	V	34	ILE
4	V	37	ARG
4	V	66	THR
4	V	72	GLU
4	V	80	ASP
4	V	100	GLU
4	V	109	PRO
4	V	116	ARG
4	V	145	SER
4	V	153	LEU
4	V	159	VAL
4	V	180	LEU
4	V	191	LYS
4	V	196	ARG
4	V	199	SER
4	V	201	VAL
4	V	206	ARG
4	V	221	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	V	223	PHE
4	V	229	THR
4	V	239	SER
4	V	242	LEU
4	V	246	GLN
4	V	263	GLN
4	V	281	SER
4	V	283	MET
4	V	287	ILE
4	V	291	LYS
4	V	293	LEU
4	V	297	ASN
4	V	299	MET
4	V	312	ARG
4	V	315	LYS
4	V	318	THR
4	V	320	LEU
4	V	327	ILE
4	V	334	GLU
4	V	349	LEU
4	V	350	SER
4	V	351	THR
4	V	354	GLN
4	V	359	LYS
4	V	360	GLN
4	V	361	GLU
4	V	368	SER
4	W	16	LEU
4	W	33	SER
4	W	34	ILE
4	W	37	ARG
4	W	66	THR
4	W	72	GLU
4	W	80	ASP
4	W	100	GLU
4	W	109	PRO
4	W	116	ARG
4	W	145	SER
4	W	153	LEU
4	W	159	VAL
4	W	180	LEU
4	W	191	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	W	196	ARG
4	W	199	SER
4	W	201	VAL
4	W	206	ARG
4	W	221	LEU
4	W	223	PHE
4	W	229	THR
4	W	239	SER
4	W	242	LEU
4	W	246	GLN
4	W	263	GLN
4	W	281	SER
4	W	283	MET
4	W	287	ILE
4	W	291	LYS
4	W	293	LEU
4	W	297	ASN
4	W	299	MET
4	W	312	ARG
4	W	315	LYS
4	W	318	THR
4	W	320	LEU
4	W	327	ILE
4	W	334	GLU
4	W	349	LEU
4	W	350	SER
4	W	351	THR
4	W	354	GLN
4	W	359	LYS
4	W	360	GLN
4	W	361	GLU
4	W	368	SER
4	X	16	LEU
4	X	33	SER
4	X	34	ILE
4	X	37	ARG
4	X	66	THR
4	X	72	GLU
4	X	80	ASP
4	X	100	GLU
4	X	109	PRO
4	X	116	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	X	145	SER
4	X	153	LEU
4	X	159	VAL
4	X	180	LEU
4	X	191	LYS
4	X	196	ARG
4	X	199	SER
4	X	201	VAL
4	X	206	ARG
4	X	221	LEU
4	X	223	PHE
4	X	229	THR
4	X	239	SER
4	X	242	LEU
4	X	246	GLN
4	X	263	GLN
4	X	281	SER
4	X	283	MET
4	X	287	ILE
4	X	291	LYS
4	X	293	LEU
4	X	297	ASN
4	X	299	MET
4	X	312	ARG
4	X	315	LYS
4	X	318	THR
4	X	320	LEU
4	X	327	ILE
4	X	334	GLU
4	X	349	LEU
4	X	350	SER
4	X	351	THR
4	X	354	GLN
4	X	359	LYS
4	X	360	GLN
4	X	361	GLU
4	X	368	SER
4	Y	33	SER
4	Y	34	ILE
4	Y	37	ARG
4	Y	66	THR
4	Y	72	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	Y	80	ASP
4	Y	100	GLU
4	Y	109	PRO
4	Y	116	ARG
4	Y	145	SER
4	Y	153	LEU
4	Y	159	VAL
4	Y	180	LEU
4	Y	191	LYS
4	Y	196	ARG
4	Y	199	SER
4	Y	201	VAL
4	Y	206	ARG
4	Y	221	LEU
4	Y	223	PHE
4	Y	229	THR
4	Y	239	SER
4	Y	242	LEU
4	Y	246	GLN
4	Y	263	GLN
4	Y	281	SER
4	Y	283	MET
4	Y	287	ILE
4	Y	291	LYS
4	Y	293	LEU
4	Y	297	ASN
4	Y	299	MET
4	Y	312	ARG
4	Y	315	LYS
4	Y	318	THR
4	Y	320	LEU
4	Y	327	ILE
4	Y	334	GLU
4	Y	349	LEU
4	Y	350	SER
4	Y	351	THR
4	Y	354	GLN
4	Y	359	LYS
4	Y	360	GLN
4	Y	361	GLU
4	Y	368	SER
4	Z	16	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	Z	33	SER
4	Z	34	ILE
4	Z	37	ARG
4	Z	66	THR
4	Z	72	GLU
4	Z	80	ASP
4	Z	100	GLU
4	Z	109	PRO
4	Z	116	ARG
4	Z	145	SER
4	Z	153	LEU
4	Z	159	VAL
4	Z	180	LEU
4	Z	191	LYS
4	Z	196	ARG
4	Z	199	SER
4	Z	201	VAL
4	Z	206	ARG
4	Z	221	LEU
4	Z	223	PHE
4	Z	229	THR
4	Z	239	SER
4	Z	242	LEU
4	Z	246	GLN
4	Z	263	GLN
4	Z	281	SER
4	Z	283	MET
4	Z	287	ILE
4	Z	291	LYS
4	Z	293	LEU
4	Z	297	ASN
4	Z	299	MET
4	Z	312	ARG
4	Z	315	LYS
4	Z	318	THR
4	Z	320	LEU
4	Z	327	ILE
4	Z	334	GLU
4	Z	349	LEU
4	Z	350	SER
4	Z	351	THR
4	Z	354	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	Z	359	LYS
4	Z	360	GLN
4	Z	361	GLU
4	Z	368	SER
4	0	33	SER
4	0	34	ILE
4	0	37	ARG
4	0	66	THR
4	0	72	GLU
4	0	80	ASP
4	0	100	GLU
4	0	109	PRO
4	0	116	ARG
4	0	145	SER
4	0	153	LEU
4	0	159	VAL
4	0	180	LEU
4	0	191	LYS
4	0	196	ARG
4	0	199	SER
4	0	201	VAL
4	0	206	ARG
4	0	221	LEU
4	0	223	PHE
4	0	229	THR
4	0	239	SER
4	0	242	LEU
4	0	246	GLN
4	0	263	GLN
4	0	281	SER
4	0	283	MET
4	0	287	ILE
4	0	291	LYS
4	0	293	LEU
4	0	297	ASN
4	0	299	MET
4	0	312	ARG
4	0	315	LYS
4	0	318	THR
4	0	320	LEU
4	0	327	ILE
4	0	334	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	0	349	LEU
4	0	350	SER
4	0	351	THR
4	0	354	GLN
4	0	359	LYS
4	0	360	GLN
4	0	361	GLU
4	0	368	SER
4	1	33	SER
4	1	34	ILE
4	1	37	ARG
4	1	66	THR
4	1	72	GLU
4	1	80	ASP
4	1	100	GLU
4	1	109	PRO
4	1	116	ARG
4	1	145	SER
4	1	153	LEU
4	1	159	VAL
4	1	180	LEU
4	1	191	LYS
4	1	196	ARG
4	1	199	SER
4	1	201	VAL
4	1	206	ARG
4	1	221	LEU
4	1	223	PHE
4	1	229	THR
4	1	239	SER
4	1	242	LEU
4	1	246	GLN
4	1	263	GLN
4	1	281	SER
4	1	283	MET
4	1	287	ILE
4	1	291	LYS
4	1	293	LEU
4	1	297	ASN
4	1	299	MET
4	1	312	ARG
4	1	315	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	1	318	THR
4	1	320	LEU
4	1	327	ILE
4	1	334	GLU
4	1	349	LEU
4	1	350	SER
4	1	351	THR
4	1	354	GLN
4	1	359	LYS
4	1	360	GLN
4	1	361	GLU
4	1	368	SER
4	2	33	SER
4	2	34	ILE
4	2	37	ARG
4	2	66	THR
4	2	72	GLU
4	2	80	ASP
4	2	100	GLU
4	2	109	PRO
4	2	116	ARG
4	2	145	SER
4	2	153	LEU
4	2	159	VAL
4	2	180	LEU
4	2	191	LYS
4	2	196	ARG
4	2	199	SER
4	2	201	VAL
4	2	206	ARG
4	2	221	LEU
4	2	223	PHE
4	2	229	THR
4	2	239	SER
4	2	242	LEU
4	2	246	GLN
4	2	263	GLN
4	2	281	SER
4	2	283	MET
4	2	287	ILE
4	2	291	LYS
4	2	293	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	2	297	ASN
4	2	299	MET
4	2	312	ARG
4	2	315	LYS
4	2	318	THR
4	2	320	LEU
4	2	327	ILE
4	2	334	GLU
4	2	349	LEU
4	2	350	SER
4	2	351	THR
4	2	354	GLN
4	2	359	LYS
4	2	360	GLN
4	2	361	GLU
4	2	368	SER
4	3	16	LEU
4	3	33	SER
4	3	34	ILE
4	3	37	ARG
4	3	66	THR
4	3	72	GLU
4	3	80	ASP
4	3	100	GLU
4	3	109	PRO
4	3	116	ARG
4	3	145	SER
4	3	153	LEU
4	3	159	VAL
4	3	180	LEU
4	3	191	LYS
4	3	196	ARG
4	3	199	SER
4	3	201	VAL
4	3	206	ARG
4	3	221	LEU
4	3	223	PHE
4	3	229	THR
4	3	239	SER
4	3	242	LEU
4	3	246	GLN
4	3	263	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	3	281	SER
4	3	283	MET
4	3	287	ILE
4	3	291	LYS
4	3	293	LEU
4	3	297	ASN
4	3	299	MET
4	3	312	ARG
4	3	315	LYS
4	3	318	THR
4	3	320	LEU
4	3	327	ILE
4	3	334	GLU
4	3	349	LEU
4	3	350	SER
4	3	351	THR
4	3	354	GLN
4	3	359	LYS
4	3	360	GLN
4	3	361	GLU
4	3	368	SER
4	4	33	SER
4	4	34	ILE
4	4	37	ARG
4	4	66	THR
4	4	72	GLU
4	4	80	ASP
4	4	100	GLU
4	4	109	PRO
4	4	116	ARG
4	4	145	SER
4	4	153	LEU
4	4	159	VAL
4	4	180	LEU
4	4	191	LYS
4	4	196	ARG
4	4	199	SER
4	4	201	VAL
4	4	206	ARG
4	4	221	LEU
4	4	223	PHE
4	4	229	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	4	239	SER
4	4	242	LEU
4	4	246	GLN
4	4	263	GLN
4	4	281	SER
4	4	283	MET
4	4	287	ILE
4	4	291	LYS
4	4	293	LEU
4	4	297	ASN
4	4	299	MET
4	4	312	ARG
4	4	315	LYS
4	4	318	THR
4	4	320	LEU
4	4	327	ILE
4	4	334	GLU
4	4	349	LEU
4	4	350	SER
4	4	351	THR
4	4	354	GLN
4	4	359	LYS
4	4	360	GLN
4	4	361	GLU
4	4	368	SER
4	5	33	SER
4	5	34	ILE
4	5	37	ARG
4	5	66	THR
4	5	72	GLU
4	5	80	ASP
4	5	100	GLU
4	5	109	PRO
4	5	116	ARG
4	5	145	SER
4	5	153	LEU
4	5	159	VAL
4	5	180	LEU
4	5	191	LYS
4	5	196	ARG
4	5	199	SER
4	5	201	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	5	206	ARG
4	5	221	LEU
4	5	223	PHE
4	5	229	THR
4	5	239	SER
4	5	242	LEU
4	5	246	GLN
4	5	263	GLN
4	5	281	SER
4	5	283	MET
4	5	287	ILE
4	5	291	LYS
4	5	293	LEU
4	5	297	ASN
4	5	299	MET
4	5	312	ARG
4	5	315	LYS
4	5	318	THR
4	5	320	LEU
4	5	327	ILE
4	5	334	GLU
4	5	349	LEU
4	5	350	SER
4	5	351	THR
4	5	354	GLN
4	5	359	LYS
4	5	360	GLN
4	5	361	GLU
4	5	368	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (181) such sidechains are listed below:

