



## Full wwPDB EM Validation Report ⓘ

Nov 27, 2023 – 08:51 PM JST

PDB ID : 8KG9  
EMDB ID : EMD-37215  
Title : Yeast replisome in state III  
Authors : Dang, S.; Zhai, Y.; Feng, J.; Yu, D.; Xu, Z.  
Deposited on : 2023-08-17  
Resolution : 4.52 Å (reported)  
Based on initial model : 6SKL

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:

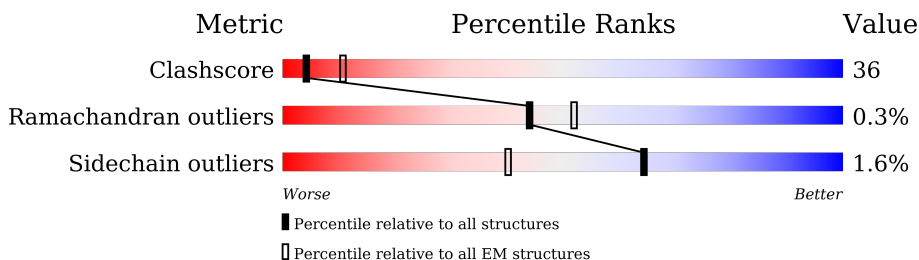
EMDB validation analysis : 0.0.1.dev70  
Mogul : 1.8.5 (274361), CSD as541be (2020)  
MolProbity : 4.02b-467  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
MapQ : 1.9.9  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.36

# 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 4.52 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.












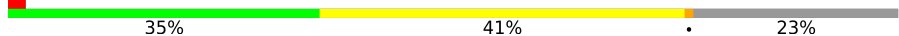
Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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	2	868	
2	3	971	
3	4	933	
4	5	775	
5	6	1017	
6	7	845	
7	A	208	
8	B	213	

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Mol	Chain	Length	Quality of chain
9	C	194	
10	D	294	
11	E	650	
12	F	927	
12	G	927	
12	H	927	
13	I	71	
14	J	61	
15	M	2222	
16	N	689	

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
18	ADP	2	902	-	-	X	-
18	ADP	3	1001	-	-	X	-
20	AGS	5	803	-	-	X	-
20	AGS	7	903	-	-	X	-

## 2 Entry composition [i](#)

There are 20 unique types of molecules in this entry. The entry contains 63507 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 DNA replication licensing factor MCM2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	2	668	5270	3310	948	993	19	0	0

- Molecule 2 is a protein called DNA replication licensing factor MCM3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	3	637	4948	3116	881	938	13	0	0

- Molecule 3 is a protein called DNA replication licensing factor MCM4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	4	676	5390	3386	937	1036	31	0	0

- Molecule 4 is a protein called Minichromosome maintenance protein 5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	5	676	5325	3347	919	1035	24	0	0

- Molecule 5 is a protein called DNA replication licensing factor MCM6.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	6	629	4955	3124	868	938	25	0	0

- Molecule 6 is a protein called DNA replication licensing factor MCM7.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	7	636	4945	3125	861	933	26	0	0

- Molecule 7 is a protein called DNA replication complex GINS protein PSF1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
7	A	200	1633	1024	282	318	9	0	0

- Molecule 8 is a protein called DNA replication complex GINS protein PSF2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	B	193	1617	1039	286	287	5	0	0

- Molecule 9 is a protein called DNA replication complex GINS protein PSF3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	C	172	1387	904	223	253	7	0	0

- Molecule 10 is a protein called DNA replication complex GINS protein SLD5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
10	D	243	2004	1276	327	389	12	0	0

- Molecule 11 is a protein called Cell division control protein 45.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
11	E	568	4599	2935	778	872	14	0	0

- Molecule 12 is a protein called DNA polymerase alpha-binding protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
12	F	424	3404	2188	564	637	15	0	0
12	G	422	3380	2172	557	636	15	0	0
12	H	425	3411	2193	565	638	15	0	0

- Molecule 13 is a DNA chain called DNA (70-mer).

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
13	I	15	307	150	42	100	15	0	0

- Molecule 14 is a DNA chain called DNA (61-mer).

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
14	J	8	159	76	29	46	8	0	0

- Molecule 15 is a protein called DNA polymerase epsilon catalytic subunit A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
15	M	812	6447	4162	1059	1192	34	0	0

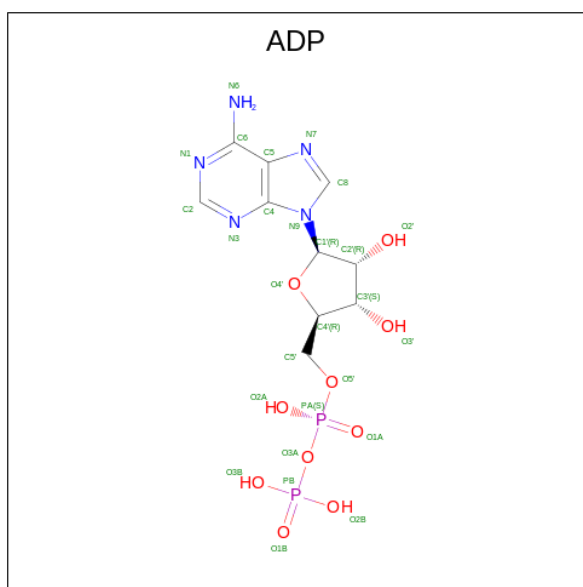
- Molecule 16 is a protein called DNA polymerase epsilon subunit B.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
16	N	529	4199	2684	716	782	17	0	0

- Molecule 17 is ZINC ION (three-letter code: ZN) (formula: Zn) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		AltConf
17	2	1	Total	Zn	0
			1	1	
17	4	1	Total	Zn	0
			1	1	
17	5	1	Total	Zn	0
			1	1	
17	6	1	Total	Zn	0
			1	1	
17	7	1	Total	Zn	0
			1	1	
17	M	2	Total	Zn	0
			2	2	

- Molecule 18 is ADENOSINE-5'-DIPHOSPHATE (three-letter code: ADP) (formula: C<sub>10</sub>H<sub>15</sub>N<sub>5</sub>O<sub>10</sub>P<sub>2</sub>) (labeled as "Ligand of Interest" by depositor).

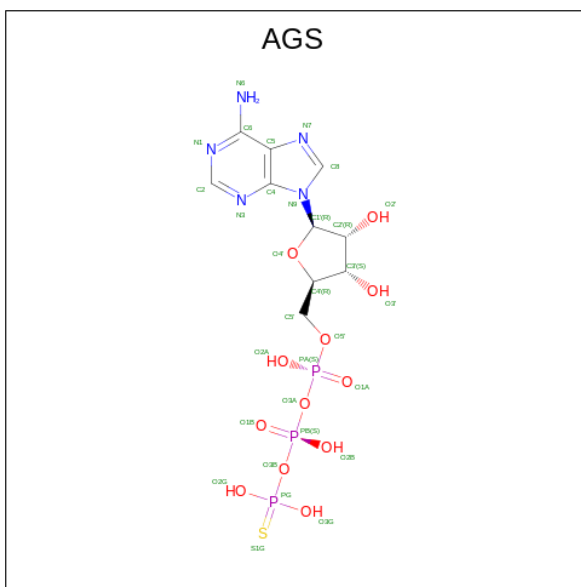


Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
18	2	1	27	10	5	10	2	0
18	3	1	27	10	5	10	2	0

- Molecule 19 is MAGNESIUM ION (three-letter code: MG) (formula: Mg) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
19	2	1	1	1	0
19	5	2	2	2	0
19	7	1	1	1	0

- Molecule 20 is PHOSPHOTHIOPHOSPHORIC ACID-ADENYLATE ESTER (three-letter code: AGS) (formula: C<sub>10</sub>H<sub>16</sub>N<sub>5</sub>O<sub>12</sub>P<sub>3</sub>S) (labeled as "Ligand of Interest" by depositor).



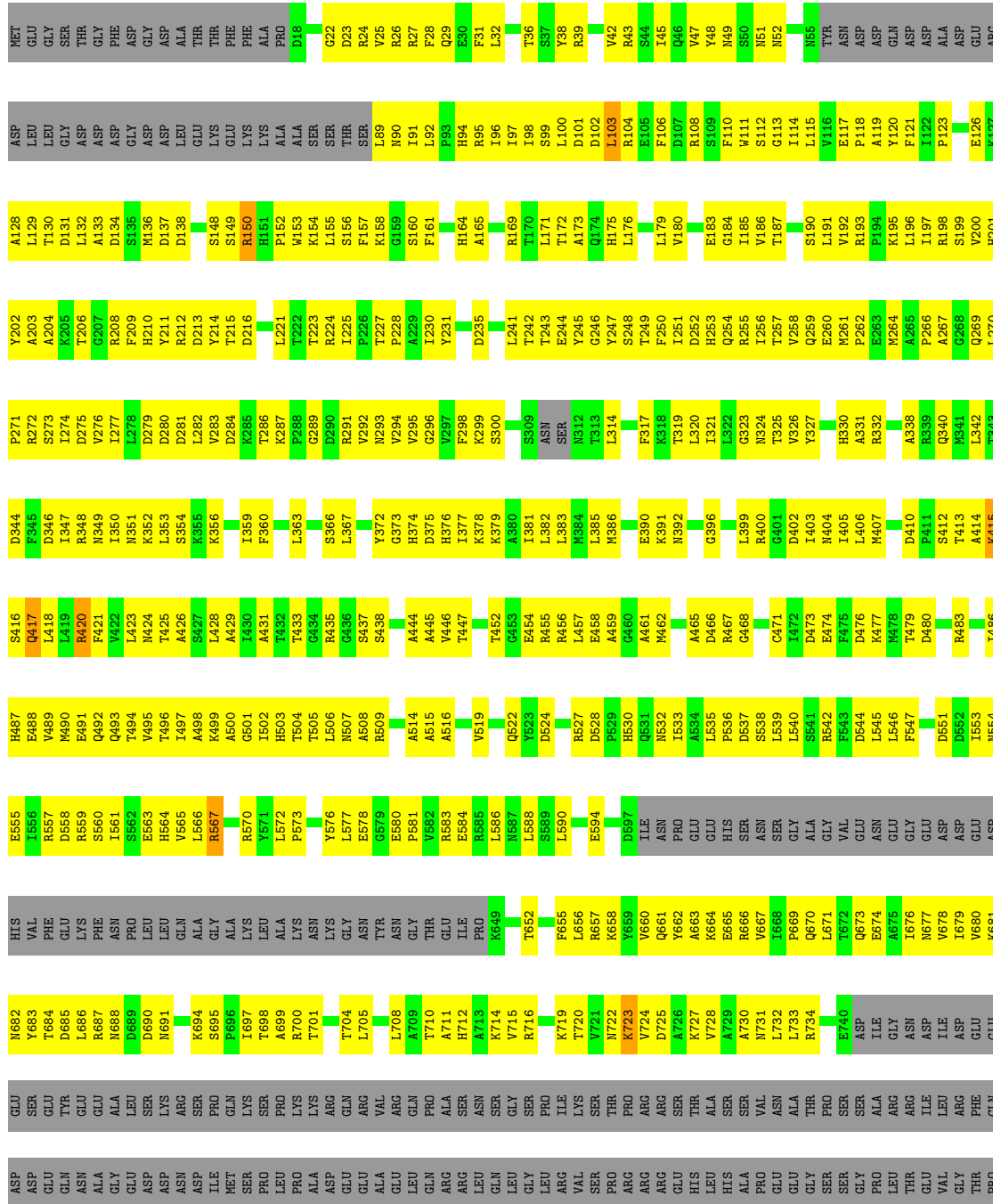
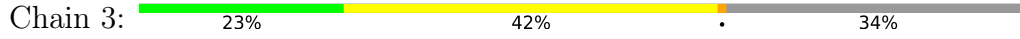
Mol	Chain	Residues	Atoms					AltConf	
			Total	C	N	O	P		S
20	5	1	31	10	5	12	3	1	0
20	7	1	31	10	5	12	3	1	0



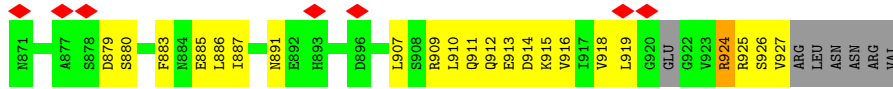




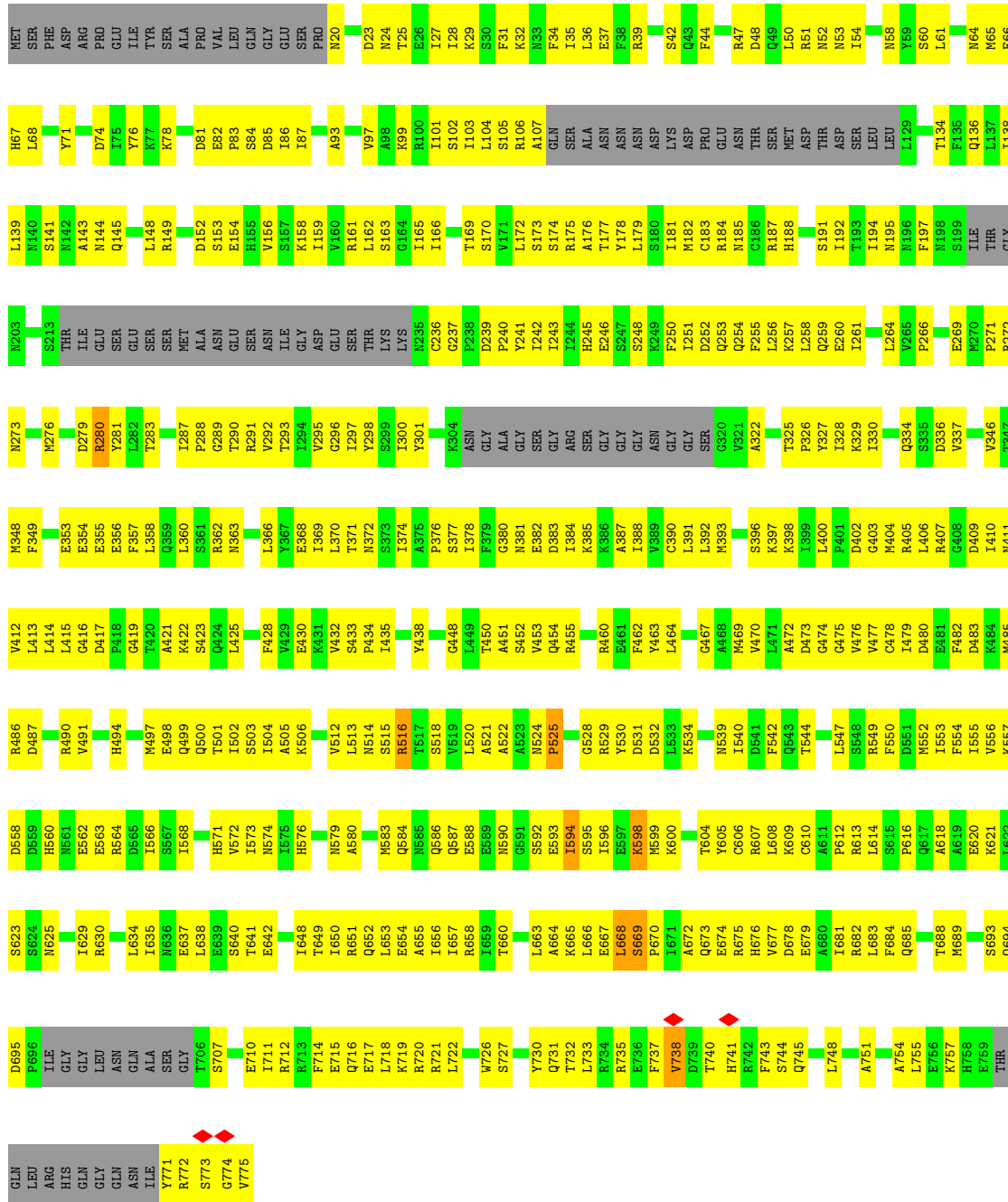
• Molecule 2: DNA replication licensing factor MCM3



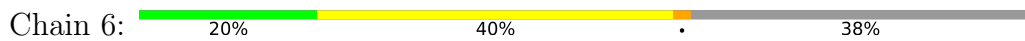




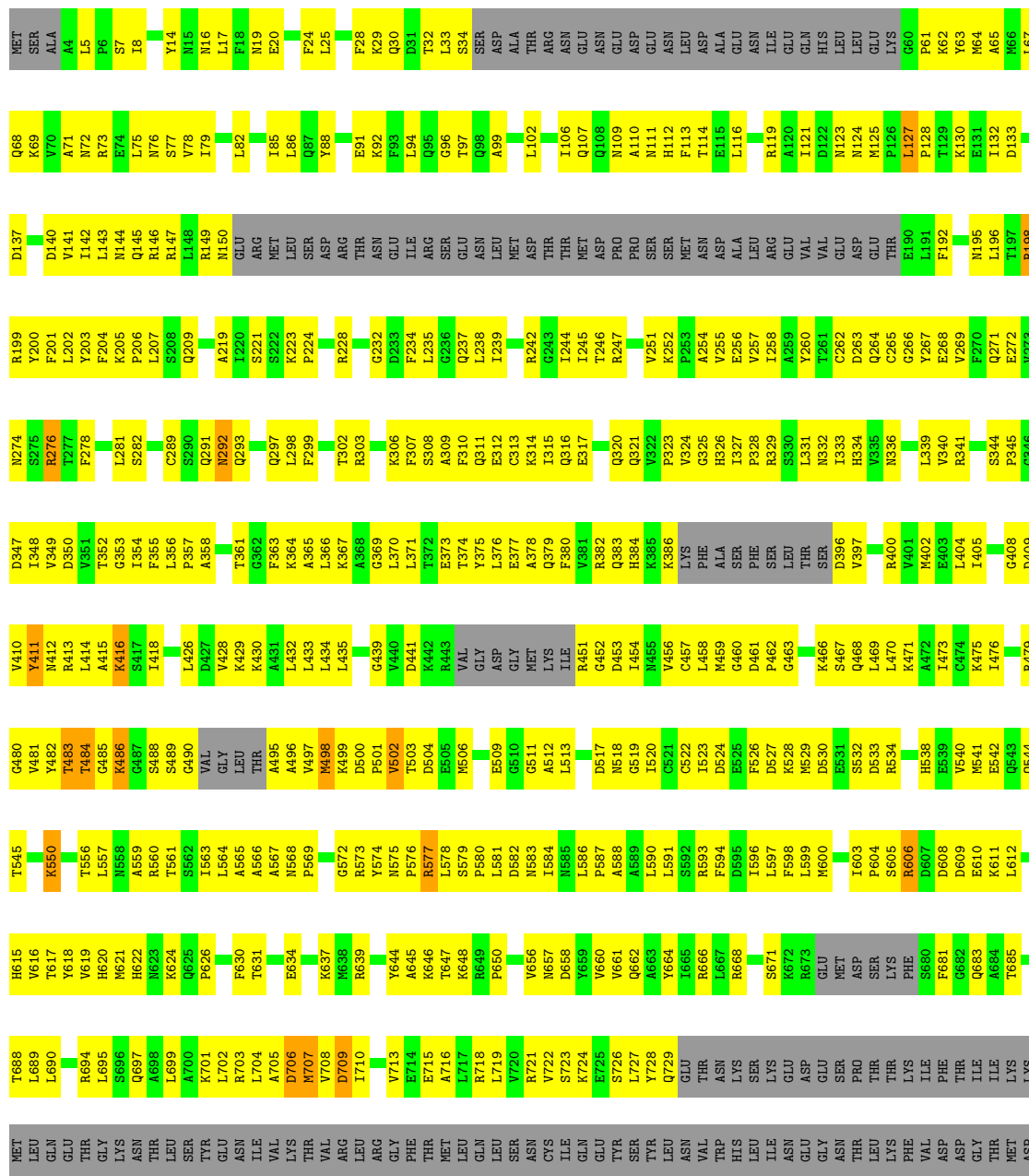
• Molecule 4: Minichromosome maintenance protein 5



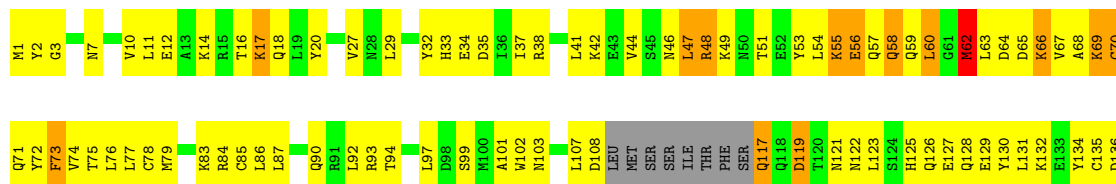
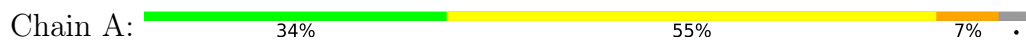
• Molecule 5: DNA replication licensing factor MCM6

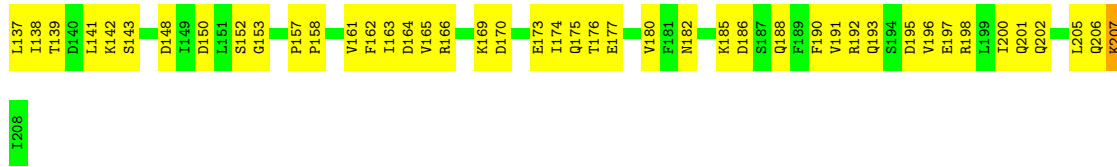




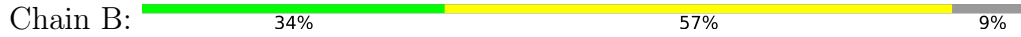


• Molecule 7: DNA replication complex GINS protein PSF1

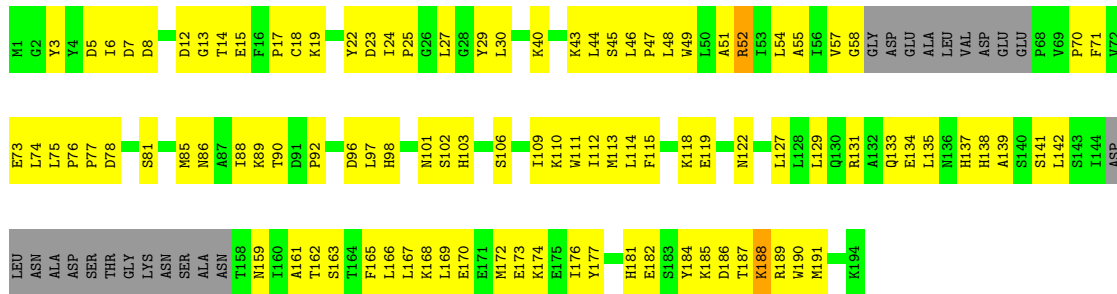
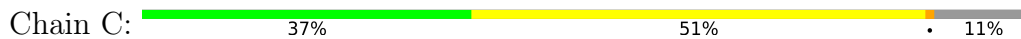




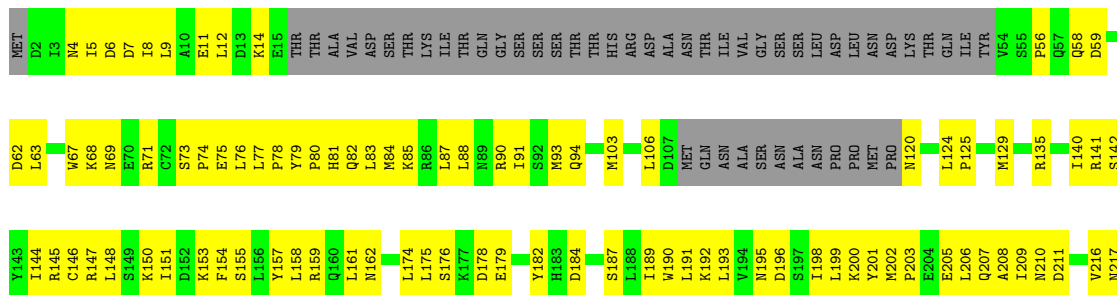
• Molecule 8: DNA replication complex GINS protein PSF2



• Molecule 9: DNA replication complex GINS protein PSF3

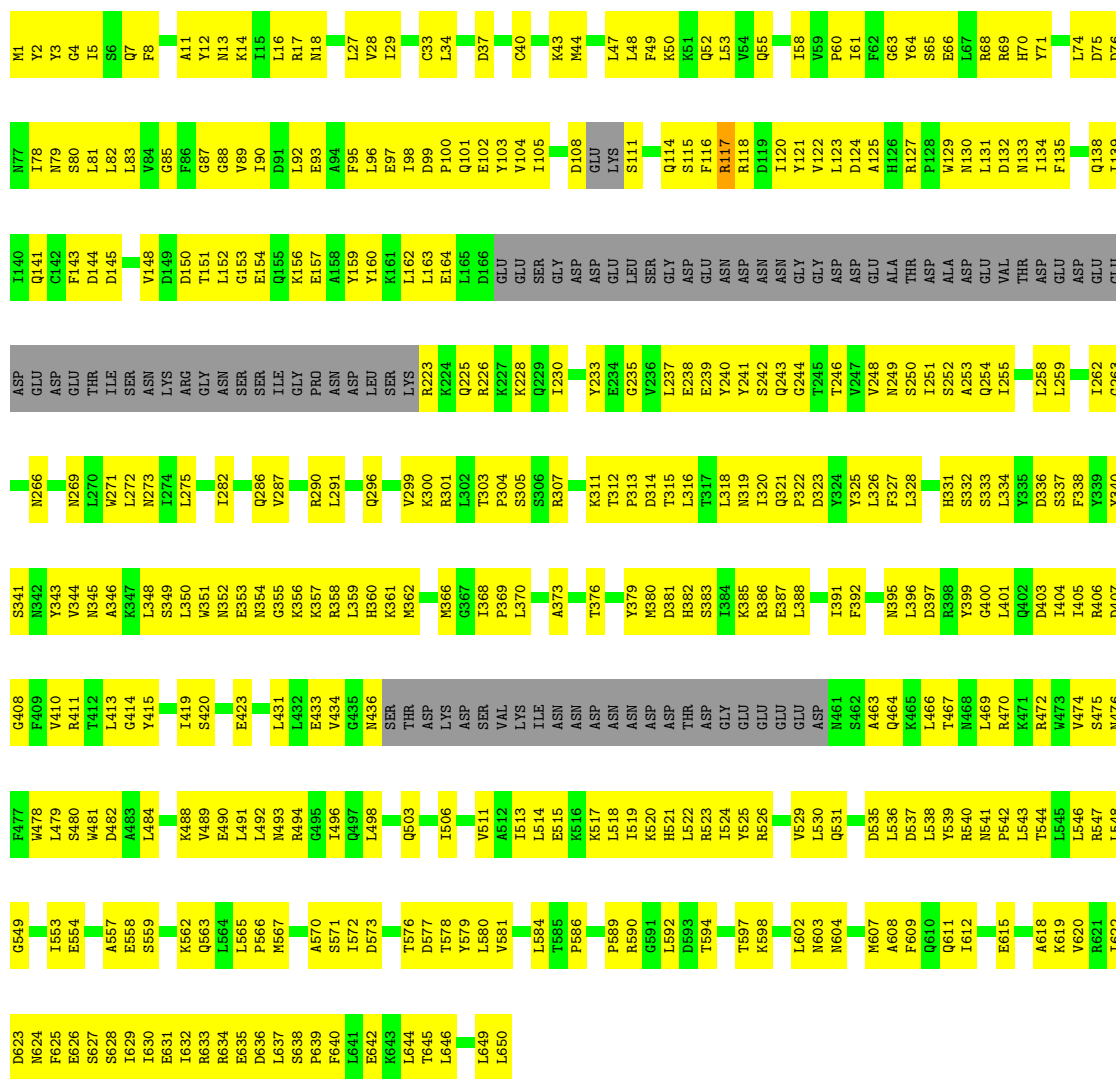


• Molecule 10: DNA replication complex GINS protein SLD5

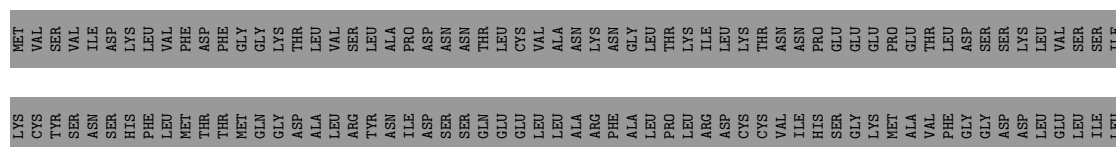




● Molecule 11: Cell division control protein 45



● Molecule 12: DNA polymerase alpha-binding protein



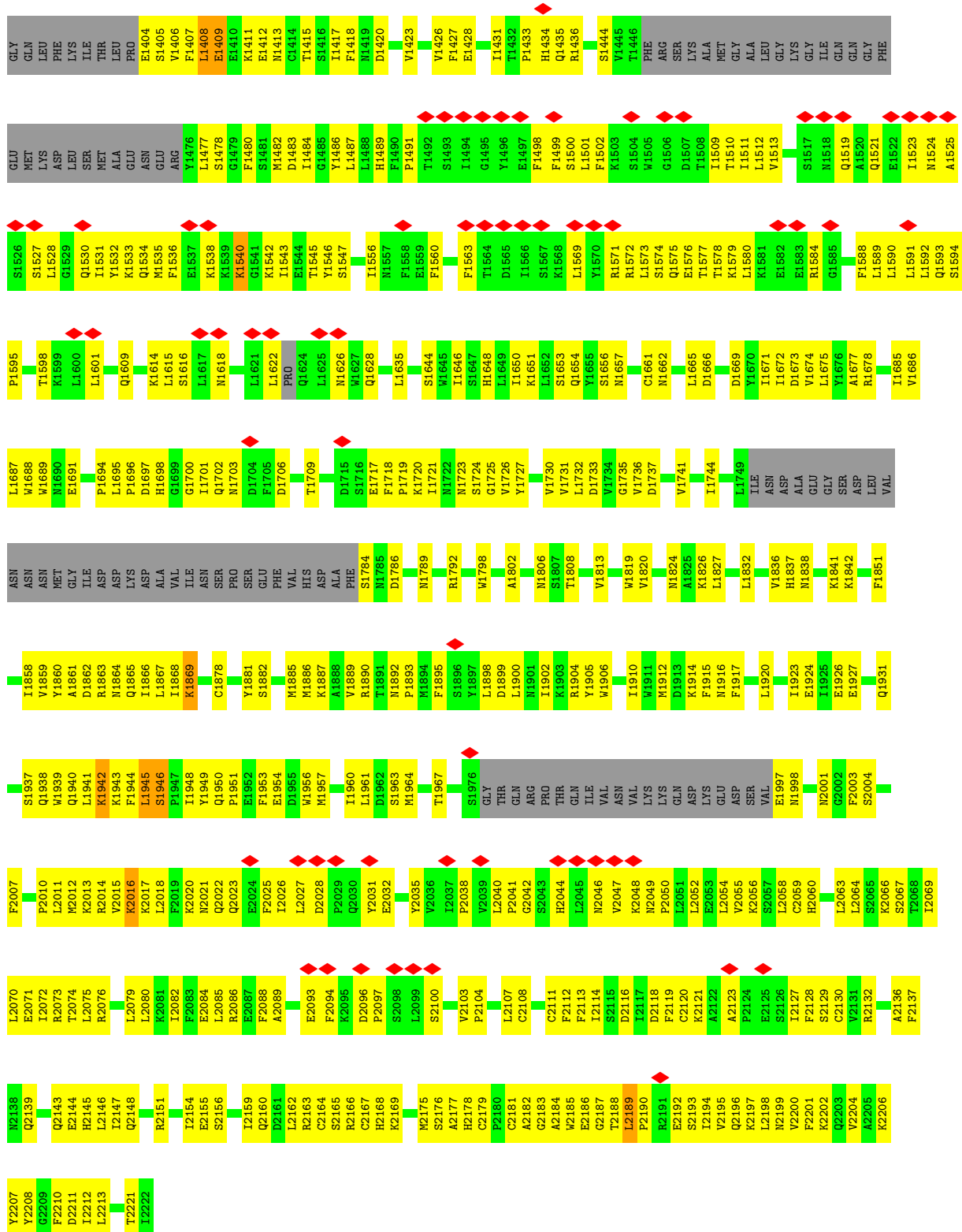








V1324	Ile	GLU
L1325	Ile	GLU
F1332	Pro	Ser
P1333	Ser	Lys
G1334	Met	Asn
V1335	Met	Val
L1336	Asp	Arg
E1337	Thr	Arg
V1338	Arg	Val
V1340	Thr	Gly
I1341	Gly	Val
I1342	Trp	Ile
N1343	Ala	Ala
G1344	Ala	Ala
K1345	Ile	Ile
V1346	Ile	Ile
Q1347	Thr	Thr
N1348	Glu	Glu
I1349	Pro	Pro
T1350	Thr	Ala
F1351	Val	Val
H1352	Ala	Ala
I1353	Glu	Glu
P1354	Arg	Asp
I1357	Arg	Asn
Y1358	Ala	Ala
M1359	Arg	Lys
K1360	Arg	Lys
F1361	Arg	Lys
K1362	Arg	Lys
S1363	Ile	Ile
Q1364	Ala	Ala
Q1369	Thr	Thr
K1370	Asn	Asn
I1371	Ser	Ser
K1372	Ser	Ser
H1373	Arg	Arg
C1374	Glu	Glu
L1375	Glu	Glu
I1376	Arg	Arg
E1377	Ser	Ser
K1378	Ala	Ala
S1379	Ala	Ala
L1383	Leu	Leu
P1384	Glu	Glu
M1385	Lys	Lys
M1386	Lys	Lys
P1387	Gln	Gln
K1388	Gln	Gln
I1389	Pro	Pro
S1390	Pro	Pro
N1391	Val	Val
P1392	Val	Val
ALA	Ala	Ala
GLY	Gly	Gly



• Molecule 16: DNA polymerase epsilon subunit B



L630	L631	L632	L633	P634	P635	P636	S637	T638	V640	S646	L651	T652	G655	K656	K657	V658	I659	N660	P661	S663	F664	R669	A670	M673	E674	Y675	V676	S679	K680	K681	T682	I683	Q684	I687	T688	ILE																												
VAL	TYR	THR	GLU	ASN	ASP	ASN	MET	MET	SER	SER	ILE	PRO	PRO	ASP	ASP	ILE	ASP	GLU	VAL	LYS	LYS	PRO	ASP	GLN	PRO	LEU	LEU	R600	V603	V604	T605	D608	Q609	G610	H611	L612	S613	P614	D617	R620	P621	I622	S623	M624	D625	L626	H627	H628	T629															
M494	V495	S496	L497	G498	A499	S500	G501	T502	L503	P504	Q505	D506	P507	I508	P509	S510	F512	T513	K514	K515	K518	K521	N522	V523	V524	S527	N528	P529	F458	T530	R531	Y534	L535	S536	Q537	E538	I539	V540	R543	R549	F550	H553	R554	L555	F559	ASN	GLU	SER	GLU	ASP														
M406	L410	D411	L411	L424	M425	P429	T430	L431	L432	I433	M434	Q435	G436	S437	F438	T439	S440	S446	M447	R450	M451	L452	S453	S454	S455	T456	Q457	F458	K459	D463	T467	R471	F472	L475	T476	T479	T480	M481	I482	F483	I484	P485	G486	P487	M488	D489	L490	W491	G492															
L327	V328	E329	G330	I331	Y332	Y333	N337	K338	F339	H340	V341	M344	T345	L346	P347	P348	G349	E350	R351	R352	E353	L354	T355	E357	D363	LEU	GLY	ILE	HIS	GLY	ILE	SER	ASN	ASN	PHE	ALA	ARG	LEU	K381	D382	L383	L387	K398	F399	V400	I401	L402	G403	A404															
THR	ASN	ARG	GLN	GLN	S263	S264	S265	M266	S267	I268	T269	P270	I271	K272	N273	L274	L275	G276	R277	Q280	N281	T220	R221	Y222	Y223	L224	T225	N226	D227	R228	V229	M230	R231	E233	N232	F235	N234	Q236	N237	SER	ASP	MET	PHE	ASN	PRO	LEU	SER	MET	VAL	SER	LEU	ASN	GLN	GLU	M325	V326								
P194	N195	L195	GLN	ASN	GLY	LEU	G202	G203	I204	L208	P209	D210	I211	K214	V215	Q216	M217	F218	T219	T220	R221	Y222	Y223	L224	T225	N226	D227	R228	V229	M230	R231	E233	N232	F235	N234	Q236	N237	SER	ASP	MET	PHE	ASN	PRO	LEU	SER	MET	VAL	SER	LEU	ASN	GLN	GLU	M325	V326										
ALA	ALA	ASP	SER	SER	LEU	GLN	ASN	GLM	VAL	VAL	LEU	LEU	SER	SER	PRO	MET	ARG	GLM	PRO	THR	GLU	ARG	ASP	GLU	M91	K92	E93	R94	E95	K96	V97	E98	TRP	SER	SER	HIS	S35	GLU	HIS	PRO	LEU	ILE	GLM	HIS	GLU	E43	F44	V45	G46	T47	N52	Q55	A58	T59	I60	K61	F62	L63	E64	Q65	F66	F192	P193	ILE

## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	17199	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	53	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	81000	Depositor
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	1.030	Depositor
Minimum map value	-0.192	Depositor
Average map value	0.008	Depositor
Map value standard deviation	0.054	Depositor
Recommended contour level	0.25	Depositor
Map size (Å)	466.39996, 466.39996, 466.39996	wwPDB
Map dimensions	440, 440, 440	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.06, 1.06, 1.06	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: MG, ZN, ADP, AGS

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	2	0.29	0/5360	0.56	0/7241
2	3	0.29	0/5032	0.54	1/6827 (0.0%)
3	4	0.25	0/5459	0.53	0/7363
4	5	0.28	1/5402 (0.0%)	0.55	1/7300 (0.0%)
5	6	0.29	0/5036	0.60	0/6799
6	7	0.30	0/5019	0.53	1/6789 (0.0%)
7	A	0.37	0/1653	0.55	0/2224
8	B	0.27	0/1650	0.48	0/2231
9	C	0.28	0/1420	0.45	0/1918
10	D	0.28	0/2040	0.48	0/2755
11	E	0.27	0/4685	0.48	0/6343
12	F	0.29	0/3489	0.50	0/4724
12	G	0.28	0/3465	0.51	0/4696
12	H	0.28	0/3496	0.49	0/4735
13	I	0.45	0/339	1.12	0/520
14	J	0.46	0/177	0.78	0/269
15	M	0.30	0/6586	0.50	1/8926 (0.0%)
16	N	0.27	0/4290	0.51	0/5811
All	All	0.29	1/64598 (0.0%)	0.53	4/87471 (0.0%)

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	5	525	PRO	N-CD	-5.68	1.40	1.47

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	5	668	LEU	CA-CB-CG	5.73	128.49	115.30
15	M	2189	LEU	CA-CB-CG	5.54	128.05	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	3	103	LEU	CA-CB-CG	5.18	127.22	115.30
6	7	127	LEU	CA-CB-CG	5.18	127.21	115.30

There are no chirality outliers.

There are no planarity outliers.

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

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	2	5270	0	5304	448	0
2	3	4948	0	4991	425	0
3	4	5390	0	5467	420	0
4	5	5325	0	5351	431	0
5	6	4955	0	4959	508	0
6	7	4945	0	4987	409	0
7	A	1633	0	1631	157	0
8	B	1617	0	1674	129	0
9	C	1387	0	1405	101	0
10	D	2004	0	2001	146	0
11	E	4599	0	4584	333	0
12	F	3404	0	3352	224	0
12	G	3380	0	3310	224	0
12	H	3411	0	3355	236	0
13	I	307	0	178	12	0
14	J	159	0	90	2	0
15	M	6447	0	6368	397	0
16	N	4199	0	4163	253	0
17	2	1	0	0	0	0
17	4	1	0	0	0	0
17	5	1	0	0	0	0
17	6	1	0	0	0	0
17	7	1	0	0	0	0
17	M	2	0	0	0	0
18	2	27	0	12	19	0
18	3	27	0	12	16	0
19	2	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	5	2	0	0	0	0
19	7	1	0	0	0	0
20	5	31	0	12	12	0
20	7	31	0	12	9	0
All	All	63507	0	63218	4549	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 36.

All (4549) 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)
3:4:802:ILE:HG13	5:6:736:MET:SD	1.57	1.44
5:6:735:HIS:O	5:6:736:MET:HG2	1.28	1.32
3:4:802:ILE:CG1	5:6:736:MET:SD	2.21	1.28
3:4:802:ILE:CD1	5:6:736:MET:SD	2.27	1.22
2:3:499:LYS:HA	6:7:490:GLY:HA2	1.19	1.16
6:7:480:GLY:HA2	6:7:520:ILE:HB	1.23	1.15
1:2:546:GLY:H	18:2:902:ADP:PB	1.83	1.02
2:3:499:LYS:CA	6:7:490:GLY:HA2	1.90	1.01
6:7:412:ASN:HA	6:7:430:LYS:NZ	1.75	1.01
3:4:371:CYS:HB2	3:4:376:CYS:SG	2.00	1.00
15:M:1341:THR:HA	15:M:1346:VAL:CA	1.93	0.99
5:6:735:HIS:O	5:6:736:MET:CG	2.11	0.98
2:3:407:MET:HE2	2:3:415:LYS:HB2	1.42	0.97
6:7:262:CYS:HB3	6:7:265:CYS:SG	2.05	0.97
15:M:1341:THR:CA	15:M:1346:VAL:HA	1.93	0.97
15:M:1341:THR:HA	15:M:1346:VAL:HA	0.98	0.96
15:M:1939:TRP:HB3	15:M:1942:LYS:HB2	1.48	0.95
6:7:245:ILE:HA	6:7:315:ILE:HA	1.50	0.94
3:4:802:ILE:HD12	5:6:736:MET:SD	2.06	0.94
3:4:352:CYS:HB2	3:4:376:CYS:HB3	1.51	0.93
15:M:1956:TRP:HE1	15:M:2014:ARG:HG2	1.34	0.92
6:7:412:ASN:HA	6:7:430:LYS:HZ2	1.27	0.91
3:4:802:ILE:HG13	5:6:736:MET:CE	1.99	0.91
1:2:213:SER:O	1:2:217:GLU:HB2	1.71	0.90
4:5:772:ARG:HB2	15:M:2187:GLY:HA3	1.54	0.90
15:M:1945:LEU:HD23	15:M:1950:GLN:HA	1.53	0.90
6:7:460:GLY:HA2	6:7:600:MET:H	1.36	0.89
6:7:496:ALA:H	6:7:513:LEU:H	1.20	0.89
15:M:1371:ILE:HA	15:M:1406:VAL:HG13	1.55	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:416:GLY:HA3	4:5:556:VAL:HB	1.56	0.88
15:M:2022:GLN:HA	15:M:2025:PHE:HB2	1.55	0.87
2:3:687:ARG:HE	6:7:609:ASP:HB3	1.39	0.87
9:C:12:ASP:HB3	9:C:49:TRP:HB3	1.57	0.87
3:4:224:LEU:HD22	3:4:227:ILE:HG12	1.55	0.87
4:5:771:TYR:N	15:M:2188:THR:HG1	1.72	0.87
1:2:311:GLU:HA	1:2:314:LEU:HD13	1.55	0.87
15:M:2026:ILE:HD12	15:M:2027:LEU:HG	1.57	0.86
1:2:344:CYS:HB3	1:2:366:ASN:HB2	1.57	0.86
2:3:499:LYS:HA	6:7:490:GLY:CA	2.03	0.85
5:6:308:SER:HB2	5:6:350:ARG:HG2	1.57	0.85
11:E:553:ILE:HG12	11:E:567:MET:HG3	1.58	0.85
5:6:776:LYS:HD2	5:6:824:ILE:HG22	1.59	0.84
1:2:393:ALA:HB2	1:2:459:ARG:HH12	1.42	0.84
2:3:24:ARG:HG2	2:3:27:ARG:HH21	1.43	0.84
2:3:581:PRO:HG2	2:3:583:ARG:HH12	1.43	0.83
5:6:735:HIS:O	5:6:736:MET:CE	2.25	0.83
7:A:73:PHE:HA	7:A:76:LEU:HD12	1.58	0.83
5:6:828:TYR:HA	5:6:831:LEU:HD12	1.60	0.83
12:H:534:TYR:HD1	12:H:548:GLN:HB2	1.42	0.83
2:3:203:ALA:HB2	2:3:241:LEU:H	1.42	0.83
8:B:112:PHE:HB2	8:B:172:ASN:HB2	1.59	0.83
15:M:1354:PRO:HB3	15:M:1407:PHE:HA	1.60	0.83
2:3:454:GLU:HG2	2:3:456:ARG:HH12	1.44	0.82
4:5:292:VAL:HA	4:5:336:ASP:H	1.41	0.82
15:M:1939:TRP:HB3	15:M:1942:LYS:CB	2.09	0.82
12:G:641:SER:HA	12:G:650:TYR:HA	1.62	0.82
1:2:543:GLY:HA2	1:2:683:VAL:HB	1.62	0.81
12:G:883:LEU:HD23	12:G:913:LYS:HE2	1.62	0.81
2:3:412:SER:HA	18:3:1001:ADP:H5'1	1.61	0.81
4:5:421:ALA:HA	20:5:803:AGS:H3'	1.61	0.81
5:6:294:VAL:HB	5:6:361:ILE:HG22	1.60	0.81
6:7:334:HIS:HB2	6:7:377:GLU:HG2	1.63	0.81
5:6:589:VAL:HG21	5:6:597:TYR:HB2	1.62	0.81
12:H:697:ILE:HB	12:H:705:LEU:HB2	1.63	0.81
4:5:145:GLN:HG2	4:5:161:ARG:HG2	1.61	0.80
3:4:762:ILE:HA	3:4:817:VAL:HB	1.64	0.80
6:7:496:ALA:HB2	6:7:513:LEU:HB2	1.60	0.80
3:4:182:GLY:HA3	6:7:303:ARG:HH12	1.45	0.80
3:4:435:VAL:HG13	3:4:466:VAL:HG12	1.62	0.80
5:6:143:MET:O	5:6:147:ASP:N	2.15	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A:84:ARG:NH2	9:C:3:TYR:O	2.15	0.80
5:6:183:LYS:HA	5:6:187:ARG:NH2	1.96	0.80
6:7:453:ASP:HA	6:7:560:ARG:HE	1.43	0.80
12:G:777:ARG:HA	12:G:829:ARG:HE	1.47	0.80
6:7:462:PRO:HG2	6:7:572:GLY:HA2	1.63	0.80
4:5:165:ILE:HA	4:5:291:ARG:HA	1.62	0.79
12:H:512:SER:HA	12:H:529:GLU:HA	1.63	0.79
10:D:253:LYS:HZ1	10:D:271:ILE:H	1.30	0.79
12:F:573:GLN:HG3	12:F:576:GLU:HB2	1.63	0.79
4:5:482:PHE:O	4:5:490:ARG:NH1	2.14	0.79
11:E:322:PRO:HA	11:E:407:ASP:HA	1.65	0.79
1:2:265:GLU:HA	1:2:268:LEU:HD12	1.65	0.79
4:5:771:TYR:N	15:M:2188:THR:OG1	2.16	0.79
12:H:704:LEU:HB3	12:H:722:LEU:HB3	1.63	0.79
5:6:705:ILE:HA	5:6:708:ARG:HD2	1.65	0.79
4:5:358:LEU:HB2	4:5:362:ARG:HH21	1.46	0.78
1:2:705:ARG:HA	1:2:744:ARG:HD3	1.65	0.78
15:M:1362:LYS:HE3	15:M:1374:CYS:HA	1.65	0.78
2:3:498:ALA:HA	2:3:503:HIS:HA	1.64	0.78
10:D:249:ASN:HB2	10:D:255:CYS:HB3	1.65	0.78
16:N:529:PRO:O	16:N:531:ARG:NH1	2.17	0.78
2:3:202:TYR:HB2	2:3:209:PHE:HA	1.65	0.78
12:F:846:GLU:HG2	12:F:851:GLU:HB2	1.65	0.78
15:M:1878:CYS:O	15:M:1882:SER:N	2.17	0.78
16:N:70:TRP:HB3	16:N:72:GLN:HG2	1.65	0.78
5:6:693:LEU:HD23	5:6:698:ASN:HA	1.65	0.77
1:2:546:GLY:HA2	18:2:902:ADP:H5'1	1.66	0.77
12:F:619:THR:HB	12:F:626:PHE:HB3	1.64	0.77
5:6:363:GLU:HG2	5:6:374:PRO:HA	1.67	0.77
16:N:515:LYS:HA	16:N:518:LYS:HG2	1.64	0.77
3:4:587:ARG:HH12	3:4:755:LYS:HD3	1.49	0.77
4:5:469:MET:HA	4:5:472:ALA:HB3	1.66	0.77
12:H:729:TRP:HD1	12:H:736:GLU:HG2	1.49	0.77
4:5:613:ARG:HG3	4:5:616:PRO:HD3	1.65	0.77
5:6:776:LYS:HD3	5:6:828:TYR:HB2	1.66	0.77
2:3:665:GLU:OE1	2:3:666:ARG:NH1	2.18	0.77
2:3:391:LYS:HB2	2:3:399:LEU:HB2	1.65	0.77
12:G:868:ARG:NH1	12:G:868:ARG:O	2.17	0.77
5:6:723:ILE:HG13	5:6:727:LEU:HB2	1.67	0.76
8:B:32:THR:HA	8:B:64:VAL:HA	1.67	0.76
11:E:89:VAL:HG12	11:E:129:TRP:H	1.48	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:778:ARG:HD2	3:4:793:ALA:HB3	1.67	0.76
5:6:699:LEU:HD13	5:6:701:MET:HB3	1.67	0.76
6:7:238:LEU:HA	6:7:354:ILE:HA	1.68	0.76
6:7:353:GLY:HA3	6:7:378:ALA:HA	1.66	0.76
3:4:340:PRO:HG2	5:6:452:ILE:HD12	1.67	0.76
4:5:502:ILE:N	4:5:513:LEU:O	2.17	0.76
5:6:173:GLN:O	5:6:176:ARG:NH1	2.18	0.76
1:2:546:GLY:N	18:2:902:ADP:O1B	2.18	0.76
4:5:499:GLN:HG3	4:5:501:THR:H	1.49	0.76
8:B:21:GLU:HB3	8:B:74:TRP:HB3	1.66	0.76
15:M:2164:CYS:SG	15:M:2165:SER:N	2.59	0.76
2:3:488:GLU:H	2:3:539:LEU:HD13	1.50	0.76
1:2:243:GLU:HA	1:2:296:ARG:HB2	1.66	0.76
1:2:338:LYS:HB2	1:2:376:ASN:HB2	1.68	0.76
2:3:195:LYS:HD3	6:7:371:LEU:H	1.50	0.76
3:4:371:CYS:H	3:4:377:ASN:HA	1.49	0.75
4:5:397:LYS:HD3	4:5:405:ARG:HD2	1.67	0.75
6:7:708:VAL:HG13	6:7:710:ILE:H	1.51	0.75
2:3:445:ALA:HB3	2:3:458:GLU:HB2	1.69	0.75
2:3:730:ALA:HB1	2:3:734:ARG:HH21	1.50	0.75
5:6:711:LEU:HD11	5:6:831:LEU:HD23	1.69	0.75
1:2:424:VAL:HA	1:2:459:ARG:H	1.50	0.75
4:5:727:SER:HB3	4:5:732:THR:HB	1.67	0.75
6:7:662:GLN:HG3	6:7:666:ARG:HE	1.49	0.75
2:3:674:GLU:HG2	2:3:723:LYS:HB3	1.66	0.75
12:F:624:ARG:HH21	12:F:693:GLY:HA3	1.51	0.75
3:4:545:PHE:HA	3:4:751:ILE:HD11	1.66	0.75
8:B:1:MET:O	10:D:145:ARG:NH2	2.18	0.75
1:2:295:VAL:HB	1:2:454:ASN:HD21	1.50	0.75
2:3:372:TYR:HB3	2:3:561:ILE:HD13	1.68	0.75
7:A:173:GLU:HA	7:A:182:ASN:HA	1.67	0.75
16:N:23:ARG:HG3	16:N:27:ARG:HH21	1.51	0.75
2:3:38:TYR:OH	2:3:102:ASP:OD2	2.04	0.75
12:F:639:SER:HB2	12:F:654:GLU:H	1.51	0.75
2:3:192:VAL:HB	2:3:252:ASP:HB3	1.68	0.75
5:6:581:LYS:NZ	5:6:639:ASP:OD1	2.19	0.75
1:2:267:MET:HA	1:2:270:ILE:HD12	1.69	0.74
11:E:238:GLU:HA	11:E:241:TYR:HB2	1.68	0.74
15:M:1862:ASP:OD1	15:M:1914:LYS:NZ	2.20	0.74
6:7:204:PHE:H	6:7:379:GLN:HB3	1.52	0.74
8:B:109:PRO:HA	8:B:155:LYS:HE2	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:G:584:THR:HG23	12:G:622:ASN:HA	1.69	0.74
1:2:794:ARG:HH22	1:2:805:ILE:HB	1.52	0.74
4:5:148:LEU:HD22	4:5:260:GLU:HB3	1.69	0.74
6:7:470:LEU:HD23	6:7:482:TYR:HE1	1.53	0.74
2:3:101:ASP:HA	2:3:104:ARG:HD3	1.70	0.74
12:F:720:PRO:HG3	12:G:611:LYS:HB2	1.68	0.74
6:7:496:ALA:N	6:7:513:LEU:H	1.85	0.74
7:A:46:ASN:HA	7:A:49:LYS:HD2	1.68	0.74
11:E:287:VAL:HG13	11:E:290:ARG:HH22	1.51	0.74
7:A:71:GLN:NE2	9:C:27:LEU:HG	2.03	0.74
1:2:663:LEU:HD13	1:2:848:ALA:HB1	1.70	0.74
4:5:174:SER:HB2	4:5:250:PHE:HB3	1.70	0.73
1:2:780:GLN:NE2	1:2:829:VAL:O	2.21	0.73
4:5:143:ALA:O	4:5:161:ARG:NH1	2.21	0.73
6:7:14:TYR:HA	6:7:17:LEU:HD12	1.68	0.73
10:D:176:SER:OG	10:D:178:ASP:OD1	2.05	0.73
12:G:682:MET:HG2	12:G:684:ILE:H	1.54	0.73
2:3:373:GLY:O	2:3:378:LYS:NZ	2.22	0.73
5:6:732:VAL:HG23	5:6:738:ARG:HH12	1.54	0.73
7:A:53:TYR:O	7:A:57:GLN:N	2.21	0.73
11:E:530:LEU:HB2	11:E:571:SER:HA	1.70	0.73
6:7:608:ASP:HA	6:7:611:LYS:HD3	1.69	0.73
16:N:18:ARG:HA	16:N:38:LEU:HD11	1.69	0.73
2:3:99:SER:HA	2:3:158:LYS:H	1.54	0.73
3:4:349:CYS:HB3	3:4:352:CYS:HB3	1.70	0.73
6:7:415:ALA:CB	6:7:430:LYS:HD3	2.19	0.73
6:7:573:ARG:NH2	6:7:575:ASN:OD1	2.21	0.73
12:H:864:LYS:HB3	12:H:868:ARG:NH1	2.04	0.73
16:N:326:VAL:HA	16:N:347:PRO:HD3	1.69	0.73
12:H:486:PHE:HA	12:H:492:ARG:HG3	1.71	0.73
12:H:493:TYR:HA	12:H:503:SER:HA	1.69	0.73
1:2:244:VAL:HG21	1:2:297:ILE:HD13	1.70	0.73
2:3:171:LEU:HA	2:3:175:HIS:HE2	1.52	0.73
4:5:36:LEU:O	4:5:47:ARG:NH1	2.21	0.73
7:A:103:ASN:O	7:A:107:LEU:HB2	1.88	0.73
1:2:364:CYS:HB3	1:2:367:CYS:SG	2.28	0.73
2:3:99:SER:HB2	2:3:158:LYS:HB2	1.69	0.73
8:B:24:PRO:HA	8:B:72:VAL:HA	1.71	0.73
3:4:380:ASN:HA	5:6:441:ARG:HG3	1.68	0.73
3:4:524:ARG:NH2	3:4:527:ALA:O	2.22	0.72
10:D:74:PRO:HG3	10:D:226:LYS:HD2	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:1487:LEU:HD21	15:M:1580:LEU:HD11	1.71	0.72
15:M:1575:GLN:OE1	15:M:1579:LYS:NZ	2.20	0.72
3:4:343:LYS:HD3	3:4:392:ALA:HB2	1.71	0.72
3:4:353:ASP:HB3	3:4:373:ARG:HH22	1.53	0.72
4:5:771:TYR:HD2	15:M:2160:GLN:HB3	1.54	0.72
12:F:591:GLY:HA3	12:F:615:ILE:HD11	1.70	0.72
1:2:667:VAL:HG12	1:2:669:LEU:H	1.54	0.72
7:A:170:ASP:HB2	7:A:185:LYS:HB2	1.72	0.72
2:3:577:LEU:HB3	2:3:580:GLU:HB2	1.70	0.72
3:4:446:ALA:H	3:4:453:LEU:HA	1.54	0.72
12:G:619:THR:HB	12:G:626:PHE:HB3	1.71	0.72
6:7:143:LEU:O	6:7:147:ARG:NH1	2.23	0.72
2:3:95:ARG:NH2	2:3:155:LEU:O	2.23	0.72
5:6:653:HIS:CD2	5:6:705:ILE:HD13	2.24	0.72
6:7:142:ILE:O	6:7:146:ARG:NH1	2.23	0.72
12:H:883:LEU:HD23	12:H:913:LYS:HE2	1.71	0.72
1:2:793:LEU:HB3	1:2:805:ILE:HG21	1.70	0.72
5:6:541:GLU:HA	5:6:544:LYS:HE2	1.71	0.72
12:F:478:PRO:HD3	12:F:577:ARG:HD2	1.72	0.72
5:6:657:GLU:OE1	5:6:658:GLN:NE2	2.23	0.72
8:B:80:LYS:NZ	8:B:133:ASP:OD2	2.23	0.71
1:2:546:GLY:N	18:2:902:ADP:PB	2.63	0.71
6:7:486:LYS:HB2	6:7:528:LYS:O	1.91	0.71
15:M:1725:GLY:HA2	15:M:2064:LEU:HB3	1.72	0.71
15:M:1733:ASP:HA	15:M:1902:ILE:HG13	1.72	0.71
1:2:813:ILE:HG12	1:2:841:VAL:HG11	1.71	0.71
3:4:551:THR:HG21	3:4:668:ARG:HH22	1.55	0.71
3:4:909:ARG:HD2	5:6:693:LEU:HA	1.72	0.71
6:7:454:ILE:H	6:7:560:ARG:HH21	1.37	0.71
15:M:1942:LYS:HG2	15:M:1953:PHE:CD2	2.25	0.71
1:2:245:ASN:ND2	1:2:299:ASP:OD2	2.24	0.71
1:2:541:LEU:HA	1:2:681:CYS:HB3	1.71	0.71
3:4:190:CYS:HB3	3:4:257:LEU:HD13	1.71	0.71
9:C:135:LEU:HD11	9:C:177:TYR:HB2	1.72	0.71
1:2:525:LYS:HB3	1:2:533:ILE:HB	1.72	0.71
1:2:627:GLN:O	1:2:641:GLN:NE2	2.23	0.71
2:3:36:THR:HA	2:3:39:ARG:HE	1.56	0.71
5:6:183:LYS:HA	5:6:187:ARG:HH21	1.54	0.71
5:6:275:ARG:HG2	5:6:276:ILE:H	1.55	0.71
10:D:288:ASP:HB3	10:D:290:LYS:HD3	1.72	0.71
5:6:611:ALA:HB3	5:6:624:GLU:HB3	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:C:170:GLU:HG2	9:C:172:MET:HG3	1.73	0.71
4:5:413:LEU:HD11	4:5:550:PHE:HB3	1.71	0.71
5:6:600:GLY:HA2	5:6:644:MET:SD	2.31	0.71
11:E:356:LYS:O	11:E:360:HIS:ND1	2.24	0.71
12:H:491:ARG:HD3	12:H:766:PHE:HB2	1.71	0.71
2:3:447:THR:HB	13:I:53:DT:H5 <sup>+</sup>	1.71	0.71
16:N:12:ILE:HD13	16:N:46:GLY:HA3	1.71	0.71
3:4:654:ILE:HB	3:4:665:LEU:HB2	1.72	0.71
6:7:228:ARG:HH21	6:7:326:HIS:HB3	1.56	0.71
11:E:60:PRO:HG2	11:E:474:VAL:HG13	1.71	0.71
2:3:161:PHE:HD2	2:3:165:ALA:HB2	1.56	0.70
3:4:245:ALA:HA	3:4:248:LEU:HD12	1.71	0.70
12:F:895:LEU:HB2	12:F:918:ARG:HH11	1.56	0.70
2:3:404:ASN:O	2:3:544:ASP:N	2.24	0.70
4:5:47:ARG:HH21	8:B:146:GLN:HG2	1.56	0.70
3:4:666:ASN:HD21	3:4:668:ARG:HE	1.39	0.70
3:4:802:ILE:HD11	5:6:736:MET:SD	2.28	0.70
11:E:325:TYR:HB2	11:E:406:ARG:HH22	1.56	0.70
15:M:1651:LYS:HD3	15:M:1806:ASN:HD21	1.54	0.70
16:N:432:LEU:HD23	16:N:481:MET:HG3	1.74	0.70
1:2:327:ARG:HH12	1:2:416:ASP:HA	1.56	0.70
1:2:845:PHE:O	1:2:849:GLN:NE2	2.22	0.70
2:3:179:LEU:HD11	2:3:295:VAL:HG12	1.73	0.70
12:G:601:ASN:OD1	12:G:605:VAL:N	2.23	0.70
15:M:1324:VAL:HA	15:M:1661:CYS:HB2	1.73	0.70
2:3:415:LYS:N	18:3:1001:ADP:O3B	2.24	0.70
5:6:690:ASN:HD22	5:6:693:LEU:HD13	1.56	0.70
1:2:744:ARG:HH21	1:2:747:ARG:HH11	1.40	0.70
2:3:455:ARG:HH22	6:7:499:LYS:HZ3	1.40	0.70
5:6:114:ALA:O	5:6:161:ARG:NH1	2.24	0.70
5:6:735:HIS:O	5:6:736:MET:HE3	1.89	0.70
12:H:864:LYS:HB3	12:H:868:ARG:HH12	1.57	0.70
3:4:332:VAL:HG21	3:4:397:ILE:HG12	1.72	0.70
3:4:572:THR:O	3:4:576:GLN:NE2	2.25	0.70
1:2:549:LYS:HE2	18:2:902:ADP:O1B	1.92	0.70
1:2:743:ARG:HA	1:2:746:GLN:HG2	1.73	0.70
2:3:169:ARG:NH2	2:3:270:LEU:O	2.25	0.70
2:3:347:ILE:O	2:3:351:ASN:ND2	2.24	0.70
5:6:793:TYR:O	5:6:796:THR:OG1	2.09	0.70
12:G:535:ASP:H	12:G:548:GLN:HA	1.57	0.70
1:2:295:VAL:O	1:2:296:ARG:NH1	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:543:GLN:HG3	3:4:562:ILE:HB	1.74	0.70
5:6:293:THR:HG23	5:6:394:ARG:HB3	1.72	0.70
8:B:64:VAL:HB	8:B:67:ARG:HD3	1.73	0.70
11:E:103:TYR:HE2	11:E:118:ARG:HB2	1.57	0.70
12:F:684:ILE:HA	12:F:699:GLY:HA2	1.74	0.70
2:3:186:VAL:O	2:3:289:GLY:N	2.16	0.69
3:4:340:PRO:HA	3:4:393:ASP:HA	1.72	0.69
3:4:639:ASP:HA	3:4:642:ARG:HD2	1.74	0.69
6:7:648:LYS:NZ	6:7:705:ALA:HA	2.07	0.69
11:E:354:ASN:HA	11:E:357:LYS:HD2	1.73	0.69
1:2:227:TYR:OH	1:2:247:ARG:O	2.09	0.69
2:3:354:SER:HA	2:3:359:ILE:HG21	1.73	0.69
4:5:287:ILE:O	4:5:290:THR:OG1	2.10	0.69
5:6:144:LYS:HB2	5:6:261:ARG:HH21	1.57	0.69
6:7:29:LYS:HA	6:7:61:PRO:HA	1.74	0.69
6:7:228:ARG:NH1	6:7:317:GLU:OE2	2.24	0.69
6:7:274:ASN:O	6:7:276:ARG:NH1	2.26	0.69
8:B:22:ASN:OD1	10:D:135:ARG:NH2	2.22	0.69
11:E:34:LEU:HB3	11:E:543:LEU:HD21	1.74	0.69
15:M:1369:GLN:HE21	15:M:1413:ASN:HB2	1.57	0.69
15:M:2167:CYS:SG	15:M:2169:LYS:NZ	2.62	0.69
3:4:443:PRO:HA	3:4:457:TYR:HA	1.74	0.69
5:6:736:MET:O	5:6:739:ASP:HB2	1.92	0.69
6:7:111:ASN:OD1	6:7:112:HIS:N	2.25	0.69
12:F:685:LYS:HB2	12:F:698:PHE:HD2	1.56	0.69
12:H:631:SER:HB3	12:H:634:HIS:HB2	1.75	0.69
6:7:64:MET:HG3	6:7:67:LEU:HD12	1.74	0.69
12:H:826:GLU:HA	12:H:829:ARG:HE	1.58	0.69
1:2:824:ARG:HH21	1:2:826:SER:HB3	1.58	0.69
3:4:366:GLN:O	5:6:439:GLY:N	2.26	0.69
3:4:758:ILE:O	3:4:810:LYS:NZ	2.26	0.69
7:A:175:GLN:NE2	16:N:35:SER:OG	2.26	0.69
8:B:179:ASN:HA	8:B:182:ARG:HE	1.56	0.69
12:G:643:LEU:HD12	12:G:648:LYS:HG3	1.73	0.69
2:3:537:ASP:HA	2:3:540:LEU:HB3	1.73	0.69
4:5:276:MET:HG3	4:5:328:ILE:HB	1.73	0.69
6:7:402:MET:SD	6:7:703:ARG:NH1	2.65	0.69
6:7:500:ASP:HB3	6:7:506:MET:HE3	1.74	0.69
7:A:53:TYR:O	7:A:57:GLN:HB2	1.93	0.69
12:H:525:GLU:OE1	12:H:527:HIS:ND1	2.25	0.69
3:4:238:THR:OG1	3:4:240:ASN:OD1	2.10	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:D:270:THR:HG1	10:D:275:TYR:HH	1.39	0.69
1:2:391:GLN:HE21	1:2:403:PRO:HG2	1.56	0.69
4:5:485:MET:O	4:5:490:ARG:NH1	2.26	0.69
11:E:611:GLN:NE2	11:E:615:GLU:OE2	2.26	0.69
2:3:183:GLU:HA	2:3:293:ASN:HA	1.75	0.68
4:5:775:VAL:HG13	15:M:2193:SER:HB3	1.74	0.68
9:C:92:PRO:O	9:C:131:ARG:NH1	2.24	0.68
11:E:92:LEU:O	11:E:96:LEU:N	2.26	0.68
11:E:513:ILE:HG22	11:E:518:LEU:HD12	1.75	0.68
4:5:455:ARG:HE	4:5:460:ARG:HA	1.58	0.68
4:5:540:ILE:HG21	4:5:547:LEU:HD11	1.75	0.68
5:6:187:ARG:HA	5:6:190:ARG:HB2	1.74	0.68
12:F:886:ALA:HA	12:F:889:LEU:HD12	1.74	0.68
12:H:682:MET:HG2	12:H:684:ILE:H	1.57	0.68
1:2:218:TYR:HE2	1:2:248:HIS:HB3	1.58	0.68
4:5:136:GLN:OE1	4:5:280:ARG:NH1	2.26	0.68
6:7:646:LYS:HA	6:7:701:LYS:HD2	1.74	0.68
10:D:270:THR:OG1	10:D:275:TYR:OH	2.10	0.68
11:E:89:VAL:O	11:E:130:ASN:ND2	2.26	0.68
12:F:501:TYR:O	12:F:516:SER:OG	2.12	0.68
15:M:1509:ILE:HD13	15:M:1556:ILE:HG21	1.75	0.68
15:M:1535:MET:HA	15:M:1538:LYS:HB2	1.73	0.68
2:3:331:ALA:HB2	2:3:338:ALA:H	1.59	0.68
5:6:566:ARG:NH2	5:6:676:THR:O	2.26	0.68
15:M:1953:PHE:HB2	15:M:2054:LEU:HD11	1.76	0.68
18:2:902:ADP:O3A	5:6:798:ARG:NH2	2.27	0.68
12:F:578:ILE:HA	12:F:592:THR:HA	1.74	0.68
1:2:790:TYR:HA	1:2:793:LEU:HD12	1.75	0.68
3:4:370:ARG:O	5:6:441:ARG:NH1	2.26	0.68
6:7:502:VAL:HB	6:7:509:GLU:HG3	1.75	0.68
5:6:396:LYS:N	5:6:460:ILE:O	2.26	0.68
5:6:821:PRO:HA	5:6:824:ILE:HD12	1.73	0.68
7:A:14:LYS:NZ	7:A:18:GLN:OE1	2.25	0.68
7:A:188:GLN:HB2	11:E:58:ILE:HB	1.75	0.68
12:H:516:SER:HA	12:H:525:GLU:HG2	1.75	0.68
16:N:180:ARG:H	16:N:194:PRO:HD3	1.58	0.68
3:4:529:SER:O	3:4:723:HIS:NE2	2.26	0.68
3:4:592:SER:HA	3:4:632:ASP:HB3	1.76	0.68
5:6:118:PHE:O	5:6:122:PHE:N	2.27	0.68
8:B:117:TRP:O	8:B:174:SER:OG	2.10	0.68
11:E:43:LYS:HZ2	11:E:484:LEU:HD22	1.59	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:E:333:SER:OG	11:E:373:ALA:O	2.12	0.68
12:F:477:MET:HB2	12:F:681:PRO:HD3	1.76	0.68
12:G:476:TYR:O	12:G:577:ARG:NH2	2.27	0.68
2:3:724:VAL:HA	2:3:727:LYS:HE3	1.76	0.68
3:4:363:GLY:HA2	5:6:435:SER:HA	1.76	0.68
3:4:712:VAL:O	6:7:668:ARG:NH2	2.27	0.68
11:E:13:ASN:HA	11:E:16:LEU:HD12	1.75	0.68
12:F:594:LEU:O	12:F:611:LYS:NZ	2.26	0.68
5:6:527:ASP:HA	5:6:530:VAL:HB	1.76	0.67
5:6:528:LYS:HG2	5:6:746:PHE:HE2	1.58	0.67
6:7:485:GLY:N	6:7:524:ASP:O	2.26	0.67
7:A:142:LYS:NZ	7:A:150:ASP:OD1	2.27	0.67
12:G:637:SER:HA	12:G:656:PRO:HA	1.75	0.67
15:M:1731:VAL:HA	15:M:1905:TYR:HA	1.75	0.67
1:2:211:LEU:HD21	1:2:271:PHE:HA	1.76	0.67
1:2:617:ARG:HH12	1:2:670:THR:HG23	1.59	0.67
2:3:300:SER:HA	2:3:319:THR:HA	1.74	0.67
3:4:381:SER:OG	5:6:441:ARG:NH2	2.25	0.67
11:E:476:ASN:HA	11:E:479:LEU:HD12	1.77	0.67
12:G:510:GLN:HB3	12:G:531:LEU:HD13	1.74	0.67
15:M:1942:LYS:HG2	15:M:1953:PHE:HD2	1.58	0.67
1:2:779:HIS:CE1	1:2:828:PHE:HB3	2.29	0.67
10:D:88:LEU:HA	10:D:91:ILE:HD12	1.76	0.67
12:F:601:ASN:OD1	12:F:605:VAL:N	2.27	0.67
12:H:475:ARG:O	12:H:577:ARG:NH2	2.27	0.67
12:H:689:PHE:HB3	12:H:693:GLY:HA2	1.76	0.67
15:M:1322:TRP:HA	15:M:1340:VAL:HA	1.75	0.67
2:3:412:SER:O	4:5:653:LEU:HD21	1.94	0.67
5:6:144:LYS:HE2	5:6:196:LEU:HA	1.76	0.67
5:6:169:ALA:O	5:6:176:ARG:NH1	2.28	0.67
5:6:515:GLU:OE1	5:6:753:ARG:NH2	2.26	0.67
10:D:285:LEU:HD12	10:D:290:LYS:HB2	1.75	0.67
15:M:1666:ASP:HB3	16:N:450:ARG:HB3	1.76	0.67
16:N:504:PRO:HG3	16:N:630:LEU:HD21	1.77	0.67
1:2:686:LEU:O	5:6:789:SER:HB2	1.93	0.67
2:3:32:LEU:HD13	2:3:132:LEU:HD22	1.76	0.67
5:6:653:HIS:HD2	5:6:705:ILE:HD13	1.59	0.67
6:7:67:LEU:HD21	6:7:125:MET:HB3	1.75	0.67
11:E:529:VAL:HG12	11:E:570:ALA:HB3	1.76	0.67
1:2:305:SER:OG	1:2:392:GLU:OE2	2.12	0.67
1:2:500:SER:HA	1:2:756:SER:HA	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:699:ALA:HB3	20:7:903:AGS:C8	2.24	0.67
3:4:770:LEU:HD23	5:6:732:VAL:HB	1.77	0.67
10:D:58:GLN:NE2	10:D:62:ASP:OD1	2.28	0.67
11:E:521:HIS:HA	11:E:526:ARG:HA	1.74	0.67
2:3:148:SER:O	2:3:198:ARG:NH1	2.28	0.67
2:3:522:GLN:NE2	4:5:649:THR:OG1	2.28	0.67
4:5:588:GLU:HG2	4:5:593:GLU:HB2	1.77	0.67
4:5:588:GLU:O	4:5:593:GLU:N	2.23	0.67
9:C:55:ALA:HB2	9:C:74:LEU:HD23	1.76	0.67
15:M:1383:LEU:HD22	15:M:1688:TRP:HB3	1.77	0.67
4:5:369:ILE:HG23	4:5:592:SER:HA	1.75	0.67
5:6:757:TYR:O	5:6:760:THR:OG1	2.11	0.67
8:B:10:THR:OG1	8:B:179:ASN:OD1	2.13	0.67
15:M:1735:GLY:HA2	15:M:1865:GLN:HA	1.77	0.67
2:3:487:HIS:HA	2:3:539:LEU:HD22	1.76	0.67
4:5:170:SER:HB3	4:5:255:PHE:H	1.60	0.67
11:E:85:GLY:HA2	11:E:124:ASP:HA	1.77	0.67
15:M:1948:ILE:HD13	15:M:2035:TYR:HE1	1.59	0.67
2:3:223:THR:OG1	4:5:246:GLU:OE2	2.14	0.66
6:7:415:ALA:HB2	6:7:430:LYS:HD3	1.76	0.66
11:E:489:VAL:HA	11:E:492:LEU:HD12	1.75	0.66
12:F:698:PHE:HD1	12:F:704:LEU:HB2	1.59	0.66
16:N:505:GLN:HB2	16:N:528:ASN:HB2	1.75	0.66
1:2:217:GLU:OE1	1:2:217:GLU:N	2.28	0.66
2:3:294:VAL:HG23	2:3:326:VAL:HG22	1.76	0.66
4:5:42:SER:OG	8:B:142:ARG:NH1	2.28	0.66
5:6:132:VAL:HG12	5:6:134:LYS:H	1.58	0.66
5:6:396:LYS:HE3	5:6:462:ILE:HD12	1.76	0.66
7:A:58:GLN:HG2	7:A:62:MET:HE3	1.77	0.66
15:M:1372:LYS:HZ3	15:M:1408:LEU:HB3	1.58	0.66
1:2:810:LEU:HA	1:2:813:ILE:HD12	1.78	0.66
1:2:852:SER:O	1:2:856:GLN:NE2	2.29	0.66
3:4:393:ASP:N	3:4:421:ASP:OD1	2.28	0.66
4:5:35:ILE:HD11	4:5:97:VAL:HG21	1.78	0.66
5:6:640:GLU:HB3	5:6:643:LYS:HB2	1.78	0.66
6:7:73:ARG:NH1	6:7:199:ARG:O	2.28	0.66
6:7:82:LEU:HB3	6:7:207:LEU:HB3	1.76	0.66
6:7:476:ILE:O	6:7:639:ARG:NH1	2.27	0.66
12:H:676:TYR:O	12:H:680:ASN:N	2.27	0.66
2:3:586:LEU:HG	2:3:588:LEU:H	1.60	0.66
3:4:779:LYS:O	3:4:844:LYS:NZ	2.24	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:668:LEU:HD22	4:5:672:ALA:HA	1.78	0.66
5:6:576:ASP:HB2	5:6:579:THR:HG23	1.77	0.66
6:7:265:CYS:HB3	6:7:289:CYS:SG	2.35	0.66
8:B:108:HIS:O	8:B:155:LYS:NZ	2.28	0.66
11:E:581:VAL:HB	11:E:630:ILE:HG13	1.75	0.66
12:H:568:LYS:HZ3	12:H:604:GLY:HA3	1.61	0.66
3:4:437:GLY:HA3	3:4:463:VAL:HG12	1.78	0.66
11:E:300:LYS:O	12:F:491:ARG:NH2	2.29	0.66
12:F:661:LEU:HD12	12:F:662:PRO:HD2	1.77	0.66
1:2:607:ASP:HA	1:2:649:ALA:HB3	1.76	0.66
5:6:141:GLU:O	5:6:144:LYS:HG3	1.95	0.66
11:E:381:ASP:OD2	11:E:383:SER:OG	2.12	0.66
12:G:785:LYS:HA	12:G:788:GLU:HG2	1.76	0.66
12:H:492:ARG:O	12:H:504:THR:N	2.27	0.66
1:2:600:ASP:HB2	1:2:642:ALA:HA	1.78	0.66
3:4:443:PRO:HB2	3:4:453:LEU:HD22	1.77	0.66