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	28	GLN
1	A	29	ASN
1	A	127	ASN
1	A	164	GLN
1	A	188	ASN
1	A	194	GLN
1	A	221	GLN
1	A	253	HIS
1	A	290	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	368	GLN
1	A	424	ASN
1	A	447	GLN
1	A	453	GLN
1	A	481	ASN
1	A	484	ASN
1	A	563	ASN
1	A	564	ASN
1	A	578	HIS
1	A	612	GLN
1	A	656	ASN
1	A	670	HIS
1	A	791	GLN
2	B	159	HIS
3	C	39	GLN
3	C	52	ASN
1	D	29	ASN
1	D	127	ASN
1	D	149	GLN
1	D	164	GLN
1	D	188	ASN
1	D	194	GLN
1	D	221	GLN
1	D	253	HIS
1	D	290	GLN
1	D	368	GLN
1	D	424	ASN
1	D	447	GLN
1	D	453	GLN
1	D	481	ASN
1	D	484	ASN
1	D	563	ASN
1	D	564	ASN
1	D	578	HIS
1	D	612	GLN
1	D	656	ASN
1	D	670	HIS
1	D	757	GLN
1	D	762	HIS
1	D	791	GLN
2	E	159	HIS
3	F	39	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	F	52	ASN
1	G	29	ASN
1	G	127	ASN
1	G	164	GLN
1	G	188	ASN
1	G	194	GLN
1	G	221	GLN
1	G	253	HIS
1	G	290	GLN
1	G	368	GLN
1	G	424	ASN
1	G	453	GLN
1	G	481	ASN
1	G	484	ASN
1	G	563	ASN
1	G	564	ASN
1	G	578	HIS
1	G	612	GLN
1	G	656	ASN
1	G	670	HIS
1	G	728	ASN
1	G	762	HIS
3	I	39	GLN
3	I	40	ASN
3	I	52	ASN
3	I	81	GLN
3	I	109	HIS
1	P	29	ASN
1	P	127	ASN
1	P	164	GLN
1	P	188	ASN
1	P	194	GLN
1	P	221	GLN
1	P	253	HIS
1	P	290	GLN
1	P	368	GLN
1	P	424	ASN
1	P	447	GLN
1	P	453	GLN
1	P	481	ASN
1	P	484	ASN
1	P	552	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	P	563	ASN
1	P	564	ASN
1	P	578	HIS
1	P	612	GLN
1	P	656	ASN
1	P	670	HIS
1	P	757	GLN
2	Q	159	HIS
3	R	39	GLN
3	R	52	ASN
4	7	41	GLN
4	7	92	ASN
4	7	137	GLN
4	7	252	ASN
4	7	263	GLN
4	8	41	GLN
4	8	92	ASN
4	8	137	GLN
4	8	252	ASN
4	8	263	GLN
4	9	41	GLN
4	9	92	ASN
4	9	137	GLN
4	9	252	ASN
4	9	263	GLN
4	V	41	GLN
4	V	92	ASN
4	V	137	GLN
4	V	252	ASN
4	V	263	GLN
4	W	41	GLN
4	W	92	ASN
4	W	137	GLN
4	W	252	ASN
4	W	263	GLN
4	W	354	GLN
4	X	41	GLN
4	X	92	ASN
4	X	137	GLN
4	X	252	ASN
4	X	263	GLN
4	X	354	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	Y	41	GLN
4	Y	87	HIS
4	Y	92	ASN
4	Y	137	GLN
4	Y	252	ASN
4	Y	263	GLN
4	Y	354	GLN
4	Z	41	GLN
4	Z	92	ASN
4	Z	137	GLN
4	Z	252	ASN
4	Z	263	GLN
4	Z	354	GLN
4	0	41	GLN
4	0	92	ASN
4	0	137	GLN
4	0	252	ASN
4	0	263	GLN
4	1	41	GLN
4	1	92	ASN
4	1	137	GLN
4	1	263	GLN
4	2	41	GLN
4	2	92	ASN
4	2	137	GLN
4	2	252	ASN
4	2	263	GLN
4	2	354	GLN
4	3	41	GLN
4	3	92	ASN
4	3	137	GLN
4	3	252	ASN
4	3	263	GLN
4	3	354	GLN
4	4	41	GLN
4	4	92	ASN
4	4	137	GLN
4	4	252	ASN
4	4	263	GLN
4	4	354	GLN
4	5	41	GLN
4	5	92	ASN

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Mol	Chain	Res	Type
4	5	137	GLN
4	5	252	ASN
4	5	263	GLN
4	5	354	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](#)

180 non-standard protein/DNA/RNA residues 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
1	MLY	D	35	1	9,10,11	0.73	0	6,11,13	0.37	0
1	MLY	G	130	1	9,10,11	0.78	0	6,11,13	0.76	0
1	MLY	P	768	1	9,10,11	0.75	0	6,11,13	0.42	0
1	MLY	D	236	1	9,10,11	0.80	1 (11%)	6,11,13	0.47	0
1	MLY	G	369	1	9,10,11	0.69	0	6,11,13	0.46	0
1	MLY	P	415	1	9,10,11	0.77	0	6,11,13	0.19	0
1	MLY	A	598	1	9,10,11	0.91	1 (11%)	6,11,13	0.44	0
1	MLY	G	764	1	9,10,11	0.82	0	6,11,13	0.36	0
1	MLY	P	600	1	9,10,11	0.54	0	6,11,13	0.36	0
1	MLY	D	505	1	9,10,11	0.85	1 (11%)	6,11,13	0.35	0
1	MLY	G	49	1	9,10,11	1.08	1 (11%)	6,11,13	0.74	0
1	MLY	P	353	1	9,10,11	0.86	0	6,11,13	0.80	0
1	MLY	P	295	1	9,10,11	0.80	0	6,11,13	0.35	0
1	MLY	G	551	1	9,10,11	0.53	0	6,11,13	0.19	0
1	MLY	A	617	1	9,10,11	0.92	1 (11%)	6,11,13	0.34	0
1	MLY	D	486	1	9,10,11	0.66	0	6,11,13	0.39	0
1	MLY	D	504	1	9,10,11	0.89	0	6,11,13	0.21	0
1	MLY	P	837	1	9,10,11	0.60	0	6,11,13	0.55	0



Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
1	MLY	G	87	1	9,10,11	1.22	1 (11%)	6,11,13	0.42	0
1	MLY	P	486	1	9,10,11	0.62	0	6,11,13	0.39	0
1	MLY	P	617	1	9,10,11	0.97	1 (11%)	6,11,13	0.33	0
1	MLY	D	528	1	9,10,11	0.89	0	6,11,13	0.64	0
1	MLY	A	431	1	9,10,11	0.53	0	6,11,13	0.45	0
1	MLY	G	415	1	9,10,11	0.77	0	6,11,13	0.19	0
1	MLY	D	768	1	9,10,11	0.73	0	6,11,13	0.41	0
1	MLY	A	190	1	9,10,11	1.24	1 (11%)	6,11,13	0.51	0
1	MLY	P	59	1	9,10,11	0.88	0	6,11,13	0.50	0
1	MLY	G	505	1	9,10,11	0.88	1 (11%)	6,11,13	0.35	0
1	MLY	G	486	1	9,10,11	0.64	0	6,11,13	0.38	0
1	MLY	G	617	1	9,10,11	0.95	1 (11%)	6,11,13	0.35	0
1	MLY	A	248	1	9,10,11	0.84	0	6,11,13	0.61	0
1	MLY	P	764	1	9,10,11	0.83	0	6,11,13	0.37	0
1	MLY	P	348	1	9,10,11	0.80	0	6,11,13	0.47	0
1	MLY	G	782	1	9,10,11	0.76	0	6,11,13	0.35	0
1	MLY	D	63	1	9,10,11	0.90	0	6,11,13	0.45	0
1	MLY	P	63	1	9,10,11	0.91	0	6,11,13	0.44	0
1	MLY	D	84	1	9,10,11	0.51	0	6,11,13	0.80	0
1	MLY	G	768	1	9,10,11	0.73	0	6,11,13	0.43	0
1	MLY	D	138	1	9,10,11	1.37	1 (11%)	6,11,13	0.86	0
1	MLY	D	59	1	9,10,11	0.86	0	6,11,13	0.49	0
1	MLY	A	296	1	9,10,11	0.62	0	6,11,13	0.36	0
1	MLY	D	551	1	9,10,11	0.53	0	6,11,13	0.20	0
1	MLY	D	827	1	9,10,11	0.67	0	6,11,13	0.48	0
1	MLY	P	84	1	9,10,11	0.49	0	6,11,13	0.80	0
1	MLY	D	296	1	9,10,11	0.64	0	6,11,13	0.37	0
1	MLY	D	87	1	9,10,11	1.18	1 (11%)	6,11,13	0.44	0
1	MLY	A	600	1	9,10,11	0.51	0	6,11,13	0.38	0
1	MLY	D	348	1	9,10,11	0.82	0	6,11,13	0.47	0
1	MLY	A	19	1	9,10,11	1.14	1 (11%)	6,11,13	0.57	0
1	MLY	P	296	1	9,10,11	0.68	0	6,11,13	0.37	0
1	MLY	D	130	1	9,10,11	0.80	0	6,11,13	0.74	0
1	MLY	P	367	1	9,10,11	0.62	0	6,11,13	0.37	0
1	MLY	G	504	1	9,10,11	0.90	0	6,11,13	0.22	0
1	MLY	G	63	1	9,10,11	0.90	0	6,11,13	0.44	0
1	MLY	D	837	1	9,10,11	0.61	0	6,11,13	0.57	0
1	MLY	P	130	1	9,10,11	0.77	0	6,11,13	0.75	0
1	MLY	A	30	1	9,10,11	0.89	0	6,11,13	0.31	0
1	MLY	D	272	1	9,10,11	0.97	1 (11%)	6,11,13	0.58	0
1	MLY	D	248	1	9,10,11	0.81	0	6,11,13	0.62	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
1	MLY	A	436	1	9,10,11	1.02	1 (11%)	6,11,13	0.50	0
1	MLY	D	415	1	9,10,11	0.78	0	6,11,13	0.19	0
1	MLY	A	551	1	9,10,11	0.53	0	6,11,13	0.19	0
1	MLY	G	138	1	9,10,11	1.33	1 (11%)	6,11,13	0.83	0
1	MLY	G	59	1	9,10,11	0.83	0	6,11,13	0.50	0
1	MLY	P	272	1	9,10,11	1.02	1 (11%)	6,11,13	0.55	0
1	MLY	P	833	1	9,10,11	1.20	1 (11%)	6,11,13	0.32	0
1	MLY	D	107	1	9,10,11	0.51	0	6,11,13	0.33	0
1	MLY	D	553	1,4	9,10,11	0.68	0	6,11,13	0.55	0
1	MLY	G	837	1	9,10,11	0.60	0	6,11,13	0.53	0
1	MLY	A	49	1	9,10,11	1.04	1 (11%)	6,11,13	0.74	0
1	MLY	P	436	1	9,10,11	1.07	1 (11%)	6,11,13	0.49	0
1	MLY	D	600	1	9,10,11	0.51	0	6,11,13	0.37	0
1	MLY	G	272	1	9,10,11	0.96	1 (11%)	6,11,13	0.54	0
1	MLY	A	613	1	9,10,11	0.57	0	6,11,13	0.63	0
1	MLY	G	839	1	9,10,11	0.70	0	6,11,13	0.79	0
1	MLY	D	19	1	9,10,11	1.19	1 (11%)	6,11,13	0.56	0
1	MLY	G	35	1	9,10,11	0.72	0	6,11,13	0.39	0
1	MLY	D	190	1	9,10,11	1.22	1 (11%)	6,11,13	0.53	0
1	MLY	P	19	1	9,10,11	1.16	1 (11%)	6,11,13	0.58	0
1	MLY	P	107	1	9,10,11	0.47	0	6,11,13	0.34	0
1	MLY	G	30	1	9,10,11	0.88	0	6,11,13	0.30	0
1	MLY	P	827	1	9,10,11	0.70	0	6,11,13	0.48	0
1	MLY	A	782	1	9,10,11	0.80	0	6,11,13	0.36	0
1	MLY	G	107	1	9,10,11	0.48	0	6,11,13	0.35	0
1	MLY	A	367	1	9,10,11	0.62	0	6,11,13	0.37	0
1	MLY	P	87	1	9,10,11	1.22	1 (11%)	6,11,13	0.43	0
1	MLY	P	431	1	9,10,11	0.52	0	6,11,13	0.44	0
1	MLY	P	248	1	9,10,11	0.83	0	6,11,13	0.62	0
1	MLY	A	55	1	9,10,11	0.71	0	6,11,13	0.78	0
1	MLY	G	600	1	9,10,11	0.53	0	6,11,13	0.36	0
1	MLY	G	248	1	9,10,11	0.81	0	6,11,13	0.62	0
1	MLY	A	764	1	9,10,11	0.84	0	6,11,13	0.36	0
1	MLY	G	528	1	9,10,11	0.90	0	6,11,13	0.66	0
1	MLY	A	385	1	9,10,11	0.99	1 (11%)	6,11,13	0.43	0
1	MLY	P	190	1	9,10,11	1.26	1 (11%)	6,11,13	0.52	0
1	MLY	G	827	1	9,10,11	0.70	0	6,11,13	0.49	0
1	MLY	A	837	1	9,10,11	0.60	0	6,11,13	0.54	0
1	MLY	G	190	1	9,10,11	1.24	1 (11%)	6,11,13	0.52	0
1	MLY	P	782	1	9,10,11	0.76	0	6,11,13	0.37	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
1	MLY	D	353	1	9,10,11	0.85	0	6,11,13	0.79	0
1	MLY	P	55	1	9,10,11	0.72	0	6,11,13	0.77	0
1	MLY	D	30	1	9,10,11	0.92	0	6,11,13	0.32	0
1	MLY	P	505	1	9,10,11	0.88	1 (11%)	6,11,13	0.35	0
1	MLY	A	505	1	9,10,11	0.89	1 (11%)	6,11,13	0.34	0
1	MLY	A	768	1	9,10,11	0.77	0	6,11,13	0.40	0
1	MLY	D	613	1	9,10,11	0.58	0	6,11,13	0.64	0
1	MLY	A	353	1	9,10,11	0.87	0	6,11,13	0.78	0
1	MLY	P	681	1	9,10,11	0.63	0	6,11,13	0.45	0
1	MLY	D	436	1	9,10,11	1.08	1 (11%)	6,11,13	0.49	0
1	MLY	A	553	1,4	9,10,11	0.69	0	6,11,13	0.55	0
1	MLY	D	833	1	9,10,11	1.16	2 (22%)	6,11,13	0.30	0
1	MLY	D	367	1	9,10,11	0.63	0	6,11,13	0.39	0
1	MLY	A	348	1	9,10,11	0.83	0	6,11,13	0.48	0
1	MLY	A	839	1	9,10,11	0.68	0	6,11,13	0.81	0
1	MLY	A	35	1	9,10,11	0.71	0	6,11,13	0.39	0
1	MLY	G	84	1	9,10,11	0.48	0	6,11,13	0.80	0
1	MLY	G	613	1	9,10,11	0.59	0	6,11,13	0.63	0
1	MLY	A	369	1	9,10,11	0.70	0	6,11,13	0.45	0
1	MLY	P	49	1	9,10,11	1.08	1 (11%)	6,11,13	0.74	0
1	MLY	A	138	1	9,10,11	1.32	1 (11%)	6,11,13	0.85	0
1	MLY	A	415	1	9,10,11	0.74	0	6,11,13	0.18	0
1	MLY	D	659	1	9,10,11	0.84	0	6,11,13	0.59	0
1	MLY	A	681	1	9,10,11	0.57	0	6,11,13	0.45	0
1	MLY	G	436	1	9,10,11	1.05	1 (11%)	6,11,13	0.48	0
1	MLY	G	598	1	9,10,11	0.89	1 (11%)	6,11,13	0.43	0
1	MLY	G	833	1	9,10,11	1.17	2 (22%)	6,11,13	0.32	0
1	MLY	P	839	1	9,10,11	0.68	0	6,11,13	0.76	0
1	MLY	G	367	1	9,10,11	0.63	0	6,11,13	0.39	0
1	MLY	P	35	1	9,10,11	0.72	0	6,11,13	0.39	0
1	MLY	A	528	1	9,10,11	0.88	0	6,11,13	0.67	0
1	MLY	D	782	1	9,10,11	0.78	0	6,11,13	0.34	0
1	MLY	G	353	1	9,10,11	0.85	0	6,11,13	0.81	0
1	MLY	A	827	1	9,10,11	0.70	0	6,11,13	0.46	0
1	MLY	D	55	1	9,10,11	0.72	0	6,11,13	0.79	0
1	MLY	A	236	1	9,10,11	0.80	1 (11%)	6,11,13	0.49	0
1	MLY	G	236	1	9,10,11	0.78	1 (11%)	6,11,13	0.48	0
1	MLY	P	659	1	9,10,11	0.81	0	6,11,13	0.58	0
1	MLY	P	613	1	9,10,11	0.56	0	6,11,13	0.64	0
1	MLY	D	681	1	9,10,11	0.60	0	6,11,13	0.47	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
1	MLY	G	659	1	9,10,11	0.85	0	6,11,13	0.58	0
1	MLY	P	30	1	9,10,11	0.88	0	6,11,13	0.32	0
1	MLY	D	431	1	9,10,11	0.53	0	6,11,13	0.46	0
1	MLY	G	681	1	9,10,11	0.62	0	6,11,13	0.44	0
1	MLY	A	130	1	9,10,11	0.81	0	6,11,13	0.74	0
1	MLY	A	486	1	9,10,11	0.65	0	6,11,13	0.39	0
1	MLY	A	659	1	9,10,11	0.86	0	6,11,13	0.59	0
1	MLY	P	385	1	9,10,11	1.00	1 (11%)	6,11,13	0.44	0
1	MLY	P	528	1	9,10,11	0.88	0	6,11,13	0.66	0
1	MLY	D	295	1	9,10,11	0.79	0	6,11,13	0.35	0
1	MLY	P	236	1	9,10,11	0.80	1 (11%)	6,11,13	0.48	0
1	MLY	D	598	1	9,10,11	0.92	1 (11%)	6,11,13	0.43	0
1	MLY	A	87	1	9,10,11	1.19	1 (11%)	6,11,13	0.42	0
1	MLY	D	617	1	9,10,11	0.98	1 (11%)	6,11,13	0.35	0
1	MLY	A	833	1	9,10,11	1.16	1 (11%)	6,11,13	0.33	0
1	MLY	A	84	1	9,10,11	0.49	0	6,11,13	0.79	0
1	MLY	G	348	1	9,10,11	0.83	0	6,11,13	0.48	0
1	MLY	G	431	1	9,10,11	0.53	0	6,11,13	0.46	0
1	MLY	P	504	1	9,10,11	0.84	0	6,11,13	0.24	0
1	MLY	P	598	1	9,10,11	0.88	1 (11%)	6,11,13	0.43	0
1	MLY	D	49	1	9,10,11	1.07	1 (11%)	6,11,13	0.75	0
1	MLY	A	295	1	9,10,11	0.80	0	6,11,13	0.33	0
1	MLY	P	138	1	9,10,11	1.33	1 (11%)	6,11,13	0.83	0
1	MLY	P	553	1	9,10,11	0.69	0	6,11,13	0.53	0
1	MLY	G	385	1	9,10,11	1.00	1 (11%)	6,11,13	0.44	0
1	MLY	D	839	1	9,10,11	0.70	0	6,11,13	0.78	0
1	MLY	G	295	1	9,10,11	0.80	0	6,11,13	0.34	0
1	MLY	G	19	1	9,10,11	1.16	1 (11%)	6,11,13	0.58	0
1	MLY	A	504	1	9,10,11	0.88	0	6,11,13	0.23	0
1	MLY	A	63	1	9,10,11	0.92	1 (11%)	6,11,13	0.43	0
1	MLY	A	59	1	9,10,11	0.86	0	6,11,13	0.49	0
1	MLY	D	369	1	9,10,11	0.69	0	6,11,13	0.44	0
1	MLY	G	296	1	9,10,11	0.64	0	6,11,13	0.37	0
1	MLY	P	369	1	9,10,11	0.69	0	6,11,13	0.45	0
1	MLY	G	55	1	9,10,11	0.74	0	6,11,13	0.79	0
1	MLY	D	764	1	9,10,11	0.86	0	6,11,13	0.35	0
1	MLY	G	553	1,4	9,10,11	0.67	0	6,11,13	0.55	0
1	MLY	A	272	1	9,10,11	0.98	1 (11%)	6,11,13	0.56	0
1	MLY	A	107	1	9,10,11	0.47	0	6,11,13	0.34	0
1	MLY	P	551	1	9,10,11	0.53	0	6,11,13	0.20	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
1	MLY	D	385	1	9,10,11	0.99	1 (11%)	6,11,13	0.44	0