4:5:179:LEU:HB2	4:5:192:ILE:HB	1.76	0.66
4:5:398:LYS:O	4:5:406:LEU:N	2.29	0.66
6:7:426:LEU:HD13	6:7:429:LYS:HD3	1.78	0.66
11:E:103:TYR:HA	11:E:117:ARG:HH11	1.61	0.66
16:N:227:ASP:OD1	16:N:228:ARG:N	2.29	0.66
1:2:231:ILE:O	1:2:232:ARG:HG3	1.95	0.66
1:2:333:GLN:N	1:2:383:ARG:O	2.29	0.66
2:3:95:ARG:NE	2:3:156:SER:OG	2.19	0.66
2:3:212:ARG:HH12	2:3:231:TYR:H	1.44	0.66
2:3:452:THR:HG21	2:3:456:ARG:HD2	1.77	0.66
3:4:778:ARG:NH2	5:6:719:CYS:O	2.29	0.66
4:5:607:ARG:HA	4:5:610:CYS:SG	2.36	0.66
5:6:173:GLN:HA	5:6:286:SER:HA	1.78	0.66
7:A:3:GLY:O	7:A:7:ASN:N	2.29	0.66
7:A:29:LEU:H	7:A:117:GLN:HB2	1.60	0.66
10:D:230:ILE:HD11	10:D:277:MET:HG2	1.77	0.66
11:E:43:LYS:HE2	11:E:481:TRP:CD2	2.31	0.66
11:E:328:LEU:HA	11:E:423:GLU:HG2	1.76	0.66
12:F:506:LYS:HA	12:F:511:TYR:HA	1.77	0.66
12:H:637:SER:HB2	12:H:654:GLU:HB3	1.78	0.66
15:M:1491:PRO:HB3	15:M:1618:ASN:HA	1.77	0.66
16:N:228:ARG:NH1	16:N:608:ASP:O	2.29	0.66
2:3:254:GLN:NE2	2:3:284:ASP:OD1	2.28	0.66
3:4:465:HIS:CE1	3:4:467:LYS:HG2	2.30	0.66
4:5:149:ARG:HH12	4:5:272:ARG:H	1.42	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:544:THR:O	4:5:651:ARG:NH2	2.29	0.66
5:6:144:LYS:NZ	5:6:195:GLU:OE1	2.28	0.66
5:6:714:VAL:HG21	5:6:837:ARG:HG3	1.77	0.66
7:A:47:LEU:O	7:A:51:THR:HG23	1.96	0.66
10:D:199:LEU:HD13	10:D:207:GLN:HB3	1.76	0.66
12:G:576:GLU:HG3	12:G:594:LEU:HD23	1.76	0.66
16:N:274:LEU:HD21	16:N:284:LEU:HD21	1.77	0.66
16:N:531:ARG:HG3	16:N:540:VAL:HG22	1.78	0.66
1:2:678:ASP:HB2	1:2:812:SER:HB3	1.77	0.66
2:3:201:HIS:HE1	2:3:212:ARG:H	1.44	0.66
4:5:741:HIS:O	4:5:745:GLN:NE2	2.29	0.66
15:M:1376:ILE:HG13	15:M:1377:GLU:H	1.60	0.66
3:4:794:THR:OG1	3:4:847:MET:SD	2.54	0.65
4:5:744:SER:HA	4:5:748:LEU:HB3	1.76	0.65
15:M:1937:SER:HB2	15:M:1939:TRP:CD1	2.32	0.65
16:N:503:LEU:HD21	16:N:613:SER:HB3	1.78	0.65
1:2:633:LYS:NZ	13:I:57:DT:OP1	2.29	0.65
2:3:224:ARG:NH1	2:3:225:ILE:O	2.29	0.65
3:4:506:LEU:HA	3:4:509:ILE:HD12	1.77	0.65
3:4:721:ALA:O	3:4:725:THR:HG23	1.96	0.65
4:5:491:VAL:O	4:5:494:HIS:ND1	2.29	0.65
6:7:650:PRO:HB2	6:7:706:ASP:HB2	1.78	0.65
8:B:71:VAL:HB	8:B:75:ILE:HD11	1.77	0.65
1:2:534:ARG:O	1:2:815:ARG:NH1	2.28	0.65
1:2:573:ALA:O	1:2:577:THR:OG1	2.14	0.65
4:5:414:LEU:H	4:5:521:ALA:HB3	1.62	0.65
1:2:824:ARG:NH2	1:2:828:PHE:O	2.28	0.65
2:3:407:MET:CE	2:3:415:LYS:HB2	2.24	0.65
6:7:358:ALA:N	6:7:373:GLU:O	2.22	0.65
12:H:640:LEU:H	12:H:652:LYS:HB2	1.61	0.65
15:M:1325:LEU:HB3	15:M:1435:GLN:HE21	1.61	0.65
2:3:97:ILE:HG22	2:3:158:LYS:HE2	1.77	0.65
3:4:441:SER:HA	3:4:459:THR:HA	1.78	0.65
4:5:185:ASN:HD21	4:5:236:CYS:HA	1.60	0.65
6:7:72:ASN:HA	6:7:132:ILE:HD12	1.78	0.65
6:7:647:THR:H	6:7:701:LYS:HB2	1.60	0.65
8:B:97:GLU:OE1	8:B:100:ARG:NH1	2.30	0.65
8:B:164:ASN:ND2	8:B:166:SER:OG	2.29	0.65
10:D:280:GLU:HA	10:D:283:ARG:HE	1.60	0.65
12:F:824:GLU:HA	12:F:827:TYR:CE1	2.31	0.65
12:G:503:SER:OG	12:G:514:THR:OG1	2.13	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:1543:ILE:O	15:M:1547:SER:N	2.30	0.65
15:M:2128:PHE:O	15:M:2137:PHE:N	2.29	0.65
1:2:320:VAL:HG22	1:2:321:THR:H	1.61	0.65
1:2:335:LYS:HB3	1:2:381:VAL:HB	1.77	0.65
12:G:839:ASP:OD1	12:G:843:ASN:ND2	2.30	0.65
12:H:506:LYS:HA	12:H:511:TYR:HA	1.78	0.65
15:M:1694:PRO:HG2	16:N:497:LEU:HD23	1.78	0.65
1:2:538:ASN:ND2	1:2:676:ARG:O	2.27	0.65
3:4:321:ASP:HA	3:4:324:LYS:HD2	1.79	0.65
4:5:689:MET:O	4:5:693:SER:N	2.29	0.65
11:E:237:LEU:HA	11:E:240:TYR:CE1	2.32	0.65
12:H:494:LEU:HB2	12:H:502:VAL:HG13	1.79	0.65
12:H:864:LYS:HD2	12:H:893:ARG:HH12	1.60	0.65
4:5:28:ILE:HG23	4:5:93:ALA:HB2	1.77	0.65
5:6:125:GLN:HB3	5:6:128:ASP:HB2	1.79	0.65
5:6:831:LEU:O	5:6:835:ILE:HG12	1.96	0.65
11:E:48:LEU:O	11:E:52:GLN:NE2	2.29	0.65
11:E:49:PHE:O	11:E:53:LEU:N	2.30	0.65
11:E:68:ARG:NH1	11:E:97:GLU:OE1	2.29	0.65
11:E:399:TYR:HB3	11:E:401:LEU:HD23	1.78	0.65
12:G:543:GLY:HA2	12:G:559:HIS:H	1.62	0.65
15:M:1346:VAL:HG22	15:M:1347:GLN:H	1.61	0.65
15:M:1695:LEU:HG	16:N:497:LEU:HB2	1.78	0.65
1:2:387:ARG:HG2	1:2:409:ILE:HG12	1.79	0.65
2:3:190:SER:HB3	2:3:255:ARG:H	1.62	0.65
3:4:277:LYS:HE3	3:4:300:PHE:HA	1.78	0.65
6:7:228:ARG:NH2	6:7:327:ILE:O	2.25	0.65
6:7:529:MET:HG3	6:7:534:ARG:HH21	1.60	0.65
7:A:78:CYS:HA	9:C:49:TRP:HH2	1.62	0.65
12:H:624:ARG:HG3	12:H:642:GLU:HA	1.79	0.65
15:M:1860:TYR:HB3	15:M:1867:LEU:HB3	1.79	0.65
2:3:97:ILE:HA	2:3:156:SER:HB2	1.78	0.65
5:6:663:ILE:HG22	5:6:665:LYS:H	1.62	0.65
7:A:123:LEU:O	7:A:128:GLN:NE2	2.30	0.65
11:E:305:SER:HB3	12:F:766:PHE:HB3	1.77	0.65
15:M:1945:LEU:HB3	15:M:1950:GLN:HG2	1.79	0.65
15:M:1998:ASN:HA	15:M:2001:ASN:HD22	1.59	0.65
1:2:241:SER:HB2	1:2:296:ARG:HG3	1.77	0.64
1:2:384:ASN:H	1:2:412:ALA:HB2	1.62	0.64
5:6:301:ARG:N	5:6:356:TRP:O	2.30	0.64
7:A:102:TRP:HE1	7:A:134:TYR:HH	1.44	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:D:239:LYS:HE2	10:D:242:GLU:HB3	1.79	0.64
11:E:127:ARG:HD2	11:E:248:VAL:HG13	1.78	0.64
12:H:553:GLN:HA	12:H:569:ILE:HA	1.79	0.64
1:2:478:GLU:O	1:2:481:GLU:HG3	1.96	0.64
1:2:777:LYS:NZ	1:2:827:GLU:OE2	2.30	0.64
2:3:184:GLY:HA2	2:3:261:MET:HE1	1.79	0.64
2:3:314:LEU:O	4:5:175:ARG:NH2	2.28	0.64
3:4:207:LYS:HB3	3:4:212:ARG:HB3	1.79	0.64
10:D:202:MET:O	10:D:207:GLN:NE2	2.31	0.64
15:M:2147:ILE:HD11	15:M:2213:LEU:HA	1.79	0.64
16:N:459:LYS:NZ	16:N:463:ASP:OD2	2.29	0.64
5:6:735:HIS:C	5:6:736:MET:HG2	2.16	0.64
6:7:606:ARG:HG2	6:7:608:ASP:H	1.60	0.64
7:A:71:GLN:HE22	9:C:27:LEU:HG	1.62	0.64
7:A:99:SER:HA	8:B:1:MET:H1	1.63	0.64
7:A:161:VAL:HA	7:A:193:GLN:HB2	1.79	0.64
15:M:1389:THR:HB	15:M:1423:VAL:HG11	1.79	0.64
1:2:543:GLY:HA3	1:2:549:LYS:HD3	1.79	0.64
15:M:1838:ASN:HA	15:M:1841:LYS:HE2	1.79	0.64
1:2:323:VAL:HA	1:2:423:GLU:HA	1.79	0.64
2:3:25:VAL:HG13	2:3:128:ALA:HB2	1.79	0.64
5:6:545:LYS:NZ	5:6:833:GLN:HE22	1.96	0.64
6:7:656:VAL:HG21	6:7:709:ASP:HB3	1.78	0.64
9:C:159:ASN:HD21	9:C:161:ALA:HB3	1.63	0.64
11:E:517:LYS:O	11:E:520:LYS:NZ	2.27	0.64
12:G:597:PHE:N	12:G:610:GLU:O	2.26	0.64
2:3:661:GLN:HA	2:3:664:LYS:HE2	1.80	0.64
5:6:695:LEU:HD22	5:6:714:VAL:HG12	1.79	0.64
6:7:246:THR:HG22	6:7:316:GLN:HB2	1.80	0.64
10:D:75:GLU:OE1	10:D:283:ARG:NH1	2.31	0.64
11:E:159:TYR:HA	11:E:162:LEU:HD12	1.80	0.64
11:E:311:LYS:NZ	11:E:315:THR:OG1	2.21	0.64
12:G:833:LEU:HD23	12:G:836:LEU:HD21	1.79	0.64
16:N:234:ASN:HA	16:N:264:SER:HA	1.80	0.64
3:4:204:LYS:HZ3	3:4:216:ILE:HG21	1.62	0.64
5:6:296:ARG:HD2	5:6:360:ARG:HE	1.63	0.64
12:F:899:VAL:HG13	12:F:911:VAL:HG13	1.79	0.64
12:G:756:LEU:O	12:G:758:LYS:NZ	2.30	0.64
1:2:341:CYS:HA	1:2:373:PHE:HA	1.79	0.64
5:6:359:VAL:O	5:6:379:VAL:N	2.28	0.64
12:F:703:THR:HG22	12:F:724:SER:H	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:G:841:LEU:HD21	12:G:851:GLU:HB3	1.80	0.64
6:7:97:THR:HG22	6:7:99:ALA:H	1.63	0.64
6:7:396:ASP:HA	6:7:400:ARG:HH21	1.63	0.64
10:D:77:LEU:O	10:D:147:ARG:NH2	2.31	0.64
12:F:653:ARG:NH1	12:H:716:SER:O	2.30	0.64
18:2:902:ADP:PB	5:6:798:ARG:HH22	2.21	0.63
2:3:47:VAL:O	2:3:51:ASN:ND2	2.31	0.63
2:3:461:ALA:O	2:3:465:ALA:N	2.31	0.63
3:4:642:ARG:O	3:4:646:HIS:ND1	2.31	0.63
4:5:525:PRO:HG2	4:5:530:TYR:HA	1.79	0.63
6:7:196:LEU:HD23	6:7:306:LYS:HE3	1.80	0.63
6:7:462:PRO:HG3	6:7:568:ASN:HB2	1.80	0.63
12:G:587:ARG:HB2	12:G:643:LEU:HD21	1.79	0.63
12:G:754:CYS:O	12:G:772:SER:N	2.31	0.63
12:H:639:SER:HB3	12:H:654:GLU:H	1.63	0.63
12:H:670:LYS:HA	12:H:673:ASN:HD21	1.63	0.63
2:3:711:ALA:HA	2:3:714:LYS:HD2	1.80	0.63
7:A:192:ARG:NH2	7:A:195:ASP:OD2	2.31	0.63
10:D:262:ASP:O	10:D:264:LYS:NZ	2.30	0.63
11:E:225:GLN:HA	11:E:228:LYS:HE3	1.80	0.63
2:3:417:GLN:HG2	18:3:1001:ADP:O2A	1.98	0.63
4:5:141:SER:O	11:E:379:TYR:OH	2.09	0.63
5:6:596:VAL:HG21	5:6:627:ALA:HB1	1.80	0.63
5:6:767:LYS:HA	5:6:770:ARG:HE	1.61	0.63
6:7:467:SER:HB2	20:7:903:AGS:PA	2.38	0.63
15:M:1960:ILE:O	15:M:1964:MET:HG2	1.98	0.63
7:A:202:GLN:NE2	16:N:30:GLY:O	2.32	0.63
12:F:636:LEU:HB3	12:F:657:LEU:HB3	1.81	0.63
12:H:480:SER:HB3	12:H:536:LEU:HG	1.81	0.63
15:M:1904:ARG:H	15:M:1923:ILE:HB	1.62	0.63
4:5:81:ASP:O	4:5:158:LYS:NZ	2.31	0.63
6:7:542:GLU:HA	6:7:593:ARG:HH21	1.62	0.63
10:D:103:MET:HA	10:D:106:LEU:HD12	1.81	0.63
12:G:617:ALA:HB3	12:G:628:VAL:HB	1.79	0.63
15:M:1418:PHE:HZ	15:M:1426:VAL:HA	1.63	0.63
1:2:424:VAL:HA	1:2:459:ARG:N	2.13	0.63
3:4:743:PRO:HB2	3:4:746:PHE:HB3	1.81	0.63
3:4:833:ILE:HG12	3:4:845:ILE:HG23	1.79	0.63
6:7:416:LYS:HE3	6:7:630:PHE:HA	1.81	0.63
8:B:80:LYS:HZ3	8:B:86:SER:HA	1.63	0.63
1:2:245:ASN:HA	1:2:298:SER:HB3	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:492:GLN:NE2	2:3:494:THR:O	2.32	0.63
3:4:370:ARG:NH1	3:4:377:ASN:O	2.31	0.63
11:E:350:LEU:HA	11:E:355:GLY:HA3	1.79	0.63
12:G:582:ALA:HB1	12:G:620:ALA:HB2	1.80	0.63
1:2:660:THR:OG1	3:4:925:ARG:NH2	2.32	0.63
2:3:94:HIS:HB3	2:3:153:TRP:HA	1.81	0.63
3:4:332:VAL:HA	3:4:399:LEU:HA	1.80	0.63
3:4:548:THR:HA	3:4:760:PRO:HD2	1.81	0.63
4:5:74:ASP:OD1	4:5:78:LYS:NZ	2.32	0.63
5:6:537:VAL:HG12	5:6:734:LEU:HD22	1.81	0.63
9:C:52:ARG:HB2	9:C:114:LEU:HD21	1.81	0.63
11:E:12:TYR:CZ	11:E:16:LEU:HD11	2.33	0.63
12:H:498:GLU:HA	12:H:745:LEU:HD13	1.81	0.63
12:H:706:LEU:O	12:H:719:LEU:N	2.30	0.63
16:N:179:GLN:NE2	16:N:192:PHE:O	2.31	0.63
1:2:548:ALA:HB2	18:2:902:ADP:H2'	1.81	0.63
2:3:259:GLN:HG3	2:3:273:SER:HB3	1.80	0.63
2:3:267:ALA:O	2:3:269:GLN:NE2	2.31	0.63
3:4:695:PRO:HG2	3:4:698:LEU:HD12	1.79	0.63
4:5:300:ILE:HD13	4:5:326:PRO:HA	1.81	0.63
4:5:733:LEU:HD21	4:5:748:LEU:HD21	1.79	0.63
12:H:641:SER:HA	12:H:650:TYR:HA	1.81	0.63
13:I:52:DT:H2''	13:I:53:DT:H5'	1.81	0.63
1:2:240:GLU:HG3	1:2:293:ILE:HA	1.81	0.62
3:4:243:LEU:HD13	3:4:303:VAL:HG23	1.80	0.62
3:4:725:THR:HB	6:7:657:ASN:HD21	1.62	0.62
8:B:4:PRO:HD2	8:B:7:LEU:HD12	1.81	0.62
2:3:29:GLN:HA	2:3:32:LEU:HD12	1.80	0.62
2:3:299:LYS:NZ	2:3:300:SER:O	2.32	0.62
3:4:304:ARG:HB3	3:4:465:HIS:CD2	2.33	0.62
4:5:99:LYS:HA	4:5:103:ILE:HD12	1.80	0.62
4:5:184:ARG:NH2	4:5:239:ASP:O	2.32	0.62
5:6:359:VAL:HG23	5:6:379:VAL:HB	1.80	0.62
6:7:224:PRO:HB2	6:7:242:ARG:HG2	1.80	0.62
12:G:631:SER:O	12:G:635:GLY:N	2.32	0.62
12:G:831:LYS:HE3	12:G:862:TYR:CG	2.33	0.62
3:4:444:ILE:HG23	3:4:458:LYS:HB2	1.81	0.62
3:4:651:GLN:HG3	3:4:653:THR:HG22	1.81	0.62
5:6:137:ARG:HH11	5:6:193:ALA:HB2	1.65	0.62
10:D:256:TYR:O	10:D:269:LEU:N	2.30	0.62
11:E:259:LEU:O	11:E:263:GLY:N	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:G:553:GLN:HA	12:G:569:ILE:HA	1.81	0.62
15:M:2167:CYS:HB3	15:M:2181:CYS:SG	2.39	0.62
1:2:710:ASN:OD1	1:2:741:ARG:NH2	2.31	0.62
1:2:866:LEU:HD21	15:M:2073:ARG:HG2	1.81	0.62
6:7:527:ASP:HB3	6:7:568:ASN:H	1.63	0.62
7:A:47:LEU:HD12	7:A:79:MET:HB3	1.82	0.62
15:M:2044:HIS:H	15:M:2097:PRO:HG2	1.63	0.62
1:2:188:ASN:O	1:2:190:LYS:NZ	2.28	0.62
4:5:474:GLY:N	4:5:516:ARG:O	2.31	0.62
6:7:73:ARG:NE	6:7:75:LEU:O	2.29	0.62
8:B:13:PRO:HA	8:B:16:ILE:HD12	1.81	0.62
12:G:497:ASN:ND2	12:G:539:LEU:O	2.32	0.62
12:H:524:ARG:HH22	12:H:561:SER:HB2	1.63	0.62
15:M:2210:PHE:HB3	15:M:2213:LEU:HB3	1.81	0.62
3:4:441:SER:OG	3:4:457:TYR:O	2.18	0.62
4:5:349:PHE:HB2	4:5:353:GLU:HB2	1.81	0.62
6:7:496:ALA:H	6:7:513:LEU:N	1.94	0.62
7:A:175:GLN:OE1	16:N:18:ARG:NE	2.32	0.62
11:E:352:ASN:OD1	11:E:355:GLY:N	2.30	0.62
15:M:1784:SER:OG	15:M:1786:ASP:OD1	2.15	0.62
15:M:1802:ALA:HB2	15:M:1813:VAL:HG21	1.82	0.62
16:N:603:VAL:HG11	16:N:651:LEU:HD22	1.82	0.62
6:7:664:TYR:HB2	6:7:689:LEU:HD13	1.82	0.62
11:E:68:ARG:NH1	11:E:95:PHE:O	2.31	0.62
11:E:573:ASP:HB3	11:E:576:THR:HG22	1.81	0.62
12:F:475:ARG:O	12:F:577:ARG:NH2	2.32	0.62
12:F:691:SER:N	12:F:747:LEU:O	2.32	0.62
15:M:1941:LEU:O	15:M:1944:PHE:HB2	1.99	0.62
16:N:503:LEU:HD13	16:N:620:ARG:HG2	1.82	0.62
4:5:61:LEU:O	4:5:138:ILE:N	2.32	0.62
4:5:136:GLN:HE21	4:5:281:TYR:HB2	1.65	0.62
4:5:363:ASN:HB3	4:5:366:LEU:HD23	1.82	0.62
4:5:594:ILE:O	4:5:598:LYS:HE3	2.00	0.62
12:F:507:ASN:OD1	12:F:510:GLN:NE2	2.33	0.62
12:G:704:LEU:HB3	12:G:722:LEU:HB3	1.81	0.62
2:3:581:PRO:HB2	2:3:583:ARG:HH22	1.63	0.62
4:5:173:SER:O	4:5:253:GLN:N	2.31	0.62
5:6:411:GLY:HA2	5:6:417:PRO:HG3	1.81	0.62
5:6:714:VAL:HG13	5:6:834:SER:HA	1.81	0.62
6:7:282:SER:HA	6:7:297:GLN:HE21	1.64	0.62
8:B:33:THR:OG1	8:B:63:MET:N	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:B:104:TYR:OH	8:B:111:ARG:NE	2.33	0.62
12:F:750:ASP:OD1	12:F:751:THR:N	2.33	0.62
12:H:578:ILE:HA	12:H:592:THR:HA	1.81	0.62
15:M:1418:PHE:HB3	15:M:1420:ASP:OD1	1.99	0.62
15:M:1689:TRP:HD1	15:M:1827:LEU:HG	1.64	0.62
16:N:268:ILE:HG23	16:N:284:LEU:HA	1.82	0.62
2:3:415:LYS:HE2	2:3:515:ALA:HB1	1.82	0.62
2:3:420:ARG:O	2:3:424:ASN:ND2	2.33	0.62
2:3:433:THR:HG22	2:3:473:ASP:HB3	1.82	0.62
4:5:396:SER:H	4:5:664:ALA:HB1	1.63	0.62
4:5:482:PHE:N	4:5:522:ALA:O	2.28	0.62
6:7:404:LEU:O	6:7:408:GLY:N	2.31	0.62
8:B:34:ARG:HE	8:B:62:ASN:HA	1.65	0.62
9:C:78:ASP:HA	9:C:81:SER:HB3	1.82	0.62
10:D:284:ASP:OD1	10:D:285:LEU:N	2.32	0.62
11:E:242:SER:HA	11:E:607:MET:HG2	1.82	0.62
12:F:540:ASN:O	12:F:559:HIS:ND1	2.33	0.62
12:G:690:SER:OG	12:G:694:ASP:N	2.33	0.62
12:G:824:GLU:HA	12:G:827:TYR:CE1	2.35	0.62
12:H:625:VAL:O	12:H:641:SER:OG	2.16	0.62
15:M:1388:LYS:HA	15:M:1391:ASN:HD22	1.63	0.62
15:M:1927:GLU:HB2	15:M:1931:GLN:HE22	1.65	0.62
15:M:2188:THR:HB	15:M:2189:LEU:HD12	1.82	0.62
1:2:355:SER:HB3	1:2:383:ARG:HH21	1.65	0.61
4:5:37:GLU:HA	4:5:44:PHE:HE1	1.64	0.61
11:E:223:ARG:HB3	11:E:226:ARG:HG2	1.82	0.61
12:F:631:SER:O	12:F:635:GLY:N	2.32	0.61
16:N:328:VAL:HB	16:N:341:VAL:HG21	1.82	0.61
1:2:303:ILE:HA	1:2:319:ARG:HE	1.65	0.61
1:2:693:GLU:HG3	5:6:778:LYS:HE2	1.81	0.61
5:6:115:PHE:HA	5:6:118:PHE:CE1	2.35	0.61
5:6:582:SER:O	5:6:586:LYS:HG3	2.00	0.61
6:7:244:ILE:HB	6:7:348:ILE:HG13	1.82	0.61
6:7:352:THR:HB	6:7:380:PHE:HB3	1.80	0.61
6:7:648:LYS:HE3	6:7:705:ALA:HB1	1.82	0.61
7:A:57:GLN:HB3	7:A:62:MET:CE	2.30	0.61
11:E:566:PRO:HA	11:E:586:PRO:HD3	1.83	0.61
12:F:599:SER:O	12:F:607:PHE:N	2.32	0.61
12:G:588:VAL:N	12:G:600:PHE:O	2.25	0.61
15:M:1944:PHE:HZ	15:M:2042:GLY:HA3	1.65	0.61
15:M:2151:ARG:O	15:M:2154:ILE:N	2.32	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:326:ARG:HB2	1:2:388:VAL:HA	1.82	0.61
3:4:208:ILE:HG23	3:4:209:LEU:HD12	1.80	0.61
3:4:329:LYS:HB3	3:4:434:GLU:HG3	1.82	0.61
5:6:765:LEU:HA	5:6:819:ILE:HB	1.82	0.61
11:E:252:SER:HB3	11:E:273:ASN:HA	1.82	0.61
12:F:727:GLU:HA	12:F:730:LYS:HD2	1.82	0.61
12:G:507:ASN:ND2	12:G:529:GLU:OE2	2.34	0.61
2:3:712:HIS:HB3	2:3:725:ASP:HB3	1.82	0.61
18:3:1001:ADP:PB	4:5:549:ARG:HH22	2.23	0.61
4:5:715:GLU:OE2	4:5:716:GLN:NE2	2.33	0.61
5:6:749:GLU:O	5:6:753:ARG:HG3	2.00	0.61
11:E:303:THR:O	12:F:491:ARG:NH1	2.33	0.61
2:3:405:ILE:HG12	2:3:545:LEU:HB2	1.82	0.61
2:3:551:ASP:OD2	4:5:652:GLN:NE2	2.31	0.61
3:4:772:ARG:HA	3:4:775:VAL:HG22	1.81	0.61
4:5:454:GLN:O	4:5:463:TYR:N	2.33	0.61
10:D:210:ASN:HB2	10:D:219:ILE:HD11	1.82	0.61
11:E:65:SER:N	11:E:623:ASP:OD1	2.29	0.61
12:F:834:SER:HB3	12:F:858:LEU:HD22	1.82	0.61
12:G:599:SER:O	12:G:607:PHE:N	2.33	0.61
1:2:211:LEU:HD12	1:2:214:PHE:HE1	1.66	0.61
1:2:863:ILE:HB	15:M:2073:ARG:HH21	1.65	0.61
3:4:859:ARG:HG2	5:6:692:LYS:HD2	1.83	0.61
4:5:39:ARG:HD2	4:5:42:SER:HA	1.82	0.61
4:5:159:ILE:HA	4:5:297:ILE:HA	1.82	0.61
4:5:433:SER:HA	4:5:600:LYS:HD3	1.83	0.61
5:6:118:PHE:HA	5:6:121:ASP:OD1	2.00	0.61
5:6:141:GLU:HA	5:6:196:LEU:HD13	1.82	0.61
9:C:15:GLU:HA	9:C:47:PRO:HA	1.82	0.61
11:E:88:GLY:O	11:E:133:ASN:ND2	2.31	0.61
15:M:1789:ASN:OD1	15:M:1792:ARG:NH2	2.33	0.61
16:N:318:HIS:HB3	16:N:346:LEU:HD13	1.83	0.61
16:N:652:THR:HA	16:N:657:LYS:HA	1.81	0.61
16:N:673:MET:HG2	16:N:684:GLN:HG3	1.83	0.61
1:2:428:GLY:HA3	1:2:453:ALA:HA	1.81	0.61
1:2:549:LYS:CE	18:2:902:ADP:O1B	2.49	0.61
7:A:67:VAL:HA	9:C:24:ILE:HD11	1.81	0.61
11:E:386:ARG:NH1	11:E:387:GLU:OE2	2.33	0.61
12:H:621:GLN:N	12:H:624:ARG:O	2.30	0.61
12:H:863:ASP:OD2	12:H:891:GLN:NE2	2.31	0.61
16:N:175:ALA:HA	16:N:531:ARG:HH12	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:199:SER:OG	2:3:212:ARG:O	2.15	0.61
2:3:400:ARG:HD2	2:3:493:GLN:HE21	1.65	0.61
18:3:1001:ADP:PB	4:5:549:ARG:NH2	2.74	0.61
3:4:201:PHE:HE1	3:4:205:PHE:HD2	1.49	0.61
4:5:149:ARG:HD3	4:5:272:ARG:HH12	1.65	0.61
4:5:695:ASP:OD2	4:5:711:ILE:HG23	2.00	0.61
5:6:304:LEU:HD11	5:6:307:ALA:HB2	1.83	0.61
6:7:541:MET:O	6:7:544:GLN:NE2	2.34	0.61
11:E:336:ASP:OD1	11:E:337:SER:N	2.34	0.61
12:F:676:TYR:OH	12:F:684:ILE:O	2.16	0.61
1:2:621:HIS:O	1:2:625:GLU:HG2	2.00	0.61
1:2:852:SER:O	1:2:855:ARG:NH2	2.34	0.61
2:3:204:ALA:O	6:7:14:TYR:OH	2.19	0.61
2:3:372:TYR:CZ	2:3:560:SER:HB3	2.36	0.61
6:7:481:VAL:HG22	6:7:483:THR:HG22	1.83	0.61
12:G:692:TYR:HE1	12:G:848:TYR:HE2	1.46	0.61
6:7:439:GLY:HA3	6:7:697:GLN:HE22	1.65	0.61
7:A:67:VAL:HA	9:C:24:ILE:CD1	2.31	0.61
11:E:29:ILE:HD13	11:E:58:ILE:HG13	1.81	0.61
12:G:712:SER:HB2	12:G:715:GLU:HB2	1.83	0.61
12:G:743:TRP:NE1	12:G:762:ILE:O	2.33	0.61
15:M:1375:LEU:HD23	15:M:1404:GLU:HA	1.81	0.61
15:M:2049:ASN:O	15:M:2052:LEU:N	2.32	0.61
1:2:542:LEU:N	1:2:681:CYS:O	2.29	0.60
2:3:416:SER:C	2:3:420:ARG:HE	2.04	0.60
5:6:652:ILE:HA	5:6:655:ALA:HB3	1.82	0.60
12:H:895:LEU:O	12:H:899:VAL:HG23	2.01	0.60
2:3:251:ILE:HA	2:3:280:ASP:HB2	1.83	0.60
4:5:524:ASN:HB3	4:5:528:GLY:O	2.01	0.60
6:7:481:VAL:HG12	6:7:520:ILE:O	2.01	0.60
8:B:26:LYS:NZ	8:B:27:ILE:O	2.34	0.60
11:E:103:TYR:CE2	11:E:118:ARG:HB2	2.35	0.60
12:F:634:HIS:HE1	12:H:636:LEU:HB2	1.66	0.60
12:G:840:THR:O	12:G:844:ASP:N	2.25	0.60
15:M:1354:PRO:CB	15:M:1407:PHE:HA	2.31	0.60
1:2:307:ARG:HH12	1:2:403:PRO:HA	1.65	0.60
2:3:415:LYS:HA	2:3:418:LEU:HB2	1.82	0.60
3:4:567:CYS:HB3	3:4:708:VAL:H	1.64	0.60
5:6:409:GLN:HE21	5:6:449:THR:HG22	1.66	0.60
12:G:819:VAL:HG13	12:G:868:ARG:HH21	1.65	0.60
1:2:787:SER:HB3	4:5:566:ILE:HG23	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:3:1001:ADP:O1B	4:5:549:ARG:NH2	2.35	0.60
3:4:432:ARG:HB3	3:4:469:VAL:HG12	1.82	0.60
3:4:864:ASP:OD1	3:4:867:ARG:NH2	2.30	0.60
4:5:51:ARG:HH22	9:C:142:LEU:HB2	1.65	0.60
6:7:412:ASN:HA	6:7:430:LYS:HZ1	1.61	0.60
10:D:260:ILE:HG13	10:D:281:VAL:HG11	1.83	0.60
11:E:571:SER:O	11:E:580:LEU:N	2.26	0.60
15:M:1576:GLU:HA	15:M:1579:LYS:HE2	1.83	0.60
16:N:476:THR:HG23	16:N:481:MET:HE1	1.82	0.60
2:3:291:ARG:NH1	2:3:331:ALA:O	2.33	0.60
3:4:251:TYR:HB3	3:4:254:THR:HB	1.82	0.60
3:4:439:PHE:HD1	3:4:461:VAL:HB	1.66	0.60
3:4:607:ARG:NH1	3:4:612:LYS:O	2.35	0.60
4:5:479:ILE:HB	4:5:482:PHE:HE1	1.67	0.60
4:5:534:LYS:O	4:5:539:ASN:ND2	2.31	0.60
5:6:326:LYS:HB3	5:6:412:LEU:HD13	1.84	0.60
15:M:1731:VAL:HG12	15:M:1733:ASP:H	1.65	0.60
1:2:271:PHE:CD2	1:2:295:VAL:HG22	2.36	0.60
2:3:519:VAL:N	2:3:532:ASN:O	2.32	0.60
3:4:412:PRO:HD3	6:7:557:LEU:HD11	1.82	0.60
5:6:661:ILE:HG13	5:6:674:ALA:HB2	1.84	0.60
6:7:497:VAL:N	6:7:511:GLY:HA3	2.16	0.60
6:7:611:LYS:O	6:7:615:HIS:ND1	2.26	0.60
10:D:234:GLY:N	10:D:290:LYS:O	2.32	0.60
2:3:407:MET:HE2	2:3:415:LYS:CB	2.27	0.60
3:4:569:ASP:HB2	3:4:710:ASP:HB2	1.83	0.60
4:5:106:ARG:NH1	8:B:106:LYS:O	2.34	0.60
4:5:453:VAL:HG22	4:5:464:LEU:HD13	1.84	0.60
5:6:397:PHE:HB3	5:6:459:VAL:HG23	1.84	0.60
11:E:323:ASP:N	11:E:406:ARG:O	2.24	0.60
11:E:526:ARG:NH2	11:E:563:GLN:O	2.34	0.60
12:G:714:GLU:O	12:H:653:ARG:NH1	2.30	0.60
12:H:543:GLY:HA2	12:H:559:HIS:H	1.66	0.60
15:M:2080:LEU:HD22	15:M:2085:LEU:HB3	1.83	0.60
16:N:400:VAL:HG21	16:N:424:LEU:HD11	1.84	0.60
2:3:382:LEU:HA	2:3:385:LEU:HD12	1.83	0.60
6:7:91:GLU:HA	6:7:94:LEU:HD12	1.84	0.60
6:7:110:ALA:O	6:7:114:THR:N	2.33	0.60
6:7:313:CYS:O	6:7:333:ILE:N	2.35	0.60
7:A:165:VAL:HA	7:A:207:LYS:HE3	1.84	0.60
7:A:165:VAL:HG11	7:A:205:LEU:HB3	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:B:25:ILE:N	8:B:71:VAL:O	2.34	0.60
12:F:494:LEU:HD13	12:F:502:VAL:HG22	1.84	0.60
12:G:747:LEU:HD12	12:G:752:LEU:HA	1.84	0.60
12:H:557:ARG:HG2	12:H:565:ASN:HB3	1.84	0.60
1:2:417:VAL:HG11	1:2:456:ILE:HG21	1.84	0.60
4:5:532:ASP:O	4:5:707:SER:OG	2.15	0.60
4:5:775:VAL:H	15:M:2189:LEU:HA	1.66	0.60
5:6:394:ARG:HE	5:6:462:ILE:HG23	1.66	0.60
6:7:196:LEU:HD21	6:7:306:LYS:HB2	1.84	0.60
6:7:200:TYR:HE1	6:7:202:LEU:HB2	1.67	0.60
7:A:79:MET:SD	10:D:203:PRO:HG3	2.42	0.60
11:E:316:LEU:HB2	11:E:413:LEU:HD13	1.83	0.60
11:E:333:SER:HA	11:E:376:THR:HA	1.83	0.60
12:G:577:ARG:O	12:G:593:SER:N	2.35	0.60
12:G:716:SER:O	12:H:653:ARG:NH2	2.32	0.60
12:G:831:LYS:O	12:G:834:SER:N	2.35	0.60
12:H:592:THR:HG23	12:H:594:LEU:H	1.67	0.60
12:H:638:TYR:O	12:H:655:CYS:N	2.34	0.60
12:H:708:SER:HB3	12:H:719:LEU:HD11	1.84	0.60
14:J:18:DA:H2''	14:J:19:DC:H5''	1.84	0.60
15:M:1540:LYS:HA	15:M:1543:ILE:HB	1.84	0.60
16:N:237:ASN:HB2	16:N:265:SER:HA	1.82	0.60
16:N:611:HIS:HB3	16:N:614:PRO:HG3	1.84	0.60
2:3:372:TYR:HD2	2:3:564:HIS:HB2	1.66	0.60
5:6:298:SER:OG	5:6:301:ARG:NH2	2.34	0.60
5:6:730:HIS:CD2	5:6:734:LEU:HD11	2.36	0.60
5:6:779:GLU:HA	5:6:782:LYS:HE2	1.82	0.60
9:C:58:GLY:HA3	9:C:70:PRO:HA	1.83	0.60
12:F:889:LEU:HD22	12:F:894:ALA:HB1	1.84	0.60
12:F:889:LEU:O	12:F:921:ARG:NH1	2.33	0.60
16:N:269:THR:HG21	16:N:282:PHE:HD1	1.66	0.60
1:2:244:VAL:HG23	1:2:246:TYR:H	1.66	0.59
3:4:306:TYR:HB3	3:4:465:HIS:CE1	2.36	0.59
5:6:305:TYR:N	5:6:352:ARG:O	2.24	0.59
9:C:119:GLU:OE1	9:C:119:GLU:N	2.35	0.59
11:E:522:LEU:O	11:E:523:ARG:HG3	2.01	0.59
12:H:830:SER:HA	12:H:858:LEU:HD11	1.84	0.59
1:2:616:ASP:O	1:2:620:ILE:HG12	2.02	0.59
2:3:491:GLU:OE2	2:3:700:ARG:NH2	2.34	0.59
4:5:104:LEU:HD13	8:B:109:PRO:HB3	1.84	0.59
5:6:557:LYS:O	5:6:565:LEU:N	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:701:MET:SD	5:6:706:MET:HB3	2.41	0.59
6:7:499:LYS:NZ	13:I:51:DT:H2''	2.17	0.59
11:E:576:THR:HG23	11:E:578:THR:H	1.67	0.59
12:H:478:PRO:HD3	12:H:577:ARG:HD2	1.83	0.59
16:N:170:PHE:HZ	16:N:431:LEU:HB2	1.67	0.59
1:2:185:SER:O	1:2:190:LYS:NZ	2.35	0.59
1:2:553:LEU:HD23	1:2:605:LEU:HB3	1.85	0.59
2:3:187:THR:N	2:3:259:GLN:OE1	2.35	0.59
5:6:643:LYS:NZ	5:6:683:ASN:O	2.33	0.59
10:D:262:ASP:OD1	10:D:263:LEU:N	2.34	0.59
12:F:535:ASP:OD2	12:F:549:SER:N	2.35	0.59
12:G:827:TYR:HB2	12:G:862:TYR:HD1	1.66	0.59
1:2:540:LEU:O	1:2:681:CYS:N	2.35	0.59
4:5:104:LEU:HB2	4:5:107:ALA:HB2	1.85	0.59
4:5:301:TYR:O	4:5:325:THR:N	2.35	0.59
5:6:594:ARG:NH2	5:6:632:ASP:O	2.35	0.59
5:6:690:ASN:H	5:6:698:ASN:HD21	1.50	0.59
5:6:761:PHE:HD2	5:6:815:CYS:HB3	1.67	0.59
7:A:57:GLN:HB3	7:A:62:MET:HE2	1.83	0.59
7:A:67:VAL:O	7:A:71:GLN:HG2	2.02	0.59
7:A:195:ASP:OD1	16:N:22:TYR:OH	2.09	0.59
12:F:696:CYS:HB3	12:F:704:LEU:HD11	1.85	0.59
12:G:697:ILE:HB	12:G:705:LEU:HB3	1.85	0.59
15:M:2162:LEU:HB3	15:M:2185:TRP:HB3	1.83	0.59
16:N:36:ASP:OD2	16:N:78:PHE:HB3	2.03	0.59
2:3:348:ARG:NH1	2:3:349:ASN:OD1	2.36	0.59
3:4:335:SER:HB2	3:4:397:ILE:HG13	1.82	0.59
4:5:711:ILE:HD12	4:5:757:LYS:HZ1	1.68	0.59
7:A:206:GLN:O	7:A:207:LYS:HG3	2.03	0.59
11:E:316:LEU:HD21	11:E:411:ARG:HD2	1.84	0.59
12:G:558:PRO:HB2	12:G:561:SER:H	1.67	0.59
12:G:830:SER:HA	12:G:858:LEU:HD12	1.84	0.59
16:N:227:ASP:OD1	16:N:231:ARG:NH2	2.32	0.59
2:3:414:ALA:HB2	18:3:1001:ADP:C8	2.37	0.59
2:3:563:GLU:OE2	16:N:277:ARG:NH1	2.30	0.59
3:4:395:GLN:O	3:4:419:VAL:N	2.34	0.59
5:6:266:SER:HB3	5:6:458:HIS:HB2	1.84	0.59
6:7:620:HIS:O	6:7:621:MET:HG2	2.02	0.59
11:E:318:LEU:HD13	11:E:411:ARG:HB2	1.83	0.59
12:F:741:HIS:ND1	12:F:761:HIS:O	2.35	0.59
1:2:479:GLU:O	1:2:483:GLU:HG2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:561:HIS:CE1	1:2:768:HIS:HB2	2.38	0.59
2:3:97:ILE:HG13	2:3:156:SER:HB2	1.84	0.59
3:4:341:ASP:N	3:4:392:ALA:O	2.25	0.59
3:4:543:GLN:HA	3:4:562:ILE:HD13	1.83	0.59
3:4:859:ARG:HD2	5:6:692:LYS:HG3	1.84	0.59
3:4:913:GLU:O	5:6:794:ARG:NH2	2.36	0.59
4:5:630:ARG:HH22	4:5:652:GLN:HB2	1.67	0.59
5:6:829:ASP:OD1	5:6:832:ARG:NH2	2.35	0.59
10:D:285:LEU:HA	10:D:288:ASP:HB2	1.83	0.59
11:E:326:LEU:HB3	11:E:337:SER:HB3	1.82	0.59
12:F:515:VAL:N	12:F:525:GLU:OE2	2.34	0.59
12:G:676:TYR:OH	12:G:684:ILE:O	2.20	0.59
12:G:827:TYR:HB3	12:G:865:ALA:HB3	1.83	0.59
12:H:503:SER:OG	12:H:514:THR:OG1	2.21	0.59
12:H:576:GLU:HG3	12:H:594:LEU:HD23	1.84	0.59
15:M:1357:ILE:HD11	15:M:1428:GLU:HG3	1.83	0.59
15:M:2014:ARG:HE	15:M:2018:LEU:HG	1.68	0.59
16:N:502:THR:O	16:N:620:ARG:NH2	2.36	0.59
2:3:572:LEU:HD12	2:3:573:PRO:HD2	1.83	0.59
2:3:678:VAL:HG21	2:3:723:LYS:HB2	1.83	0.59
5:6:121:ASP:HA	5:6:132:VAL:H	1.68	0.59
5:6:377:LEU:HD11	5:6:453:SER:HA	1.85	0.59
6:7:260:TYR:HB3	6:7:298:LEU:HD12	1.85	0.59
7:A:67:VAL:HG22	9:C:24:ILE:HG13	1.85	0.59
10:D:286:LEU:HD11	10:D:293:LEU:HG	1.85	0.59
12:F:498:GLU:OE1	12:F:498:GLU:N	2.32	0.59
15:M:2194:ILE:HA	15:M:2197:LYS:HE3	1.84	0.59
16:N:330:GLY:HA3	16:N:341:VAL:HA	1.85	0.59
16:N:623:SER:HB2	16:N:626:LEU:HB3	1.84	0.59
1:2:179:GLU:H	1:2:202:ASN:HA	1.68	0.59
1:2:383:ARG:HD2	1:2:411:LEU:HD12	1.84	0.59
2:3:137:ASP:OD1	2:3:138:ASP:N	2.35	0.59
4:5:101:ILE:HG13	4:5:102:SER:H	1.68	0.59
4:5:673:GLN:OE1	4:5:676:HIS:ND1	2.36	0.59
5:6:552:LEU:HD13	5:6:812:ARG:HB3	1.83	0.59
5:6:799:GLN:HA	5:6:802:SER:HB3	1.84	0.59
6:7:484:THR:HA	6:7:524:ASP:HB3	1.85	0.59
11:E:249:ASN:HD21	11:E:254:GLN:HB3	1.67	0.59
15:M:2176:SER:HG	15:M:2185:TRP:HE1	1.49	0.59
16:N:209:PRO:HB3	16:N:624:TRP:HB2	1.85	0.59
1:2:653:ASN:ND2	1:2:665:GLN:O	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:703:HIS:O	1:2:707:HIS:ND1	2.36	0.59
2:3:160:SER:H	2:3:590:LEU:HD12	1.68	0.59
4:5:668:LEU:HD23	4:5:674:GLU:HB2	1.83	0.59
6:7:143:LEU:HD23	6:7:147:ARG:HH12	1.68	0.59
12:F:614:PRO:O	12:F:630:TYR:N	2.30	0.59
12:G:823:ALA:HA	12:G:826:GLU:HG3	1.85	0.59
15:M:2163:ARG:O	15:M:2186:GLU:N	2.36	0.59
1:2:340:ASN:ND2	1:2:374:ARG:O	2.36	0.58
2:3:119:ALA:HA	2:3:221:LEU:HD13	1.82	0.58
6:7:467:SER:HB2	20:7:903:AGS:O2A	2.02	0.58
12:F:653:ARG:NH1	12:H:714:GLU:O	2.36	0.58
12:G:714:GLU:HG3	12:H:649:ARG:HH11	1.68	0.58
12:H:481:PRO:O	12:H:495:THR:OG1	2.15	0.58
15:M:1720:LYS:NZ	15:M:2116:ASP:OD2	2.36	0.58
16:N:646:SER:OG	16:N:660:ASN:ND2	2.28	0.58
4:5:455:ARG:HA	4:5:462:PHE:HA	1.85	0.58
5:6:300:VAL:HG22	5:6:386:VAL:HG11	1.84	0.58
5:6:628:LEU:HD12	5:6:661:ILE:HD11	1.85	0.58
5:6:780:LEU:HD13	5:6:795:ILE:HG21	1.84	0.58
7:A:73:PHE:CE1	7:A:77:LEU:HD11	2.38	0.58
8:B:16:ILE:HD11	8:B:179:ASN:HD22	1.67	0.58
11:E:11:ALA:HA	11:E:14:LYS:HE2	1.85	0.58
11:E:287:VAL:HG13	11:E:290:ARG:NH2	2.19	0.58
12:F:643:LEU:HA	12:F:648:LYS:HA	1.84	0.58
12:H:696:CYS:HB3	12:H:704:LEU:HD11	1.84	0.58
16:N:452:ILE:HD11	16:N:456:THR:HG21	1.85	0.58
1:2:782:ASP:HA	15:M:2086:ARG:CZ	2.33	0.58
2:3:687:ARG:NE	6:7:609:ASP:HB3	2.13	0.58
4:5:101:ILE:HG13	4:5:102:SER:N	2.18	0.58
5:6:312:ASP:HB2	5:6:315:ARG:HH12	1.68	0.58
5:6:536:ALA:HA	5:6:544:LYS:HE3	1.84	0.58
6:7:257:VAL:HA	6:7:272:GLU:HA	1.85	0.58
7:A:129:GLU:HA	7:A:132:LYS:HE2	1.86	0.58
7:A:188:GLN:HE22	7:A:207:LYS:HE2	1.66	0.58
11:E:123:LEU:HD13	11:E:143:PHE:HB2	1.85	0.58
11:E:391:ILE:O	11:E:395:ASN:ND2	2.36	0.58
11:E:490:GLU:O	11:E:494:ARG:HG2	2.04	0.58
12:G:715:GLU:HA	12:H:649:ARG:HH12	1.67	0.58
15:M:1656:SER:HB2	15:M:1675:LEU:HD21	1.84	0.58
15:M:1887:LYS:HD3	15:M:1890:ARG:HH21	1.68	0.58
2:3:104:ARG:NH2	9:C:86:ASN:HA	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:704:THR:O	2:3:708:LEU:HG	2.03	0.58
2:3:712:HIS:ND1	2:3:725:ASP:OD1	2.26	0.58
6:7:332:ASN:HB2	6:7:334:HIS:HE1	1.68	0.58
11:E:83:LEU:HB2	11:E:122:VAL:HG13	1.84	0.58
12:F:538:PHE:O	12:F:545:LEU:N	2.30	0.58
12:F:740:ILE:HG23	12:F:756:LEU:HD12	1.85	0.58
15:M:1694:PRO:HA	15:M:1826:LYS:HG3	1.86	0.58
16:N:287:LEU:HD13	16:N:325:MET:HE2	1.86	0.58
2:3:437:SER:HB2	4:5:505:ALA:HB3	1.84	0.58
3:4:447:ASN:OD1	3:4:449:ARG:NH1	2.37	0.58
3:4:770:LEU:CD2	5:6:732:VAL:HB	2.34	0.58
5:6:122:PHE:HD2	5:6:124:VAL:HG23	1.67	0.58
5:6:159:SER:HA	5:6:167:ALA:HB2	1.86	0.58
5:6:796:THR:HG22	5:6:797:VAL:H	1.68	0.58
6:7:113:PHE:HA	6:7:116:LEU:HD12	1.86	0.58
12:F:673:ASN:OD1	12:F:674:LEU:N	2.36	0.58
12:F:892:ASP:O	12:F:918:ARG:NH1	2.36	0.58
12:G:728:ILE:HD12	12:G:740:ILE:HG21	1.85	0.58
16:N:434:TRP:HB2	16:N:483:PHE:HA	1.85	0.58
1:2:239:SER:OG	1:2:240:GLU:N	2.35	0.58
3:4:645:LEU:O	3:4:649:MET:HG2	2.04	0.58
4:5:485:MET:HB3	4:5:490:ARG:HD3	1.86	0.58
6:7:496:ALA:C	6:7:511:GLY:HA3	2.23	0.58
6:7:523:ILE:HD11	6:7:563:ILE:HD11	1.86	0.58
6:7:603:ILE:HG22	6:7:605:SER:H	1.68	0.58
12:F:638:TYR:O	12:F:655:CYS:N	2.35	0.58
15:M:1732:LEU:HD22	15:M:1904:ARG:HD3	1.85	0.58
15:M:1736:VAL:HG21	15:M:1898:LEU:HD22	1.86	0.58
16:N:503:LEU:N	16:N:621:PRO:O	2.26	0.58
1:2:386:GLN:HB3	1:2:410:LEU:HB2	1.85	0.58
2:3:342:LEU:HD22	2:3:666:ARG:HH22	1.69	0.58
3:4:225:TYR:O	3:4:228:LYS:HG2	2.03	0.58
3:4:304:ARG:NH2	3:4:466:VAL:H	2.02	0.58
3:4:696:PRO:HA	3:4:699:LEU:HD12	1.84	0.58
4:5:448:GLY:HA3	4:5:452:SER:HA	1.84	0.58
12:G:889:LEU:O	12:G:921:ARG:NH2	2.37	0.58
15:M:1334:GLY:O	15:M:1353:ILE:N	2.36	0.58
15:M:1956:TRP:NE1	15:M:2014:ARG:HG2	2.12	0.58
16:N:78:PHE:H	16:N:81:GLN:HB3	1.67	0.58
16:N:236:GLN:HB2	16:N:265:SER:HB2	1.85	0.58
1:2:212:LYS:HE2	1:2:274:VAL:HG13	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:479:GLU:HA	1:2:482:ARG:HE	1.68	0.58
1:2:519:LEU:HD21	1:2:556:VAL:HG13	1.86	0.58
3:4:272:MET:O	3:4:276:ILE:HG13	2.04	0.58
3:4:630:CYS:HA	3:4:672:LEU:HB2	1.84	0.58
3:4:858:GLN:HB3	5:6:692:LYS:HE3	1.86	0.58
4:5:666:LEU:O	4:5:669:SER:N	2.31	0.58
5:6:530:VAL:HG13	5:6:544:LYS:HB3	1.86	0.58
6:7:588:ALA:HA	6:7:591:LEU:HD12	1.86	0.58
9:C:17:PRO:HB2	9:C:75:LEU:HD12	1.85	0.58
10:D:159:ARG:HH22	10:D:184:ASP:HA	1.69	0.58
11:E:271:TRP:O	11:E:275:LEU:HG	2.03	0.58
12:F:676:TYR:O	12:F:680:ASN:N	2.20	0.58
12:H:780:VAL:HB	12:H:825:GLU:HG3	1.84	0.58
12:H:907:LEU:HD21	12:H:910:LEU:HD13	1.85	0.58
15:M:1798:TRP:HB3	15:M:1813:VAL:HG22	1.86	0.58
1:2:279:THR:HG23	1:2:286:TYR:HD2	1.68	0.58
3:4:201:PHE:H	3:4:224:LEU:HD21	1.69	0.58
3:4:445:ARG:NH1	5:6:419:SER:O	2.37	0.58
3:4:857:ILE:HB	3:4:860:LYS:HE3	1.86	0.58
4:5:740:THR:O	4:5:744:SER:N	2.36	0.58
5:6:566:ARG:O	5:6:805:ARG:NH1	2.37	0.58
6:7:137:ASP:O	6:7:141:VAL:N	2.32	0.58
7:A:166:ARG:HB3	7:A:206:GLN:HE21	1.67	0.58
10:D:75:GLU:HB3	10:D:279:TYR:HE2	1.69	0.58
10:D:253:LYS:NZ	10:D:271:ILE:HG12	2.18	0.58
11:E:253:ALA:HA	11:E:273:ASN:HD21	1.68	0.58
12:F:482:ALA:HB3	12:F:496:MET:HB2	1.85	0.58
12:H:507:ASN:OD1	12:H:510:GLN:NE2	2.37	0.58
16:N:319:TYR:N	16:N:605:THR:OG1	2.29	0.58
1:2:175:ASP:H	1:2:179:GLU:HB2	1.68	0.58
1:2:707:HIS:NE2	5:6:808:GLU:OE2	2.37	0.58
3:4:341:ASP:O	3:4:392:ALA:N	2.24	0.58
4:5:616:PRO:HD2	4:5:668:LEU:HD11	1.85	0.58
5:6:179:PRO:HA	5:6:182:GLN:HB3	1.86	0.58
6:7:246:THR:N	6:7:314:LYS:O	2.34	0.58
11:E:150:ASP:OD1	11:E:151:THR:N	2.37	0.58
11:E:540:ARG:HD3	11:E:573:ASP:HB2	1.86	0.58
12:F:493:TYR:HA	12:F:503:SER:HA	1.84	0.58
12:F:723:ASP:HB3	12:F:779:PRO:HB3	1.86	0.58
15:M:1997:GLU:HG2	15:M:2067:SER:HB2	1.85	0.58
15:M:2028:ASP:HB3	15:M:2031:TYR:HB2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:211:LEU:HD12	1:2:214:PHE:CE1	2.39	0.57
2:3:296:GLY:HA2	2:3:323:GLY:HA2	1.86	0.57
4:5:172:LEU:HD22	4:5:252:ASP:HB3	1.85	0.57
4:5:392:LEU:HA	4:5:476:VAL:HG21	1.85	0.57
5:6:765:LEU:HB3	5:6:770:ARG:HG3	1.86	0.57
11:E:286:GLN:OE1	11:E:286:GLN:N	2.37	0.57
11:E:433:GLU:HG2	11:E:543:LEU:HB2	1.85	0.57
12:F:491:ARG:HG3	12:F:505:VAL:HB	1.85	0.57
12:F:743:TRP:HE3	12:F:755:ILE:HG23	1.68	0.57
16:N:600:ARG:HG2	16:N:651:LEU:HD11	1.84	0.57
1:2:549:LYS:HE3	18:2:902:ADP:O3B	2.04	0.57
1:2:662:PRO:HB3	1:2:801:GLY:HA2	1.86	0.57
2:3:96:ILE:O	2:3:156:SER:N	2.35	0.57
3:4:241:LEU:O	3:4:304:ARG:N	2.37	0.57
3:4:338:VAL:HG23	3:4:395:GLN:HB2	1.86	0.57
4:5:737:PHE:HB2	4:5:740:THR:HA	1.86	0.57
5:6:641:PHE:HA	5:6:644:MET:HE2	1.85	0.57
6:7:363:PHE:HD1	6:7:366:LEU:HD12	1.68	0.57
12:G:540:ASN:O	12:G:559:HIS:ND1	2.37	0.57
15:M:1944:PHE:HD1	15:M:2040:LEU:HG	1.69	0.57
16:N:387:LEU:HD13	16:N:535:LEU:HB2	1.86	0.57
1:2:425:GLU:OE1	1:2:459:ARG:HB3	2.03	0.57
2:3:474:GLU:N	2:3:515:ALA:O	2.33	0.57
3:4:317:LEU:O	6:7:341:ARG:NH2	2.36	0.57
4:5:34:PHE:CE1	4:5:68:LEU:HA	2.39	0.57
4:5:774:GLY:N	15:M:2190:PRO:HD3	2.19	0.57
5:6:141:GLU:O	5:6:145:ILE:HD12	2.04	0.57
5:6:734:LEU:HD23	5:6:741:ALA:HB3	1.85	0.57
10:D:4:ASN:O	12:F:904:ARG:NH1	2.36	0.57
12:G:715:GLU:OE1	12:G:715:GLU:N	2.36	0.57
12:G:744:PRO:HA	12:G:754:CYS:HA	1.86	0.57
12:H:663:ASN:ND2	12:H:665:ASN:OD1	2.35	0.57
15:M:2193:SER:O	15:M:2196:GLN:HG3	2.04	0.57
2:3:660:VAL:HG12	2:3:664:LYS:HZ3	1.69	0.57
8:B:89:ALA:HB1	8:B:93:LEU:HD22	1.86	0.57
11:E:642:GLU:O	11:E:645:THR:OG1	2.22	0.57
12:G:839:ASP:O	12:G:843:ASN:HB2	2.04	0.57
1:2:794:ARG:O	1:2:795:ARG:HD3	2.05	0.57
3:4:865:LEU:O	3:4:869:ILE:HG12	2.04	0.57
5:6:695:LEU:HD13	5:6:714:VAL:HA	1.85	0.57
5:6:706:MET:HB2	5:6:712:PHE:HZ	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A:58:GLN:HG2	7:A:62:MET:CE	2.34	0.57
7:A:186:ASP:O	11:E:478:TRP:NE1	2.34	0.57
12:H:499:VAL:HG11	12:H:540:ASN:HA	1.86	0.57
2:3:400:ARG:NH1	2:3:402:ASP:O	2.38	0.57
2:3:476:ASP:O	2:3:483:ARG:NH1	2.38	0.57
4:5:60:SER:HB2	4:5:138:ILE:HD11	1.87	0.57
5:6:174:TYR:HB2	5:6:287:LEU:HB2	1.85	0.57
5:6:297:THR:HB	5:6:359:VAL:HG12	1.87	0.57
5:6:395:CYS:HA	5:6:462:ILE:H	1.70	0.57
6:7:479:ARG:HB3	6:7:519:GLY:HA3	1.86	0.57
6:7:502:VAL:CB	6:7:509:GLU:HG3	2.34	0.57
7:A:72:TYR:CZ	7:A:76:LEU:HD11	2.39	0.57
8:B:90:PRO:HD2	8:B:93:LEU:HD13	1.86	0.57
12:F:571:PRO:HG3	12:H:782:VAL:HG22	1.85	0.57
15:M:1945:LEU:HD12	15:M:1946:SER:H	1.69	0.57
15:M:2195:VAL:HA	15:M:2198:LEU:HD12	1.87	0.57
1:2:398:PRO:HB2	1:2:401:ARG:HG3	1.86	0.57
2:3:716:ARG:NH1	2:3:725:ASP:OD2	2.38	0.57
3:4:915:LYS:HG3	3:4:916:VAL:HG23	1.87	0.57
4:5:621:LYS:HG2	4:5:625:ASN:OD1	2.05	0.57
5:6:529:LEU:HD23	5:6:746:PHE:CE2	2.39	0.57
5:6:538:PHE:O	5:6:544:LYS:NZ	2.28	0.57
6:7:467:SER:O	6:7:471:LYS:NZ	2.31	0.57
11:E:321:GLN:OE1	11:E:321:GLN:N	2.38	0.57
2:3:415:LYS:HG2	2:3:416:SER:N	2.19	0.57
2:3:530:HIS:H	2:3:694:LYS:NZ	2.03	0.57
2:3:673:GLN:OE1	2:3:677:ASN:ND2	2.37	0.57
4:5:667:GLU:O	4:5:668:LEU:HB2	2.04	0.57
6:7:16:ASN:HA	6:7:19:ASN:ND2	2.20	0.57
6:7:415:ALA:O	6:7:418:ILE:HG22	2.04	0.57
7:A:20:TYR:HA	7:A:27:VAL:HG21	1.87	0.57
12:G:578:ILE:HA	12:G:592:THR:HA	1.87	0.57
15:M:1912:MET:HB2	15:M:1916:ASN:HB2	1.85	0.57
2:3:100:LEU:O	2:3:111:TRP:NE1	2.38	0.57
2:3:298:PHE:HA	2:3:321:ILE:HD13	1.87	0.57
3:4:265:PRO:HB3	3:4:325:LEU:HB2	1.87	0.57
3:4:713:ASP:O	3:4:717:ASP:N	2.31	0.57
4:5:385:LYS:HA	4:5:388:ILE:HD12	1.86	0.57
5:6:827:ALA:HA	5:6:830:LEU:HD12	1.86	0.57
9:C:19:LYS:N	9:C:73:GLU:O	2.31	0.57
10:D:235:PRO:HD3	10:D:256:TYR:HE2	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:E:511:VAL:O	11:E:515:GLU:HG2	2.05	0.57
15:M:1591:LEU:HD21	15:M:1646:ILE:HD11	1.85	0.57
15:M:1720:LYS:HD2	15:M:1862:ASP:HA	1.86	0.57
1:2:230:ARG:NH1	1:2:243:GLU:OE1	2.38	0.57
1:2:340:ASN:OD1	1:2:374:ARG:NH1	2.38	0.57
2:3:104:ARG:HH22	9:C:86:ASN:HA	1.70	0.57
2:3:683:TYR:HA	2:3:686:LEU:HB2	1.86	0.57
3:4:266:GLN:HE22	3:4:323:ASP:HB3	1.68	0.57
5:6:318:VAL:HG13	5:6:334:PRO:HG3	1.86	0.57
8:B:47:HIS:HB3	10:D:120:ASN:HD22	1.70	0.57
15:M:1798:TRP:O	15:M:1802:ALA:N	2.38	0.57
1:2:526:ASN:HA	1:2:532:SER:HA	1.86	0.56
4:5:422:LYS:NZ	20:5:803:AGS:PB	2.77	0.56
5:6:545:LYS:HZ3	5:6:833:GLN:HE22	1.53	0.56
5:6:801:GLU:O	5:6:805:ARG:NE	2.34	0.56
6:7:410:VAL:O	6:7:411:TYR:C	2.41	0.56
10:D:146:CYS:O	10:D:150:LYS:HG3	2.04	0.56
11:E:312:THR:OG1	11:E:314:ASP:OD1	2.11	0.56
11:E:346:ALA:HB1	11:E:558:GLU:HB2	1.86	0.56
12:F:478:PRO:HB2	12:F:536:LEU:HD11	1.87	0.56
12:F:494:LEU:HB2	12:F:502:VAL:HG13	1.86	0.56
12:G:597:PHE:HB3	12:G:610:GLU:HB3	1.86	0.56
15:M:1615:LEU:HD12	15:M:1616:SER:H	1.69	0.56
2:3:98:ILE:O	2:3:157:PHE:HA	2.05	0.56
3:4:318:ASN:OD1	3:4:321:ASP:N	2.36	0.56
3:4:869:ILE:HD12	3:4:924:ARG:HD2	1.86	0.56
3:4:909:ARG:NH1	5:6:694:SER:OG	2.38	0.56
6:7:466:LYS:H	6:7:469:LEU:HB3	1.70	0.56
11:E:123:LEU:HD11	11:E:254:GLN:HE21	1.70	0.56
15:M:1480:PHE:CD1	15:M:1482:MET:HB3	2.39	0.56
15:M:1723:ASN:N	15:M:1859:VAL:O	2.35	0.56
16:N:60:ILE:O	16:N:64:GLU:HG2	2.04	0.56
1:2:774:ILE:HG22	1:2:776:PRO:HD3	1.87	0.56
2:3:390:GLU:O	2:3:392:ASN:ND2	2.39	0.56
2:3:670:GLN:H	2:3:720:THR:HA	1.70	0.56
3:4:883:PHE:HA	3:4:886:LEU:HD12	1.87	0.56
4:5:356:GLU:O	4:5:360:LEU:HG	2.03	0.56
4:5:689:MET:HG3	4:5:693:SER:HB3	1.87	0.56
5:6:506:ASN:OD1	5:6:507:SER:N	2.38	0.56
5:6:810:ILE:HD13	5:6:826:GLU:HB3	1.87	0.56
6:7:200:TYR:CE1	6:7:202:LEU:HB2	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:349:VAL:HA	6:7:383:GLN:HA	1.87	0.56
6:7:550:LYS:NZ	13:I:51:DT:OP2	2.38	0.56
6:7:707:MET:HE2	6:7:709:ASP:H	1.70	0.56
10:D:246:LEU:HD11	10:D:254:PRO:HB2	1.88	0.56
10:D:256:TYR:HB2	10:D:269:LEU:HB2	1.88	0.56
12:F:881:LYS:NZ	12:G:603:PHE:O	2.37	0.56
12:G:897:ALA:O	12:G:900:LYS:HG3	2.04	0.56
12:H:621:GLN:HG3	12:H:622:ASN:H	1.70	0.56
15:M:1592:LEU:HD21	15:M:1598:THR:HA	1.87	0.56
16:N:296:TRP:O	16:N:307:ILE:N	2.33	0.56
16:N:450:ARG:NH2	16:N:457:GLN:OE1	2.37	0.56
1:2:758:ILE:HG13	1:2:762:LEU:HD23	1.87	0.56
4:5:37:GLU:HA	4:5:44:PHE:CE1	2.40	0.56
5:6:112:ARG:NH2	5:6:113:GLU:OE2	2.37	0.56
5:6:764:ILE:H	5:6:818:GLU:HA	1.71	0.56
7:A:97:LEU:HB3	7:A:131:LEU:HD13	1.88	0.56
10:D:158:LEU:HA	10:D:161:LEU:HD12	1.88	0.56
10:D:269:LEU:HA	10:D:275:TYR:HE2	1.70	0.56
11:E:503:GLN:OE1	11:E:547:ARG:NH2	2.38	0.56
11:E:618:ALA:HB1	11:E:636:ASP:HB3	1.87	0.56
12:H:626:PHE:HD1	12:H:640:LEU:HA	1.71	0.56
2:3:42:VAL:HG22	2:3:96:ILE:HD12	1.87	0.56
3:4:562:ILE:HD11	3:4:807:ALA:HB2	1.88	0.56
3:4:725:THR:HB	6:7:657:ASN:ND2	2.19	0.56
3:4:887:ILE:O	3:4:891:ASN:ND2	2.39	0.56
4:5:382:GLU:HA	4:5:385:LYS:HD3	1.88	0.56
8:B:173:LEU:HG	8:B:177:GLU:HG3	1.86	0.56
10:D:205:GLU:HG2	10:D:206:LEU:HG	1.86	0.56
10:D:243:ASP:OD2	10:D:246:LEU:N	2.35	0.56
11:E:396:LEU:O	11:E:401:LEU:N	2.38	0.56
11:E:525:TYR:HB3	11:E:566:PRO:HB2	1.86	0.56
12:F:919:GLU:HA	12:F:922:TYR:CD2	2.40	0.56
12:H:741:HIS:HB2	12:H:757:VAL:HG13	1.87	0.56
1:2:692:ASP:OD1	1:2:693:GLU:N	2.39	0.56
2:3:210:HIS:HD2	6:7:5:LEU:HB2	1.71	0.56
2:3:251:ILE:HB	2:3:279:ASP:HB3	1.86	0.56
4:5:451:ALA:HA	4:5:467:GLY:H	1.70	0.56
5:6:275:ARG:HA	5:6:291:SER:H	1.71	0.56
6:7:121:ILE:HA	6:7:125:MET:HB2	1.87	0.56
6:7:251:VAL:HB	6:7:309:ALA:HB1	1.87	0.56
6:7:397:VAL:HB	6:7:400:ARG:HB2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A:71:GLN:NE2	9:C:24:ILE:HG12	2.21	0.56
11:E:321:GLN:NE2	11:E:410:VAL:HB	2.21	0.56
11:E:579:TYR:CD2	11:E:637:LEU:HD13	2.41	0.56
12:H:743:TRP:CD1	12:H:764:PRO:HD3	2.40	0.56
15:M:1339:PHE:HB3	15:M:1609:GLN:HG3	1.87	0.56
16:N:481:MET:O	16:N:524:VAL:N	2.31	0.56
1:2:439:ASN:O	1:2:443:GLY:N	2.38	0.56
1:2:482:ARG:HA	1:2:485:ARG:HE	1.71	0.56
2:3:413:THR:H	18:3:1001:ADP:PB	2.29	0.56
2:3:428:LEU:HD22	2:3:468:GLY:HA3	1.87	0.56
2:3:476:ASP:HB3	2:3:533:ILE:HD11	1.88	0.56
3:4:261:LEU:HB2	3:4:268:VAL:HG11	1.87	0.56
3:4:760:PRO:HB3	3:4:809:ALA:HB3	1.88	0.56
4:5:641:THR:O	4:5:642:GLU:HG2	2.06	0.56
5:6:118:PHE:HD2	5:6:122:PHE:HB3	1.69	0.56
5:6:573:VAL:HG22	5:6:679:LEU:HD11	1.88	0.56
11:E:90:ILE:O	11:E:133:ASN:ND2	2.38	0.56
11:E:311:LYS:NZ	11:E:312:THR:O	2.39	0.56
16:N:225:THR:HG22	16:N:285:LEU:HD21	1.87	0.56
1:2:310:ARG:N	1:2:313:ASN:OD1	2.29	0.56
1:2:391:GLN:NE2	1:2:392:GLU:O	2.38	0.56
1:2:763:LEU:O	1:2:767:ILE:HG12	2.06	0.56
2:3:45:ILE:HG12	2:3:92:LEU:HD11	1.86	0.56
5:6:175:TYR:HB2	5:6:285:GLY:HA3	1.88	0.56
6:7:140:ASP:HA	6:7:143:LEU:HB3	1.87	0.56
6:7:473:ILE:HD12	6:7:520:ILE:HD12	1.87	0.56
11:E:490:GLU:O	11:E:494:ARG:NH1	2.38	0.56
12:F:484:THR:O	12:F:492:ARG:NH2	2.39	0.56
12:F:493:TYR:CD1	12:F:496:MET:HE1	2.41	0.56
15:M:2164:CYS:HA	15:M:2185:TRP:HA	1.87	0.56
1:2:234:LEU:O	1:2:238:ASN:N	2.39	0.56
1:2:473:VAL:HG22	1:2:474:PHE:H	1.69	0.56
2:3:437:SER:HA	4:5:506:LYS:HG2	1.88	0.56
3:4:273:ASP:O	3:4:277:LYS:HG2	2.05	0.56
3:4:312:LYS:HG2	3:4:317:LEU:HG	1.87	0.56
3:4:314:MET:O	6:7:341:ARG:NH2	2.38	0.56
3:4:634:PHE:N	3:4:674:SER:O	2.27	0.56
4:5:66:GLU:OE2	11:E:379:TYR:OH	2.24	0.56
5:6:356:TRP:HD1	5:6:381:LEU:H	1.54	0.56
5:6:696:ARG:NH1	5:6:794:ARG:HG2	2.20	0.56
8:B:26:LYS:HZ1	8:B:68:SER:HA	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:E:103:TYR:HD2	11:E:116:PHE:HB3	1.69	0.56
11:E:353:GLU:OE1	11:E:353:GLU:N	2.31	0.56
12:F:633:PHE:HZ	12:H:661:LEU:HD22	1.71	0.56
12:H:493:TYR:HE1	12:H:501:TYR:HD2	1.54	0.56
15:M:1487:LEU:HG	15:M:1590:LEU:HD11	1.88	0.56
15:M:2069:ILE:HA	15:M:2072:ILE:HD12	1.88	0.56
15:M:2165:SER:N	15:M:2184:ALA:O	2.39	0.56
1:2:353:GLN:HG3	1:2:355:SER:H	1.71	0.56
1:2:688:ASP:HB2	1:2:691:ALA:HB3	1.88	0.56
1:2:786:VAL:CG1	1:2:810:LEU:HD11	2.36	0.56
2:3:435:ARG:NH2	2:3:477:LYS:O	2.32	0.56
2:3:455:ARG:HH11	2:3:501:GLY:H	1.53	0.56
3:4:304:ARG:HB3	3:4:465:HIS:HD2	1.71	0.56
3:4:365:ILE:HD13	5:6:440:LEU:HD22	1.88	0.56
3:4:417:LEU:HG	3:4:461:VAL:HG13	1.88	0.56
5:6:696:ARG:HH11	5:6:794:ARG:HG2	1.70	0.56
6:7:518:ASN:ND2	6:7:560:ARG:O	2.39	0.56
7:A:54:LEU:HA	7:A:57:GLN:HB2	1.86	0.56
8:B:164:ASN:OD1	8:B:165:GLU:N	2.39	0.56
9:C:138:HIS:O	9:C:141:SER:OG	2.19	0.56
11:E:14:LYS:O	11:E:18:ASN:ND2	2.38	0.56
12:G:584:THR:HB	12:G:587:ARG:O	2.06	0.56
16:N:476:THR:O	16:N:521:LYS:NZ	2.38	0.56
1:2:248:HIS:HA	1:2:251:GLU:HB2	1.88	0.55
4:5:50:LEU:O	4:5:54:ILE:HG12	2.06	0.55
5:6:766:THR:O	5:6:770:ARG:N	2.34	0.55
7:A:64:ASP:O	7:A:68:ALA:N	2.38	0.55
11:E:333:SER:OG	11:E:334:LEU:N	2.38	0.55
12:F:914:ILE:O	12:F:918:ARG:HG3	2.06	0.55
15:M:1592:LEU:HD13	15:M:1601:LEU:HD13	1.87	0.55
16:N:267:SER:C	16:N:283:LEU:HD23	2.26	0.55
1:2:553:LEU:HG	1:2:605:LEU:HD22	1.89	0.55
3:4:254:THR:HA	3:4:257:LEU:HB3	1.88	0.55
3:4:682:TYR:HB3	3:4:709:LEU:HD13	1.88	0.55
4:5:178:TYR:HE1	4:5:191:SER:HG	1.54	0.55
4:5:635:ILE:HA	4:5:638:LEU:HD12	1.88	0.55
8:B:21:GLU:OE1	10:D:135:ARG:NH1	2.32	0.55
12:H:729:TRP:CZ3	12:H:786:LEU:HB3	2.42	0.55
15:M:1942:LYS:O	15:M:1950:GLN:HG2	2.06	0.55
1:2:322:GLY:HA3	1:2:390:LEU:HD12	1.87	0.55
1:2:418:SER:OG	1:2:419:LYS:N	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:706:SER:HB3	5:6:557:LYS:HB3	1.87	0.55
2:3:661:GLN:NE2	2:3:665:GLU:OE2	2.35	0.55
3:4:530:ILE:HG21	3:4:577:ILE:HD12	1.87	0.55
4:5:501:THR:HA	4:5:514:ASN:HA	1.87	0.55
4:5:587:GLN:HA	4:5:590:ASN:HD21	1.71	0.55
4:5:613:ARG:HD2	4:5:614:LEU:H	1.70	0.55
8:B:33:THR:N	8:B:63:MET:O	2.40	0.55
11:E:506:ILE:HD12	11:E:548:LEU:HB2	1.87	0.55
12:F:819:VAL:HG13	12:F:868:ARG:HH21	1.71	0.55
12:G:890:LYS:HA	12:G:921:ARG:HH12	1.71	0.55
15:M:1359:MET:HA	15:M:1426:VAL:O	2.06	0.55
15:M:1960:ILE:HG23	15:M:2003:PHE:HZ	1.70	0.55
16:N:406:LEU:HD11	16:N:438:PHE:HD2	1.71	0.55
1:2:228:GLY:HA2	1:2:231:ILE:HD12	1.89	0.55
1:2:481:GLU:HA	1:2:484:PHE:CD2	2.41	0.55
1:2:546:GLY:CA	18:2:902:ADP:H5'1	2.35	0.55
2:3:202:TYR:HD1	2:3:209:PHE:H	1.53	0.55
2:3:681:LYS:O	2:3:684:THR:OG1	2.19	0.55
3:4:304:ARG:HH12	3:4:423:LEU:HD21	1.71	0.55
4:5:169:THR:HB	4:5:254:GLN:HE21	1.71	0.55
12:F:490:ASP:OD1	12:F:506:LYS:N	2.38	0.55
12:F:689:PHE:HB3	12:F:693:GLY:HA2	1.87	0.55
16:N:500:SER:OG	16:N:620:ARG:NH2	2.40	0.55
1:2:323:VAL:H	1:2:391:GLN:H	1.53	0.55
2:3:462:MET:HE1	2:3:497:ILE:HD11	1.88	0.55
4:5:529:ARG:NE	4:5:531:ASP:OD1	2.39	0.55