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	MLY	D	35	1	-	3/8/9/11	-
1	MLY	G	130	1	-	5/8/9/11	-
1	MLY	P	768	1	-	4/8/9/11	-
1	MLY	D	236	1	-	3/8/9/11	-
1	MLY	G	369	1	-	2/8/9/11	-
1	MLY	P	415	1	-	3/8/9/11	-
1	MLY	A	598	1	-	5/8/9/11	-
1	MLY	G	764	1	-	2/8/9/11	-
1	MLY	P	600	1	-	3/8/9/11	-
1	MLY	D	505	1	-	5/8/9/11	-
1	MLY	G	49	1	-	3/8/9/11	-
1	MLY	P	353	1	-	4/8/9/11	-
1	MLY	P	295	1	-	2/8/9/11	-
1	MLY	G	551	1	-	3/8/9/11	-
1	MLY	A	617	1	-	1/8/9/11	-
1	MLY	D	486	1	-	2/8/9/11	-
1	MLY	D	504	1	-	4/8/9/11	-
1	MLY	P	837	1	-	5/8/9/11	-
1	MLY	G	87	1	-	2/8/9/11	-
1	MLY	P	486	1	-	2/8/9/11	-
1	MLY	P	617	1	-	1/8/9/11	-
1	MLY	D	528	1	-	4/8/9/11	-
1	MLY	A	431	1	-	4/8/9/11	-
1	MLY	G	415	1	-	3/8/9/11	-
1	MLY	D	768	1	-	4/8/9/11	-
1	MLY	A	190	1	-	5/8/9/11	-
1	MLY	P	59	1	-	3/8/9/11	-
1	MLY	G	505	1	-	5/8/9/11	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	MLY	G	486	1	-	2/8/9/11	-
1	MLY	G	617	1	-	1/8/9/11	-
1	MLY	A	248	1	-	6/8/9/11	-
1	MLY	P	764	1	-	2/8/9/11	-
1	MLY	P	348	1	-	5/8/9/11	-
1	MLY	G	782	1	-	6/8/9/11	-
1	MLY	D	63	1	-	4/8/9/11	-
1	MLY	P	63	1	-	4/8/9/11	-
1	MLY	D	84	1	-	4/8/9/11	-
1	MLY	G	768	1	-	4/8/9/11	-
1	MLY	D	138	1	-	4/8/9/11	-
1	MLY	D	59	1	-	3/8/9/11	-
1	MLY	A	296	1	-	4/8/9/11	-
1	MLY	D	551	1	-	3/8/9/11	-
1	MLY	D	827	1	-	0/8/9/11	-
1	MLY	P	84	1	-	4/8/9/11	-
1	MLY	D	296	1	-	4/8/9/11	-
1	MLY	D	87	1	-	2/8/9/11	-
1	MLY	A	600	1	-	3/8/9/11	-
1	MLY	D	348	1	-	5/8/9/11	-
1	MLY	A	19	1	-	4/8/9/11	-
1	MLY	P	296	1	-	4/8/9/11	-
1	MLY	D	130	1	-	5/8/9/11	-
1	MLY	P	367	1	-	2/8/9/11	-
1	MLY	G	504	1	-	4/8/9/11	-
1	MLY	G	63	1	-	4/8/9/11	-
1	MLY	D	837	1	-	5/8/9/11	-
1	MLY	P	130	1	-	5/8/9/11	-
1	MLY	A	30	1	-	2/8/9/11	-
1	MLY	D	272	1	-	3/8/9/11	-
1	MLY	D	248	1	-	6/8/9/11	-
1	MLY	A	436	1	-	4/8/9/11	-
1	MLY	D	415	1	-	3/8/9/11	-
1	MLY	A	551	1	-	3/8/9/11	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	MLY	G	138	1	-	4/8/9/11	-
1	MLY	G	59	1	-	3/8/9/11	-
1	MLY	P	272	1	-	3/8/9/11	-
1	MLY	P	833	1	-	6/8/9/11	-
1	MLY	D	107	1	-	2/8/9/11	-
1	MLY	D	553	1,4	-	4/8/9/11	-
1	MLY	G	837	1	-	5/8/9/11	-
1	MLY	A	49	1	-	3/8/9/11	-
1	MLY	P	436	1	-	4/8/9/11	-
1	MLY	D	600	1	-	3/8/9/11	-
1	MLY	G	272	1	-	3/8/9/11	-
1	MLY	A	613	1	-	4/8/9/11	-
1	MLY	G	839	1	-	3/8/9/11	-
1	MLY	D	19	1	-	4/8/9/11	-
1	MLY	G	35	1	-	3/8/9/11	-
1	MLY	D	190	1	-	5/8/9/11	-
1	MLY	P	19	1	-	4/8/9/11	-
1	MLY	P	107	1	-	2/8/9/11	-
1	MLY	G	30	1	-	2/8/9/11	-
1	MLY	P	827	1	-	0/8/9/11	-
1	MLY	A	782	1	-	6/8/9/11	-
1	MLY	G	107	1	-	2/8/9/11	-
1	MLY	A	367	1	-	2/8/9/11	-
1	MLY	P	87	1	-	2/8/9/11	-
1	MLY	P	431	1	-	4/8/9/11	-
1	MLY	P	248	1	-	6/8/9/11	-
1	MLY	A	55	1	-	6/8/9/11	-
1	MLY	G	600	1	-	3/8/9/11	-
1	MLY	G	248	1	-	6/8/9/11	-
1	MLY	A	764	1	-	2/8/9/11	-
1	MLY	G	528	1	-	4/8/9/11	-
1	MLY	A	385	1	-	2/8/9/11	-
1	MLY	P	190	1	-	5/8/9/11	-
1	MLY	G	827	1	-	0/8/9/11	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	MLY	A	837	1	-	5/8/9/11	-
1	MLY	G	190	1	-	5/8/9/11	-
1	MLY	P	782	1	-	6/8/9/11	-
1	MLY	D	353	1	-	4/8/9/11	-
1	MLY	P	55	1	-	6/8/9/11	-
1	MLY	D	30	1	-	2/8/9/11	-
1	MLY	P	505	1	-	5/8/9/11	-
1	MLY	A	505	1	-	5/8/9/11	-
1	MLY	A	768	1	-	4/8/9/11	-
1	MLY	D	613	1	-	4/8/9/11	-
1	MLY	A	353	1	-	4/8/9/11	-
1	MLY	P	681	1	-	4/8/9/11	-
1	MLY	D	436	1	-	4/8/9/11	-
1	MLY	A	553	1,4	-	4/8/9/11	-
1	MLY	D	833	1	-	6/8/9/11	-
1	MLY	D	367	1	-	2/8/9/11	-
1	MLY	A	348	1	-	5/8/9/11	-
1	MLY	A	839	1	-	3/8/9/11	-
1	MLY	A	35	1	-	3/8/9/11	-
1	MLY	G	84	1	-	4/8/9/11	-
1	MLY	G	613	1	-	4/8/9/11	-
1	MLY	A	369	1	-	2/8/9/11	-
1	MLY	P	49	1	-	3/8/9/11	-
1	MLY	A	138	1	-	4/8/9/11	-
1	MLY	A	415	1	-	3/8/9/11	-
1	MLY	D	659	1	-	3/8/9/11	-
1	MLY	A	681	1	-	4/8/9/11	-
1	MLY	G	436	1	-	4/8/9/11	-
1	MLY	G	598	1	-	5/8/9/11	-
1	MLY	G	833	1	-	6/8/9/11	-
1	MLY	P	839	1	-	3/8/9/11	-
1	MLY	G	367	1	-	2/8/9/11	-
1	MLY	P	35	1	-	3/8/9/11	-
1	MLY	A	528	1	-	5/8/9/11	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	MLY	D	782	1	-	6/8/9/11	-
1	MLY	G	353	1	-	4/8/9/11	-
1	MLY	A	827	1	-	0/8/9/11	-
1	MLY	D	55	1	-	6/8/9/11	-
1	MLY	A	236	1	-	3/8/9/11	-
1	MLY	G	236	1	-	3/8/9/11	-
1	MLY	P	659	1	-	3/8/9/11	-
1	MLY	P	613	1	-	4/8/9/11	-
1	MLY	D	681	1	-	4/8/9/11	-
1	MLY	G	659	1	-	3/8/9/11	-
1	MLY	P	30	1	-	2/8/9/11	-
1	MLY	D	431	1	-	4/8/9/11	-
1	MLY	G	681	1	-	4/8/9/11	-
1	MLY	A	130	1	-	5/8/9/11	-
1	MLY	A	486	1	-	2/8/9/11	-
1	MLY	A	659	1	-	3/8/9/11	-
1	MLY	P	385	1	-	2/8/9/11	-
1	MLY	P	528	1	-	4/8/9/11	-
1	MLY	D	295	1	-	2/8/9/11	-
1	MLY	P	236	1	-	3/8/9/11	-
1	MLY	D	598	1	-	5/8/9/11	-
1	MLY	A	87	1	-	2/8/9/11	-
1	MLY	D	617	1	-	1/8/9/11	-
1	MLY	A	833	1	-	6/8/9/11	-
1	MLY	A	84	1	-	4/8/9/11	-
1	MLY	G	348	1	-	5/8/9/11	-
1	MLY	G	431	1	-	4/8/9/11	-
1	MLY	P	504	1	-	4/8/9/11	-
1	MLY	P	598	1	-	5/8/9/11	-
1	MLY	D	49	1	-	3/8/9/11	-
1	MLY	A	295	1	-	2/8/9/11	-
1	MLY	P	138	1	-	4/8/9/11	-
1	MLY	P	553	1	-	4/8/9/11	-
1	MLY	G	385	1	-	2/8/9/11	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	MLY	D	839	1	-	3/8/9/11	-
1	MLY	G	295	1	-	2/8/9/11	-
1	MLY	G	19	1	-	4/8/9/11	-
1	MLY	A	504	1	-	4/8/9/11	-
1	MLY	A	63	1	-	4/8/9/11	-
1	MLY	A	59	1	-	3/8/9/11	-
1	MLY	D	369	1	-	2/8/9/11	-
1	MLY	G	296	1	-	4/8/9/11	-
1	MLY	P	369	1	-	2/8/9/11	-
1	MLY	G	55	1	-	6/8/9/11	-
1	MLY	D	764	1	-	2/8/9/11	-
1	MLY	G	553	1,4	-	4/8/9/11	-
1	MLY	A	272	1	-	3/8/9/11	-
1	MLY	A	107	1	-	2/8/9/11	-
1	MLY	P	551	1	-	3/8/9/11	-
1	MLY	D	385	1	-	2/8/9/11	-