5:6:314:CYS:SG	5:6:333:CYS:HB3	2.46	0.55
6:7:82:LEU:HD13	6:7:85:ILE:HD12	1.89	0.55
6:7:124:ASN:OD1	6:7:125:MET:N	2.39	0.55
6:7:468:GLN:HB3	20:7:903:AGS:H5'1	1.88	0.55
8:B:11:PHE:O	8:B:179:ASN:ND2	2.40	0.55
10:D:174:LEU:HB3	10:D:175:LEU:HD12	1.88	0.55
12:F:601:ASN:OD1	12:F:604:GLY:N	2.39	0.55
12:F:912:LYS:NZ	12:F:913:LYS:HE3	2.21	0.55
12:H:543:GLY:HA3	12:H:556:TYR:HE1	1.71	0.55
12:H:638:TYR:N	12:H:655:CYS:O	2.28	0.55
15:M:1487:LEU:HB3	15:M:1502:PHE:H	1.71	0.55
15:M:1595:PRO:HG3	15:M:1614:LYS:HB2	1.88	0.55
16:N:40:ALA:HB2	16:N:78:PHE:HD1	1.72	0.55
1:2:232:ARG:HB2	1:2:283:TYR:CZ	2.41	0.55
1:2:317:LEU:HB3	1:2:429:ILE:HG13	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:104:ARG:NH1	9:C:89:LYS:HB3	2.21	0.55
3:4:544:LEU:HD13	3:4:628:VAL:HG21	1.89	0.55
4:5:473:ASP:OD1	4:5:516:ARG:N	2.29	0.55
4:5:586:GLN:O	4:5:590:ASN:ND2	2.39	0.55
5:6:408:THR:O	5:6:418:SER:N	2.40	0.55
5:6:529:LEU:O	5:6:533:ILE:N	2.38	0.55
5:6:591:PHE:CZ	5:6:751:LEU:HD23	2.42	0.55
15:M:2119:PHE:HA	15:M:2127:ILE:HG12	1.88	0.55
16:N:65:GLN:HE22	16:N:70:TRP:HZ3	1.53	0.55
1:2:549:LYS:NZ	1:2:651:ASN:OD1	2.40	0.55
1:2:657:TYR:HD1	1:2:684:ARG:HE	1.53	0.55
2:3:89:LEU:HD11	6:7:219:ALA:HB3	1.88	0.55
2:3:480:ASP:HA	2:3:483:ARG:HE	1.71	0.55
2:3:708:LEU:HD12	2:3:733:LEU:HD11	1.88	0.55
3:4:203:TYR:O	3:4:206:ARG:HG2	2.07	0.55
3:4:607:ARG:HA	3:4:614:LEU:HG	1.88	0.55
3:4:777:MET:HB2	3:4:830:ARG:NH2	2.22	0.55
8:B:171:ASP:OD1	8:B:172:ASN:N	2.38	0.55
12:G:478:PRO:HD3	12:G:577:ARG:HH21	1.71	0.55
12:G:676:TYR:O	12:G:680:ASN:N	2.27	0.55
12:G:825:GLU:O	12:G:829:ARG:HG3	2.07	0.55
2:3:209:PHE:HB2	6:7:8:ILE:O	2.07	0.55
4:5:354:GLU:HB2	4:5:605:TYR:CZ	2.41	0.55
5:6:544:LYS:HA	5:6:547:ILE:HD12	1.88	0.55
8:B:116:PRO:O	8:B:119:TRP:N	2.39	0.55
16:N:434:TRP:N	16:N:482:ILE:O	2.31	0.55
16:N:549:ARG:O	16:N:553:HIS:ND1	2.39	0.55
1:2:430:TYR:HA	1:2:451:ILE:HG13	1.89	0.55
1:2:856:GLN:OE1	1:2:859:ARG:NH2	2.40	0.55
2:3:400:ARG:NH2	2:3:544:ASP:OD1	2.40	0.55
2:3:406:LEU:HB3	2:3:546:LEU:HD13	1.88	0.55
2:3:581:PRO:HG2	2:3:583:ARG:NH1	2.17	0.55
3:4:200:SER:HA	3:4:224:LEU:HD11	1.89	0.55
3:4:314:MET:HA	3:4:317:LEU:HD12	1.88	0.55
3:4:524:ARG:NH2	3:4:530:ILE:O	2.28	0.55
3:4:721:ALA:HB1	6:7:661:VAL:HG23	1.87	0.55
3:4:794:THR:HB	3:4:797:GLN:HB2	1.87	0.55
10:D:196:ASP:O	10:D:200:LYS:NZ	2.28	0.55
11:E:631:GLU:OE2	11:E:633:ARG:NH2	2.40	0.55
12:F:726:MET:HG3	12:F:730:LYS:HE3	1.88	0.55
12:H:538:PHE:O	12:H:545:LEU:N	2.29	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:2014:ARG:HA	15:M:2017:LYS:HE2	1.89	0.55
16:N:86:GLU:O	16:N:90:GLU:HG2	2.06	0.55
2:3:340:GLN:HB3	2:3:658:LYS:HG2	1.87	0.55
3:4:404:ASP:OD1	3:4:405:PHE:N	2.40	0.55
3:4:565:LEU:HA	3:4:673:ALA:HB3	1.89	0.55
3:4:767:LYS:O	3:4:771:VAL:HG23	2.07	0.55
3:4:844:LYS:N	3:4:851:GLN:OE1	2.40	0.55
4:5:175:ARG:N	4:5:251:ILE:O	2.40	0.55
5:6:294:VAL:HG22	5:6:297:THR:HG22	1.88	0.55
6:7:127:LEU:HG	6:7:128:PRO:HD2	1.89	0.55
8:B:38:ARG:NH1	12:F:846:GLU:O	2.29	0.55
9:C:106:SER:HB3	9:C:110:LYS:NZ	2.21	0.55
10:D:285:LEU:O	10:D:289:ASP:N	2.40	0.55
11:E:319:ASN:OD1	11:E:320:ILE:N	2.40	0.55
12:H:539:LEU:HA	12:H:544:THR:HA	1.88	0.55
16:N:229:VAL:HG13	16:N:327:LEU:HD11	1.88	0.55
2:3:396:GLY:HA3	6:7:475:LYS:HE3	1.89	0.54
4:5:422:LYS:HZ3	20:5:803:AGS:PB	2.30	0.54
8:B:7:LEU:O	10:D:71:ARG:NH1	2.41	0.54
9:C:19:LYS:HA	9:C:43:LYS:HA	1.88	0.54
10:D:229:PHE:HB3	10:D:294:ILE:HB	1.89	0.54
12:H:588:VAL:N	12:H:600:PHE:O	2.27	0.54
15:M:1741:VAL:HA	15:M:1744:ILE:HG12	1.90	0.54
15:M:1960:ILE:HG23	15:M:2003:PHE:CZ	2.42	0.54
16:N:437:SER:H	16:N:486:GLY:HA3	1.71	0.54
16:N:676:VAL:HB	16:N:679:SER:HB2	1.89	0.54
1:2:835:ASP:HA	1:2:838:ILE:HD12	1.89	0.54
4:5:184:ARG:HH21	4:5:242:ILE:HD11	1.73	0.54
4:5:715:GLU:HB2	4:5:755:LEU:HD23	1.88	0.54
6:7:221:SER:O	6:7:223:LYS:N	2.40	0.54
6:7:247:ARG:HA	6:7:345:PRO:HB3	1.88	0.54
6:7:435:LEU:HA	6:7:454:ILE:HG13	1.89	0.54
6:7:462:PRO:HA	20:7:903:AGS:S1G	2.48	0.54
12:H:722:LEU:HD12	12:H:776:ILE:HA	1.89	0.54
1:2:508:HIS:HB3	1:2:511:ILE:HB	1.90	0.54
1:2:832:TYR:HB2	1:2:836:ARG:NH1	2.21	0.54
3:4:824:GLU:HA	3:4:827:ARG:HG2	1.89	0.54
4:5:433:SER:OG	4:5:600:LYS:NZ	2.40	0.54
5:6:382:ARG:O	5:6:386:VAL:N	2.33	0.54
6:7:415:ALA:N	6:7:433:LEU:HD11	2.22	0.54
15:M:1718:PHE:O	15:M:1720:LYS:NZ	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:2107:LEU:HD12	15:M:2114:ILE:HG13	1.88	0.54
16:N:178:GLN:HB2	16:N:531:ARG:HH21	1.73	0.54
16:N:268:ILE:HG13	16:N:283:LEU:HG	1.89	0.54
3:4:682:TYR:OH	3:4:835:ASP:OD1	2.25	0.54
3:4:770:LEU:HD22	3:4:802:ILE:HD11	1.89	0.54
4:5:383:ASP:OD1	4:5:384:ILE:HD12	2.06	0.54
5:6:177:PHE:C	5:6:179:PRO:HD2	2.28	0.54
5:6:406:ASP:HB2	5:6:449:THR:HG23	1.88	0.54
5:6:707:SER:OG	5:6:798:ARG:NH1	2.40	0.54
6:7:353:GLY:HA2	6:7:379:GLN:H	1.73	0.54
6:7:644:TYR:O	6:7:647:THR:OG1	2.25	0.54
11:E:105:ILE:N	11:E:115:SER:O	2.33	0.54
11:E:325:TYR:HB3	11:E:404:ILE:HG23	1.88	0.54
12:H:909:SER:O	12:H:912:LYS:HG3	2.07	0.54
15:M:1428:GLU:H	15:M:1700:GLY:HA2	1.71	0.54
15:M:1915:PHE:O	15:M:1939:TRP:N	2.39	0.54
16:N:22:TYR:HD2	16:N:27:ARG:HH22	1.54	0.54
1:2:549:LYS:N	18:2:902:ADP:O1A	2.40	0.54
2:3:257:THR:HA	2:3:275:ASP:HA	1.89	0.54
2:3:293:ASN:O	2:3:327:TYR:N	2.38	0.54
2:3:445:ALA:N	2:3:458:GLU:O	2.37	0.54
3:4:305:PRO:O	3:4:465:HIS:ND1	2.40	0.54
4:5:413:LEU:O	4:5:554:PHE:HB3	2.07	0.54
6:7:149:ARG:HH12	6:7:268:GLU:HG2	1.73	0.54
10:D:260:ILE:HG12	10:D:278:ARG:HD2	1.90	0.54
12:F:754:CYS:O	12:F:772:SER:N	2.40	0.54
12:G:743:TRP:CD1	12:G:764:PRO:HD3	2.42	0.54
12:H:782:VAL:O	12:H:785:LYS:HG2	2.07	0.54
16:N:209:PRO:CB	16:N:624:TRP:HB2	2.37	0.54
1:2:600:ASP:OD2	1:2:643:ARG:HG2	2.07	0.54
1:2:778:LEU:HD23	1:2:829:VAL:HG21	1.89	0.54
3:4:465:HIS:HE1	3:4:467:LYS:HG2	1.72	0.54
5:6:189:VAL:HG11	5:6:197:LEU:H	1.72	0.54
5:6:761:PHE:CD2	5:6:815:CYS:HB3	2.43	0.54
6:7:411:TYR:CE1	6:7:430:LYS:HB3	2.42	0.54
11:E:434:VAL:HG23	11:E:498:LEU:HD13	1.90	0.54
11:E:559:SER:OG	11:E:562:LYS:NZ	2.27	0.54
11:E:589:PRO:HD2	11:E:592:LEU:HG	1.89	0.54
12:G:544:THR:N	12:G:557:ARG:O	2.38	0.54
12:H:628:VAL:HA	12:H:638:TYR:HA	1.90	0.54
12:H:778:MET:HG2	12:H:780:VAL:HG23	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:18:ARG:HB3	16:N:19:PRO:HD3	1.90	0.54
1:2:431:LYS:N	1:2:450:ILE:O	2.40	0.54
1:2:660:THR:HA	1:2:851:VAL:HG12	1.89	0.54
2:3:126:GLU:OE2	2:3:155:LEU:N	2.39	0.54
2:3:200:VAL:HG12	2:3:244:GLU:HB2	1.90	0.54
2:3:655:PHE:HA	2:3:658:LYS:HE2	1.88	0.54
3:4:571:SER:O	3:4:575:SER:N	2.35	0.54
4:5:32:LYS:HA	4:5:35:ILE:HG12	1.90	0.54
4:5:502:ILE:HG13	4:5:515:SER:HB2	1.89	0.54
7:A:99:SER:HA	8:B:1:MET:N	2.22	0.54
7:A:198:ARG:NE	16:N:22:TYR:OH	2.35	0.54
9:C:118:LYS:O	9:C:122:ASN:N	2.34	0.54
10:D:231:HIS:HB2	10:D:274:ILE:HG12	1.90	0.54
11:E:99:ASP:OD2	11:E:102:GLU:N	2.35	0.54
16:N:480:THR:HA	16:N:522:ASN:HB3	1.90	0.54
16:N:500:SER:OG	16:N:505:GLN:NE2	2.41	0.54
2:3:161:PHE:HB2	2:3:165:ALA:H	1.73	0.54
2:3:683:TYR:OH	2:3:698:THR:O	2.23	0.54
3:4:397:ILE:N	3:4:417:LEU:O	2.30	0.54
3:4:521:LEU:HG	3:4:742:LEU:HG	1.89	0.54
3:4:545:PHE:HD1	3:4:810:LYS:HG3	1.72	0.54
3:4:703:ASP:HA	3:4:800:SER:HB2	1.89	0.54
3:4:830:ARG:HA	3:4:833:ILE:HD12	1.90	0.54
4:5:144:ASN:OD1	4:5:145:GLN:N	2.41	0.54
4:5:677:VAL:O	4:5:681:ILE:HG12	2.08	0.54
5:6:111:VAL:HG23	5:6:180:PHE:CE1	2.42	0.54
5:6:339:GLU:OE1	5:6:339:GLU:N	2.36	0.54
6:7:483:THR:N	6:7:522:CYS:O	2.41	0.54
6:7:540:VAL:O	6:7:544:GLN:N	2.41	0.54
7:A:93:ARG:O	7:A:97:LEU:HG	2.08	0.54
7:A:101:ALA:HB2	7:A:131:LEU:HD11	1.89	0.54
7:A:197:GLU:O	7:A:201:GLN:NE2	2.27	0.54
12:F:538:PHE:HB3	12:F:545:LEU:HB2	1.89	0.54
12:F:752:LEU:O	12:F:774:MET:N	2.38	0.54
12:F:837:LEU:O	12:F:841:LEU:HG	2.08	0.54
12:H:503:SER:HG	12:H:514:THR:HG1	1.46	0.54
12:H:744:PRO:HA	12:H:754:CYS:HA	1.88	0.54
16:N:333:TYR:O	16:N:337:ASN:N	2.38	0.54
1:2:855:ARG:O	1:2:858:ARG:HG2	2.08	0.54
2:3:275:ASP:OD1	2:3:276:VAL:N	2.41	0.54
4:5:259:GLN:HE21	4:5:271:PRO:HB3	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:580:ALA:O	4:5:583:MET:HG3	2.08	0.54
4:5:667:GLU:O	4:5:667:GLU:HG2	2.08	0.54
7:A:180:VAL:HA	16:N:18:ARG:NH2	2.23	0.54
15:M:2211:ASP:OD1	15:M:2212:ILE:HD12	2.08	0.54
16:N:424:LEU:HD12	16:N:429:PRO:HD3	1.89	0.54
1:2:209:ARG:HH22	1:2:212:LYS:HG3	1.72	0.54
1:2:232:ARG:HB3	1:2:282:HIS:HB3	1.89	0.54
2:3:386:MET:HE2	2:3:714:LYS:HB3	1.90	0.54
4:5:266:PRO:HB2	4:5:269:GLU:HB2	1.89	0.54
4:5:614:LEU:HD23	4:5:667:GLU:HA	1.90	0.54
5:6:303:GLU:HB3	5:6:354:LEU:O	2.07	0.54
7:A:71:GLN:HE21	9:C:24:ILE:HG12	1.72	0.54
7:A:137:LEU:O	7:A:141:LEU:HG	2.08	0.54
10:D:73:SER:OG	10:D:150:LYS:NZ	2.41	0.54
10:D:280:GLU:HA	10:D:283:ARG:HH21	1.73	0.54
1:2:423:GLU:HG2	1:2:459:ARG:CG	2.38	0.53
1:2:564:VAL:HG11	1:2:599:ALA:HB2	1.90	0.53
2:3:216:ASP:OD1	2:3:224:ARG:NH2	2.41	0.53
3:4:368:PRO:HD3	5:6:439:GLY:HA2	1.90	0.53
3:4:582:HIS:O	3:4:585:THR:OG1	2.24	0.53
4:5:694:GLN:OE1	4:5:694:GLN:N	2.40	0.53
5:6:784:ASP:OD1	5:6:794:ARG:NH1	2.41	0.53
6:7:82:LEU:HB2	6:7:205:LYS:O	2.08	0.53
6:7:426:LEU:O	6:7:430:LYS:HG2	2.07	0.53
9:C:43:LYS:HB3	9:C:75:LEU:HD11	1.89	0.53
11:E:5:ILE:HD11	11:E:145:ASP:HA	1.90	0.53
11:E:592:LEU:HD12	11:E:597:THR:HG21	1.90	0.53
12:F:524:ARG:N	12:F:524:ARG:HD2	2.23	0.53
12:F:892:ASP:OD1	12:F:893:ARG:N	2.41	0.53
12:G:484:THR:HG1	12:G:493:TYR:H	1.55	0.53
12:G:545:LEU:HG	12:G:554:ILE:HD11	1.89	0.53
12:H:648:LYS:HG2	12:H:650:TYR:HE1	1.73	0.53
12:H:692:TYR:HH	12:H:848:TYR:HH	1.56	0.53
1:2:250:ALA:HA	1:2:254:ALA:HA	1.89	0.53
2:3:228:PRO:HG2	2:3:230:ILE:HG12	1.90	0.53
2:3:670:GLN:NE2	2:3:671:LEU:O	2.42	0.53
3:4:569:ASP:O	3:4:571:SER:OG	2.23	0.53
3:4:697:PRO:O	3:4:701:ARG:NH1	2.41	0.53
5:6:538:PHE:HB2	5:6:580:SER:HB2	1.89	0.53
12:H:498:GLU:HB2	12:H:746:ALA:HB2	1.90	0.53
15:M:1657:ASN:O	15:M:1678:ARG:NH2	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:231:ARG:HH12	16:N:355:THR:HG23	1.74	0.53
1:2:287:ALA:O	1:2:288:ARG:HG3	2.08	0.53
1:2:483:GLU:HA	1:2:486:LYS:HE2	1.90	0.53
2:3:185:ILE:O	2:3:259:GLN:N	2.23	0.53
2:3:524:ASP:OD2	2:3:527:ARG:NH1	2.41	0.53
3:4:235:GLU:HG2	3:4:236:LEU:HD12	1.90	0.53
4:5:163:SER:HB3	4:5:293:THR:HG22	1.90	0.53
4:5:553:ILE:N	4:5:658:ARG:HH12	2.06	0.53
5:6:306:LYS:H	5:6:352:ARG:HB2	1.72	0.53
7:A:58:GLN:HA	7:A:62:MET:O	2.08	0.53
7:A:198:ARG:HA	7:A:201:GLN:HG2	1.90	0.53
11:E:131:LEU:HD13	11:E:156:LYS:HA	1.89	0.53
15:M:1342:ILE:C	15:M:1344:GLY:H	2.10	0.53
16:N:459:LYS:NZ	16:N:514:LYS:HE3	2.23	0.53
1:2:710:ASN:HB2	1:2:740:ALA:HB1	1.90	0.53
2:3:276:VAL:HA	2:3:321:ILE:O	2.08	0.53
4:5:772:ARG:H	15:M:2189:LEU:H	1.55	0.53
5:6:165:ALA:HA	5:6:168:MET:SD	2.48	0.53
5:6:520:VAL:HA	5:6:525:ILE:HD12	1.90	0.53
5:6:780:LEU:HD11	5:6:831:LEU:HD13	1.88	0.53
6:7:501:PRO:HD3	6:7:550:LYS:HE2	1.90	0.53
6:7:648:LYS:HZ1	6:7:705:ALA:HA	1.72	0.53
7:A:67:VAL:HG13	9:C:24:ILE:HG13	1.90	0.53
8:B:124:ARG:HE	9:C:191:MET:HA	1.73	0.53
12:F:657:LEU:HD12	12:F:658:PRO:HD2	1.91	0.53
12:F:724:SER:O	12:F:728:ILE:HG12	2.07	0.53
12:G:623:TYR:HD2	12:G:624:ARG:HD3	1.72	0.53
12:G:862:TYR:CZ	12:G:866:LEU:HD11	2.44	0.53
15:M:2004:SER:HA	15:M:2007:PHE:CE1	2.42	0.53
1:2:248:HIS:N	1:2:251:GLU:OE1	2.41	0.53
3:4:653:THR:OG1	3:4:665:LEU:O	2.22	0.53
4:5:156:VAL:HA	4:5:298:TYR:HD2	1.72	0.53
4:5:772:ARG:N	15:M:2189:LEU:H	2.06	0.53
5:6:609:THR:HG22	5:6:628:LEU:HG	1.90	0.53
5:6:727:LEU:O	5:6:731:ILE:HG12	2.07	0.53
5:6:744:PRO:O	5:6:746:PHE:N	2.41	0.53
6:7:578:LEU:O	6:7:583:ASN:ND2	2.38	0.53
6:7:685:THR:HB	6:7:688:THR:HG23	1.90	0.53
10:D:75:GLU:HB3	10:D:279:TYR:CE2	2.43	0.53
10:D:253:LYS:NZ	10:D:270:THR:HA	2.22	0.53
12:G:895:LEU:O	12:G:899:VAL:HG23	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:H:484:THR:O	12:H:492:ARG:HD3	2.09	0.53
12:H:620:ALA:HA	12:H:625:VAL:HA	1.91	0.53
15:M:1967:THR:HG21	15:M:2003:PHE:HA	1.89	0.53
1:2:709:GLU:HG2	5:6:764:ILE:HB	1.89	0.53
3:4:199:MET:HA	3:4:230:LEU:HD11	1.91	0.53
3:4:343:LYS:N	3:4:390:SER:O	2.32	0.53
3:4:646:HIS:CD2	3:4:697:PRO:HB2	2.44	0.53
4:5:169:THR:HG23	4:5:288:PRO:HG3	1.90	0.53
5:6:378:ASP:O	5:6:453:SER:OG	2.22	0.53
5:6:830:LEU:O	5:6:833:GLN:HG2	2.09	0.53
12:H:573:GLN:NE2	12:H:576:GLU:OE1	2.41	0.53
16:N:17:LEU:HA	16:N:20:LEU:HD12	1.91	0.53
16:N:175:ALA:HA	16:N:531:ARG:NH1	2.24	0.53
1:2:194:TYR:CZ	1:2:262:LYS:HD3	2.44	0.53
1:2:246:TYR:HA	1:2:249:LEU:HD22	1.90	0.53
1:2:604:CYS:HB3	1:2:646:ILE:HG22	1.91	0.53
1:2:701:ASP:HB3	1:2:747:ARG:HH21	1.73	0.53
4:5:390:CYS:HB3	4:5:665:LYS:HG2	1.90	0.53
5:6:107:THR:O	5:6:110:LYS:HG3	2.09	0.53
5:6:690:ASN:HB3	5:6:693:LEU:HB2	1.89	0.53
5:6:744:PRO:C	5:6:746:PHE:N	2.62	0.53
5:6:792:SER:HB2	5:6:796:THR:HA	1.91	0.53
10:D:235:PRO:HD2	10:D:240:TRP:CD1	2.44	0.53
11:E:18:ASN:O	11:E:79:ASN:ND2	2.41	0.53
11:E:121:TYR:HA	11:E:141:GLN:HB2	1.90	0.53
12:G:601:ASN:OD1	12:G:604:GLY:N	2.42	0.53
12:G:879:VAL:O	12:G:883:LEU:HG	2.09	0.53
12:H:482:ALA:O	12:H:496:MET:N	2.36	0.53
15:M:1360:LYS:HA	15:M:1379:SER:HB2	1.90	0.53
15:M:1944:PHE:CZ	15:M:2042:GLY:HA3	2.42	0.53
15:M:2151:ARG:HB3	16:N:494:MET:CE	2.38	0.53
1:2:792:ASP:O	1:2:796:GLU:HG2	2.09	0.53
2:3:48:TYR:O	2:3:52:ASN:ND2	2.42	0.53
2:3:542:ARG:HD2	2:3:700:ARG:NE	2.24	0.53
3:4:775:VAL:O	3:4:779:LYS:HG2	2.08	0.53
4:5:775:VAL:CG1	15:M:2193:SER:HB3	2.38	0.53
5:6:153:ILE:O	5:6:267:PHE:HA	2.09	0.53
6:7:28:PHE:HZ	6:7:33:LEU:HD13	1.74	0.53
6:7:86:LEU:HB2	6:7:207:LEU:HB2	1.90	0.53
6:7:332:ASN:HB2	6:7:334:HIS:CE1	2.43	0.53
6:7:656:VAL:HG23	6:7:708:VAL:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:E:64:TYR:HB3	11:E:95:PHE:CE2	2.44	0.53
11:E:223:ARG:CZ	11:E:225:GLN:HB3	2.39	0.53
12:G:724:SER:O	12:G:728:ILE:HG12	2.09	0.53
12:H:757:VAL:HG21	12:H:764:PRO:HA	1.90	0.53
16:N:527:SER:O	16:N:530:THR:OG1	2.27	0.53
16:N:631:THR:OG1	16:N:633:CYS:SG	2.63	0.53
1:2:311:GLU:OE1	1:2:311:GLU:N	2.37	0.53
2:3:253:HIS:HD2	2:3:277:ILE:HG23	1.73	0.53
2:3:489:VAL:HG23	2:3:494:THR:O	2.09	0.53
5:6:689:TYR:HE2	5:6:691:ARG:HD3	1.74	0.53
6:7:20:GLU:OE1	6:7:92:LYS:NZ	2.42	0.53
7:A:78:CYS:HA	9:C:49:TRP:CH2	2.44	0.53
11:E:17:ARG:NH1	11:E:18:ASN:OD1	2.42	0.53
11:E:66:GLU:OE2	11:E:470:ARG:NH1	2.35	0.53
12:G:757:VAL:HG11	12:G:764:PRO:HB3	1.91	0.53
12:H:643:LEU:HD23	12:H:648:LYS:HD2	1.90	0.53
12:H:702:ASN:O	12:H:724:SER:OG	2.18	0.53
12:H:707:LEU:HB2	12:H:718:TRP:CZ3	2.44	0.53
15:M:1322:TRP:NE1	15:M:1325:LEU:HB2	2.24	0.53
15:M:2162:LEU:HD11	16:N:211:ILE:HG13	1.89	0.53
16:N:486:GLY:N	16:N:489:ASP:OD2	2.42	0.53
1:2:418:SER:HA	1:2:458:ARG:NH2	2.24	0.53
1:2:565:PHE:HA	1:2:605:LEU:HB2	1.91	0.53
1:2:689:GLU:OE1	5:6:790:ARG:NH2	2.40	0.53
1:2:690:GLU:OE1	1:2:690:GLU:N	2.40	0.53
1:2:747:ARG:HE	1:2:751:LYS:HZ3	1.57	0.53
2:3:96:ILE:HG13	2:3:129:LEU:HD11	1.91	0.53
3:4:269:ILE:HD12	3:4:303:VAL:HG11	1.90	0.53
3:4:406:VAL:HG21	3:4:412:PRO:HG3	1.90	0.53
4:5:183:CYS:N	4:5:188:HIS:O	2.42	0.53
4:5:503:SER:HA	4:5:512:VAL:HG22	1.90	0.53
5:6:274:HIS:N	5:6:289:SER:O	2.42	0.53
7:A:73:PHE:CZ	7:A:77:LEU:HD11	2.44	0.53
9:C:49:TRP:O	9:C:52:ARG:NH1	2.35	0.53
12:F:712:SER:OG	12:F:715:GLU:OE1	2.27	0.53
1:2:511:ILE:O	1:2:515:VAL:HG22	2.09	0.52
1:2:741:ARG:HH21	1:2:744:ARG:HG3	1.74	0.52
2:3:417:GLN:N	2:3:420:ARG:HH21	2.07	0.52
3:4:569:ASP:O	3:4:677:PRO:HD3	2.09	0.52
3:4:646:HIS:NE2	3:4:698:LEU:HG	2.24	0.52
4:5:39:ARG:NH1	4:5:42:SER:H	2.07	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:528:LYS:HG3	5:6:531:ARG:HH21	1.74	0.52
6:7:645:ALA:HA	6:7:702:LEU:HA	1.90	0.52
8:B:30:ARG:NH1	8:B:85:CYS:O	2.41	0.52
10:D:6:ASP:HA	10:D:9:LEU:HD12	1.91	0.52
10:D:235:PRO:HD2	10:D:240:TRP:HD1	1.74	0.52
11:E:244:GLY:HA3	11:E:603:ASN:N	2.23	0.52
12:G:484:THR:OG1	12:G:493:TYR:N	2.37	0.52
12:G:498:GLU:HB3	12:G:746:ALA:HB2	1.91	0.52
12:G:584:THR:HG22	12:G:586:VAL:H	1.74	0.52
12:H:577:ARG:O	12:H:593:SER:N	2.28	0.52
15:M:2007:PHE:HE2	15:M:2011:LEU:HD22	1.73	0.52
16:N:539:ILE:HA	16:N:638:THR:O	2.09	0.52
4:5:29:LYS:HA	4:5:32:LYS:HG2	1.91	0.52
4:5:544:THR:HB	4:5:651:ARG:HH12	1.73	0.52
4:5:605:TYR:HA	4:5:608:LEU:HD12	1.91	0.52
4:5:743:PHE:O	4:5:748:LEU:N	2.33	0.52
4:5:773:SER:C	15:M:2190:PRO:HD3	2.30	0.52
6:7:228:ARG:NH2	6:7:326:HIS:HB3	2.23	0.52
6:7:415:ALA:HB3	6:7:430:LYS:NZ	2.24	0.52
12:G:839:ASP:O	12:G:843:ASN:ND2	2.32	0.52
15:M:1418:PHE:CZ	15:M:1426:VAL:HA	2.44	0.52
15:M:1524:ASN:HA	15:M:1560:PHE:HE2	1.72	0.52
15:M:1673:ASP:OD1	15:M:1819:TRP:NE1	2.42	0.52
15:M:1882:SER:O	15:M:1886:MET:HG3	2.09	0.52
16:N:299:GLU:HG3	16:N:304:SER:HB3	1.91	0.52
16:N:508:ILE:HD11	16:N:513:THR:HG22	1.91	0.52
1:2:332:PRO:HG3	4:5:153:SER:HA	1.90	0.52
4:5:479:ILE:HB	4:5:482:PHE:CE1	2.43	0.52
4:5:583:MET:SD	4:5:584:GLN:NE2	2.82	0.52
5:6:816:VAL:HG22	5:6:818:GLU:H	1.74	0.52
12:H:581:VAL:HG12	12:H:590:VAL:HG13	1.90	0.52
15:M:1360:LYS:HE2	15:M:1378:LYS:HA	1.91	0.52
15:M:1371:ILE:HG13	15:M:1406:VAL:HA	1.91	0.52
15:M:1820:VAL:HG11	15:M:1836:VAL:HG21	1.91	0.52
16:N:328:VAL:HB	16:N:341:VAL:CG2	2.39	0.52
2:3:416:SER:HB2	18:3:1001:ADP:O2A	2.10	0.52
3:4:226:TYR:O	3:4:230:LEU:HG	2.10	0.52
3:4:332:VAL:HG13	3:4:429:ALA:HA	1.90	0.52
3:4:543:GLN:NE2	3:4:562:ILE:O	2.37	0.52
4:5:174:SER:HA	4:5:252:ASP:HA	1.91	0.52
5:6:510:SER:HA	5:6:513:ILE:HD12	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:529:LEU:HD22	5:6:754:TYR:CZ	2.43	0.52
6:7:311:GLN:HB2	6:7:340:VAL:HG23	1.91	0.52
6:7:593:ARG:NH1	6:7:593:ARG:O	2.41	0.52
6:7:723:SER:O	6:7:727:LEU:HG	2.09	0.52
11:E:466:LEU:HG	11:E:470:ARG:HE	1.74	0.52
12:F:539:LEU:HB2	12:F:559:HIS:CE1	2.44	0.52
15:M:1940:GLN:HG3	15:M:2121:LYS:O	2.09	0.52
1:2:494:ILE:HG23	1:2:823:MET:HE3	1.92	0.52
1:2:678:ASP:OD1	1:2:679:ILE:N	2.43	0.52
3:4:677:PRO:HB3	3:4:681:ARG:HH12	1.73	0.52
4:5:497:MET:HE3	4:5:550:PHE:HA	1.91	0.52
4:5:604:THR:O	4:5:607:ARG:HG3	2.08	0.52
4:5:653:LEU:O	4:5:657:ILE:HG12	2.09	0.52
5:6:186:ARG:HH21	5:6:187:ARG:HH12	1.58	0.52
5:6:396:LYS:NZ	5:6:461:SER:O	2.41	0.52
5:6:691:ARG:HH12	5:6:717:ASP:H	1.56	0.52
6:7:405:ILE:O	6:7:409:ASP:N	2.38	0.52
11:E:370:LEU:O	11:E:373:ALA:N	2.43	0.52
12:F:634:HIS:CE1	12:H:636:LEU:HB2	2.43	0.52
12:G:642:GLU:N	12:G:649:ARG:O	2.42	0.52
15:M:1353:ILE:HB	15:M:1434:HIS:HB2	1.90	0.52
15:M:1946:SER:HB3	15:M:1949:TYR:HD2	1.74	0.52
16:N:228:ARG:HH12	16:N:347:PRO:HB2	1.75	0.52
16:N:234:ASN:OD1	16:N:264:SER:HB2	2.10	0.52
1:2:671:GLU:O	1:2:674:LEU:HG	2.10	0.52
2:3:557:ARG:O	2:3:561:ILE:HG12	2.10	0.52
3:4:447:ASN:HD21	3:4:449:ARG:CZ	2.22	0.52
4:5:68:LEU:HG	4:5:76:TYR:HB2	1.92	0.52
4:5:390:CYS:HB2	4:5:665:LYS:HZ2	1.75	0.52
6:7:500:ASP:N	6:7:501:PRO:HD2	2.24	0.52
8:B:60:LEU:O	8:B:63:MET:HE1	2.10	0.52
11:E:44:MET:HE1	11:E:272:LEU:HB2	1.91	0.52
11:E:103:TYR:O	11:E:116:PHE:HA	2.09	0.52
11:E:244:GLY:H	11:E:602:LEU:HB3	1.75	0.52
11:E:331:HIS:CE1	11:E:419:ILE:HG13	2.44	0.52
12:F:535:ASP:H	12:F:548:GLN:HA	1.73	0.52
12:G:751:THR:HB	12:G:773:GLU:HG3	1.91	0.52
16:N:23:ARG:HA	16:N:27:ARG:HE	1.75	0.52
16:N:183:TYR:CD2	16:N:223:TYR:HB3	2.45	0.52
1:2:426:VAL:HG11	1:2:456:ILE:HD13	1.91	0.52
1:2:462:ASN:OD1	1:2:463:THR:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:759:PRO:O	1:2:763:LEU:N	2.38	0.52
3:4:261:LEU:HD12	3:4:265:PRO:HA	1.91	0.52
4:5:412:VAL:HA	4:5:552:MET:HG3	1.91	0.52
6:7:88:TYR:O	6:7:92:LYS:HG2	2.09	0.52
11:E:536:LEU:HD23	11:E:539:TYR:HD2	1.74	0.52
12:G:789:GLU:HG2	12:G:818:PRO:HD3	1.92	0.52
15:M:1477:LEU:HB2	15:M:1654:GLN:HG3	1.92	0.52
16:N:25:LEU:HG	16:N:63:LEU:HD13	1.91	0.52
16:N:178:GLN:NE2	16:N:179:GLN:O	2.43	0.52
16:N:269:THR:HG21	16:N:282:PHE:CD1	2.43	0.52
16:N:503:LEU:HB3	16:N:504:PRO:HD3	1.91	0.52
2:3:245:TYR:O	6:7:109:ASN:ND2	2.42	0.52
2:3:423:LEU:HD12	2:3:431:ALA:HB3	1.90	0.52
3:4:315:ARG:NH1	3:4:401:GLU:OE1	2.43	0.52
3:4:412:PRO:HD2	6:7:557:LEU:HD21	1.91	0.52
3:4:808:HIS:HA	3:4:811:MET:CE	2.40	0.52
3:4:808:HIS:ND1	3:4:821:ASP:HA	2.25	0.52
4:5:296:GLY:HA3	4:5:330:ILE:HA	1.90	0.52
4:5:669:SER:HB3	4:5:670:PRO:HD2	1.92	0.52
6:7:77:SER:HB3	6:7:201:PHE:HD2	1.75	0.52
12:G:707:LEU:HD13	12:G:718:TRP:CE2	2.45	0.52
15:M:2179:CYS:SG	15:M:2181:CYS:N	2.76	0.52
16:N:222:TYR:HE2	16:N:286:GLY:HA2	1.75	0.52
1:2:744:ARG:HE	1:2:747:ARG:HD3	1.75	0.52
3:4:753:TYR:O	3:4:756:GLU:HG2	2.10	0.52
4:5:422:LYS:NZ	20:5:803:AGS:O2B	2.43	0.52
5:6:144:LYS:HB2	5:6:261:ARG:NH2	2.24	0.52
5:6:559:THR:HG23	5:6:561:GLU:N	2.25	0.52
6:7:545:THR:HA	6:7:556:THR:HG23	1.91	0.52
11:E:287:VAL:HG22	11:E:290:ARG:HH12	1.74	0.52
11:E:299:VAL:O	11:E:303:THR:HG23	2.09	0.52
11:E:382:HIS:HA	11:E:385:LYS:HB2	1.91	0.52
12:G:886:ALA:HA	12:G:889:LEU:HD12	1.92	0.52
12:H:555:GLN:HE22	12:H:565:ASN:HB3	1.74	0.52
12:H:741:HIS:CG	12:H:762:ILE:HA	2.44	0.52
15:M:1736:VAL:HG23	15:M:1899:ASP:H	1.74	0.52
15:M:2010:PRO:HA	15:M:2013:LYS:HG2	1.91	0.52
16:N:351:ARG:HE	16:N:655:GLY:HA3	1.75	0.52
16:N:433:ILE:HD13	16:N:482:ILE:HB	1.91	0.52
1:2:246:TYR:CE1	1:2:301:PRO:HD3	2.45	0.52
1:2:300:PHE:CG	1:2:301:PRO:HD2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:397:VAL:HG21	1:2:403:PRO:HG3	1.92	0.52
1:2:548:ALA:CB	18:2:902:ADP:H2'	2.39	0.52
2:3:210:HIS:HA	6:7:7:SER:HA	1.92	0.52
2:3:254:GLN:HB3	2:3:256:ILE:HD11	1.92	0.52
2:3:282:LEU:HD21	2:3:325:THR:HA	1.91	0.52
2:3:722:ASN:OD1	2:3:723:LYS:N	2.43	0.52
3:4:567:CYS:SG	3:4:568:GLY:N	2.82	0.52
3:4:911:GLN:HG2	3:4:918:VAL:HG12	1.92	0.52
5:6:111:VAL:HA	5:6:114:ALA:HB3	1.92	0.52
5:6:154:ASP:OD1	5:6:155:TYR:N	2.43	0.52
5:6:774:VAL:O	5:6:778:LYS:HD3	2.10	0.52
11:E:328:LEU:HD22	11:E:331:HIS:HB2	1.92	0.52
15:M:1384:PRO:HB3	15:M:1784:SER:HB3	1.93	0.52
16:N:29:TYR:OH	16:N:64:GLU:OE1	2.27	0.52
16:N:280:GLN:OE1	16:N:280:GLN:N	2.43	0.52
1:2:392:GLU:HB2	1:2:403:PRO:HB3	1.90	0.51
1:2:410:LEU:HD13	1:2:415:VAL:HA	1.91	0.51
1:2:424:VAL:HG12	1:2:458:ARG:HA	1.92	0.51
1:2:810:LEU:HD12	1:2:813:ILE:HD12	1.92	0.51
2:3:542:ARG:HD2	2:3:700:ARG:HE	1.75	0.51
2:3:680:VAL:O	2:3:684:THR:HG23	2.10	0.51
3:4:396:VAL:HA	3:4:418:CYS:HA	1.92	0.51
4:5:695:ASP:OD2	4:5:710:GLU:HB3	2.10	0.51
5:6:364:ASN:HD22	5:6:394:ARG:HH22	1.58	0.51
5:6:635:ILE:HG12	5:6:677:SER:HB3	1.92	0.51
6:7:71:ALA:HB3	6:7:130:LYS:HE2	1.91	0.51
7:A:38:ARG:HB3	7:A:42:LYS:NZ	2.25	0.51
8:B:105:GLU:OE2	8:B:113:SER:N	2.43	0.51
12:F:588:VAL:HB	12:F:600:PHE:HB2	1.92	0.51
12:F:708:SER:OG	12:F:717:LYS:O	2.25	0.51
12:H:599:SER:HB2	12:H:608:ALA:H	1.74	0.51
12:H:853:GLU:OE1	12:H:853:GLU:N	2.37	0.51
15:M:1689:TRP:CH2	15:M:1691:GLU:HB2	2.45	0.51
15:M:1737:ASP:HB2	15:M:2132:ARG:HH21	1.75	0.51
16:N:266:MET:HG2	16:N:283:LEU:HB2	1.90	0.51
16:N:670:ALA:N	16:N:687:ILE:O	2.43	0.51
1:2:499:SER:OG	1:2:509:ARG:NH1	2.30	0.51
2:3:43:ARG:HD2	2:3:136:MET:SD	2.50	0.51
2:3:149:SER:HB3	2:3:247:TYR:HA	1.92	0.51
3:4:506:LEU:HD12	3:4:510:ARG:HH12	1.75	0.51
3:4:521:LEU:HD21	3:4:743:PRO:HD2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:132:VAL:HG13	5:6:135:VAL:HG12	1.91	0.51
8:B:112:PHE:HB3	8:B:152:ARG:CZ	2.40	0.51
9:C:27:LEU:HD22	9:C:30:LEU:HD11	1.91	0.51
11:E:235:GLY:O	11:E:239:GLU:HG2	2.10	0.51
11:E:255:ILE:O	11:E:259:LEU:HG	2.10	0.51
12:F:541:GLU:OE1	12:F:541:GLU:N	2.43	0.51
12:G:899:VAL:HG22	12:G:914:ILE:HG22	1.91	0.51
16:N:34:LYS:H	16:N:76:GLY:HA3	1.75	0.51
16:N:493:SER:HA	16:N:496:SER:O	2.10	0.51
1:2:226:VAL:O	1:2:230:ARG:HG3	2.10	0.51
1:2:839:LYS:HE2	1:2:865:THR:HB	1.91	0.51
3:4:176:PRO:HD2	3:4:188:GLN:HG2	1.92	0.51
3:4:536:VAL:HG13	3:4:706:TYR:CD2	2.45	0.51
3:4:562:ILE:HG22	3:4:564:ILE:HG13	1.92	0.51
4:5:455:ARG:NE	4:5:460:ARG:HA	2.24	0.51
4:5:502:ILE:HG22	4:5:504:ILE:HD11	1.92	0.51
4:5:730:TYR:CE1	4:5:733:LEU:HD23	2.45	0.51
5:6:382:ARG:H	5:6:385:SER:HB2	1.75	0.51
6:7:195:ASN:HB3	6:7:306:LYS:HZ2	1.76	0.51
6:7:581:LEU:HD23	6:7:581:LEU:H	1.74	0.51
6:7:658:ASP:HA	6:7:661:VAL:HG12	1.92	0.51
10:D:148:LEU:HA	10:D:151:ILE:HD12	1.92	0.51
12:H:692:TYR:OH	12:H:848:TYR:OH	2.28	0.51
1:2:824:ARG:HH22	1:2:829:VAL:HA	1.75	0.51
2:3:656:LEU:O	2:3:660:VAL:HG23	2.10	0.51
5:6:186:ARG:HD2	5:6:260:GLU:HG3	1.92	0.51
5:6:701:MET:SD	5:6:705:ILE:HG23	2.51	0.51
5:6:714:VAL:HG11	5:6:837:ARG:HG3	1.93	0.51
6:7:106:ILE:HG22	6:7:113:PHE:CG	2.45	0.51
6:7:697:GLN:O	6:7:701:LYS:HG2	2.09	0.51
11:E:223:ARG:HH21	11:E:226:ARG:HB3	1.75	0.51
12:G:890:LYS:HA	12:G:921:ARG:HH22	1.76	0.51
12:H:600:PHE:HA	12:H:606:PRO:HA	1.91	0.51
16:N:173:ILE:HB	16:N:177:GLN:HB2	1.92	0.51
16:N:487:PRO:O	16:N:493:SER:OG	2.20	0.51
1:2:504:SER:HB2	5:6:563:ILE:HD12	1.91	0.51
1:2:790:TYR:O	1:2:793:LEU:HB2	2.11	0.51
3:4:381:SER:HG	5:6:441:ARG:HH21	1.52	0.51
3:4:418:CYS:SG	3:4:419:VAL:N	2.83	0.51
4:5:712:ARG:O	4:5:715:GLU:HG3	2.10	0.51
5:6:591:PHE:HE1	5:6:748:ALA:HB1	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:235:LEU:O	6:7:355:PHE:HB3	2.11	0.51
7:A:11:LEU:O	7:A:14:LYS:HG2	2.10	0.51
9:C:47:PRO:O	9:C:51:ALA:N	2.42	0.51
11:E:494:ARG:O	11:E:498:LEU:HG	2.10	0.51
15:M:1717:GLU:C	15:M:1837:HIS:HE2	2.13	0.51
1:2:740:ALA:O	1:2:744:ARG:HG2	2.10	0.51
2:3:108:ARG:HH21	2:3:112:SER:HB3	1.76	0.51
2:3:224:ARG:NH1	2:3:227:THR:OG1	2.37	0.51
2:3:274:ILE:HD11	2:3:320:LEU:HA	1.93	0.51
2:3:700:ARG:O	2:3:704:THR:HG23	2.10	0.51
4:5:177:THR:HG23	4:5:251:ILE:HG12	1.93	0.51
5:6:115:PHE:O	5:6:119:LEU:HG	2.11	0.51
5:6:118:PHE:CZ	5:6:158:LEU:HA	2.45	0.51
5:6:710:ASP:HB3	5:6:802:SER:HB2	1.93	0.51
5:6:732:VAL:HG22	5:6:738:ARG:HH22	1.75	0.51
6:7:203:TYR:OH	6:7:336:ASN:O	2.28	0.51
6:7:245:ILE:HG22	6:7:315:ILE:HB	1.92	0.51
6:7:281:LEU:HD21	6:7:298:LEU:HB2	1.93	0.51
7:A:63:LEU:C	7:A:63:LEU:HD12	2.31	0.51
10:D:190:TRP:HE3	10:D:191:LEU:HD22	1.75	0.51
12:F:615:ILE:HA	12:F:629:HIS:HA	1.93	0.51
12:F:838:THR:O	12:F:842:GLU:HG2	2.10	0.51
1:2:766:TYR:CE1	1:2:825:LEU:HD13	2.46	0.51
2:3:359:ILE:O	2:3:363:LEU:HG	2.11	0.51
2:3:378:LYS:HA	2:3:381:ILE:HG12	1.92	0.51
2:3:559:ARG:HH12	16:N:273:ASN:HA	1.76	0.51
2:3:578:GLU:OE2	4:5:613:ARG:NE	2.43	0.51
2:3:710:THR:HG22	2:3:714:LYS:HE2	1.92	0.51
3:4:292:ASP:O	3:4:296:ILE:HG12	2.11	0.51
3:4:456:LEU:HD22	6:7:252:LYS:HB3	1.93	0.51
5:6:107:THR:O	5:6:111:VAL:HG22	2.10	0.51
5:6:758:ALA:O	5:6:812:ARG:NE	2.44	0.51
11:E:66:GLU:O	11:E:70:HIS:ND1	2.44	0.51
11:E:296:GLN:O	11:E:300:LYS:HG3	2.10	0.51
12:F:498:GLU:HB3	12:F:746:ALA:HB2	1.93	0.51
12:F:549:SER:HB3	12:F:577:ARG:HG3	1.93	0.51
12:F:715:GLU:OE1	12:F:715:GLU:N	2.44	0.51
15:M:1696:PRO:HB2	15:M:1698:HIS:NE2	2.26	0.51
15:M:2179:CYS:HB3	15:M:2183:GLY:O	2.11	0.51
16:N:268:ILE:HG12	16:N:285:LEU:HB2	1.92	0.51
1:2:746:GLN:HA	1:2:749:ARG:HD2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:466:ASP:OD1	2:3:467:ARG:N	2.44	0.51
3:4:508:LYS:O	3:4:511:GLU:HG3	2.11	0.51
3:4:716:ASN:O	3:4:720:LEU:HG	2.10	0.51
3:4:802:ILE:HG13	5:6:736:MET:HE1	1.90	0.51
4:5:66:GLU:OE1	4:5:66:GLU:N	2.43	0.51
6:7:119:ARG:O	6:7:123:ASN:N	2.28	0.51
6:7:724:LYS:HZ1	6:7:728:TYR:HB2	1.76	0.51
10:D:253:LYS:NZ	10:D:255:CYS:HA	2.26	0.51
11:E:469:LEU:HD11	11:E:540:ARG:HH12	1.75	0.51
12:G:532:PHE:O	12:G:548:GLN:NE2	2.44	0.51
12:G:549:SER:OG	12:G:577:ARG:HG2	2.11	0.51
12:G:684:ILE:HA	12:G:699:GLY:HA2	1.92	0.51
12:G:705:LEU:HA	12:G:720:PRO:HA	1.93	0.51
12:G:782:VAL:HG22	12:H:571:PRO:HA	1.93	0.51
15:M:1499:PHE:CE2	15:M:1573:LEU:HD11	2.46	0.51
1:2:748:GLN:HB3	5:6:560:VAL:HG11	1.92	0.51
2:3:184:GLY:HA2	2:3:261:MET:CE	2.40	0.51
2:3:694:LYS:HG2	2:3:695:SER:H	1.76	0.51
3:4:248:LEU:HB3	3:4:258:TYR:HB2	1.93	0.51
3:4:347:PHE:CE2	3:4:384:LEU:HA	2.46	0.51
5:6:119:LEU:HD22	5:6:136:TYR:HD2	1.74	0.51
5:6:332:PHE:HB3	5:6:341:ARG:HE	1.75	0.51
7:A:20:TYR:HD1	7:A:27:VAL:HB	1.74	0.51
7:A:34:GLU:HG3	7:A:38:ARG:HE	1.76	0.51
8:B:153:GLN:O	8:B:157:LEU:HG	2.10	0.51
9:C:14:THR:O	9:C:48:LEU:N	2.38	0.51
10:D:202:MET:SD	10:D:203:PRO:HD2	2.50	0.51
11:E:368:ILE:HD12	11:E:369:PRO:HD2	1.93	0.51
12:F:819:VAL:HG13	12:F:868:ARG:NH2	2.25	0.51
12:H:543:GLY:HA2	12:H:559:HIS:N	2.25	0.51
15:M:1321:THR:HG23	15:M:1444:SER:HB2	1.91	0.51
1:2:178:ARG:NH2	1:2:201:PRO:O	2.44	0.51
1:2:330:VAL:HG12	1:2:386:GLN:HB2	1.92	0.51
1:2:500:SER:HA	1:2:756:SER:CA	2.40	0.51
1:2:609:PHE:O	1:2:612:MET:HG3	2.11	0.51
1:2:784:ASP:O	1:2:788:ARG:HG3	2.10	0.51
2:3:176:LEU:HA	2:3:298:PHE:HB3	1.92	0.51
2:3:195:LYS:HB2	2:3:251:ILE:HG13	1.92	0.51
2:3:258:VAL:O	2:3:273:SER:HA	2.11	0.51
2:3:476:ASP:HA	2:3:535:LEU:HD21	1.93	0.51
3:4:178:ARG:HB2	3:4:187:ILE:HG12	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:404:VAL:HG21	5:6:453:SER:HB3	1.93	0.51
20:7:903:AGS:C8	20:7:903:AGS:H5'2	2.40	0.51
10:D:227:PHE:HA	10:D:278:ARG:HA	1.92	0.51
11:E:34:LEU:HD22	11:E:543:LEU:HD11	1.92	0.51
12:G:827:TYR:HB3	12:G:865:ALA:CB	2.39	0.51
12:H:584:THR:HG22	12:H:620:ALA:HB1	1.92	0.51
15:M:1689:TRP:CD1	15:M:1827:LEU:HG	2.45	0.51
3:4:636:LYS:HB3	3:4:642:ARG:HH21	1.76	0.50
3:4:799:GLU:OE1	3:4:803:ARG:NE	2.44	0.50
4:5:592:SER:O	4:5:594:ILE:HG12	2.10	0.50
5:6:559:THR:HG23	5:6:561:GLU:H	1.76	0.50
6:7:146:ARG:O	6:7:150:ASN:ND2	2.44	0.50
7:A:191:VAL:HG12	11:E:55:GLN:HB3	1.93	0.50
10:D:253:LYS:HZ1	10:D:271:ILE:HG12	1.74	0.50
11:E:410:VAL:HG22	11:E:420:SER:HA	1.93	0.50
12:F:891:GLN:OE1	12:F:894:ALA:N	2.44	0.50
12:G:485:PRO:HD2	12:G:763:TRP:HB3	1.93	0.50
12:G:586:VAL:HG23	12:G:622:ASN:OD1	2.12	0.50
12:G:621:GLN:OE1	12:G:624:ARG:NE	2.44	0.50
12:G:649:ARG:HE	12:G:650:TYR:H	1.58	0.50
16:N:300:ASP:OD1	16:N:303:GLY:N	2.36	0.50
16:N:459:LYS:HB2	16:N:512:PHE:CE1	2.46	0.50
1:2:812:SER:O	1:2:816:ILE:HG12	2.11	0.50
2:3:158:LYS:HD3	2:3:594:GLU:HB3	1.93	0.50
2:3:406:LEU:HA	2:3:514:ALA:HB3	1.93	0.50
4:5:391:LEU:HD11	4:5:410:ILE:O	2.11	0.50
4:5:428:PHE:O	4:5:432:VAL:HG23	2.12	0.50
4:5:497:MET:O	4:5:500:GLN:NE2	2.42	0.50
5:6:364:ASN:ND2	5:6:367:GLU:OE1	2.44	0.50
6:7:68:GLN:NE2	6:7:69:LYS:HD2	2.26	0.50
6:7:410:VAL:O	6:7:411:TYR:O	2.30	0.50
6:7:518:ASN:HD21	6:7:559:ALA:HB3	1.76	0.50
7:A:38:ARG:HA	7:A:41:LEU:HD12	1.92	0.50
10:D:147:ARG:NH2	10:D:174:LEU:O	2.44	0.50
11:E:311:LYS:NZ	11:E:315:THR:O	2.42	0.50
11:E:341:SER:HB3	11:E:344:VAL:HB	1.91	0.50
11:E:388:LEU:HB3	11:E:392:PHE:CZ	2.46	0.50
11:E:638:SER:OG	11:E:639:PRO:HD3	2.11	0.50
12:G:497:ASN:OD1	12:G:498:GLU:N	2.43	0.50
12:G:867:LEU:HD21	12:G:894:ALA:O	2.11	0.50
12:H:897:ALA:HA	12:H:900:LYS:HE2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:I:41:DG:H2'	13:I:42:DT:H5'	1.92	0.50
15:M:1525:ALA:HA	15:M:1528:LEU:HB3	1.92	0.50
15:M:1718:PHE:CG	15:M:1863:ARG:HD2	2.47	0.50
15:M:2175:MET:HB2	16:N:299:GLU:HG2	1.93	0.50
1:2:322:GLY:C	1:2:459:ARG:HH21	2.15	0.50
1:2:478:GLU:O	1:2:482:ARG:HG3	2.11	0.50
2:3:235:ASP:HA	2:3:241:LEU:HD22	1.92	0.50
2:3:499:LYS:N	6:7:490:GLY:HA2	2.27	0.50
3:4:201:PHE:N	3:4:224:LEU:HD21	2.26	0.50
3:4:203:TYR:HB3	3:4:221:ASP:HA	1.92	0.50
3:4:370:ARG:NH2	3:4:379:PRO:HD3	2.26	0.50
5:6:298:SER:OG	5:6:299:GLU:N	2.44	0.50
6:7:228:ARG:HG3	6:7:323:PRO:HD3	1.93	0.50
6:7:260:TYR:O	6:7:268:GLU:HA	2.11	0.50
8:B:79:LEU:HB3	8:B:85:CYS:HB2	1.92	0.50
12:H:712:SER:HB2	12:H:715:GLU:HB2	1.93	0.50
15:M:1851:PHE:HB2	15:M:1858:ILE:HD11	1.92	0.50
1:2:302:THR:HB	1:2:304:TYR:CE2	2.47	0.50
1:2:323:VAL:HG13	1:2:423:GLU:HB2	1.93	0.50
2:3:286:THR:HG21	2:3:292:VAL:HG21	1.93	0.50
3:4:317:LEU:HD21	3:4:326:ILE:HG21	1.92	0.50
4:5:534:LYS:HB3	4:5:539:ASN:OD1	2.12	0.50
4:5:637:GLU:HA	4:5:640:SER:OG	2.12	0.50
4:5:678:ASP:O	4:5:682:ARG:HG2	2.12	0.50
4:5:771:TYR:CD1	15:M:2189:LEU:HB2	2.46	0.50
5:6:528:LYS:HG3	5:6:531:ARG:NH2	2.27	0.50
5:6:567:GLY:O	5:6:805:ARG:HG2	2.11	0.50
6:7:530:ASP:OD2	6:7:533:ASP:N	2.35	0.50
9:C:3:TYR:CE2	10:D:218:MET:HG3	2.46	0.50
9:C:23:ASP:OD1	9:C:23:ASP:N	2.44	0.50
9:C:139:ALA:HA	9:C:181:HIS:CD2	2.47	0.50
9:C:163:SER:O	9:C:167:LEU:HG	2.12	0.50
11:E:624:ASN:ND2	11:E:629:ILE:O	2.32	0.50
15:M:1695:LEU:HD12	16:N:498:GLY:H	1.76	0.50
15:M:1940:GLN:NE2	15:M:1944:PHE:CE1	2.79	0.50
15:M:2103:VAL:HG11	15:M:2145:HIS:HB3	1.93	0.50
16:N:450:ARG:HH22	16:N:454:SER:HA	1.77	0.50
1:2:477:THR:HG22	1:2:480:GLU:H	1.76	0.50
1:2:747:ARG:O	1:2:750:LYS:HG3	2.11	0.50
2:3:670:GLN:HE22	6:7:621:MET:HB3	1.76	0.50
3:4:197:PHE:HA	3:4:201:PHE:HB2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:434:GLU:O	3:4:467:LYS:N	2.44	0.50
3:4:690:GLU:OE1	3:4:690:GLU:N	2.41	0.50
4:5:301:TYR:HD1	4:5:327:TYR:CE1	2.29	0.50
4:5:419:GLY:O	20:5:803:AGS:H8	2.11	0.50
4:5:668:LEU:HA	4:5:674:GLU:HB2	1.92	0.50
5:6:361:ILE:O	5:6:376:THR:HA	2.11	0.50
7:A:65:ASP:HA	7:A:69:LYS:H	1.77	0.50
8:B:34:ARG:NE	8:B:62:ASN:HA	2.27	0.50
9:C:22:TYR:CD1	9:C:71:PHE:HA	2.45	0.50
10:D:159:ARG:O	10:D:162:ASN:N	2.44	0.50
12:H:542:LYS:HD2	12:H:585:PRO:HB3	1.92	0.50
15:M:1717:GLU:HB3	15:M:2104:PRO:HB3	1.92	0.50
16:N:651:LEU:O	16:N:658:VAL:N	2.26	0.50
2:3:150:ARG:CZ	2:3:152:PRO:HA	2.42	0.50
2:3:262:PRO:HB3	4:5:513:LEU:HD13	1.93	0.50
2:3:455:ARG:NH1	2:3:501:GLY:H	2.10	0.50
3:4:397:ILE:O	3:4:417:LEU:N	2.37	0.50
3:4:574:LYS:O	3:4:577:ILE:HG22	2.10	0.50
4:5:136:GLN:NE2	4:5:281:TYR:HB2	2.25	0.50
4:5:398:LYS:HB2	4:5:406:LEU:HB2	1.92	0.50
4:5:407:ARG:HE	4:5:500:GLN:HE21	1.59	0.50
4:5:483:ASP:N	4:5:483:ASP:OD1	2.45	0.50
4:5:717:GLU:O	4:5:721:ARG:NH1	2.43	0.50
5:6:646:ILE:HD12	5:6:649:GLN:HB2	1.94	0.50
8:B:193:ARG:NH2	10:D:223:ASP:OD2	2.45	0.50
11:E:345:ASN:O	11:E:349:SER:N	2.44	0.50
11:E:542:PRO:HB3	11:E:629:ILE:HD13	1.93	0.50
11:E:573:ASP:O	11:E:577:ASP:N	2.44	0.50
12:G:790:ASN:HB3	12:G:816:GLN:HB2	1.92	0.50
12:H:652:LYS:HE3	12:H:655:CYS:SG	2.52	0.50
15:M:1483:ASP:HB3	15:M:1584:ARG:HH12	1.77	0.50
15:M:1653:SER:O	15:M:1657:ASN:N	2.37	0.50
1:2:180:GLU:OE2	1:2:205:ARG:NH1	2.44	0.50
1:2:231:ILE:C	1:2:233:THR:H	2.15	0.50
2:3:208:ARG:O	6:7:7:SER:HB2	2.12	0.50
2:3:415:LYS:O	2:3:418:LEU:HB2	2.11	0.50
4:5:176:ALA:HA	4:5:250:PHE:CD1	2.47	0.50
4:5:775:VAL:HG21	15:M:2189:LEU:HD23	1.94	0.50
5:6:141:GLU:OE1	5:6:196:LEU:HB2	2.11	0.50
5:6:154:ASP:HB2	5:6:268:PHE:CE2	2.46	0.50
5:6:395:CYS:HA	5:6:461:SER:HA	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:593:PRO:C	5:6:594:ARG:HD3	2.31	0.50
5:6:758:ALA:HB1	5:6:812:ARG:HG3	1.93	0.50
6:7:414:LEU:HG	6:7:433:LEU:HD22	1.92	0.50
6:7:598:PHE:CD1	6:7:723:SER:HA	2.46	0.50
8:B:57:ASP:O	8:B:61:ASN:N	2.42	0.50
8:B:124:ARG:HD2	9:C:191:MET:HA	1.94	0.50
11:E:572:ILE:HB	11:E:579:TYR:CE1	2.47	0.50
12:G:585:PRO:HD2	12:G:622:ASN:HA	1.94	0.50
12:G:631:SER:HB3	12:G:634:HIS:HB2	1.93	0.50
12:G:694:ASP:HB3	12:G:706:LEU:HD11	1.93	0.50
12:G:781:PHE:HB3	12:G:821:MET:SD	2.52	0.50
16:N:271:ILE:HG23	16:N:305:VAL:HG23	1.93	0.50
16:N:595:LYS:O	16:N:598:GLU:HG2	2.12	0.50
2:3:191:LEU:HB2	2:3:193:ARG:CZ	2.42	0.50
2:3:195:LYS:HB3	6:7:370:LEU:HD12	1.93	0.50
2:3:254:GLN:NE2	2:3:283:VAL:HG13	2.27	0.50
5:6:403:VAL:HA	5:6:452:ILE:HG12	1.94	0.50
6:7:244:ILE:O	6:7:316:GLN:N	2.42	0.50
6:7:703:ARG:NE	6:7:703:ARG:O	2.44	0.50
8:B:33:THR:HG1	8:B:63:MET:N	2.07	0.50
12:H:740:ILE:HG12	12:H:758:LYS:HE3	1.94	0.50
1:2:324:VAL:HG23	1:2:388:VAL:HB	1.94	0.50
1:2:433:ASN:O	1:2:448:ALA:N	2.45	0.50
1:2:446:VAL:HG23	5:6:302:PRO:HD2	1.94	0.50
2:3:95:ARG:HE	2:3:156:SER:HG	1.51	0.50
2:3:476:ASP:N	2:3:476:ASP:OD1	2.45	0.50
2:3:731:ASN:O	2:3:734:ARG:HG2	2.12	0.50
3:4:230:LEU:O	3:4:234:ARG:HG3	2.12	0.50
3:4:567:CYS:O	3:4:574:LYS:HE2	2.12	0.50
5:6:800:LEU:HA	5:6:803:MET:HE2	1.94	0.50
6:7:355:PHE:HA	6:7:376:LEU:HD13	1.94	0.50
7:A:139:THR:O	7:A:143:SER:N	2.40	0.50
7:A:169:LYS:HA	7:A:185:LYS:HE2	1.94	0.50
9:C:19:LYS:HB2	9:C:75:LEU:HD21	1.93	0.50
11:E:2:TYR:CE1	11:E:141:GLN:HA	2.47	0.50
11:E:3:TYR:N	11:E:144:ASP:OD2	2.24	0.50
11:E:12:TYR:CE1	11:E:48:LEU:HD21	2.46	0.50
11:E:33:CYS:N	11:E:61:ILE:O	2.39	0.50
12:F:715:GLU:HA	12:G:649:ARG:NH1	2.26	0.50
12:H:685:LYS:NZ	12:H:699:GLY:O	2.36	0.50
16:N:670:ALA:HB3	16:N:687:ILE:HB	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:189:VAL:HA	1:2:197:TRP:CD1	2.47	0.49
3:4:330:GLY:HA3	3:4:399:LEU:HD21	1.94	0.49
3:4:410:GLN:HE21	3:4:413:HIS:CE1	2.30	0.49
4:5:53:ASN:HB3	4:5:58:ASN:O	2.11	0.49
4:5:771:TYR:CD2	15:M:2160:GLN:HB3	2.40	0.49
5:6:341:ARG:HA	5:6:344:TRP:CZ2	2.47	0.49
5:6:726:GLU:HG2	5:6:727:LEU:N	2.27	0.49
6:7:575:ASN:HB2	6:7:583:ASN:HD21	1.77	0.49
10:D:240:TRP:HB3	10:D:246:LEU:HD13	1.93	0.49
11:E:114:GLN:HB3	11:E:116:PHE:CZ	2.47	0.49
12:F:643:LEU:HG	12:F:648:LYS:HB2	1.93	0.49
12:G:642:GLU:N	12:G:642:GLU:OE1	2.45	0.49
12:H:536:LEU:HD22	12:H:581:VAL:HG22	1.94	0.49
12:H:751:THR:HG22	12:H:775:GLU:HA	1.93	0.49
15:M:1322:TRP:HE1	15:M:1325:LEU:HB2	1.77	0.49
15:M:1362:LYS:HB3	15:M:1376:ILE:HD13	1.93	0.49
16:N:43:GLU:O	16:N:47:THR:HG23	2.11	0.49
2:3:102:ASP:O	2:3:103:LEU:HG	2.12	0.49
2:3:252:ASP:H	2:3:280:ASP:CG	2.15	0.49
3:4:438:THR:C	3:4:461:VAL:HG23	2.33	0.49
3:4:809:ALA:HA	3:4:814:LYS:HE2	1.94	0.49
4:5:355:GLU:O	4:5:362:ARG:NH2	2.44	0.49
5:6:306:LYS:HB3	5:6:320:ASN:HA	1.93	0.49
5:6:747:SER:O	5:6:751:LEU:N	2.45	0.49
6:7:144:ASN:OD1	6:7:145:GLN:N	2.45	0.49
6:7:380:PHE:CE2	6:7:382:ARG:HB2	2.47	0.49
8:B:173:LEU:HD23	8:B:178:ILE:HG22	1.93	0.49
9:C:101:ASN:CG	9:C:103:HIS:H	2.15	0.49
11:E:529:VAL:HB	11:E:531:GLN:HE22	1.76	0.49
12:G:652:LYS:HD2	12:G:655:CYS:SG	2.52	0.49
12:G:827:TYR:HB2	12:G:862:TYR:CD1	2.47	0.49
15:M:1944:PHE:CD1	15:M:2040:LEU:HG	2.47	0.49
16:N:274:LEU:HD11	16:N:284:LEU:HD21	1.93	0.49
16:N:661:PRO:HA	16:N:673:MET:HE3	1.94	0.49
1:2:309:LEU:HD13	1:2:430:TYR:HE1	1.77	0.49
2:3:287:LYS:NZ	6:7:325:GLY:O	2.29	0.49
3:4:361:ASP:HB3	3:4:362:ARG:NH2	2.27	0.49
3:4:605:ILE:HA	3:4:616:LEU:HA	1.95	0.49
5:6:273:VAL:HA	5:6:289:SER:HB3	1.94	0.49
5:6:368:ILE:HG21	5:6:372:SER:HB3	1.92	0.49
11:E:382:HIS:O	11:E:386:ARG:HG2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:E:612:ILE:HG21	11:E:640:PHE:CE2	2.48	0.49
12:F:611:LYS:HB2	12:H:720:PRO:HG3	1.93	0.49
12:H:626:PHE:CZ	12:H:638:TYR:HB2	2.47	0.49
12:H:827:TYR:HB2	12:H:865:ALA:HB1	1.94	0.49
12:H:865:ALA:O	12:H:869:LEU:HG	2.12	0.49
15:M:2014:ARG:NE	15:M:2018:LEU:HG	2.27	0.49
15:M:2151:ARG:HG3	15:M:2155:GLU:OE1	2.13	0.49
1:2:708:PRO:O	1:2:741:ARG:NH1	2.28	0.49
2:3:253:HIS:CD2	2:3:277:ILE:HG23	2.46	0.49
3:4:552:PHE:CD2	5:6:739:ASP:HB3	2.47	0.49
3:4:647:GLU:OE2	3:4:655:SER:N	2.43	0.49
3:4:826:VAL:O	3:4:830:ARG:HD3	2.13	0.49
4:5:47:ARG:HA	4:5:50:LEU:HD12	1.94	0.49
4:5:358:LEU:O	4:5:362:ARG:N	2.38	0.49
4:5:391:LEU:HD22	4:5:412:VAL:HG23	1.95	0.49
4:5:473:ASP:OD1	4:5:516:ARG:NE	2.41	0.49
4:5:663:LEU:HB2	4:5:674:GLU:OE2	2.13	0.49
5:6:499:ARG:HG2	5:6:759:ARG:HB2	1.93	0.49
5:6:549:LEU:O	5:6:553:GLY:N	2.26	0.49
5:6:780:LEU:HD21	5:6:831:LEU:HD13	1.94	0.49
6:7:586:LEU:HD23	6:7:591:LEU:HD23	1.93	0.49
6:7:634:GLU:HB3	6:7:637:LYS:HD3	1.94	0.49
7:A:34:GLU:HG3	7:A:38:ARG:NE	2.27	0.49
7:A:148:ASP:OD1	7:A:148:ASP:N	2.44	0.49
10:D:199:LEU:HB3	10:D:207:GLN:HG2	1.94	0.49
11:E:12:TYR:HE1	11:E:48:LEU:HD21	1.77	0.49
11:E:472:ARG:O	11:E:475:SER:OG	2.29	0.49
11:E:493:ASN:HB2	11:E:494:ARG:NH1	2.28	0.49
11:E:493:ASN:HA	11:E:496:ILE:HD12	1.93	0.49
11:E:578:THR:HG21	11:E:633:ARG:HE	1.78	0.49
12:F:782:VAL:HG12	12:F:785:LYS:H	1.76	0.49
12:G:482:ALA:HB1	12:G:496:MET:HB2	1.94	0.49
12:H:895:LEU:HD22	12:H:921:ARG:HG3	1.93	0.49
16:N:62:PHE:CE1	16:N:85:LYS:HG2	2.47	0.49
1:2:259:PHE:HB3	1:2:267:MET:CE	2.43	0.49
1:2:458:ARG:HD2	1:2:472:ASP:H	1.77	0.49
2:3:490:MET:O	2:3:493:GLN:NE2	2.46	0.49
2:3:499:LYS:N	6:7:489:SER:O	2.45	0.49
4:5:407:ARG:NH1	4:5:409:ASP:O	2.45	0.49
4:5:450:THR:HB	4:5:502:ILE:HD13	1.95	0.49
4:5:720:ARG:HD2	4:5:721:ARG:HG3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:596:VAL:O	5:6:637:CYS:HB2	2.12	0.49
5:6:606:ALA:HB1	5:6:624:GLU:HG2	1.94	0.49
6:7:144:ASN:HA	6:7:147:ARG:NH2	2.27	0.49
7:A:125:HIS:O	7:A:128:GLN:N	2.46	0.49
12:H:473:LYS:O	12:H:475:ARG:NH2	2.46	0.49
15:M:2015:VAL:HG11	15:M:2079:LEU:HG	1.94	0.49
3:4:400:GLN:NE2	3:4:412:PRO:HB2	2.28	0.49
3:4:512:VAL:HA	3:4:515:ARG:HE	1.78	0.49
4:5:279:ASP:O	4:5:283:THR:HG23	2.12	0.49
4:5:438:TYR:HD1	4:5:478:CYS:HB2	1.77	0.49
5:6:400:VAL:HG12	5:6:455:LEU:HD22	1.95	0.49
6:7:232:GLY:HA2	6:7:235:LEU:HD13	1.95	0.49
6:7:412:ASN:CA	6:7:430:LYS:NZ	2.63	0.49
7:A:166:ARG:NH1	11:E:478:TRP:HB3	2.28	0.49
8:B:11:PHE:HA	10:D:71:ARG:HH12	1.77	0.49
10:D:67:TRP:HE1	10:D:142:SER:HG	1.60	0.49
11:E:542:PRO:O	11:E:546:LEU:HG	2.13	0.49
12:F:582:ALA:HB3	12:F:589:ILE:HB	1.95	0.49
16:N:331:ILE:O	16:N:340:HIS:N	2.46	0.49
16:N:459:LYS:HZ3	16:N:514:LYS:HE3	1.77	0.49
1:2:182:THR:HG23	1:2:185:SER:H	1.76	0.49
1:2:481:GLU:O	1:2:485:ARG:HG3	2.13	0.49
4:5:574:ASN:HB3	4:5:584:GLN:NE2	2.27	0.49
4:5:651:ARG:O	4:5:654:GLU:HG3	2.12	0.49
4:5:772:ARG:HD3	16:N:211:ILE:HB	1.95	0.49
5:6:111:VAL:HG23	5:6:180:PHE:HE1	1.78	0.49
10:D:189:ILE:HA	10:D:192:LYS:HZ3	1.78	0.49
11:E:37:ASP:OD1	11:E:252:SER:N	2.44	0.49
12:G:728:ILE:HA	12:G:731:MET:SD	2.52	0.49
12:H:474:PHE:CZ	12:H:681:PRO:HB2	2.47	0.49
1:2:348:LEU:H	1:2:376:ASN:ND2	2.11	0.49
1:2:599:ALA:HB1	1:2:604:CYS:HB2	1.94	0.49
2:3:95:ARG:HH21	2:3:325:THR:HB	1.78	0.49
2:3:215:THR:N	2:3:224:ARG:HH21	2.10	0.49
3:4:563:ASN:OD1	3:4:803:ARG:NH1	2.46	0.49
4:5:97:VAL:O	4:5:101:ILE:HG12	2.13	0.49
5:6:309:PHE:H	5:6:318:VAL:HG22	1.78	0.49
5:6:689:TYR:CD1	5:6:715:ILE:HG23	2.48	0.49
6:7:143:LEU:HD12	6:7:192:PHE:CE2	2.48	0.49
6:7:206:PRO:HG3	6:7:352:THR:HG21	1.94	0.49
8:B:21:GLU:HB2	10:D:135:ARG:HH22	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:C:101:ASN:OD1	9:C:102:SER:N	2.45	0.49
10:D:79:TYR:CE2	10:D:176:SER:HB3	2.47	0.49
10:D:84:MET:HA	10:D:87:LEU:HD12	1.94	0.49
12:F:585:PRO:HD2	12:F:622:ASN:O	2.12	0.49
12:F:827:TYR:CD1	12:F:869:LEU:HD11	2.48	0.49
12:G:715:GLU:HA	12:H:649:ARG:NH1	2.28	0.49
13:I:43:DG:O6	14:J:18:DA:N6	2.45	0.49
15:M:1333:PRO:HB2	15:M:1409:GLU:CD	2.32	0.49
15:M:1531:ILE:HA	15:M:1534:GLN:HG3	1.94	0.49
15:M:2011:LEU:O	15:M:2015:VAL:HG23	2.13	0.49
15:M:2076:ARG:O	15:M:2080:LEU:HG	2.13	0.49
16:N:459:LYS:HD3	16:N:512:PHE:HA	1.94	0.49
16:N:603:VAL:HG13	16:N:658:VAL:HG21	1.95	0.49
1:2:194:TYR:O	1:2:198:ILE:HG12	2.13	0.49
1:2:214:PHE:O	1:2:218:TYR:HB3	2.13	0.49
1:2:338:LYS:HG2	1:2:350:PRO:HA	1.95	0.49
2:3:438:SER:H	4:5:506:LYS:HA	1.77	0.49
3:4:509:ILE:HD11	3:4:753:TYR:HD2	1.77	0.49
4:5:48:ASP:O	4:5:51:ARG:HG3	2.13	0.49
5:6:167:ALA:O	5:6:170:ILE:HG22	2.13	0.49
5:6:542:ALA:HA	5:6:545:LYS:HG2	1.95	0.49
6:7:245:ILE:HG13	6:7:345:PRO:HA	1.95	0.49
6:7:671:SER:HB3	6:7:683:GLN:HA	1.95	0.49
7:A:29:LEU:N	7:A:117:GLN:HB2	2.27	0.49
9:C:17:PRO:HA	9:C:45:SER:HA	1.95	0.49
11:E:3:TYR:HB2	11:E:143:PHE:HA	1.94	0.49
11:E:271:TRP:CZ2	11:E:275:LEU:HD21	2.48	0.49
12:H:863:ASP:O	12:H:867:LEU:HG	2.12	0.49
12:H:878:ASN:OD1	12:H:881:LYS:HG2	2.12	0.49
15:M:1417:ILE:O	15:M:1418:PHE:HD1	1.96	0.49
15:M:1509:ILE:HG23	15:M:1511:ILE:HG23	1.94	0.49
15:M:1838:ASN:HB3	15:M:1842:LYS:NZ	2.27	0.49
15:M:2165:SER:O	15:M:2168:HIS:NE2	2.46	0.49
15:M:2196:GLN:O	15:M:2200:VAL:HG23	2.13	0.49
16:N:308:ASP:OD2	16:N:311:GLN:NE2	2.46	0.49
1:2:339:PHE:HE2	1:2:360:ARG:H	1.60	0.49
1:2:408:VAL:HA	1:2:451:ILE:O	2.13	0.49
1:2:479:GLU:HA	1:2:482:ARG:NE	2.27	0.49
1:2:767:ILE:HG22	1:2:771:ARG:NE	2.28	0.49