All (55) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	138	MLY	CB-CA	-3.77	1.48	1.53
1	G	138	MLY	CB-CA	-3.64	1.48	1.53
1	P	138	MLY	CB-CA	-3.60	1.48	1.53
1	A	138	MLY	CB-CA	-3.58	1.48	1.53
1	D	19	MLY	CB-CA	-3.22	1.49	1.53
1	G	87	MLY	CB-CA	-3.18	1.49	1.53
1	P	19	MLY	CB-CA	-3.10	1.49	1.53
1	P	87	MLY	CB-CA	-3.10	1.49	1.53
1	G	19	MLY	CB-CA	-3.07	1.49	1.53
1	D	87	MLY	CB-CA	-3.03	1.49	1.53
1	A	87	MLY	CB-CA	-3.02	1.49	1.53
1	A	19	MLY	CB-CA	-3.02	1.49	1.53
1	D	436	MLY	CB-CA	-2.99	1.49	1.53
1	P	436	MLY	CB-CA	-2.94	1.49	1.53
1	G	436	MLY	CB-CA	-2.88	1.49	1.53
1	P	49	MLY	CB-CA	-2.84	1.49	1.53
1	G	49	MLY	CB-CA	-2.83	1.49	1.53
1	P	272	MLY	CB-CA	-2.81	1.49	1.53
1	A	436	MLY	CB-CA	-2.76	1.49	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	49	MLY	CB-CA	-2.74	1.49	1.53
1	A	49	MLY	CB-CA	-2.68	1.50	1.53
1	A	272	MLY	CB-CA	-2.67	1.50	1.53
1	G	272	MLY	CB-CA	-2.62	1.50	1.53
1	D	272	MLY	CB-CA	-2.62	1.50	1.53
1	P	190	MLY	CB-CA	-2.59	1.50	1.53
1	P	833	MLY	CB-CA	-2.53	1.50	1.53
1	G	190	MLY	CB-CA	-2.50	1.50	1.53
1	P	385	MLY	CB-CA	-2.47	1.50	1.53
1	A	190	MLY	CB-CA	-2.46	1.50	1.53
1	G	385	MLY	CB-CA	-2.44	1.50	1.53
1	A	385	MLY	CB-CA	-2.43	1.50	1.53
1	D	385	MLY	CB-CA	-2.41	1.50	1.53
1	D	190	MLY	CB-CA	-2.40	1.50	1.53
1	A	598	MLY	CB-CA	-2.31	1.50	1.53
1	D	598	MLY	CB-CA	-2.31	1.50	1.53
1	A	833	MLY	CB-CA	-2.29	1.50	1.53
1	D	617	MLY	CB-CA	-2.27	1.50	1.53
1	G	833	MLY	CB-CA	-2.24	1.50	1.53
1	A	505	MLY	CB-CA	-2.24	1.50	1.53
1	P	617	MLY	CB-CA	-2.23	1.50	1.53
1	G	598	MLY	CB-CA	-2.22	1.50	1.53
1	P	598	MLY	CB-CA	-2.21	1.50	1.53
1	D	833	MLY	CB-CA	-2.21	1.50	1.53
1	G	617	MLY	CB-CA	-2.18	1.50	1.53
1	G	505	MLY	CB-CA	-2.18	1.50	1.53
1	P	505	MLY	CB-CA	-2.16	1.50	1.53
1	D	236	MLY	CA-N	-2.14	1.41	1.48
1	A	236	MLY	CA-N	-2.14	1.41	1.48
1	P	236	MLY	CA-N	-2.13	1.41	1.48
1	G	236	MLY	CA-N	-2.09	1.41	1.48
1	A	617	MLY	CB-CA	-2.08	1.50	1.53
1	D	505	MLY	CB-CA	-2.08	1.50	1.53
1	D	833	MLY	CA-N	-2.04	1.42	1.48
1	G	833	MLY	CA-N	-2.03	1.42	1.48
1	A	63	MLY	CB-CA	-2.01	1.50	1.53

There are no bond angle outliers.

There are no chirality outliers.

All (637) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	A	19	MLY	C-CA-CB-CG
1	A	49	MLY	N-CA-CB-CG
1	A	49	MLY	C-CA-CB-CG
1	A	55	MLY	N-CA-CB-CG
1	A	55	MLY	C-CA-CB-CG
1	A	84	MLY	C-CA-CB-CG
1	A	130	MLY	C-CA-CB-CG
1	A	248	MLY	N-CA-CB-CG
1	A	248	MLY	C-CA-CB-CG
1	A	348	MLY	N-CA-CB-CG
1	A	436	MLY	C-CA-CB-CG
1	A	486	MLY	C-CA-CB-CG
1	A	505	MLY	N-CA-CB-CG
1	A	505	MLY	C-CA-CB-CG
1	A	528	MLY	C-CA-CB-CG
1	A	551	MLY	C-CA-CB-CG
1	A	553	MLY	C-CA-CB-CG
1	A	598	MLY	N-CA-CB-CG
1	A	598	MLY	C-CA-CB-CG
1	A	613	MLY	N-CA-CB-CG
1	A	613	MLY	C-CA-CB-CG
1	A	681	MLY	C-CA-CB-CG
1	A	782	MLY	C-CA-CB-CG
1	A	782	MLY	O-C-CA-CB
1	D	19	MLY	C-CA-CB-CG
1	D	49	MLY	N-CA-CB-CG
1	D	49	MLY	C-CA-CB-CG
1	D	55	MLY	N-CA-CB-CG
1	D	55	MLY	C-CA-CB-CG
1	D	84	MLY	C-CA-CB-CG
1	D	130	MLY	C-CA-CB-CG
1	D	248	MLY	N-CA-CB-CG
1	D	248	MLY	C-CA-CB-CG
1	D	436	MLY	C-CA-CB-CG
1	D	486	MLY	C-CA-CB-CG
1	D	505	MLY	N-CA-CB-CG
1	D	505	MLY	C-CA-CB-CG
1	D	528	MLY	C-CA-CB-CG
1	D	551	MLY	C-CA-CB-CG
1	D	553	MLY	C-CA-CB-CG
1	D	598	MLY	N-CA-CB-CG
1	D	598	MLY	C-CA-CB-CG
1	D	613	MLY	N-CA-CB-CG

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Mol	Chain	Res	Type	Atoms
1	D	613	MLY	C-CA-CB-CG
1	D	681	MLY	C-CA-CB-CG
1	D	782	MLY	C-CA-CB-CG
1	D	782	MLY	O-C-CA-CB
1	G	19	MLY	C-CA-CB-CG
1	G	49	MLY	N-CA-CB-CG
1	G	49	MLY	C-CA-CB-CG
1	G	55	MLY	N-CA-CB-CG
1	G	55	MLY	C-CA-CB-CG
1	G	84	MLY	C-CA-CB-CG
1	G	130	MLY	C-CA-CB-CG
1	G	248	MLY	N-CA-CB-CG
1	G	248	MLY	C-CA-CB-CG
1	G	348	MLY	N-CA-CB-CG
1	G	436	MLY	C-CA-CB-CG
1	G	486	MLY	C-CA-CB-CG
1	G	505	MLY	N-CA-CB-CG
1	G	505	MLY	C-CA-CB-CG
1	G	528	MLY	C-CA-CB-CG
1	G	551	MLY	C-CA-CB-CG
1	G	553	MLY	C-CA-CB-CG
1	G	598	MLY	N-CA-CB-CG
1	G	598	MLY	C-CA-CB-CG
1	G	613	MLY	N-CA-CB-CG
1	G	613	MLY	C-CA-CB-CG
1	G	681	MLY	C-CA-CB-CG
1	G	782	MLY	C-CA-CB-CG
1	G	782	MLY	O-C-CA-CB
1	P	19	MLY	C-CA-CB-CG
1	P	49	MLY	N-CA-CB-CG
1	P	49	MLY	C-CA-CB-CG
1	P	55	MLY	N-CA-CB-CG
1	P	55	MLY	C-CA-CB-CG
1	P	84	MLY	C-CA-CB-CG
1	P	130	MLY	C-CA-CB-CG
1	P	248	MLY	N-CA-CB-CG
1	P	248	MLY	C-CA-CB-CG
1	P	348	MLY	N-CA-CB-CG
1	P	436	MLY	C-CA-CB-CG
1	P	486	MLY	C-CA-CB-CG
1	P	505	MLY	N-CA-CB-CG
1	P	505	MLY	C-CA-CB-CG

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Mol	Chain	Res	Type	Atoms
1	P	528	MLY	C-CA-CB-CG
1	P	551	MLY	C-CA-CB-CG
1	P	553	MLY	C-CA-CB-CG
1	P	598	MLY	N-CA-CB-CG
1	P	598	MLY	C-CA-CB-CG
1	P	613	MLY	N-CA-CB-CG
1	P	613	MLY	C-CA-CB-CG
1	P	681	MLY	C-CA-CB-CG
1	P	782	MLY	C-CA-CB-CG
1	P	782	MLY	O-C-CA-CB
1	A	84	MLY	CD-CE-NZ-CH1
1	D	84	MLY	CD-CE-NZ-CH1
1	G	84	MLY	CD-CE-NZ-CH1
1	P	84	MLY	CD-CE-NZ-CH1
1	A	59	MLY	CD-CE-NZ-CH1
1	A	59	MLY	CD-CE-NZ-CH2
1	A	63	MLY	CD-CE-NZ-CH1
1	A	84	MLY	CD-CE-NZ-CH2
1	A	130	MLY	CD-CE-NZ-CH1
1	A	130	MLY	CD-CE-NZ-CH2
1	A	138	MLY	CD-CE-NZ-CH1
1	A	138	MLY	CD-CE-NZ-CH2
1	A	190	MLY	CD-CE-NZ-CH2
1	A	248	MLY	CD-CE-NZ-CH1
1	A	272	MLY	CD-CE-NZ-CH1
1	A	296	MLY	CD-CE-NZ-CH1
1	A	296	MLY	CD-CE-NZ-CH2
1	A	353	MLY	CD-CE-NZ-CH1
1	A	353	MLY	CD-CE-NZ-CH2
1	A	367	MLY	CD-CE-NZ-CH2
1	A	385	MLY	CD-CE-NZ-CH1
1	A	385	MLY	CD-CE-NZ-CH2
1	A	431	MLY	CD-CE-NZ-CH2
1	A	505	MLY	CD-CE-NZ-CH2
1	A	528	MLY	CD-CE-NZ-CH1
1	A	528	MLY	CD-CE-NZ-CH2
1	A	553	MLY	CD-CE-NZ-CH2
1	A	600	MLY	CD-CE-NZ-CH2
1	A	764	MLY	CD-CE-NZ-CH1
1	A	764	MLY	CD-CE-NZ-CH2
1	A	768	MLY	CD-CE-NZ-CH1
1	A	782	MLY	CD-CE-NZ-CH1