2:3:580:GLU:C	4:5:612:PRO:HA	2.34	0.49
4:5:482:PHE:HB3	4:5:542:PHE:CZ	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:497:MET:HG2	4:5:550:PHE:CE1	2.48	0.49
5:6:285:GLY:N	5:6:401:GLU:O	2.45	0.49
6:7:413:ARG:HA	6:7:416:LYS:NZ	2.28	0.49
7:A:153:GLY:HA3	10:D:141:ARG:HD2	1.94	0.49
11:E:64:TYR:N	11:E:623:ASP:OD1	2.46	0.49
11:E:433:GLU:O	11:E:541:ASN:ND2	2.45	0.49
12:H:535:ASP:H	12:H:548:GLN:HA	1.78	0.49
15:M:1574:SER:O	15:M:1578:THR:HG23	2.13	0.49
15:M:1954:GLU:O	15:M:1957:MET:HG3	2.13	0.49
1:2:832:TYR:HD2	1:2:836:ARG:HH22	1.61	0.48
2:3:130:THR:HG21	2:3:150:ARG:HH22	1.78	0.48
2:3:660:VAL:HG12	2:3:664:LYS:NZ	2.27	0.48
3:4:666:ASN:HD21	3:4:668:ARG:NE	2.08	0.48
3:4:722:LYS:O	3:4:725:THR:OG1	2.18	0.48
4:5:648:ILE:HG23	4:5:693:SER:HB2	1.94	0.48
5:6:293:THR:HB	5:6:362:GLN:O	2.13	0.48
6:7:441:ASP:O	6:7:451:ARG:NH1	2.46	0.48
6:7:459:MET:O	6:7:568:ASN:HA	2.13	0.48
9:C:97:LEU:N	9:C:168:LYS:O	2.44	0.48
11:E:68:ARG:NE	11:E:96:LEU:HD23	2.27	0.48
11:E:223:ARG:NH2	11:E:225:GLN:OE1	2.45	0.48
11:E:327:PHE:CE1	11:E:340:TYR:HB2	2.48	0.48
11:E:392:PHE:HB2	11:E:405:ILE:HD11	1.95	0.48
11:E:431:LEU:HD23	11:E:480:SER:HA	1.94	0.48
11:E:490:GLU:H	11:E:490:GLU:CD	2.17	0.48
11:E:638:SER:O	11:E:642:GLU:HG2	2.13	0.48
12:G:516:SER:HA	12:G:525:GLU:HG2	1.95	0.48
12:G:582:ALA:HB2	12:G:618:LEU:HG	1.94	0.48
12:H:676:TYR:OH	12:H:685:LYS:HA	2.13	0.48
15:M:2070:LEU:O	15:M:2074:THR:HG23	2.14	0.48
16:N:306:GLU:HG3	16:N:338:LYS:HA	1.94	0.48
1:2:307:ARG:O	1:2:310:ARG:NH1	2.42	0.48
2:3:172:THR:H	2:3:175:HIS:CE1	2.31	0.48
2:3:203:ALA:HB3	2:3:206:THR:HG23	1.96	0.48
3:4:753:TYR:HB3	3:4:757:HIS:CE1	2.48	0.48
4:5:182:MET:SD	4:5:187:ARG:HA	2.53	0.48
4:5:400:LEU:HD12	4:5:404:MET:HB2	1.94	0.48
4:5:555:ILE:HG13	4:5:688:THR:HG23	1.95	0.48
6:7:473:ILE:HA	6:7:476:ILE:HG12	1.95	0.48
6:7:656:VAL:HG13	6:7:713:VAL:HG21	1.95	0.48
8:B:177:GLU:HA	8:B:180:GLU:HG2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:E:125:ALA:C	11:E:127:ARG:HH21	2.16	0.48
12:F:607:PHE:O	12:H:831:LYS:NZ	2.45	0.48
15:M:1912:MET:SD	15:M:2064:LEU:HD11	2.54	0.48
16:N:89:GLN:NE2	16:N:90:GLU:OE2	2.44	0.48
1:2:662:PRO:HB2	1:2:665:GLN:HG3	1.94	0.48
2:3:344:ASP:HA	2:3:347:ILE:HD12	1.94	0.48
3:4:510:ARG:O	3:4:514:ALA:N	2.37	0.48
5:6:115:PHE:HA	5:6:118:PHE:CD1	2.49	0.48
5:6:764:ILE:HG22	5:6:817:ASP:O	2.13	0.48
6:7:323:PRO:HB2	6:7:326:HIS:ND1	2.28	0.48
7:A:83:LYS:O	7:A:87:LEU:HG	2.13	0.48
7:A:166:ARG:HH21	7:A:188:GLN:HE21	1.61	0.48
10:D:154:PHE:CE2	10:D:222:PRO:HG3	2.47	0.48
11:E:2:TYR:OH	11:E:138:GLN:O	2.31	0.48
11:E:396:LEU:HB3	11:E:401:LEU:C	2.33	0.48
12:G:819:VAL:HG13	12:G:868:ARG:HE	1.77	0.48
12:H:492:ARG:NH1	12:H:494:LEU:HD23	2.27	0.48
12:H:782:VAL:O	12:H:786:LEU:HG	2.13	0.48
15:M:1671:ILE:HA	15:M:1674:VAL:HG12	1.95	0.48
15:M:2221:THR:HA	16:N:204:ILE:HB	1.94	0.48
16:N:398:LYS:HG2	16:N:400:VAL:HG23	1.95	0.48
16:N:425:ASN:OD1	16:N:475:LEU:N	2.44	0.48
1:2:423:GLU:HG2	1:2:459:ARG:HG2	1.96	0.48
2:3:123:PRO:HG3	2:3:221:LEU:HD12	1.95	0.48
2:3:128:ALA:HA	2:3:131:ASP:OD2	2.13	0.48
4:5:23:ASP:O	4:5:27:ILE:HG12	2.12	0.48
6:7:254:ALA:N	6:7:308:SER:O	2.46	0.48
6:7:365:ALA:HA	6:7:369:GLY:O	2.13	0.48
6:7:580:PRO:HG2	6:7:681:PHE:CD2	2.48	0.48
6:7:612:LEU:O	6:7:616:VAL:HG23	2.13	0.48
10:D:157:TYR:CE2	10:D:161:LEU:HD11	2.48	0.48
10:D:176:SER:N	10:D:179:GLU:OE1	2.31	0.48
11:E:159:TYR:O	11:E:163:LEU:HG	2.13	0.48
12:F:510:GLN:NE2	12:F:529:GLU:OE1	2.33	0.48
12:F:588:VAL:N	12:F:600:PHE:O	2.40	0.48
12:F:880:GLU:OE1	12:F:880:GLU:N	2.33	0.48
12:G:474:PHE:HB3	12:G:476:TYR:CE2	2.49	0.48
12:G:649:ARG:NE	12:G:650:TYR:H	2.12	0.48
12:H:688:PHE:O	12:H:696:CYS:N	2.43	0.48
15:M:1858:ILE:HA	15:M:1868:ILE:HG13	1.95	0.48
16:N:44:PHE:O	16:N:47:THR:OG1	2.23	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:269:LYS:O	1:2:273:LEU:HG	2.12	0.48
1:2:317:LEU:HA	1:2:429:ILE:HA	1.95	0.48
1:2:434:TYR:HB2	1:2:447:PHE:CE1	2.49	0.48
1:2:793:LEU:HD13	1:2:805:ILE:HG21	1.94	0.48
1:2:849:GLN:O	1:2:854:ARG:NH2	2.46	0.48
2:3:299:LYS:NZ	4:5:245:HIS:HB2	2.28	0.48
2:3:324:ASN:OD1	2:3:325:THR:N	2.45	0.48
3:4:365:ILE:HA	5:6:437:VAL:O	2.14	0.48
3:4:844:LYS:HG3	3:4:845:ILE:H	1.78	0.48
4:5:181:ILE:HD12	4:5:241:TYR:HB3	1.94	0.48
4:5:411:ASN:HB2	4:5:550:PHE:HD1	1.78	0.48
4:5:751:ALA:O	4:5:755:LEU:HG	2.13	0.48
5:6:297:THR:HG21	5:6:391:PRO:HA	1.95	0.48
6:7:19:ASN:OD1	6:7:20:GLU:N	2.46	0.48
6:7:647:THR:O	6:7:648:LYS:HG2	2.13	0.48
11:E:130:ASN:HB3	11:E:132:ASP:OD1	2.13	0.48
12:G:695:PRO:HD2	12:G:707:LEU:HB3	1.95	0.48
15:M:1477:LEU:HB3	15:M:1650:ILE:HG23	1.95	0.48
15:M:2031:TYR:HB3	15:M:2035:TYR:CE2	2.48	0.48
1:2:279:THR:HG23	1:2:286:TYR:CD2	2.48	0.48
1:2:426:VAL:HG12	1:2:457:LYS:H	1.79	0.48
1:2:744:ARG:NH2	1:2:747:ARG:HH11	2.08	0.48
1:2:853:VAL:O	1:2:857:LEU:HG	2.14	0.48
2:3:48:TYR:HA	2:3:51:ASN:HD21	1.77	0.48
2:3:667:VAL:HG22	2:3:669:PRO:HD3	1.96	0.48
3:4:229:GLN:O	3:4:233:MET:HG3	2.13	0.48
3:4:444:ILE:CG2	3:4:458:LYS:HB2	2.42	0.48
3:4:539:GLY:HA3	3:4:706:TYR:OH	2.12	0.48
3:4:558:TYR:OH	5:6:736:MET:C	2.51	0.48
4:5:391:LEU:HB2	4:5:665:LYS:HE2	1.96	0.48
4:5:473:ASP:HB2	4:5:515:SER:HA	1.96	0.48
5:6:318:VAL:CG1	5:6:334:PRO:HG3	2.44	0.48
5:6:404:VAL:H	5:6:452:ILE:HA	1.79	0.48
11:E:328:LEU:O	11:E:332:SER:N	2.45	0.48
12:G:629:HIS:N	12:G:637:SER:O	2.31	0.48
12:H:672:ALA:HB2	12:H:760:LYS:HE2	1.96	0.48
15:M:1342:ILE:C	15:M:1344:GLY:N	2.67	0.48
15:M:1528:LEU:HD12	15:M:1628:GLN:HG3	1.96	0.48
15:M:1882:SER:HA	15:M:1885:MET:HG2	1.95	0.48
1:2:244:VAL:HG22	1:2:297:ILE:HA	1.95	0.48
2:3:573:PRO:HB2	2:3:576:TYR:HE2	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:242:ASN:HA	3:4:304:ARG:HB2	1.95	0.48
3:4:314:MET:HG2	3:4:401:GLU:OE1	2.14	0.48
3:4:778:ARG:HE	5:6:724:ASP:CG	2.16	0.48
5:6:734:LEU:O	5:6:739:ASP:HA	2.14	0.48
5:6:773:LEU:HD13	5:6:824:ILE:HG23	1.95	0.48
9:C:182:GLU:HA	9:C:185:LYS:HE2	1.95	0.48
10:D:154:PHE:O	10:D:158:LEU:HG	2.14	0.48
11:E:160:TYR:HA	11:E:163:LEU:HD12	1.95	0.48
11:E:358:ARG:HA	11:E:361:LYS:HE2	1.96	0.48
12:G:560:ASP:OD1	12:G:560:ASP:N	2.46	0.48
12:G:709:LYS:HD2	12:G:715:GLU:HB3	1.95	0.48
12:H:534:TYR:HA	12:H:548:GLN:HB2	1.96	0.48
12:H:624:ARG:HA	12:H:643:LEU:H	1.78	0.48
15:M:1532:TYR:CE1	15:M:1635:LEU:HB3	2.49	0.48
15:M:1893:PRO:HB2	15:M:1895:PHE:HD2	1.79	0.48
16:N:320:TYR:OH	16:N:346:LEU:N	2.46	0.48
1:2:240:GLU:HG3	1:2:293:ILE:HD13	1.95	0.48
1:2:618:THR:HA	1:2:621:HIS:ND1	2.29	0.48
2:3:201:HIS:CE1	2:3:212:ARG:H	2.27	0.48
3:4:316:GLU:OE1	3:4:316:GLU:N	2.35	0.48
4:5:141:SER:HB3	4:5:161:ARG:HD2	1.96	0.48
5:6:120:GLU:HB2	5:6:134:LYS:NZ	2.28	0.48
5:6:384:ASP:N	5:6:384:ASP:OD1	2.47	0.48
5:6:650:VAL:HA	5:6:653:HIS:CG	2.49	0.48
8:B:112:PHE:CE2	8:B:173:LEU:HD13	2.49	0.48
9:C:5:ASP:OD2	9:C:8:ASP:N	2.45	0.48
9:C:7:ASP:OD1	9:C:103:HIS:ND1	2.47	0.48
9:C:85:MET:HA	9:C:88:ILE:HD12	1.94	0.48
10:D:80:PRO:HB3	10:D:83:LEU:HD13	1.96	0.48
10:D:189:ILE:HG13	10:D:192:LYS:HZ3	1.79	0.48
10:D:253:LYS:HZ1	10:D:271:ILE:N	2.06	0.48
11:E:103:TYR:O	11:E:105:ILE:HD12	2.13	0.48
12:F:827:TYR:HB3	12:F:865:ALA:HB1	1.95	0.48
12:G:831:LYS:HE2	12:G:831:LYS:HA	1.94	0.48
12:G:895:LEU:HB3	12:G:918:ARG:HD3	1.96	0.48
15:M:2021:ASN:HB3	15:M:2025:PHE:CE2	2.49	0.48
1:2:306:LEU:HD13	1:2:392:GLU:HG3	1.94	0.48
1:2:527:VAL:HB	1:2:531:HIS:HB3	1.94	0.48
3:4:265:PRO:HG3	3:4:325:LEU:N	2.29	0.48
3:4:363:GLY:HA2	5:6:436:GLY:H	1.79	0.48
3:4:367:GLU:HA	5:6:439:GLY:HA2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:83:PRO:O	4:5:87:ILE:HG12	2.14	0.48
4:5:417:ASP:HA	4:5:529:ARG:HA	1.94	0.48
6:7:400:ARG:HH11	6:7:404:LEU:HD12	1.79	0.48
7:A:65:ASP:O	7:A:66:LYS:C	2.51	0.48
8:B:63:MET:HG3	8:B:69:THR:HG21	1.95	0.48
8:B:124:ARG:NE	9:C:191:MET:HA	2.29	0.48
9:C:142:LEU:HD21	9:C:184:TYR:HB3	1.94	0.48
12:F:544:THR:HB	12:F:559:HIS:CE1	2.49	0.48
15:M:1910:ILE:O	15:M:1917:PHE:HA	2.13	0.48
15:M:2073:ARG:HD2	15:M:2088:PHE:HE1	1.78	0.48
1:2:306:LEU:HB3	1:2:404:ARG:HB2	1.95	0.48
1:2:411:LEU:O	1:2:415:VAL:HG13	2.14	0.48
1:2:745:LEU:O	1:2:748:GLN:HG3	2.14	0.48
1:2:767:ILE:O	1:2:771:ARG:NE	2.39	0.48
2:3:197:ILE:O	2:3:214:TYR:N	2.29	0.48
2:3:372:TYR:CE1	2:3:560:SER:HB3	2.49	0.48
3:4:206:ARG:NH2	3:4:244:ASP:OD2	2.47	0.48
3:4:258:TYR:HE1	3:4:308:VAL:HG23	1.79	0.48
3:4:449:ARG:CZ	13:I:45:DG:H2'	2.44	0.48
3:4:809:ALA:HB2	3:4:817:VAL:HA	1.95	0.48
4:5:451:ALA:HA	4:5:467:GLY:N	2.28	0.48
5:6:120:GLU:O	5:6:132:VAL:HB	2.14	0.48
6:7:79:ILE:HG12	6:7:203:TYR:HB2	1.95	0.48
6:7:252:LYS:O	6:7:310:PHE:N	2.46	0.48
6:7:575:ASN:HB2	6:7:583:ASN:ND2	2.29	0.48
7:A:51:THR:HA	7:A:54:LEU:HD12	1.95	0.48
8:B:156:VAL:O	8:B:160:LEU:HG	2.14	0.48
9:C:127:LEU:O	9:C:131:ARG:HG2	2.13	0.48
9:C:186:ASP:HA	9:C:189:ARG:NE	2.29	0.48
11:E:233:TYR:O	11:E:237:LEU:HG	2.14	0.48
11:E:325:TYR:HB2	11:E:406:ARG:HH12	1.79	0.48
12:H:540:ASN:ND2	12:H:583:ALA:O	2.47	0.48
12:H:626:PHE:CZ	12:H:628:VAL:HB	2.49	0.48
13:I:42:DT:H4'	13:I:43:DG:OP1	2.12	0.48
15:M:1719:PRO:HD2	15:M:1863:ARG:NH2	2.29	0.48
15:M:2071:GLU:O	15:M:2075:LEU:HG	2.14	0.48
1:2:606:ILE:HB	1:2:648:ALA:HA	1.96	0.47
1:2:702:SER:HA	1:2:705:ARG:NE	2.28	0.47
2:3:96:ILE:HD11	2:3:153:TRP:CZ3	2.49	0.47
2:3:202:TYR:CE2	2:3:204:ALA:HA	2.49	0.47
3:4:858:GLN:HG2	5:6:690:ASN:HD21	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:435:ILE:HD12	4:5:475:GLY:HA2	1.96	0.47
5:6:403:VAL:HG23	5:6:452:ILE:HG12	1.95	0.47
5:6:512:GLU:O	5:6:516:LEU:HD23	2.14	0.47
5:6:515:GLU:HB3	5:6:750:GLN:NE2	2.28	0.47
6:7:463:GLY:H	20:7:903:AGS:PG	2.36	0.47
6:7:486:LYS:HE3	6:7:530:ASP:HB2	1.95	0.47
7:A:62:MET:HE3	7:A:62:MET:HB3	1.74	0.47
8:B:16:ILE:HG23	8:B:175:LEU:HD22	1.96	0.47
8:B:105:GLU:OE1	8:B:155:LYS:NZ	2.38	0.47
10:D:59:ASP:OD2	10:D:90:ARG:NH2	2.47	0.47
11:E:103:TYR:OH	11:E:118:ARG:NE	2.47	0.47
11:E:327:PHE:CZ	11:E:340:TYR:HB2	2.49	0.47
11:E:366:MET:HG3	11:E:391:ILE:HG22	1.95	0.47
11:E:525:TYR:HA	11:E:565:LEU:HG	1.96	0.47
12:F:695:PRO:HB2	12:F:718:TRP:CH2	2.48	0.47
12:G:722:LEU:HD13	12:G:776:ILE:HA	1.94	0.47
12:G:785:LYS:NZ	12:G:821:MET:HE2	2.29	0.47
15:M:1677:ALA:HB1	15:M:1687:LEU:HD22	1.96	0.47
15:M:1945:LEU:CD2	15:M:2054:LEU:HD11	2.44	0.47
15:M:2059:CYS:SG	15:M:2076:ARG:HD2	2.54	0.47
1:2:211:LEU:HD23	1:2:274:VAL:HG21	1.94	0.47
1:2:300:PHE:O	1:2:319:ARG:NH1	2.48	0.47
2:3:160:SER:HB3	2:3:590:LEU:HA	1.96	0.47
2:3:281:ASP:OD1	2:3:281:ASP:N	2.45	0.47
2:3:487:HIS:CD2	2:3:538:SER:HB2	2.49	0.47
3:4:446:ALA:HB2	3:4:454:LYS:N	2.29	0.47
5:6:143:MET:O	5:6:146:TYR:N	2.48	0.47
5:6:308:SER:HB2	5:6:350:ARG:H	1.79	0.47
5:6:756:LYS:O	5:6:760:THR:HG23	2.14	0.47
6:7:65:ALA:O	6:7:68:GLN:HG3	2.14	0.47
6:7:323:PRO:HB2	6:7:326:HIS:CE1	2.49	0.47
6:7:358:ALA:HB2	6:7:375:TYR:HD1	1.79	0.47
6:7:470:LEU:O	6:7:471:LYS:HG2	2.14	0.47
6:7:500:ASP:CB	6:7:506:MET:HE3	2.43	0.47
10:D:258:VAL:O	10:D:267:VAL:N	2.45	0.47
12:F:543:GLY:HA2	12:F:559:HIS:H	1.80	0.47
12:H:895:LEU:CD2	12:H:921:ARG:HG3	2.44	0.47
12:H:897:ALA:O	12:H:901:ILE:HG13	2.14	0.47
15:M:1477:LEU:HD22	15:M:1650:ILE:HA	1.95	0.47
15:M:1687:LEU:HD13	15:M:1689:TRP:HB3	1.94	0.47
15:M:1737:ASP:HB2	15:M:2132:ARG:NH2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:214:LYS:HE2	16:N:624:TRP:CH2	2.49	0.47
16:N:481:MET:HB2	16:N:523:VAL:HA	1.96	0.47
1:2:177:LEU:HG	1:2:201:PRO:HD2	1.95	0.47
1:2:271:PHE:HD2	1:2:295:VAL:HG22	1.77	0.47
2:3:28:PHE:O	2:3:32:LEU:HG	2.14	0.47
2:3:261:MET:HB2	2:3:264:MET:HB2	1.96	0.47
3:4:265:PRO:O	3:4:269:ILE:HG12	2.13	0.47
3:4:542:LEU:HA	3:4:811:MET:SD	2.54	0.47
3:4:548:THR:HG22	3:4:550:LYS:HG3	1.96	0.47
3:4:880:SER:HB2	3:4:925:ARG:HD3	1.97	0.47
4:5:486:ARG:O	4:5:490:ARG:HG3	2.14	0.47
5:6:156:GLN:O	5:6:159:SER:OG	2.32	0.47
6:7:579:SER:HB3	6:7:582:ASP:HB2	1.95	0.47
7:A:48:ARG:HD3	10:D:203:PRO:HD3	1.96	0.47
11:E:316:LEU:HD12	11:E:413:LEU:HB2	1.95	0.47
12:F:597:PHE:HD2	12:F:610:GLU:OE2	1.98	0.47
12:G:707:LEU:HD13	12:G:718:TRP:CD2	2.50	0.47
12:H:539:LEU:HB2	12:H:559:HIS:NE2	2.29	0.47
15:M:2046:ASN:HB3	15:M:2048:LYS:HG3	1.97	0.47
16:N:550:PHE:O	16:N:554:ARG:N	2.47	0.47
1:2:323:VAL:HG22	1:2:423:GLU:CG	2.43	0.47
1:2:499:SER:HB3	1:2:755:ILE:HG22	1.95	0.47
2:3:31:PHE:CE1	2:3:103:LEU:HB3	2.48	0.47
2:3:196:LEU:HA	2:3:249:THR:O	2.14	0.47
3:4:449:ARG:HD3	3:4:449:ARG:H	1.79	0.47
3:4:743:PRO:O	3:4:745:GLU:N	2.47	0.47
4:5:20:ASN:O	4:5:24:ASN:N	2.37	0.47
5:6:396:LYS:HG3	5:6:460:ILE:HB	1.96	0.47
9:C:184:TYR:O	9:C:187:THR:OG1	2.30	0.47
11:E:609:PHE:HE2	11:E:628:SER:HA	1.78	0.47
12:G:506:LYS:HG3	12:G:508:SER:H	1.79	0.47
12:G:623:TYR:O	12:G:643:LEU:N	2.48	0.47
12:G:826:GLU:OE2	12:G:865:ALA:HB2	2.14	0.47
12:H:500:GLY:HA2	12:H:518:PHE:H	1.80	0.47
12:H:597:PHE:N	12:H:610:GLU:O	2.43	0.47
15:M:1614:LYS:HG2	15:M:1665:LEU:HB2	1.97	0.47
1:2:222:THR:OG1	1:2:224:ARG:O	2.22	0.47
2:3:256:ILE:N	2:3:275:ASP:OD1	2.47	0.47
3:4:202:LYS:HA	3:4:224:LEU:HG	1.97	0.47
3:4:344:VAL:HG12	3:4:359:GLU:HA	1.97	0.47
3:4:801:MET:CE	3:4:829:ILE:HG13	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:830:ARG:HB3	3:4:834:LYS:NZ	2.29	0.47
4:5:134:THR:O	4:5:280:ARG:NH2	2.47	0.47
4:5:476:VAL:HG22	4:5:518:SER:HB2	1.95	0.47
4:5:625:ASN:O	4:5:629:ILE:HG12	2.14	0.47
5:6:125:GLN:OE1	5:6:128:ASP:N	2.47	0.47
5:6:593:PRO:O	5:6:594:ARG:HD3	2.14	0.47
5:6:621:TYR:HE2	5:6:668:ILE:HG22	1.80	0.47
6:7:78:VAL:O	6:7:202:LEU:HA	2.14	0.47
6:7:363:PHE:HA	6:7:366:LEU:HG	1.96	0.47
6:7:466:LYS:O	6:7:470:LEU:HB2	2.14	0.47
8:B:1:MET:HG2	8:B:3:LEU:H	1.79	0.47
9:C:18:CYS:O	9:C:44:LEU:N	2.44	0.47
12:F:614:PRO:HD2	12:F:631:SER:OG	2.14	0.47
12:G:540:ASN:ND2	12:G:583:ALA:O	2.47	0.47
12:G:584:THR:HG22	12:G:586:VAL:N	2.29	0.47
12:G:780:VAL:HG21	12:G:828:LEU:HD12	1.97	0.47
12:H:552:GLY:HA2	12:H:578:ILE:HD11	1.95	0.47
15:M:2079:LEU:HA	15:M:2082:ILE:HD12	1.96	0.47
16:N:216:GLN:NE2	16:N:220:THR:OG1	2.25	0.47
1:2:553:LEU:HB3	1:2:605:LEU:HD13	1.95	0.47
1:2:776:PRO:HA	1:2:827:GLU:O	2.15	0.47
18:2:902:ADP:PB	5:6:798:ARG:NH2	2.87	0.47
2:3:113:GLY:HA3	2:3:121:PHE:CZ	2.50	0.47
2:3:467:ARG:CZ	2:3:467:ARG:HA	2.44	0.47
3:4:681:ARG:HG3	3:4:709:LEU:HD11	1.95	0.47
3:4:856:VAL:HG11	5:6:692:LYS:HZ1	1.79	0.47
4:5:256:LEU:HB2	4:5:276:MET:HB2	1.95	0.47
4:5:258:LEU:HG	4:5:276:MET:HE1	1.95	0.47
4:5:553:ILE:HB	4:5:685:GLN:HE22	1.80	0.47
5:6:118:PHE:HB3	5:6:161:ARG:CZ	2.44	0.47
5:6:304:LEU:HD22	5:6:323:GLN:HE22	1.79	0.47
5:6:314:CYS:SG	5:6:334:PRO:HD2	2.55	0.47
5:6:380:ILE:HB	5:6:455:LEU:HG	1.97	0.47
5:6:399:GLY:HA3	5:6:457:CYS:H	1.80	0.47
5:6:691:ARG:HH12	5:6:717:ASP:N	2.11	0.47
7:A:32:TYR:HA	7:A:93:ARG:HH22	1.80	0.47
7:A:142:LYS:NZ	7:A:152:SER:H	2.12	0.47
8:B:126:LEU:O	8:B:130:ALA:N	2.47	0.47
10:D:175:LEU:HD23	10:D:179:GLU:HB3	1.96	0.47
10:D:192:LYS:HA	10:D:195:ASN:ND2	2.30	0.47
12:F:484:THR:HB	12:F:493:TYR:HB2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:1697:ASP:HA	15:M:1702:GLN:HG3	1.96	0.47
16:N:521:LYS:NZ	16:N:522:ASN:OD1	2.46	0.47
1:2:357:GLU:HB3	1:2:433:ASN:HD21	1.78	0.47
1:2:505:ILE:HG23	18:2:902:ADP:C6	2.49	0.47
1:2:744:ARG:HH21	1:2:747:ARG:HD2	1.80	0.47
2:3:38:TYR:CE1	2:3:98:ILE:HG13	2.49	0.47
2:3:110:PHE:HA	2:3:121:PHE:HE2	1.79	0.47
2:3:202:TYR:N	2:3:242:THR:O	2.37	0.47
2:3:212:ARG:HD2	2:3:214:TYR:CZ	2.50	0.47
2:3:291:ARG:HB2	2:3:330:HIS:HA	1.96	0.47
2:3:299:LYS:HZ1	4:5:245:HIS:HB2	1.80	0.47
2:3:423:LEU:HG	2:3:429:ALA:HB1	1.95	0.47
2:3:488:GLU:HA	2:3:491:GLU:HB3	1.97	0.47
3:4:265:PRO:HD2	3:4:323:ASP:O	2.14	0.47
3:4:403:PRO:O	3:4:406:VAL:HG22	2.15	0.47
3:4:776:GLY:O	3:4:780:MET:HG3	2.15	0.47
3:4:879:ASP:HB3	3:4:926:SER:H	1.80	0.47
5:6:169:ALA:O	5:6:172:GLU:HG3	2.15	0.47
5:6:778:LYS:HB3	5:6:782:LYS:NZ	2.30	0.47
6:7:291:GLN:C	6:7:293:GLN:H	2.18	0.47
6:7:434:LEU:HD21	6:7:699:LEU:HD12	1.96	0.47
7:A:14:LYS:HB3	9:C:6:ILE:HG12	1.96	0.47
7:A:71:GLN:NE2	9:C:25:PRO:O	2.48	0.47
7:A:74:VAL:HA	7:A:77:LEU:HD12	1.97	0.47
7:A:136:ASP:O	7:A:139:THR:OG1	2.26	0.47
8:B:151:ILE:HA	8:B:154:ILE:HD12	1.97	0.47
9:C:112:ILE:HA	9:C:115:PHE:O	2.14	0.47
9:C:173:GLU:HA	9:C:176:ILE:HD12	1.97	0.47
11:E:5:ILE:HD13	11:E:8:PHE:CE2	2.50	0.47
11:E:37:ASP:OD2	11:E:250:SER:OG	2.18	0.47
12:F:641:SER:HA	12:F:650:TYR:HA	1.96	0.47
12:F:870:PHE:HA	12:F:885:LEU:HD13	1.96	0.47
12:H:573:GLN:N	12:H:576:GLU:OE1	2.46	0.47
12:H:584:THR:HG21	12:H:643:LEU:HD11	1.96	0.47
12:H:584:THR:OG1	12:H:587:ARG:O	2.29	0.47
12:H:588:VAL:O	12:H:600:PHE:N	2.42	0.47
15:M:1500:SER:HA	15:M:1511:ILE:HA	1.96	0.47
15:M:1575:GLN:O	15:M:1578:THR:OG1	2.25	0.47
15:M:1963:SER:HB2	15:M:2003:PHE:CE1	2.50	0.47
15:M:2084:GLU:OE1	15:M:2084:GLU:N	2.41	0.47
15:M:2094:PHE:CE2	15:M:2096:ASP:HB3	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:62:PHE:CD1	16:N:88:ILE:HG13	2.49	0.47
16:N:399:PHE:HA	16:N:431:LEU:HB3	1.96	0.47
16:N:399:PHE:HB3	16:N:431:LEU:HD22	1.97	0.47
16:N:450:ARG:HH12	16:N:454:SER:HB2	1.80	0.47
2:3:346:ASP:HA	2:3:349:ASN:HD22	1.78	0.47
2:3:467:ARG:HH12	2:3:509:ARG:HG3	1.79	0.47
2:3:566:LEU:HD22	2:3:570:ARG:NH2	2.29	0.47
3:4:347:PHE:HB2	3:4:356:MET:SD	2.55	0.47
4:5:29:LYS:HD2	4:5:32:LYS:HZ3	1.79	0.47
5:6:173:GLN:HE21	5:6:176:ARG:NH2	2.13	0.47
5:6:782:LYS:HD3	5:6:790:ARG:HH11	1.80	0.47
6:7:483:THR:O	6:7:524:ASP:N	2.48	0.47
6:7:517:ASP:O	6:7:561:THR:OG1	2.26	0.47
8:B:2:SER:HA	10:D:145:ARG:HE	1.79	0.47
8:B:119:TRP:HE1	8:B:174:SER:HB2	1.79	0.47
11:E:239:GLU:O	11:E:243:GLN:NE2	2.48	0.47
12:F:631:SER:HB2	12:F:634:HIS:HB2	1.97	0.47
16:N:291:ASN:HB2	16:N:297:SER:HB3	1.95	0.47
16:N:617:ASP:OD1	16:N:622:ILE:N	2.48	0.47
1:2:178:ARG:HA	1:2:205:ARG:HB2	1.97	0.47
2:3:173:ALA:HA	2:3:298:PHE:HE2	1.80	0.47
2:3:506:LEU:HD23	2:3:507:ASN:O	2.15	0.47
2:3:553:ILE:HG21	4:5:652:GLN:CD	2.35	0.47
3:4:206:ARG:HH21	3:4:246:ARG:HB3	1.80	0.47
3:4:428:ARG:HH22	5:6:372:SER:HA	1.78	0.47
4:5:711:ILE:HD12	4:5:757:LYS:NZ	2.29	0.47
5:6:440:LEU:HD23	5:6:442:SER:H	1.79	0.47
5:6:828:TYR:O	5:6:832:ARG:NE	2.38	0.47
6:7:110:ALA:HA	6:7:113:PHE:HB2	1.96	0.47
6:7:149:ARG:NH1	6:7:266:GLY:O	2.48	0.47
7:A:44:VAL:HA	7:A:47:LEU:HB2	1.97	0.47
8:B:119:TRP:HA	8:B:122:LEU:HD12	1.97	0.47
11:E:325:TYR:CB	11:E:404:ILE:HG23	2.45	0.47
12:G:554:ILE:N	12:G:568:LYS:O	2.35	0.47
12:H:684:ILE:HA	12:H:699:GLY:HA2	1.97	0.47
15:M:1357:ILE:HD13	15:M:1431:ILE:HB	1.97	0.47
16:N:217:MET:SD	16:N:218:PHE:N	2.88	0.47
1:2:406:ARG:NE	1:2:449:THR:O	2.48	0.47
1:2:527:VAL:N	1:2:531:HIS:O	2.28	0.47
2:3:682:ASN:O	2:3:686:LEU:HG	2.15	0.47
3:4:641:THR:HA	3:4:644:VAL:HG12	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:769:GLU:OE2	3:4:772:ARG:NH2	2.48	0.47
4:5:422:LYS:HE3	4:5:524:ASN:OD1	2.15	0.47
4:5:482:PHE:CZ	4:5:521:ALA:HA	2.49	0.47
5:6:114:ALA:HA	5:6:117:GLN:NE2	2.30	0.47
5:6:657:GLU:HG2	5:6:708:ARG:HE	1.80	0.47
5:6:740:GLU:O	5:6:742:ILE:HG12	2.15	0.47
5:6:796:THR:N	5:6:799:GLN:HB2	2.30	0.47
6:7:29:LYS:HG3	6:7:61:PRO:HA	1.97	0.47
7:A:38:ARG:HB3	7:A:42:LYS:HZ3	1.80	0.47
7:A:51:THR:O	7:A:55:LYS:HE2	2.14	0.47
9:C:181:HIS:O	9:C:185:LYS:HG3	2.15	0.47
9:C:188:LYS:HA	9:C:191:MET:SD	2.55	0.47
10:D:150:LYS:HA	10:D:153:LYS:HE2	1.97	0.47
11:E:81:LEU:HB3	11:E:120:ILE:HG13	1.97	0.47
12:F:729:TRP:NE1	12:F:734:GLY:HA2	2.30	0.47
12:G:493:TYR:HE1	12:G:501:TYR:HD2	1.63	0.47
15:M:1346:VAL:HG13	15:M:1347:GLN:N	2.30	0.47
15:M:1502:PHE:HB2	15:M:1509:ILE:HD12	1.97	0.47
15:M:2148:GLN:HA	16:N:494:MET:CE	2.45	0.47
15:M:2199:ASN:HA	15:M:2202:LYS:HE2	1.96	0.47
1:2:219:THR:HA	1:2:225:SER:HA	1.96	0.46
1:2:260:LEU:HD12	1:2:264:PRO:HA	1.97	0.46
1:2:521:GLY:HA2	1:2:537:ILE:HD12	1.97	0.46
1:2:658:ASN:HD22	1:2:661:LEU:HB2	1.80	0.46
2:3:195:LYS:HB2	2:3:251:ILE:CG1	2.45	0.46
2:3:676:ILE:HD12	6:7:617:THR:HG22	1.96	0.46
3:4:352:CYS:SG	3:4:353:ASP:N	2.84	0.46
4:5:156:VAL:HA	4:5:298:TYR:CD2	2.50	0.46
4:5:181:ILE:HB	4:5:241:TYR:HB3	1.98	0.46
4:5:181:ILE:HG22	4:5:243:ILE:HA	1.97	0.46
5:6:390:LYS:HD2	5:6:391:PRO:HD2	1.97	0.46
6:7:244:ILE:HG13	6:7:347:ASP:O	2.14	0.46
6:7:458:LEU:HD12	6:7:564:LEU:HD11	1.97	0.46
6:7:499:LYS:O	6:7:502:VAL:HB	2.16	0.46
6:7:538:HIS:CD2	6:7:590:LEU:HD13	2.51	0.46
6:7:615:HIS:O	6:7:618:TYR:HB2	2.15	0.46
7:A:65:ASP:O	7:A:69:LYS:N	2.48	0.46
10:D:76:LEU:HD11	10:D:147:ARG:NE	2.30	0.46
10:D:268:GLU:OE1	10:D:268:GLU:N	2.48	0.46
11:E:64:TYR:CE2	11:E:625:PHE:HA	2.50	0.46
12:F:897:ALA:HA	12:F:900:LYS:HE2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:1837:HIS:O	15:M:1841:LYS:HG3	2.15	0.46
16:N:674:GLU:HB2	16:N:683:ILE:HG13	1.96	0.46
1:2:183:LEU:HD13	1:2:253:LYS:HE2	1.97	0.46
1:2:323:VAL:HG22	1:2:423:GLU:HG3	1.97	0.46
1:2:547:THR:HG21	1:2:683:VAL:HG11	1.96	0.46
2:3:332:ARG:NE	2:3:424:ASN:HA	2.31	0.46
2:3:435:ARG:HH22	2:3:479:THR:HG22	1.79	0.46
2:3:663:ALA:O	2:3:667:VAL:HG12	2.15	0.46
3:4:197:PHE:CE2	3:4:254:THR:HG21	2.50	0.46
5:6:113:GLU:HA	5:6:116:GLU:OE2	2.16	0.46
6:7:107:GLN:NE2	6:7:238:LEU:O	2.43	0.46
7:A:90:GLN:HE21	7:A:94:THR:HG23	1.80	0.46
8:B:29:PRO:HD2	8:B:67:ARG:H	1.80	0.46
8:B:80:LYS:NZ	8:B:86:SER:HA	2.30	0.46
11:E:572:ILE:HB	11:E:579:TYR:HE1	1.79	0.46
12:G:689:PHE:CZ	12:G:693:GLY:HA2	2.51	0.46
12:H:727:GLU:HA	12:H:730:LYS:HE3	1.96	0.46
15:M:1369:GLN:HE21	15:M:1413:ASN:CB	2.26	0.46
16:N:479:THR:HG22	16:N:480:THR:N	2.30	0.46
1:2:201:PRO:HA	1:2:204:SER:HB3	1.96	0.46
1:2:433:ASN:OD1	1:2:434:TYR:N	2.47	0.46
1:2:740:ALA:HA	1:2:743:ARG:NE	2.30	0.46
1:2:855:ARG:O	1:2:859:ARG:HG3	2.15	0.46
2:3:111:TRP:HH2	9:C:90:THR:HA	1.80	0.46
2:3:115:LEU:HB3	2:3:164:HIS:CE1	2.51	0.46
2:3:555:GLU:OE2	16:N:276:GLY:HA2	2.16	0.46