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Mol	Chain	Res	Type	Atoms
1	A	782	MLY	CD-CE-NZ-CH2
1	A	833	MLY	CD-CE-NZ-CH1
1	A	833	MLY	CD-CE-NZ-CH2
1	A	837	MLY	CD-CE-NZ-CH1
1	A	837	MLY	CD-CE-NZ-CH2
1	A	839	MLY	CD-CE-NZ-CH2
1	D	55	MLY	CD-CE-NZ-CH2
1	D	59	MLY	CD-CE-NZ-CH1
1	D	59	MLY	CD-CE-NZ-CH2
1	D	63	MLY	CD-CE-NZ-CH1
1	D	84	MLY	CD-CE-NZ-CH2
1	D	130	MLY	CD-CE-NZ-CH1
1	D	130	MLY	CD-CE-NZ-CH2
1	D	138	MLY	CD-CE-NZ-CH1
1	D	138	MLY	CD-CE-NZ-CH2
1	D	190	MLY	CD-CE-NZ-CH2
1	D	248	MLY	CD-CE-NZ-CH1
1	D	272	MLY	CD-CE-NZ-CH1
1	D	296	MLY	CD-CE-NZ-CH1
1	D	296	MLY	CD-CE-NZ-CH2
1	D	353	MLY	CD-CE-NZ-CH1
1	D	353	MLY	CD-CE-NZ-CH2
1	D	367	MLY	CD-CE-NZ-CH2
1	D	385	MLY	CD-CE-NZ-CH1
1	D	385	MLY	CD-CE-NZ-CH2
1	D	431	MLY	CD-CE-NZ-CH2
1	D	505	MLY	CD-CE-NZ-CH2
1	D	528	MLY	CD-CE-NZ-CH1
1	D	528	MLY	CD-CE-NZ-CH2
1	D	553	MLY	CD-CE-NZ-CH2
1	D	600	MLY	CD-CE-NZ-CH2
1	D	764	MLY	CD-CE-NZ-CH1
1	D	764	MLY	CD-CE-NZ-CH2
1	D	768	MLY	CD-CE-NZ-CH1
1	D	782	MLY	CD-CE-NZ-CH1
1	D	782	MLY	CD-CE-NZ-CH2
1	D	833	MLY	CD-CE-NZ-CH1
1	D	833	MLY	CD-CE-NZ-CH2
1	D	837	MLY	CD-CE-NZ-CH1
1	D	837	MLY	CD-CE-NZ-CH2
1	D	839	MLY	CD-CE-NZ-CH2
1	G	59	MLY	CD-CE-NZ-CH1

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Mol	Chain	Res	Type	Atoms
1	G	59	MLY	CD-CE-NZ-CH2
1	G	63	MLY	CD-CE-NZ-CH1
1	G	84	MLY	CD-CE-NZ-CH2
1	G	130	MLY	CD-CE-NZ-CH1
1	G	130	MLY	CD-CE-NZ-CH2
1	G	138	MLY	CD-CE-NZ-CH1
1	G	138	MLY	CD-CE-NZ-CH2
1	G	190	MLY	CD-CE-NZ-CH2
1	G	248	MLY	CD-CE-NZ-CH1
1	G	272	MLY	CD-CE-NZ-CH1
1	G	296	MLY	CD-CE-NZ-CH1
1	G	296	MLY	CD-CE-NZ-CH2
1	G	353	MLY	CD-CE-NZ-CH1
1	G	353	MLY	CD-CE-NZ-CH2
1	G	385	MLY	CD-CE-NZ-CH1
1	G	385	MLY	CD-CE-NZ-CH2
1	G	431	MLY	CD-CE-NZ-CH2
1	G	505	MLY	CD-CE-NZ-CH2
1	G	528	MLY	CD-CE-NZ-CH1
1	G	528	MLY	CD-CE-NZ-CH2
1	G	553	MLY	CD-CE-NZ-CH2
1	G	600	MLY	CD-CE-NZ-CH2
1	G	764	MLY	CD-CE-NZ-CH1
1	G	764	MLY	CD-CE-NZ-CH2
1	G	768	MLY	CD-CE-NZ-CH1
1	G	782	MLY	CD-CE-NZ-CH1
1	G	782	MLY	CD-CE-NZ-CH2
1	G	833	MLY	CD-CE-NZ-CH1
1	G	833	MLY	CD-CE-NZ-CH2
1	G	837	MLY	CD-CE-NZ-CH1
1	G	837	MLY	CD-CE-NZ-CH2
1	G	839	MLY	CD-CE-NZ-CH2
1	P	59	MLY	CD-CE-NZ-CH1
1	P	59	MLY	CD-CE-NZ-CH2
1	P	63	MLY	CD-CE-NZ-CH1
1	P	84	MLY	CD-CE-NZ-CH2
1	P	130	MLY	CD-CE-NZ-CH1
1	P	130	MLY	CD-CE-NZ-CH2
1	P	138	MLY	CD-CE-NZ-CH1
1	P	138	MLY	CD-CE-NZ-CH2
1	P	190	MLY	CD-CE-NZ-CH2
1	P	248	MLY	CD-CE-NZ-CH1

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Mol	Chain	Res	Type	Atoms
1	P	272	MLY	CD-CE-NZ-CH1
1	P	296	MLY	CD-CE-NZ-CH1
1	P	296	MLY	CD-CE-NZ-CH2
1	P	353	MLY	CD-CE-NZ-CH1
1	P	353	MLY	CD-CE-NZ-CH2
1	P	367	MLY	CD-CE-NZ-CH2
1	P	385	MLY	CD-CE-NZ-CH1
1	P	385	MLY	CD-CE-NZ-CH2
1	P	431	MLY	CD-CE-NZ-CH2
1	P	505	MLY	CD-CE-NZ-CH2
1	P	528	MLY	CD-CE-NZ-CH1
1	P	528	MLY	CD-CE-NZ-CH2
1	P	553	MLY	CD-CE-NZ-CH2
1	P	600	MLY	CD-CE-NZ-CH2
1	P	764	MLY	CD-CE-NZ-CH1
1	P	764	MLY	CD-CE-NZ-CH2
1	P	768	MLY	CD-CE-NZ-CH1
1	P	782	MLY	CD-CE-NZ-CH1
1	P	782	MLY	CD-CE-NZ-CH2
1	P	833	MLY	CD-CE-NZ-CH1
1	P	833	MLY	CD-CE-NZ-CH2
1	P	837	MLY	CD-CE-NZ-CH1
1	P	837	MLY	CD-CE-NZ-CH2
1	P	839	MLY	CD-CE-NZ-CH2
1	A	659	MLY	CG-CD-CE-NZ
1	D	659	MLY	CG-CD-CE-NZ
1	P	659	MLY	CG-CD-CE-NZ
1	D	35	MLY	CG-CD-CE-NZ
1	D	87	MLY	CG-CD-CE-NZ
1	G	87	MLY	CG-CD-CE-NZ
1	G	659	MLY	CG-CD-CE-NZ
1	P	87	MLY	CG-CD-CE-NZ
1	A	35	MLY	CG-CD-CE-NZ
1	A	87	MLY	CG-CD-CE-NZ
1	G	35	MLY	CG-CD-CE-NZ
1	P	35	MLY	CG-CD-CE-NZ
1	A	295	MLY	CG-CD-CE-NZ
1	D	295	MLY	CG-CD-CE-NZ
1	G	295	MLY	CG-CD-CE-NZ
1	P	295	MLY	CG-CD-CE-NZ
1	A	138	MLY	CG-CD-CE-NZ
1	A	782	MLY	CG-CD-CE-NZ

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Mol	Chain	Res	Type	Atoms
1	D	782	MLY	CG-CD-CE-NZ
1	G	782	MLY	CG-CD-CE-NZ
1	P	782	MLY	CG-CD-CE-NZ
1	P	138	MLY	CG-CD-CE-NZ
1	D	138	MLY	CG-CD-CE-NZ
1	G	138	MLY	CG-CD-CE-NZ
1	A	55	MLY	CD-CE-NZ-CH2
1	A	190	MLY	CD-CE-NZ-CH1
1	A	248	MLY	CD-CE-NZ-CH2
1	A	348	MLY	CD-CE-NZ-CH1
1	A	348	MLY	CD-CE-NZ-CH2
1	A	367	MLY	CD-CE-NZ-CH1
1	A	431	MLY	CD-CE-NZ-CH1
1	A	504	MLY	CD-CE-NZ-CH1
1	A	504	MLY	CD-CE-NZ-CH2
1	A	505	MLY	CD-CE-NZ-CH1
1	A	600	MLY	CD-CE-NZ-CH1
1	A	659	MLY	CD-CE-NZ-CH2
1	D	190	MLY	CD-CE-NZ-CH1
1	D	248	MLY	CD-CE-NZ-CH2
1	D	272	MLY	CD-CE-NZ-CH2
1	D	348	MLY	CD-CE-NZ-CH1
1	D	348	MLY	CD-CE-NZ-CH2
1	D	367	MLY	CD-CE-NZ-CH1
1	D	431	MLY	CD-CE-NZ-CH1
1	D	504	MLY	CD-CE-NZ-CH1
1	D	504	MLY	CD-CE-NZ-CH2
1	D	505	MLY	CD-CE-NZ-CH1
1	D	600	MLY	CD-CE-NZ-CH1
1	D	659	MLY	CD-CE-NZ-CH2
1	G	55	MLY	CD-CE-NZ-CH2
1	G	190	MLY	CD-CE-NZ-CH1
1	G	248	MLY	CD-CE-NZ-CH2
1	G	348	MLY	CD-CE-NZ-CH1
1	G	348	MLY	CD-CE-NZ-CH2
1	G	367	MLY	CD-CE-NZ-CH1
1	G	367	MLY	CD-CE-NZ-CH2
1	G	431	MLY	CD-CE-NZ-CH1
1	G	504	MLY	CD-CE-NZ-CH1
1	G	504	MLY	CD-CE-NZ-CH2
1	G	505	MLY	CD-CE-NZ-CH1
1	G	600	MLY	CD-CE-NZ-CH1

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Mol	Chain	Res	Type	Atoms
1	G	659	MLY	CD-CE-NZ-CH2
1	P	55	MLY	CD-CE-NZ-CH2
1	P	190	MLY	CD-CE-NZ-CH1
1	P	248	MLY	CD-CE-NZ-CH2
1	P	348	MLY	CD-CE-NZ-CH1
1	P	348	MLY	CD-CE-NZ-CH2
1	P	367	MLY	CD-CE-NZ-CH1
1	P	431	MLY	CD-CE-NZ-CH1
1	P	504	MLY	CD-CE-NZ-CH1
1	P	504	MLY	CD-CE-NZ-CH2
1	P	505	MLY	CD-CE-NZ-CH1
1	P	600	MLY	CD-CE-NZ-CH1
1	P	659	MLY	CD-CE-NZ-CH2
1	A	84	MLY	CG-CD-CE-NZ
1	A	130	MLY	CG-CD-CE-NZ
1	D	130	MLY	CG-CD-CE-NZ
1	G	84	MLY	CG-CD-CE-NZ
1	G	130	MLY	CG-CD-CE-NZ
1	P	84	MLY	CG-CD-CE-NZ
1	P	130	MLY	CG-CD-CE-NZ
1	A	504	MLY	CG-CD-CE-NZ
1	G	504	MLY	CG-CD-CE-NZ
1	P	504	MLY	CG-CD-CE-NZ
1	A	681	MLY	CG-CD-CE-NZ
1	D	84	MLY	CG-CD-CE-NZ
1	D	681	MLY	CG-CD-CE-NZ
1	G	681	MLY	CG-CD-CE-NZ
1	P	681	MLY	CG-CD-CE-NZ
1	A	295	MLY	CA-CB-CG-CD
1	D	295	MLY	CA-CB-CG-CD
1	G	295	MLY	CA-CB-CG-CD
1	P	295	MLY	CA-CB-CG-CD
1	D	504	MLY	CG-CD-CE-NZ
1	A	107	MLY	CD-CE-NZ-CH1
1	A	369	MLY	CD-CE-NZ-CH2
1	A	768	MLY	CD-CE-NZ-CH2
1	D	107	MLY	CD-CE-NZ-CH1
1	D	369	MLY	CD-CE-NZ-CH2
1	D	768	MLY	CD-CE-NZ-CH2
1	G	107	MLY	CD-CE-NZ-CH1
1	G	272	MLY	CD-CE-NZ-CH2
1	G	369	MLY	CD-CE-NZ-CH2

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Mol	Chain	Res	Type	Atoms
1	G	768	MLY	CD-CE-NZ-CH2
1	P	107	MLY	CD-CE-NZ-CH1
1	P	369	MLY	CD-CE-NZ-CH2
1	P	768	MLY	CD-CE-NZ-CH2
1	A	598	MLY	CG-CD-CE-NZ
1	G	598	MLY	CG-CD-CE-NZ
1	P	598	MLY	CG-CD-CE-NZ
1	D	598	MLY	CG-CD-CE-NZ
1	A	504	MLY	CA-CB-CG-CD
1	A	768	MLY	CA-CB-CG-CD
1	D	504	MLY	CA-CB-CG-CD
1	D	768	MLY	CA-CB-CG-CD
1	G	504	MLY	CA-CB-CG-CD
1	G	768	MLY	CA-CB-CG-CD
1	P	504	MLY	CA-CB-CG-CD
1	P	768	MLY	CA-CB-CG-CD
1	A	55	MLY	CD-CE-NZ-CH1
1	A	63	MLY	CD-CE-NZ-CH2
1	A	272	MLY	CD-CE-NZ-CH2
1	A	415	MLY	CD-CE-NZ-CH1
1	A	415	MLY	CD-CE-NZ-CH2
1	A	553	MLY	CD-CE-NZ-CH1
1	A	659	MLY	CD-CE-NZ-CH1
1	D	55	MLY	CD-CE-NZ-CH1
1	D	63	MLY	CD-CE-NZ-CH2
1	D	87	MLY	CD-CE-NZ-CH1
1	D	415	MLY	CD-CE-NZ-CH1
1	D	415	MLY	CD-CE-NZ-CH2
1	D	553	MLY	CD-CE-NZ-CH1
1	D	659	MLY	CD-CE-NZ-CH1
1	G	55	MLY	CD-CE-NZ-CH1
1	G	63	MLY	CD-CE-NZ-CH2
1	G	415	MLY	CD-CE-NZ-CH1
1	G	415	MLY	CD-CE-NZ-CH2
1	G	553	MLY	CD-CE-NZ-CH1
1	G	659	MLY	CD-CE-NZ-CH1
1	P	55	MLY	CD-CE-NZ-CH1
1	P	63	MLY	CD-CE-NZ-CH2
1	P	272	MLY	CD-CE-NZ-CH2
1	P	415	MLY	CD-CE-NZ-CH1
1	P	415	MLY	CD-CE-NZ-CH2
1	P	553	MLY	CD-CE-NZ-CH1

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Mol	Chain	Res	Type	Atoms
1	P	659	MLY	CD-CE-NZ-CH1
1	A	415	MLY	CA-CB-CG-CD
1	G	415	MLY	CA-CB-CG-CD
1	P	415	MLY	CA-CB-CG-CD
1	A	19	MLY	CD-CE-NZ-CH2
1	A	87	MLY	CD-CE-NZ-CH1
1	D	19	MLY	CD-CE-NZ-CH2
1	G	19	MLY	CD-CE-NZ-CH2
1	G	87	MLY	CD-CE-NZ-CH1
1	P	19	MLY	CD-CE-NZ-CH2
1	P	87	MLY	CD-CE-NZ-CH1
1	D	551	MLY	CG-CD-CE-NZ
1	G	551	MLY	CG-CD-CE-NZ
1	P	551	MLY	CG-CD-CE-NZ
1	A	551	MLY	CG-CD-CE-NZ
1	D	415	MLY	CA-CB-CG-CD
1	A	272	MLY	CE-CD-CG-CB
1	G	272	MLY	CE-CD-CG-CB
1	P	272	MLY	CE-CD-CG-CB
1	D	272	MLY	CE-CD-CG-CB
1	A	30	MLY	CE-CD-CG-CB
1	A	296	MLY	CE-CD-CG-CB
1	D	296	MLY	CE-CD-CG-CB
1	G	30	MLY	CE-CD-CG-CB
1	G	296	MLY	CE-CD-CG-CB
1	P	30	MLY	CE-CD-CG-CB
1	P	296	MLY	CE-CD-CG-CB
1	A	505	MLY	CE-CD-CG-CB
1	D	30	MLY	CE-CD-CG-CB
1	D	505	MLY	CE-CD-CG-CB
1	G	505	MLY	CE-CD-CG-CB
1	P	505	MLY	CE-CD-CG-CB
1	A	107	MLY	CD-CE-NZ-CH2
1	A	839	MLY	CD-CE-NZ-CH1
1	D	839	MLY	CD-CE-NZ-CH1
1	G	839	MLY	CD-CE-NZ-CH1
1	P	107	MLY	CD-CE-NZ-CH2
1	P	839	MLY	CD-CE-NZ-CH1
1	D	681	MLY	CE-CD-CG-CB
1	G	681	MLY	CE-CD-CG-CB
1	A	681	MLY	CE-CD-CG-CB
1	D	49	MLY	CE-CD-CG-CB

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Mol	Chain	Res	Type	Atoms
1	G	49	MLY	CE-CD-CG-CB
1	P	681	MLY	CE-CD-CG-CB
1	A	49	MLY	CE-CD-CG-CB
1	P	49	MLY	CE-CD-CG-CB
1	D	768	MLY	CE-CD-CG-CB
1	P	353	MLY	CE-CD-CG-CB
1	A	353	MLY	CE-CD-CG-CB
1	D	353	MLY	CE-CD-CG-CB
1	A	190	MLY	CE-CD-CG-CB
1	A	768	MLY	CE-CD-CG-CB
1	G	190	MLY	CE-CD-CG-CB
1	G	353	MLY	CE-CD-CG-CB
1	G	768	MLY	CE-CD-CG-CB
1	P	190	MLY	CE-CD-CG-CB
1	P	768	MLY	CE-CD-CG-CB
1	D	190	MLY	CE-CD-CG-CB
1	A	782	MLY	CE-CD-CG-CB
1	A	369	MLY	CE-CD-CG-CB
1	D	369	MLY	CE-CD-CG-CB
1	D	782	MLY	CE-CD-CG-CB
1	G	369	MLY	CE-CD-CG-CB
1	G	782	MLY	CE-CD-CG-CB
1	P	369	MLY	CE-CD-CG-CB
1	P	782	MLY	CE-CD-CG-CB
1	A	236	MLY	CD-CE-NZ-CH1
1	D	107	MLY	CD-CE-NZ-CH2
1	D	236	MLY	CD-CE-NZ-CH1
1	G	107	MLY	CD-CE-NZ-CH2
1	G	236	MLY	CD-CE-NZ-CH1
1	P	236	MLY	CD-CE-NZ-CH1
1	D	190	MLY	CG-CD-CE-NZ
1	A	436	MLY	CA-CB-CG-CD
1	A	837	MLY	CA-CB-CG-CD
1	D	436	MLY	CA-CB-CG-CD
1	D	837	MLY	CA-CB-CG-CD
1	G	436	MLY	CA-CB-CG-CD
1	G	837	MLY	CA-CB-CG-CD
1	P	436	MLY	CA-CB-CG-CD
1	P	837	MLY	CA-CB-CG-CD
1	P	190	MLY	CG-CD-CE-NZ
1	A	190	MLY	CG-CD-CE-NZ
1	G	190	MLY	CG-CD-CE-NZ

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Mol	Chain	Res	Type	Atoms
1	D	833	MLY	CE-CD-CG-CB
1	G	833	MLY	CE-CD-CG-CB
1	A	431	MLY	CA-CB-CG-CD
1	D	236	MLY	CA-CB-CG-CD
1	D	431	MLY	CA-CB-CG-CD
1	G	431	MLY	CA-CB-CG-CD
1	P	236	MLY	CA-CB-CG-CD
1	P	431	MLY	CA-CB-CG-CD
1	P	833	MLY	CA-CB-CG-CD
1	A	833	MLY	CE-CD-CG-CB
1	P	833	MLY	CE-CD-CG-CB
1	A	55	MLY	CG-CD-CE-NZ
1	D	55	MLY	CG-CD-CE-NZ
1	G	55	MLY	CG-CD-CE-NZ
1	D	617	MLY	CE-CD-CG-CB
1	P	55	MLY	CG-CD-CE-NZ
1	A	617	MLY	CE-CD-CG-CB
1	G	617	MLY	CE-CD-CG-CB
1	P	617	MLY	CE-CD-CG-CB
1	A	236	MLY	CA-CB-CG-CD
1	A	833	MLY	CA-CB-CG-CD
1	D	833	MLY	CA-CB-CG-CD
1	G	236	MLY	CA-CB-CG-CD
1	G	833	MLY	CA-CB-CG-CD
1	A	348	MLY	C-CA-CB-CG
1	D	348	MLY	C-CA-CB-CG
1	G	348	MLY	C-CA-CB-CG
1	P	348	MLY	C-CA-CB-CG
1	A	551	MLY	CE-CD-CG-CB
1	G	551	MLY	CE-CD-CG-CB
1	P	551	MLY	CE-CD-CG-CB
1	D	551	MLY	CE-CD-CG-CB
1	G	59	MLY	CE-CD-CG-CB
1	A	55	MLY	CE-CD-CG-CB
1	A	59	MLY	CE-CD-CG-CB
1	D	55	MLY	CE-CD-CG-CB
1	D	59	MLY	CE-CD-CG-CB
1	P	59	MLY	CE-CD-CG-CB
1	A	553	MLY	CE-CD-CG-CB
1	D	553	MLY	CE-CD-CG-CB
1	G	55	MLY	CE-CD-CG-CB
1	G	553	MLY	CE-CD-CG-CB

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Mol	Chain	Res	Type	Atoms
1	P	55	MLY	CE-CD-CG-CB
1	P	553	MLY	CE-CD-CG-CB
1	P	431	MLY	CE-CD-CG-CB
1	A	431	MLY	CE-CD-CG-CB
1	G	248	MLY	CE-CD-CG-CB
1	G	431	MLY	CE-CD-CG-CB
1	D	431	MLY	CE-CD-CG-CB
1	P	35	MLY	CE-CD-CG-CB
1	A	248	MLY	CE-CD-CG-CB
1	D	248	MLY	CE-CD-CG-CB
1	P	248	MLY	CE-CD-CG-CB
1	A	35	MLY	CE-CD-CG-CB
1	D	35	MLY	CE-CD-CG-CB
1	G	35	MLY	CE-CD-CG-CB
1	D	528	MLY	CG-CD-CE-NZ
1	A	248	MLY	CG-CD-CE-NZ
1	A	528	MLY	CG-CD-CE-NZ
1	G	248	MLY	CG-CD-CE-NZ
1	G	528	MLY	CG-CD-CE-NZ
1	P	528	MLY	CG-CD-CE-NZ
1	A	138	MLY	CA-CB-CG-CD
1	A	296	MLY	CA-CB-CG-CD
1	D	138	MLY	CA-CB-CG-CD
1	G	138	MLY	CA-CB-CG-CD
1	P	138	MLY	CA-CB-CG-CD
1	P	296	MLY	CA-CB-CG-CD
1	P	248	MLY	CG-CD-CE-NZ
1	D	248	MLY	CG-CD-CE-NZ
1	D	296	MLY	CA-CB-CG-CD
1	G	296	MLY	CA-CB-CG-CD
1	D	598	MLY	CE-CD-CG-CB
1	A	436	MLY	CE-CD-CG-CB
1	A	598	MLY	CE-CD-CG-CB
1	A	600	MLY	CE-CD-CG-CB
1	D	436	MLY	CE-CD-CG-CB
1	D	600	MLY	CE-CD-CG-CB
1	G	436	MLY	CE-CD-CG-CB
1	G	598	MLY	CE-CD-CG-CB
1	G	600	MLY	CE-CD-CG-CB
1	P	436	MLY	CE-CD-CG-CB
1	P	600	MLY	CE-CD-CG-CB
1	P	598	MLY	CE-CD-CG-CB

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Mol	Chain	Res	Type	Atoms
1	A	486	MLY	CE-CD-CG-CB
1	G	486	MLY	CE-CD-CG-CB
1	P	486	MLY	CE-CD-CG-CB
1	D	486	MLY	CE-CD-CG-CB
1	P	839	MLY	CE-CD-CG-CB
1	A	839	MLY	CE-CD-CG-CB
1	D	839	MLY	CE-CD-CG-CB
1	G	839	MLY	CE-CD-CG-CB
1	A	236	MLY	CD-CE-NZ-CH2
1	D	236	MLY	CD-CE-NZ-CH2
1	G	236	MLY	CD-CE-NZ-CH2
1	P	236	MLY	CD-CE-NZ-CH2
1	A	35	MLY	N-CA-CB-CG
1	A	63	MLY	N-CA-CB-CG
1	A	130	MLY	N-CA-CB-CG
1	A	436	MLY	N-CA-CB-CG
1	A	681	MLY	N-CA-CB-CG
1	A	833	MLY	N-CA-CB-CG
1	A	837	MLY	N-CA-CB-CG
1	D	35	MLY	N-CA-CB-CG
1	D	63	MLY	N-CA-CB-CG
1	D	130	MLY	N-CA-CB-CG
1	D	348	MLY	N-CA-CB-CG
1	D	436	MLY	N-CA-CB-CG
1	D	681	MLY	N-CA-CB-CG
1	D	833	MLY	N-CA-CB-CG
1	D	837	MLY	N-CA-CB-CG
1	G	35	MLY	N-CA-CB-CG
1	G	63	MLY	N-CA-CB-CG
1	G	130	MLY	N-CA-CB-CG
1	G	436	MLY	N-CA-CB-CG
1	G	681	MLY	N-CA-CB-CG
1	G	833	MLY	N-CA-CB-CG
1	G	837	MLY	N-CA-CB-CG
1	P	35	MLY	N-CA-CB-CG
1	P	63	MLY	N-CA-CB-CG
1	P	130	MLY	N-CA-CB-CG
1	P	436	MLY	N-CA-CB-CG
1	P	681	MLY	N-CA-CB-CG
1	P	833	MLY	N-CA-CB-CG
1	P	837	MLY	N-CA-CB-CG
1	P	19	MLY	CA-CB-CG-CD

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Mol	Chain	Res	Type	Atoms
1	D	833	MLY	C-CA-CB-CG
1	P	833	MLY	C-CA-CB-CG
1	A	19	MLY	CA-CB-CG-CD
1	D	19	MLY	CA-CB-CG-CD
1	G	19	MLY	CA-CB-CG-CD
1	D	837	MLY	CE-CD-CG-CB
1	G	837	MLY	CE-CD-CG-CB
1	A	19	MLY	CE-CD-CG-CB
1	A	837	MLY	CE-CD-CG-CB
1	P	837	MLY	CE-CD-CG-CB
1	D	19	MLY	CE-CD-CG-CB
1	P	19	MLY	CE-CD-CG-CB
1	G	19	MLY	CE-CD-CG-CB
1	G	613	MLY	CE-CD-CG-CB
1	P	613	MLY	CE-CD-CG-CB
1	A	613	MLY	CE-CD-CG-CB
1	D	613	MLY	CE-CD-CG-CB
1	A	598	MLY	CD-CE-NZ-CH2
1	D	598	MLY	CD-CE-NZ-CH2
1	G	598	MLY	CD-CE-NZ-CH2
1	P	598	MLY	CD-CE-NZ-CH2
1	A	63	MLY	C-CA-CB-CG
1	A	353	MLY	C-CA-CB-CG
1	A	833	MLY	C-CA-CB-CG
1	D	63	MLY	C-CA-CB-CG
1	D	353	MLY	C-CA-CB-CG
1	G	63	MLY	C-CA-CB-CG
1	G	353	MLY	C-CA-CB-CG
1	G	833	MLY	C-CA-CB-CG
1	P	63	MLY	C-CA-CB-CG
1	P	353	MLY	C-CA-CB-CG
1	A	30	MLY	CA-CB-CG-CD
1	D	30	MLY	CA-CB-CG-CD
1	G	30	MLY	CA-CB-CG-CD
1	P	30	MLY	CA-CB-CG-CD
1	P	348	MLY	CE-CD-CG-CB
1	A	348	MLY	CE-CD-CG-CB
1	D	348	MLY	CE-CD-CG-CB
1	G	348	MLY	CE-CD-CG-CB
1	A	613	MLY	CA-CB-CG-CD
1	G	613	MLY	CA-CB-CG-CD
1	P	613	MLY	CA-CB-CG-CD

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Mol	Chain	Res	Type	Atoms
1	A	190	MLY	CA-CB-CG-CD
1	A	528	MLY	CA-CB-CG-CD
1	D	190	MLY	CA-CB-CG-CD
1	D	613	MLY	CA-CB-CG-CD
1	G	190	MLY	CA-CB-CG-CD
1	P	190	MLY	CA-CB-CG-CD

There are no ring outliers.

122 monomers are involved in 478 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	G	369	MLY	1	0
1	P	415	MLY	1	0
1	A	598	MLY	1	0
1	G	764	MLY	3	0
1	P	600	MLY	1	0
1	G	49	MLY	3	0
1	P	295	MLY	6	0
1	A	617	MLY	1	0
1	D	486	MLY	3	0
1	P	837	MLY	1	0
1	G	87	MLY	2	0
1	P	486	MLY	3	0
1	P	617	MLY	1	0
1	D	528	MLY	2	0
1	G	415	MLY	1	0
1	A	190	MLY	2	0
1	P	59	MLY	2	0
1	G	486	MLY	3	0
1	G	617	MLY	1	0
1	A	248	MLY	2	0
1	P	764	MLY	17	0
1	P	348	MLY	5	0
1	G	782	MLY	1	0
1	D	63	MLY	3	0
1	P	63	MLY	4	0
1	G	768	MLY	34	0
1	D	138	MLY	1	0
1	D	59	MLY	2	0
1	A	296	MLY	3	0
1	D	551	MLY	2	0
1	P	84	MLY	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	D	296	MLY	3	0
1	D	87	MLY	3	0
1	A	600	MLY	1	0
1	D	348	MLY	6	0
1	P	296	MLY	3	0
1	G	63	MLY	4	0
1	D	837	MLY	1	0
1	A	30	MLY	1	0
1	D	272	MLY	1	0
1	D	248	MLY	2	0
1	A	436	MLY	3	0
1	D	415	MLY	1	0
1	A	551	MLY	2	0
1	G	138	MLY	1	0
1	G	59	MLY	2	0
1	P	272	MLY	1	0
1	P	833	MLY	1	0
1	D	107	MLY	3	0
1	D	553	MLY	17	0
1	G	837	MLY	1	0
1	A	49	MLY	3	0
1	P	436	MLY	2	0
1	D	600	MLY	1	0
1	G	272	MLY	1	0
1	G	839	MLY	4	0
1	D	190	MLY	2	0
1	P	107	MLY	3	0
1	G	30	MLY	1	0
1	P	827	MLY	4	0
1	A	782	MLY	2	0
1	G	107	MLY	3	0
1	P	87	MLY	3	0
1	P	248	MLY	2	0
1	A	55	MLY	1	0
1	G	600	MLY	1	0
1	G	248	MLY	2	0
1	A	764	MLY	7	0
1	G	528	MLY	2	0
1	P	190	MLY	2	0
1	G	827	MLY	2	0
1	A	837	MLY	1	0
1	G	190	MLY	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	P	782	MLY	3	0
1	P	55	MLY	1	0
1	D	30	MLY	1	0
1	A	505	MLY	38	0
1	A	768	MLY	14	0
1	D	436	MLY	3	0
1	A	553	MLY	16	0
1	A	348	MLY	6	0
1	A	839	MLY	15	0
1	G	84	MLY	5	0
1	A	369	MLY	1	0
1	P	49	MLY	2	0
1	A	138	MLY	1	0
1	A	415	MLY	1	0
1	D	659	MLY	2	0
1	G	436	MLY	3	0
1	G	598	MLY	1	0
1	P	839	MLY	7	0
1	A	528	MLY	3	0
1	D	782	MLY	16	0
1	D	55	MLY	1	0
1	P	659	MLY	1	0
1	G	659	MLY	2	0
1	P	30	MLY	1	0
1	A	486	MLY	3	0
1	A	659	MLY	2	0
1	P	528	MLY	2	0
1	D	295	MLY	6	0
1	D	598	MLY	1	0
1	A	87	MLY	3	0
1	D	617	MLY	1	0
1	A	84	MLY	2	0
1	G	348	MLY	6	0
1	P	598	MLY	1	0
1	D	49	MLY	3	0
1	A	295	MLY	5	0
1	P	138	MLY	1	0
1	P	553	MLY	2	0
1	D	839	MLY	19	0
1	G	295	MLY	6	0
1	A	504	MLY	9	0
1	A	63	MLY	4	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	A	59	MLY	2	0
1	G	296	MLY	3	0
1	G	55	MLY	1	0
1	D	764	MLY	8	0
1	G	553	MLY	27	0
1	A	272	MLY	1	0
1	A	107	MLY	3	0

## 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

## 5.6 Ligand geometry [i](#)

There are no ligands in this entry.

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	P	6
1	D	4
1	A	4
1	G	3
3	C	1
3	F	1
3	I	1
3	R	1
2	B	1
2	E	1
2	H	1
2	Q	1

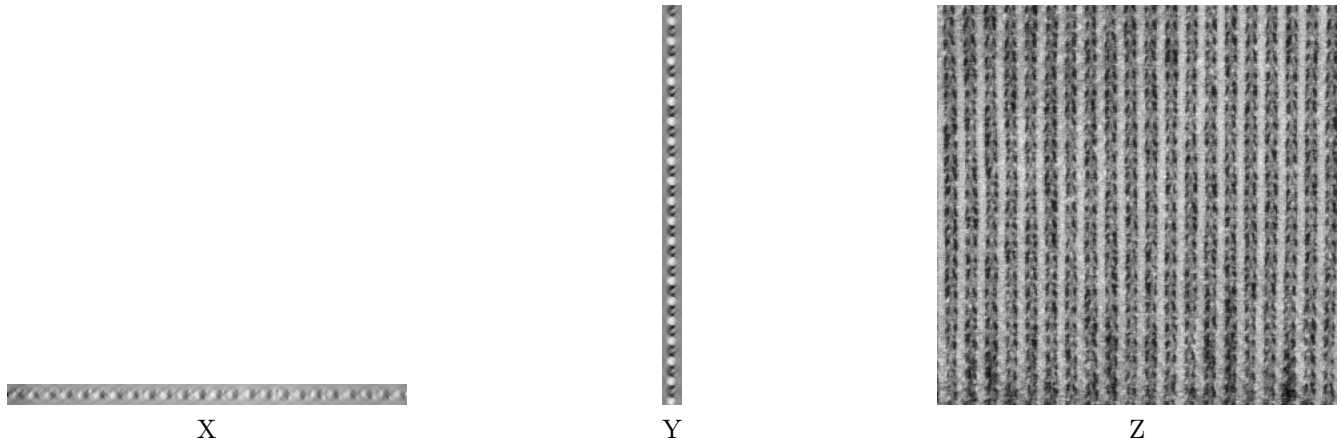
All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	G	769:ALA	C	770:GLY	N	5.53
1	D	769:ALA	C	770:GLY	N	4.89
1	A	709:LYS	C	710:GLY	N	3.78
1	D	709:LYS	C	710:GLY	N	3.17
1	P	709:LYS	C	710:GLY	N	2.93
1	A	769:ALA	C	770:GLY	N	2.88
1	C	4:LYS	C	5:ALA	N	2.61
1	F	4:LYS	C	5:ALA	N	2.61
1	I	4:LYS	C	5:ALA	N	2.61
1	R	4:LYS	C	5:ALA	N	2.61
1	P	806:MET	C	807:VAL	N	2.43
1	P	769:ALA	C	770:GLY	N	2.15
1	P	786:ILE	C	787:ILE	N	1.75
1	B	140:PHE	C	141:PRO	N	1.09
1	E	140:PHE	C	141:PRO	N	1.09
1	H	140:PHE	C	141:PRO	N	1.09
1	Q	140:PHE	C	141:PRO	N	1.09
1	A	637:LYS	C	638:GLY	N	1.06
1	D	637:LYS	C	638:GLY	N	1.06
1	G	637:LYS	C	638:GLY	N	1.06
1	P	637:LYS	C	638:GLY	N	1.06
1	A	649:VAL	C	650:SER	N	1.03
1	D	649:VAL	C	650:SER	N	1.03
1	G	649:VAL	C	650:SER	N	1.03
1	P	649:VAL	C	650:SER	N	1.03

## 6 Tomogram visualisation [i](#)

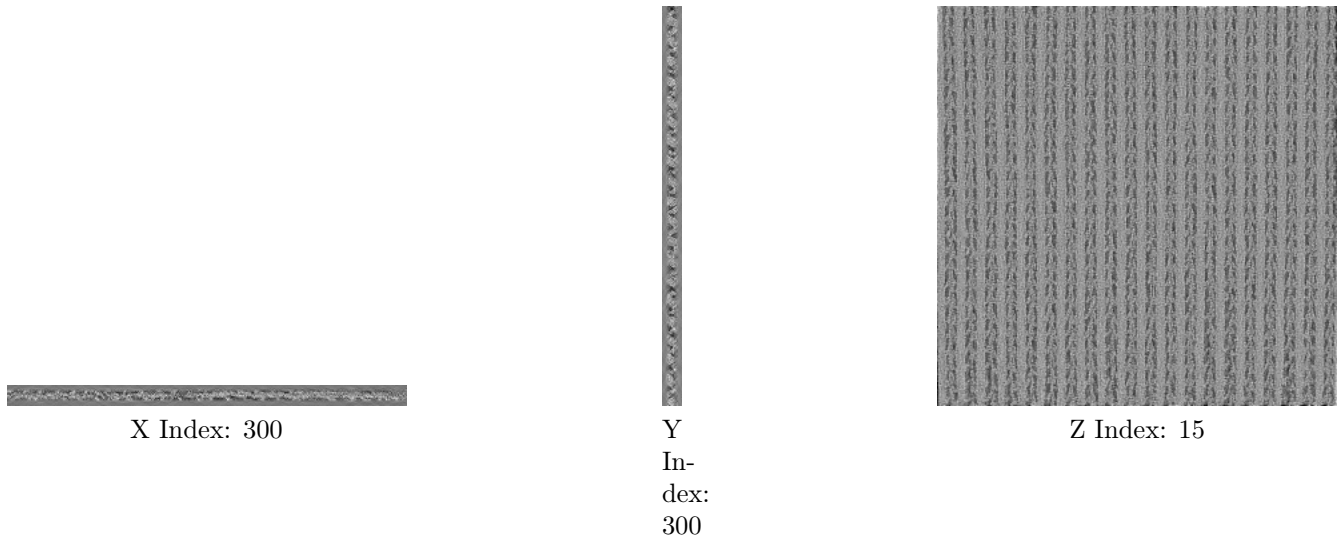
This section contains visualisations of the EMDB entry EMD-1001. These allow visual inspection of the internal detail of the tomogram and identification of artifacts.

### 6.1 Orthogonal projections [i](#)



The images above show the tomogram projected in three orthogonal directions.

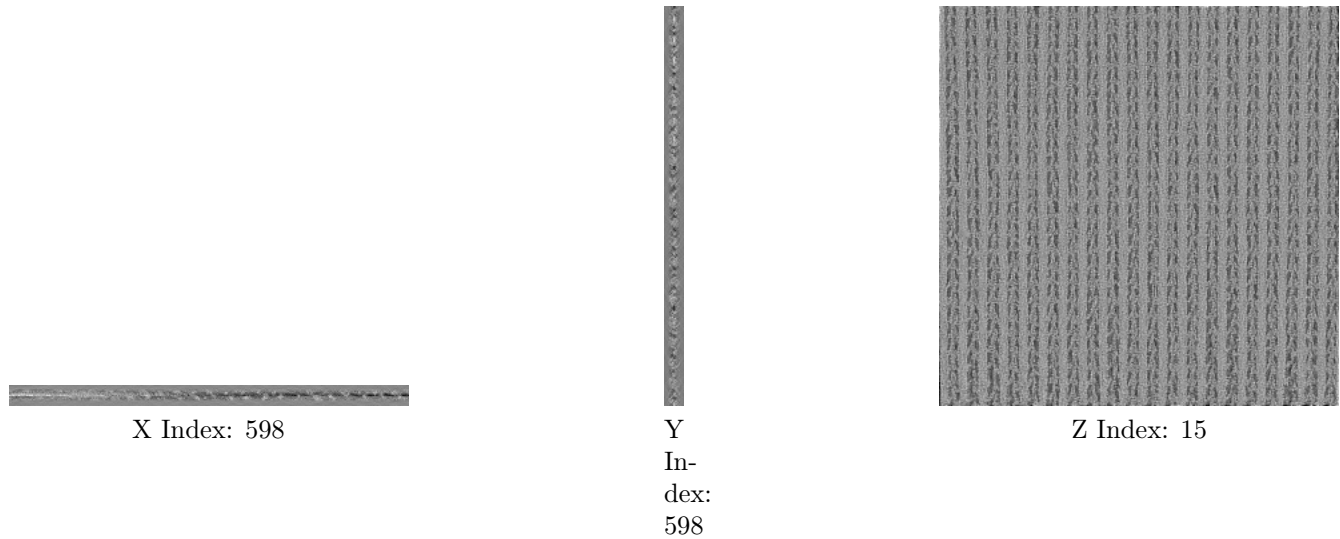
### 6.2 Central slices [i](#)



The images above show central slices of the tomogram in three orthogonal directions.



### 6.3 Largest variance slices [i](#)



The images above show the largest variance slices of the tomogram in three orthogonal directions.

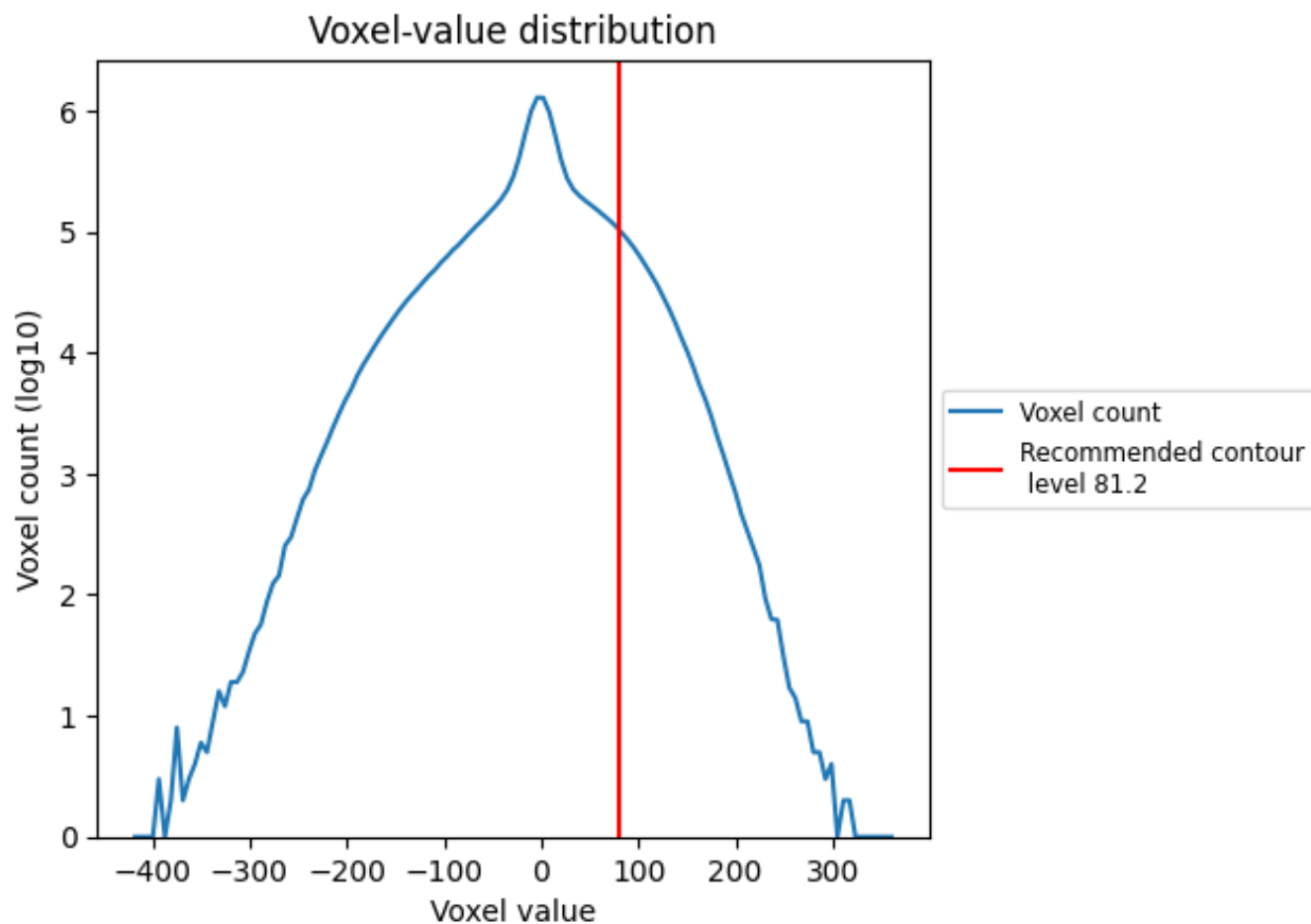
### 6.4 Mask visualisation [i](#)

This section was not generated.

## 7 Tomogram analysis [i](#)

This section contains the results of statistical analysis of the tomogram.

### 7.1 Voxel-value distribution [i](#)



The voxel-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic.

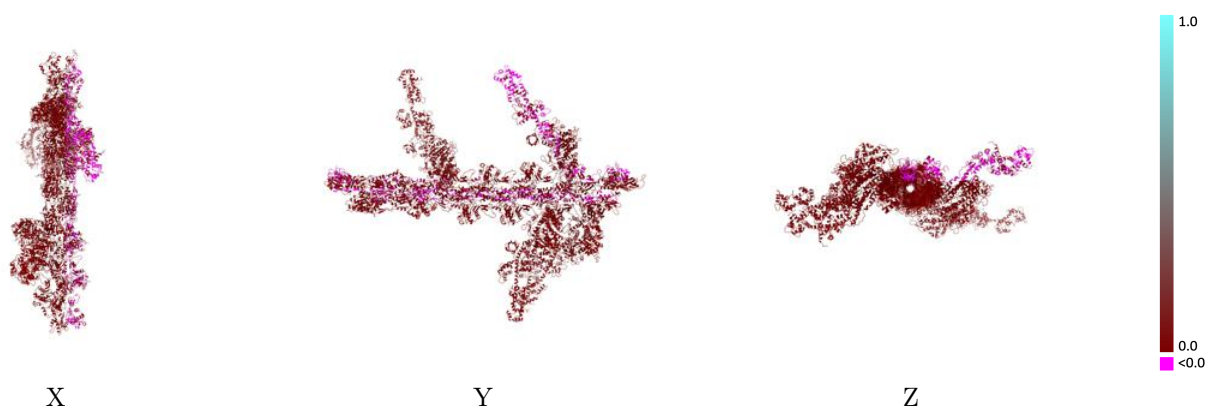
## 8 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-1001 and PDB model 1M8Q. Per-residue inclusion information can be found in section 3 on page 14.

### 8.1 Map-model overlay [i](#)

This section was not generated.

### 8.2 Q-score mapped to coordinate model [i](#)

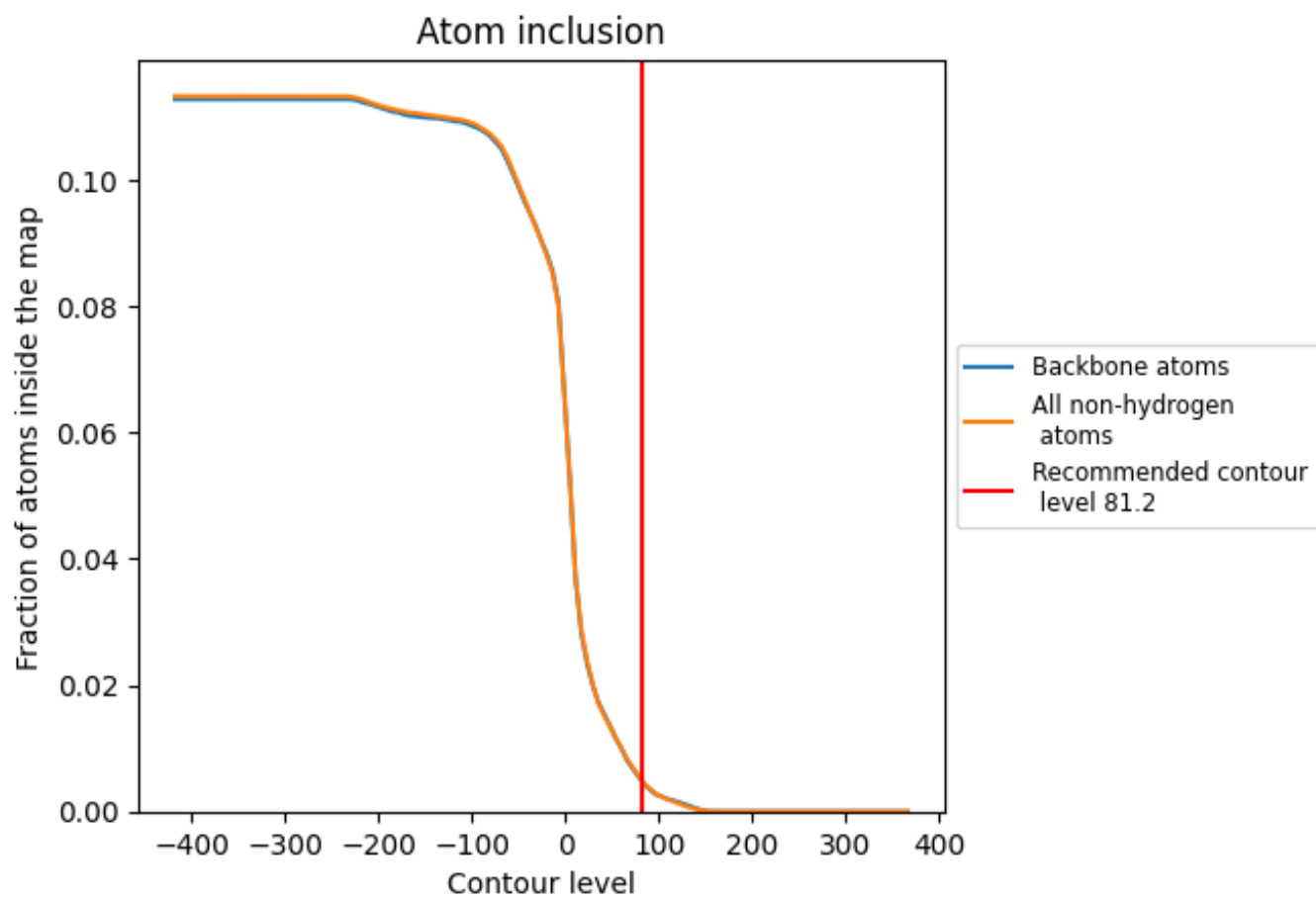


The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

### 8.3 Atom inclusion mapped to coordinate model [i](#)

This section was not generated.























































## 8.4 Atom inclusion [i](#)



At the recommended contour level, 1% of all backbone atoms, 1% of all non-hydrogen atoms, are inside the map.

## 8.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (81.2) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.0051	 -0.0000
0	 0.0000	 0.0000
1	 0.0000	 -0.0030
2	 0.0000	 0.0000
3	 0.0000	 -0.0010
4	 0.0000	 0.0000
5	 0.0000	 -0.0020
7	 0.0000	 -0.0010
8	 0.0000	 -0.0040
9	 0.0000	 0.0020
A	 0.0000	 0.0000
B	 0.0000	 0.0000
C	 0.0000	 0.0000
D	 0.0065	 0.0020
E	 0.0215	 -0.0300
F	 0.1732	 0.0280
G	 0.0000	 0.0000
H	 0.0000	 0.0000
I	 0.0000	 0.0000
P	 0.0000	 0.0000
Q	 0.0000	 0.0000
R	 0.0000	 0.0000
V	 0.0000	 -0.0030
W	 0.0000	 0.0000
X	 0.0428	 -0.0000
Y	 0.0000	 0.0000
Z	 0.0000	 0.0030