3:4:342:MET:SD	3:4:360:ILE:HD11	2.55	0.46
3:4:654:ILE:HG21	3:4:665:LEU:HD12	1.97	0.46
4:5:166:ILE:O	4:5:289:GLY:N	2.40	0.46
4:5:480:ASP:HA	4:5:522:ALA:HB3	1.97	0.46
5:6:398:THR:O	5:6:457:CYS:N	2.49	0.46
5:6:720:ASN:O	5:6:723:ILE:HG22	2.16	0.46
6:7:92:LYS:HE2	6:7:97:THR:HB	1.96	0.46
6:7:312:GLU:OE1	6:7:312:GLU:N	2.47	0.46
7:A:164:ASP:HA	7:A:190:PHE:HA	1.97	0.46
8:B:1:MET:HG2	8:B:3:LEU:N	2.31	0.46
8:B:35:GLN:OE1	8:B:35:GLN:N	2.48	0.46
10:D:159:ARG:NH2	10:D:184:ASP:HA	2.29	0.46
11:E:100:PRO:HA	11:E:139:ILE:HD11	1.96	0.46
11:E:351:TRP:HA	11:E:511:VAL:HG12	1.97	0.46
11:E:644:LEU:HD22	11:E:650:LEU:HD11	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:F:883:LEU:HG	12:F:887:HIS:NE2	2.29	0.46
12:H:706:LEU:HB3	12:H:719:LEU:HB2	1.98	0.46
15:M:1345:LYS:O	15:M:1346:VAL:C	2.53	0.46
1:2:573:ALA:N	1:2:616:ASP:OD1	2.48	0.46
2:3:497:ILE:HG22	2:3:497:ILE:O	2.16	0.46
4:5:666:LEU:HD13	4:5:678:ASP:OD1	2.15	0.46
5:6:134:LYS:O	5:6:139:GLN:HB2	2.15	0.46
5:6:297:THR:HA	5:6:359:VAL:HA	1.97	0.46
5:6:308:SER:HB3	5:6:347:ASN:HB3	1.97	0.46
5:6:688:ARG:NH1	5:6:690:ASN:OD1	2.48	0.46
5:6:726:GLU:HG2	5:6:727:LEU:H	1.81	0.46
6:7:648:LYS:HZ2	6:7:705:ALA:HA	1.79	0.46
7:A:37:ILE:O	7:A:41:LEU:HG	2.15	0.46
7:A:125:HIS:O	7:A:128:GLN:HB2	2.16	0.46
7:A:175:GLN:HA	16:N:18:ARG:NH2	2.31	0.46
8:B:26:LYS:HG3	8:B:88:VAL:HG21	1.96	0.46
8:B:28:PHE:HB2	8:B:86:SER:HB3	1.98	0.46
10:D:208:ALA:HB3	10:D:211:ASP:HB2	1.96	0.46
11:E:159:TYR:CZ	11:E:163:LEU:HD11	2.50	0.46
11:E:396:LEU:O	11:E:400:GLY:N	2.49	0.46
12:F:473:LYS:N	12:F:475:ARG:HH22	2.13	0.46
12:F:548:GLN:HB3	12:F:551:THR:HG1	1.80	0.46
12:F:687:LEU:HD13	12:F:697:ILE:HG12	1.98	0.46
12:F:824:GLU:HA	12:F:827:TYR:CD1	2.50	0.46
12:G:539:LEU:HA	12:G:544:THR:HA	1.98	0.46
12:H:582:ALA:HB3	12:H:589:ILE:HB	1.97	0.46
15:M:1945:LEU:HB3	15:M:1950:GLN:CG	2.44	0.46
15:M:1963:SER:HB2	15:M:2003:PHE:HE1	1.80	0.46
15:M:2155:GLU:OE2	16:N:495:VAL:HG12	2.16	0.46
16:N:229:VAL:HG11	16:N:327:LEU:HD21	1.97	0.46
16:N:320:TYR:CE1	16:N:346:LEU:HB2	2.51	0.46
16:N:467:THR:O	16:N:471:ARG:N	2.46	0.46
1:2:264:PRO:HB2	1:2:268:LEU:HD11	1.96	0.46
1:2:422:GLU:O	1:2:423:GLU:HB3	2.14	0.46
1:2:426:VAL:HG12	1:2:456:ILE:HA	1.98	0.46
1:2:439:ASN:ND2	1:2:446:VAL:O	2.49	0.46
2:3:677:ASN:O	2:3:681:LYS:HD3	2.16	0.46
3:4:551:THR:HB	3:4:668:ARG:HH12	1.80	0.46
3:4:579:GLN:O	3:4:583:LYS:HG2	2.14	0.46
4:5:51:ARG:NH1	4:5:52:ASN:OD1	2.49	0.46
4:5:547:LEU:HB2	4:5:651:ARG:NH2	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:177:PHE:O	5:6:179:PRO:HD2	2.14	0.46
5:6:270:LEU:HD22	5:6:289:SER:HB2	1.98	0.46
5:6:776:LYS:HA	5:6:779:GLU:HG2	1.96	0.46
5:6:803:MET:HG3	5:6:831:LEU:HD11	1.96	0.46
6:7:260:TYR:HH	6:7:278:PHE:HE1	1.64	0.46
6:7:495:ALA:HA	6:7:512:ALA:HB3	1.98	0.46
6:7:573:ARG:NH1	6:7:574:TYR:O	2.48	0.46
6:7:718:ARG:HA	6:7:721:ARG:HG2	1.97	0.46
7:A:14:LYS:O	7:A:17:LYS:HG3	2.16	0.46
7:A:29:LEU:O	7:A:122:ASN:ND2	2.49	0.46
8:B:21:GLU:HA	8:B:73:LEU:HD23	1.97	0.46
8:B:158:LYS:HD3	8:B:161:LYS:HD2	1.97	0.46
10:D:8:ILE:O	10:D:12:LEU:HG	2.16	0.46
11:E:130:ASN:O	11:E:134:ILE:HG13	2.15	0.46
11:E:304:PRO:HA	12:F:766:PHE:HE2	1.81	0.46
12:G:484:THR:HG22	12:G:764:PRO:HD2	1.97	0.46
12:G:601:ASN:HB3	12:G:607:PHE:CZ	2.51	0.46
12:H:478:PRO:HB3	12:H:578:ILE:O	2.16	0.46
15:M:1924:GLU:HG3	15:M:1926:GLU:H	1.80	0.46
16:N:228:ARG:NH1	16:N:347:PRO:HB2	2.30	0.46
16:N:472:PHE:HB2	16:N:475:LEU:HB3	1.97	0.46
1:2:245:ASN:C	1:2:247:ARG:H	2.19	0.46
2:3:253:HIS:HA	2:3:279:ASP:OD1	2.16	0.46
2:3:491:GLU:OE1	2:3:542:ARG:NE	2.48	0.46
2:3:554:ASN:OD1	2:3:555:GLU:N	2.49	0.46
3:4:909:ARG:NH1	5:6:696:ARG:O	2.48	0.46
4:5:173:SER:N	4:5:253:GLN:O	2.49	0.46
4:5:544:THR:HA	4:5:547:LEU:HG	1.98	0.46
5:6:120:GLU:HB2	5:6:134:LYS:HZ1	1.80	0.46
5:6:128:ASP:OD1	5:6:133:GLU:N	2.44	0.46
5:6:498:GLU:HB2	5:6:503:VAL:HG11	1.97	0.46
5:6:504:PHE:CE1	5:6:757:TYR:HB2	2.50	0.46
5:6:650:VAL:HA	5:6:653:HIS:ND1	2.31	0.46
5:6:748:ALA:O	5:6:751:LEU:HB3	2.15	0.46
5:6:775:GLU:O	5:6:779:GLU:HG2	2.16	0.46
7:A:56:GLU:HG2	7:A:60:LEU:HD22	1.98	0.46
7:A:72:TYR:CE2	7:A:76:LEU:HD11	2.50	0.46
8:B:164:ASN:H	8:B:168:LEU:HD21	1.81	0.46
9:C:129:LEU:HG	9:C:133:GLN:HE22	1.81	0.46
11:E:244:GLY:N	11:E:602:LEU:HB3	2.30	0.46
11:E:397:ASP:OD1	11:E:397:ASP:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:F:493:TYR:CD1	12:F:503:SER:HB3	2.50	0.46
12:F:782:VAL:HB	12:F:785:LYS:HE3	1.97	0.46
12:H:485:PRO:HD2	12:H:763:TRP:CG	2.51	0.46
12:H:615:ILE:HG13	12:H:628:VAL:O	2.15	0.46
12:H:711:ARG:HG2	12:H:843:ASN:ND2	2.30	0.46
1:2:401:ARG:HH11	5:6:390:LYS:HZ2	1.63	0.46
2:3:95:ARG:NH1	2:3:154:LYS:HB3	2.31	0.46
3:4:545:PHE:HB3	3:4:810:LYS:HB3	1.98	0.46
3:4:559:ARG:HD3	3:4:668:ARG:HH11	1.81	0.46
3:4:632:ASP:HA	3:4:674:SER:HB3	1.97	0.46
4:5:422:LYS:HE2	4:5:422:LYS:HB2	1.84	0.46
5:6:142:PHE:CE2	5:6:146:TYR:HE1	2.34	0.46
5:6:508:LEU:CD1	5:6:753:ARG:HD2	2.45	0.46
5:6:570:ASN:O	5:6:710:ASP:N	2.47	0.46
6:7:30:GLN:HG3	6:7:62:LYS:HD3	1.96	0.46
6:7:141:VAL:HA	6:7:144:ASN:ND2	2.31	0.46
6:7:239:ILE:HD11	6:7:376:LEU:HD11	1.97	0.46
6:7:260:TYR:HB3	6:7:298:LEU:HB3	1.98	0.46
10:D:56:PRO:HG3	10:D:90:ARG:HE	1.79	0.46
10:D:191:LEU:HD12	10:D:209:ILE:HG21	1.98	0.46
11:E:620:VAL:HG12	11:E:632:ILE:HB	1.97	0.46
12:F:550:LYS:HZ1	12:F:577:ARG:HB2	1.80	0.46
12:G:883:LEU:HA	12:G:913:LYS:HZ3	1.81	0.46
15:M:1369:GLN:NE2	15:M:1413:ASN:HB2	2.29	0.46
15:M:1534:GLN:NE2	15:M:1535:MET:HG3	2.30	0.46
16:N:269:THR:OG1	16:N:282:PHE:HB3	2.15	0.46
16:N:332:TYR:HA	16:N:339:PHE:HA	1.98	0.46
1:2:314:LEU:HA	1:2:430:TYR:CD2	2.51	0.46
1:2:402:LEU:O	1:2:404:ARG:NH2	2.29	0.46
1:2:661:LEU:HG	1:2:665:GLN:HB2	1.98	0.46
1:2:824:ARG:HE	1:2:826:SER:CB	2.29	0.46
2:3:202:TYR:O	2:3:242:THR:OG1	2.20	0.46
3:4:314:MET:HA	3:4:317:LEU:HB2	1.97	0.46
4:5:34:PHE:HA	4:5:71:TYR:CZ	2.50	0.46
5:6:529:LEU:HD22	5:6:754:TYR:OH	2.15	0.46
5:6:703:ALA:HA	5:6:706:MET:HG3	1.98	0.46
7:A:127:GLU:HA	7:A:130:TYR:HB3	1.97	0.46
7:A:163:ILE:HD11	7:A:196:VAL:HG21	1.98	0.46
8:B:196:HIS:O	8:B:200:LEU:HG	2.16	0.46
9:C:138:HIS:CE1	9:C:162:THR:HA	2.51	0.46
12:F:638:TYR:N	12:F:655:CYS:O	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:F:870:PHE:CZ	12:F:882:ALA:HB1	2.50	0.46
12:H:549:SER:HA	12:H:578:ILE:HD12	1.98	0.46
12:H:914:ILE:O	12:H:918:ARG:HG2	2.16	0.46
15:M:1372:LYS:HG3	15:M:1407:PHE:CB	2.46	0.46
15:M:1920:LEU:HD11	15:M:1961:LEU:HD21	1.97	0.46
16:N:283:LEU:HD11	16:N:327:LEU:HD22	1.98	0.46
16:N:354:ILE:O	16:N:357:GLU:HG2	2.16	0.46
16:N:550:PHE:O	16:N:554:ARG:HG2	2.15	0.46
1:2:557:GLU:OE1	1:2:558:LYS:HG3	2.16	0.46
2:3:89:LEU:HB3	2:3:90:ASN:H	1.45	0.46
2:3:110:PHE:CE2	2:3:114:ILE:HD11	2.51	0.46
3:4:830:ARG:HB3	3:4:834:LYS:HZ2	1.79	0.46
6:7:107:GLN:NE2	6:7:107:GLN:O	2.48	0.46
6:7:331:LEU:HD12	6:7:332:ASN:H	1.81	0.46
6:7:402:MET:HA	6:7:405:ILE:HG12	1.98	0.46
11:E:619:LYS:HE2	11:E:633:ARG:HG3	1.97	0.46
12:G:914:ILE:O	12:G:918:ARG:HG2	2.15	0.46
12:H:560:ASP:N	12:H:560:ASP:OD1	2.49	0.46
15:M:1864:ASN:HB3	15:M:2113:PHE:HZ	1.80	0.46
15:M:1946:SER:HA	15:M:2038:PRO:HD3	1.97	0.46
16:N:40:ALA:HB2	16:N:78:PHE:CD1	2.50	0.46
16:N:169:TYR:CG	16:N:535:LEU:HB3	2.51	0.46
1:2:658:ASN:ND2	1:2:661:LEU:HB2	2.31	0.46
1:2:841:VAL:O	1:2:844:SER:OG	2.30	0.46
3:4:304:ARG:HA	3:4:465:HIS:HB2	1.97	0.46
4:5:378:ILE:HD13	4:5:425:LEU:HD11	1.98	0.46
4:5:430:GLU:HG2	4:5:478:CYS:SG	2.56	0.46
4:5:638:LEU:O	4:5:641:THR:HG23	2.16	0.46
5:6:139:GLN:O	5:6:143:MET:HG2	2.15	0.46
6:7:133:ASP:N	6:7:133:ASP:OD1	2.49	0.46
7:A:126:GLN:HA	7:A:129:GLU:OE2	2.16	0.46
11:E:43:LYS:HG3	11:E:484:LEU:HD13	1.97	0.46
11:E:103:TYR:CD2	11:E:116:PHE:HB3	2.49	0.46
11:E:514:LEU:HD23	11:E:514:LEU:HA	1.79	0.46
11:E:634:ARG:HG3	11:E:635:GLU:N	2.31	0.46
12:F:872:SER:O	12:F:875:SER:OG	2.19	0.46
12:G:507:ASN:HD22	12:G:510:GLN:HG3	1.81	0.46
12:H:510:GLN:HB2	12:H:530:ASP:O	2.15	0.46
15:M:1948:ILE:O	15:M:1951:PRO:HD2	2.15	0.46
1:2:296:ARG:HD3	1:2:454:ASN:O	2.16	0.45
1:2:428:GLY:CA	1:2:453:ALA:HA	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:861:PHE:O	1:2:865:THR:HG23	2.16	0.45
2:3:99:SER:HA	2:3:158:LYS:N	2.26	0.45
3:4:455:SER:N	6:7:276:ARG:O	2.50	0.45
3:4:909:ARG:NH1	5:6:694:SER:HG	2.12	0.45
4:5:25:THR:HA	4:5:28:ILE:HD12	1.99	0.45
4:5:64:ASN:HB3	4:5:67:HIS:ND1	2.31	0.45
5:6:568:ASP:HB3	5:6:677:SER:HA	1.98	0.45
5:6:735:HIS:O	5:6:736:MET:HE2	2.11	0.45
5:6:763:PRO:HA	5:6:817:ASP:C	2.37	0.45
6:7:149:ARG:HH22	6:7:268:GLU:H	1.64	0.45
7:A:65:ASP:OD2	7:A:69:LYS:HG2	2.17	0.45
7:A:138:ILE:HA	7:A:141:LEU:HD12	1.98	0.45
8:B:30:ARG:NH1	8:B:83:SER:O	2.48	0.45
8:B:116:PRO:HG2	8:B:119:TRP:HB3	1.98	0.45
10:D:78:PRO:O	10:D:80:PRO:HD3	2.15	0.45
11:E:152:LEU:O	11:E:156:LYS:N	2.36	0.45
11:E:301:ARG:NH2	12:F:513:ILE:O	2.47	0.45
11:E:382:HIS:CE1	11:E:386:ARG:HB3	2.51	0.45
12:G:625:VAL:HG23	12:G:643:LEU:HB2	1.96	0.45
12:H:548:GLN:HB3	12:H:551:THR:OG1	2.15	0.45
15:M:1528:LEU:O	15:M:1532:TYR:HB2	2.15	0.45
15:M:2001:ASN:O	15:M:2004:SER:OG	2.29	0.45
16:N:94:ARG:O	16:N:98:GLU:HG2	2.15	0.45
16:N:175:ALA:HB1	16:N:626:LEU:HD21	1.97	0.45
1:2:401:ARG:HH11	5:6:390:LYS:NZ	2.13	0.45
1:2:607:ASP:OD2	1:2:608:GLU:HG3	2.16	0.45
1:2:747:ARG:HE	1:2:751:LYS:NZ	2.13	0.45
2:3:164:HIS:HB3	2:3:180:VAL:HG12	1.98	0.45
2:3:201:HIS:HA	2:3:243:THR:HA	1.98	0.45
2:3:246:GLY:C	2:3:248:SER:H	2.19	0.45
3:4:445:ARG:HG2	3:4:447:ASN:O	2.16	0.45
4:5:34:PHE:HD1	4:5:71:TYR:CD1	2.34	0.45
4:5:478:CYS:SG	4:5:520:LEU:HD22	2.56	0.45
4:5:684:PHE:HD1	15:M:2182:ALA:HB1	1.80	0.45
6:7:526:PHE:HB3	6:7:567:ALA:N	2.31	0.45
10:D:79:TYR:HB3	10:D:81:HIS:CE1	2.51	0.45
12:F:652:LYS:HA	12:F:652:LYS:HD2	1.72	0.45
12:H:543:GLY:HA3	12:H:556:TYR:CE1	2.51	0.45
15:M:1409:GLU:CD	15:M:1409:GLU:H	2.19	0.45
15:M:1427:PHE:HA	15:M:1700:GLY:HA3	1.98	0.45
15:M:2007:PHE:CE2	15:M:2011:LEU:HD22	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:2190:PRO:HG2	15:M:2192:GLU:OE2	2.17	0.45
16:N:637:SER:O	16:N:657:LYS:N	2.37	0.45
1:2:333:GLN:HG2	4:5:322:ALA:HB3	1.98	0.45
2:3:200:VAL:HG21	2:3:247:TYR:HB2	1.97	0.45
2:3:415:LYS:HD3	18:3:1001:ADP:PB	2.56	0.45
3:4:559:ARG:HH11	3:4:560:GLY:H	1.64	0.45
3:4:657:ALA:O	3:4:658:LYS:HD3	2.15	0.45
3:4:914:ASP:HB2	5:6:793:TYR:CE2	2.51	0.45
4:5:354:GLU:HA	4:5:357:PHE:CD2	2.52	0.45
6:7:102:LEU:O	6:7:106:ILE:HG12	2.16	0.45
6:7:459:MET:HB2	6:7:597:LEU:HD11	1.97	0.45
6:7:530:ASP:OD2	6:7:532:SER:OG	2.18	0.45
6:7:534:ARG:HH11	6:7:587:PRO:HD3	1.81	0.45
7:A:65:ASP:HB3	7:A:69:LYS:HB2	1.98	0.45
8:B:190:ASP:OD1	10:D:227:PHE:N	2.45	0.45
9:C:23:ASP:HB3	9:C:40:LYS:N	2.30	0.45
9:C:98:HIS:HB2	9:C:169:LEU:O	2.17	0.45
9:C:111:TRP:O	9:C:115:PHE:N	2.40	0.45
11:E:70:HIS:O	11:E:74:LEU:HG	2.16	0.45
11:E:93:GLU:O	11:E:97:GLU:N	2.45	0.45
11:E:282:ILE:HA	11:E:590:ARG:HH21	1.80	0.45
12:F:626:PHE:CZ	12:F:638:TYR:HB2	2.51	0.45
12:F:785:LYS:O	12:F:789:GLU:HG2	2.16	0.45
12:G:548:GLN:HB3	12:G:551:THR:OG1	2.17	0.45
12:G:694:ASP:CB	12:G:706:LEU:HD11	2.46	0.45
15:M:2060:HIS:HA	15:M:2063:LEU:HD12	1.98	0.45
16:N:403:GLY:HA3	16:N:664:PHE:HA	1.98	0.45
1:2:410:LEU:HB3	1:2:415:VAL:HA	1.97	0.45
1:2:493:ILE:HG12	1:2:497:ILE:HD11	1.98	0.45
2:3:352:LYS:HG3	2:3:353:LEU:HD12	1.97	0.45
2:3:539:LEU:HA	2:3:542:ARG:HB2	1.99	0.45
2:3:583:ARG:HA	2:3:583:ARG:NE	2.32	0.45
3:4:566:LEU:H	3:4:673:ALA:HB3	1.81	0.45
3:4:916:VAL:HA	3:4:927:VAL:HB	1.98	0.45
4:5:421:ALA:N	20:5:803:AGS:O2B	2.49	0.45
4:5:719:LYS:HD2	4:5:722:LEU:HD22	1.98	0.45
4:5:740:THR:OG1	4:5:743:PHE:HB3	2.17	0.45
5:6:573:VAL:HG13	5:6:679:LEU:HD11	1.98	0.45
5:6:765:LEU:HD11	5:6:773:LEU:HD23	1.99	0.45
6:7:382:ARG:NH1	6:7:384:HIS:HA	2.31	0.45
6:7:428:VAL:O	6:7:432:LEU:HG	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:715:GLU:OE2	6:7:718:ARG:NH2	2.49	0.45
8:B:28:PHE:N	8:B:86:SER:O	2.33	0.45
11:E:145:ASP:OD1	11:E:148:VAL:HG12	2.16	0.45
11:E:640:PHE:O	11:E:644:LEU:HG	2.17	0.45
12:G:539:LEU:HB2	12:G:559:HIS:CE1	2.51	0.45
12:G:821:MET:O	12:G:824:GLU:HB3	2.16	0.45
12:G:864:LYS:HD3	12:G:867:LEU:HD12	1.98	0.45
12:H:513:ILE:O	12:H:528:PHE:N	2.45	0.45
12:H:756:LEU:HB3	12:H:758:LYS:NZ	2.31	0.45
15:M:1706:ASP:OD1	15:M:1709:THR:OG1	2.33	0.45
1:2:227:TYR:O	1:2:231:ILE:HG13	2.15	0.45
1:2:438:LEU:HD12	1:2:441:LYS:HD2	1.99	0.45
1:2:693:GLU:HA	5:6:778:LYS:NZ	2.32	0.45
2:3:130:THR:HG21	2:3:150:ARG:NH2	2.32	0.45
2:3:133:ALA:O	2:3:137:ASP:N	2.42	0.45
2:3:360:PHE:HE2	2:3:379:LYS:HD2	1.81	0.45
2:3:573:PRO:HB2	2:3:576:TYR:CE2	2.52	0.45
2:3:687:ARG:NH2	6:7:604:PRO:HA	2.32	0.45
3:4:587:ARG:HB3	3:4:623:LEU:O	2.16	0.45
3:4:635:ASP:HB2	3:4:636:LYS:NZ	2.32	0.45
4:5:381:ASN:HB3	4:5:384:ILE:HD13	1.97	0.45
4:5:606:CYS:O	4:5:610:CYS:N	2.49	0.45
6:7:24:PHE:CD1	6:7:88:TYR:HB2	2.52	0.45
6:7:137:ASP:HA	6:7:140:ASP:HB2	1.96	0.45
6:7:242:ARG:HB2	6:7:321:GLN:HE22	1.80	0.45
6:7:410:VAL:HG22	6:7:414:LEU:HB2	1.99	0.45
7:A:174:ILE:HD11	16:N:74:GLU:OE1	2.17	0.45
8:B:121:VAL:HG13	9:C:190:TRP:HH2	1.80	0.45
9:C:185:LYS:O	9:C:188:LYS:HG3	2.17	0.45
11:E:29:ILE:HB	11:E:58:ILE:HA	1.98	0.45
11:E:153:GLY:O	11:E:156:LYS:HG2	2.16	0.45
11:E:160:TYR:O	11:E:164:GLU:HG3	2.16	0.45
11:E:463:ALA:O	11:E:467:THR:HG23	2.17	0.45
12:F:558:PRO:HD2	12:F:565:ASN:OD1	2.16	0.45
12:G:589:ILE:HD12	12:G:597:PHE:CE1	2.50	0.45
12:G:915:ASN:O	12:G:919:GLU:HG2	2.16	0.45
12:H:534:TYR:CD1	12:H:548:GLN:HB2	2.35	0.45
12:H:592:THR:HG23	12:H:594:LEU:N	2.32	0.45
12:H:627:SER:OG	12:H:639:SER:OG	2.19	0.45
12:H:893:ARG:O	12:H:896:THR:OG1	2.26	0.45
1:2:523:VAL:HG23	1:2:818:GLU:HB3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:657:TYR:HE1	1:2:659:SER:HA	1.81	0.45
1:2:659:SER:OG	1:2:851:VAL:HB	2.17	0.45
1:2:809:HIS:O	1:2:813:ILE:HG13	2.16	0.45
2:3:253:HIS:NE2	2:3:277:ILE:HD12	2.32	0.45
3:4:378:GLU:HB2	3:4:381:SER:HB3	1.99	0.45
3:4:530:ILE:HB	3:4:537:LYS:HZ3	1.82	0.45
3:4:769:GLU:O	3:4:772:ARG:HD3	2.16	0.45
3:4:911:GLN:HA	3:4:916:VAL:O	2.16	0.45
4:5:176:ALA:HA	4:5:250:PHE:HD1	1.82	0.45
4:5:387:ALA:O	4:5:665:LYS:NZ	2.45	0.45
4:5:722:LEU:HG	4:5:726:TRP:CD1	2.52	0.45
4:5:771:TYR:HA	15:M:2189:LEU:H	1.82	0.45
5:6:405:PRO:HA	5:6:450:TYR:HA	1.98	0.45
5:6:596:VAL:HG11	5:6:627:ALA:HA	1.98	0.45
6:7:412:ASN:O	6:7:416:LYS:HG3	2.17	0.45
8:B:145:ILE:HG13	8:B:146:GLN:N	2.31	0.45
12:F:621:GLN:HG2	12:F:622:ASN:H	1.81	0.45
12:F:652:LYS:HE2	12:F:655:CYS:HB2	1.99	0.45
12:F:780:VAL:HA	12:G:571:PRO:HG3	1.99	0.45
12:F:883:LEU:HG	12:F:887:HIS:CE1	2.52	0.45
12:G:741:HIS:CE1	12:G:762:ILE:HA	2.52	0.45
12:H:784:SER:HA	12:H:787:LEU:HD12	1.99	0.45
15:M:1954:GLU:HA	15:M:1957:MET:HG3	1.98	0.45
16:N:86:GLU:O	16:N:89:GLN:HG3	2.17	0.45
1:2:401:ARG:NE	5:6:391:PRO:HG2	2.31	0.45
1:2:613:ASN:O	1:2:617:ARG:HG3	2.17	0.45
1:2:745:LEU:HB3	1:2:749:ARG:CZ	2.47	0.45
1:2:820:PHE:HZ	1:2:840:VAL:HG21	1.82	0.45
3:4:519:TYR:CZ	3:4:538:LYS:HB3	2.51	0.45
5:6:132:VAL:HG12	5:6:134:LYS:N	2.27	0.45
5:6:675:ARG:HG2	5:6:675:ARG:O	2.17	0.45
6:7:281:LEU:HD11	6:7:298:LEU:HB2	1.98	0.45
6:7:459:MET:SD	6:7:569:PRO:HD3	2.57	0.45
7:A:12:GLU:O	7:A:16:THR:HG23	2.17	0.45
8:B:62:ASN:C	8:B:67:ARG:HH21	2.20	0.45
8:B:193:ARG:HD3	10:D:225:ASN:ND2	2.32	0.45
11:E:325:TYR:HB2	11:E:406:ARG:NH2	2.30	0.45
12:F:628:VAL:HA	12:F:638:TYR:HA	1.99	0.45
12:F:726:MET:HE2	12:F:786:LEU:HD12	1.99	0.45
12:G:493:TYR:CE1	12:G:503:SER:HB3	2.51	0.45
12:G:868:ARG:NH1	12:G:872:SER:HB3	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:H:582:ALA:O	12:H:589:ILE:N	2.38	0.45
12:H:660:SER:O	12:H:700:SER:HB2	2.16	0.45
12:H:781:PHE:CE1	12:H:825:GLU:HG2	2.51	0.45
15:M:1644:SER:O	15:M:1648:HIS:ND1	2.34	0.45
1:2:348:LEU:H	1:2:376:ASN:HD21	1.65	0.45
1:2:474:PHE:HE2	1:2:561:HIS:HA	1.82	0.45
1:2:503:PRO:HD2	1:2:555:TYR:CZ	2.51	0.45
1:2:824:ARG:HE	1:2:826:SER:HB3	1.82	0.45
2:3:43:ARG:NH1	2:3:136:MET:O	2.49	0.45
2:3:377:ILE:HG13	2:3:547:PHE:CE2	2.52	0.45
2:3:565:VAL:HG11	4:5:660:THR:HG21	1.98	0.45
3:4:349:CYS:HB3	3:4:352:CYS:CB	2.43	0.45
3:4:696:PRO:N	3:4:697:PRO:HD2	2.32	0.45
5:6:308:SER:O	5:6:346:LEU:HD12	2.17	0.45
5:6:509:SER:OG	5:6:511:ASP:OD1	2.21	0.45
6:7:502:VAL:CG2	6:7:509:GLU:HG3	2.47	0.45
8:B:113:SER:O	8:B:152:ARG:NH2	2.50	0.45
8:B:114:GLU:OE1	8:B:114:GLU:N	2.39	0.45
9:C:166:LEU:HA	9:C:169:LEU:HD12	1.99	0.45
9:C:186:ASP:O	9:C:189:ARG:HG2	2.16	0.45
10:D:247:GLN:O	10:D:255:CYS:N	2.46	0.45
11:E:27:LEU:HA	11:E:80:SER:HB2	1.99	0.45
11:E:87:GLY:HA3	11:E:92:LEU:HD21	1.98	0.45
11:E:271:TRP:NE1	11:E:275:LEU:HD11	2.32	0.45
12:F:913:LYS:O	12:F:917:ILE:HG12	2.16	0.45
12:G:621:GLN:HB3	12:G:624:ARG:H	1.82	0.45
12:G:692:TYR:HE1	12:G:848:TYR:CE2	2.32	0.45
12:H:596:TYR:CD1	12:H:611:LYS:HD3	2.51	0.45
12:H:914:ILE:HA	12:H:917:ILE:HG12	1.99	0.45
15:M:1591:LEU:HD22	15:M:1593:GLN:NE2	2.32	0.45
15:M:1662:ASN:ND2	15:M:1671:ILE:HG13	2.32	0.45
15:M:1944:PHE:O	15:M:2038:PRO:HD2	2.17	0.45
15:M:2192:GLU:HG2	15:M:2193:SER:N	2.32	0.45
16:N:425:ASN:CG	16:N:472:PHE:HB3	2.36	0.45
16:N:485:PRO:HG3	16:N:507:PRO:HA	1.99	0.45
1:2:323:VAL:HG23	1:2:391:GLN:O	2.17	0.45
1:2:417:VAL:O	1:2:458:ARG:NH2	2.50	0.45
2:3:257:THR:HG22	2:3:259:GLN:NE2	2.32	0.45
3:4:332:VAL:HG21	3:4:397:ILE:CG1	2.43	0.45
3:4:347:PHE:CE2	5:6:440:LEU:HD11	2.52	0.45
3:4:645:LEU:HA	3:4:648:VAL:HG12	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:138:ALA:O	5:6:141:GLU:HB3	2.17	0.45
5:6:646:ILE:O	5:6:650:VAL:HG13	2.16	0.45
6:7:367:LYS:HG3	13:I:47:DT:C4	2.52	0.45
6:7:576:PRO:HD2	6:7:577:ARG:NH1	2.32	0.45
6:7:618:TYR:CG	6:7:626:PRO:HA	2.52	0.45
6:7:716:ALA:HA	6:7:719:LEU:HD12	1.99	0.45
7:A:174:ILE:HD12	16:N:32:SER:HB2	1.99	0.45
10:D:5:ILE:HA	12:F:904:ARG:NH1	2.32	0.45
12:F:506:LYS:HB2	12:F:511:TYR:CZ	2.51	0.45
12:F:626:PHE:CE1	12:F:638:TYR:HB2	2.52	0.45
12:G:743:TRP:CG	12:G:764:PRO:HD3	2.52	0.45
12:G:785:LYS:HZ1	12:G:821:MET:HG3	1.81	0.45
12:H:629:HIS:O	12:H:637:SER:N	2.45	0.45
12:H:694:ASP:N	12:H:694:ASP:OD1	2.49	0.45
15:M:2013:LYS:HA	15:M:2016:LYS:HZ3	1.81	0.45
16:N:182:SER:O	16:N:190:PHE:N	2.50	0.45
16:N:297:SER:HA	16:N:306:GLU:HA	1.97	0.45
16:N:404:ALA:HB3	16:N:663:SER:HA	1.99	0.45
16:N:440:SER:O	16:N:488:ASN:ND2	2.49	0.45
1:2:303:ILE:HD12	1:2:319:ARG:HG2	1.99	0.45
1:2:557:GLU:OE2	1:2:558:LYS:NZ	2.50	0.45
2:3:118:PRO:HG3	2:3:179:LEU:H	1.82	0.45
3:4:518:LEU:HD11	3:4:750:TYR:OH	2.17	0.45
4:5:413:LEU:HD11	4:5:550:PHE:CB	2.44	0.45
4:5:595:SER:HB2	4:5:598:LYS:HG3	1.98	0.45
6:7:263:ASP:OD1	6:7:263:ASP:N	2.48	0.45
6:7:441:ASP:OD2	6:7:452:GLY:N	2.47	0.45
6:7:481:VAL:CG2	6:7:483:THR:HG22	2.47	0.45
8:B:19:ILE:HA	8:B:22:ASN:ND2	2.32	0.45
8:B:23:GLU:O	8:B:73:LEU:N	2.47	0.45
8:B:60:LEU:HD11	8:B:75:ILE:HD12	1.99	0.45
11:E:78:ILE:O	11:E:118:ARG:HG2	2.17	0.45
11:E:251:ILE:HA	11:E:254:GLN:NE2	2.31	0.45
11:E:348:LEU:HA	11:E:358:ARG:NH2	2.32	0.45
12:F:612:THR:HB	12:F:629:HIS:CE1	2.52	0.45
12:G:474:PHE:CZ	12:G:681:PRO:HB2	2.52	0.45
12:H:514:THR:HA	12:H:527:HIS:HB3	1.98	0.45
12:H:622:ASN:OD1	12:H:623:TYR:N	2.49	0.45
12:H:831:LYS:HB2	12:H:862:TYR:HE1	1.82	0.45
15:M:1574:SER:O	15:M:1577:THR:OG1	2.26	0.45
15:M:2063:LEU:HA	15:M:2072:ILE:HD13	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:295:ASN:OD1	16:N:296:TRP:N	2.49	0.45
16:N:311:GLN:HE21	16:N:340:HIS:HB3	1.82	0.45
1:2:327:ARG:H	1:2:388:VAL:HG12	1.81	0.44
1:2:539:VAL:HA	1:2:679:ILE:HB	1.99	0.44
2:3:412:SER:HA	18:3:1001:ADP:C5'	2.38	0.44
3:4:349:CYS:SG	3:4:354:HIS:HB3	2.57	0.44
4:5:31:PHE:O	4:5:34:PHE:HB3	2.16	0.44
4:5:653:LEU:HA	4:5:656:ILE:HG12	1.99	0.44
4:5:772:ARG:H	15:M:2188:THR:H	1.64	0.44
5:6:144:LYS:HG2	5:6:196:LEU:HD12	1.99	0.44
5:6:407:VAL:HG23	5:6:408:THR:HG23	1.97	0.44
5:6:731:ILE:HG12	5:6:731:ILE:H	1.41	0.44
6:7:30:GLN:NE2	6:7:62:LYS:HA	2.32	0.44
6:7:458:LEU:H	6:7:565:ALA:HB3	1.81	0.44
6:7:480:GLY:CA	6:7:520:ILE:HB	2.17	0.44
7:A:196:VAL:O	7:A:200:ILE:HG12	2.16	0.44
8:B:53:ILE:O	10:D:56:PRO:HB2	2.17	0.44
9:C:18:CYS:HB2	9:C:46:LEU:HD12	1.98	0.44
10:D:140:ILE:O	10:D:144:ILE:HG12	2.17	0.44
11:E:127:ARG:HG2	11:E:246:THR:O	2.17	0.44
12:F:695:PRO:HD2	12:F:707:LEU:HB3	2.00	0.44
12:F:837:LEU:O	12:F:840:THR:OG1	2.29	0.44
12:G:708:SER:HB2	12:G:717:LYS:HG3	1.98	0.44
12:H:671:ASP:OD1	12:H:672:ALA:N	2.50	0.44
12:H:899:VAL:HG22	12:H:914:ILE:CG2	2.47	0.44
15:M:1878:CYS:HA	15:M:1881:TYR:HB3	1.99	0.44
16:N:34:LYS:HB2	16:N:76:GLY:O	2.17	0.44
16:N:233:GLU:O	16:N:265:SER:N	2.49	0.44
1:2:458:ARG:N	1:2:470:GLY:O	2.50	0.44
1:2:482:ARG:HA	1:2:485:ARG:NE	2.32	0.44
1:2:703:HIS:HB3	1:2:707:HIS:HE1	1.82	0.44
2:3:104:ARG:HB2	2:3:111:TRP:CD2	2.52	0.44
2:3:347:ILE:HG12	2:3:662:TYR:CE2	2.51	0.44
3:4:912:GLN:HG2	5:6:696:ARG:HE	1.82	0.44
4:5:450:THR:O	4:5:470:VAL:HG23	2.18	0.44
4:5:562:GLU:OE1	4:5:562:GLU:N	2.39	0.44
5:6:574:VAL:HG12	5:6:682:ALA:HB3	1.99	0.44
5:6:659:GLN:C	5:6:674:ALA:HB3	2.36	0.44
6:7:414:LEU:HB3	6:7:433:LEU:CD1	2.47	0.44
6:7:415:ALA:H	6:7:433:LEU:HD11	1.82	0.44
10:D:83:LEU:O	10:D:87:LEU:HG	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:E:64:TYR:CZ	11:E:625:PHE:HA	2.53	0.44
12:F:536:LEU:HD22	12:F:580:SER:HA	1.99	0.44
12:F:651:TYR:CE1	12:F:711:ARG:HA	2.52	0.44
12:F:707:LEU:HB2	12:F:718:TRP:CZ2	2.52	0.44
12:F:741:HIS:CG	12:F:762:ILE:HA	2.52	0.44
12:G:543:GLY:HA2	12:G:558:PRO:HA	1.98	0.44
12:G:621:GLN:HG2	12:G:622:ASN:N	2.33	0.44
12:G:624:ARG:HH12	12:G:711:ARG:HH21	1.65	0.44
12:H:900:LYS:C	12:H:904:ARG:HE	2.20	0.44
15:M:1563:PHE:CZ	15:M:1572:ARG:HD2	2.52	0.44
15:M:1721:ILE:O	15:M:1861:ALA:N	2.48	0.44
15:M:1732:LEU:HB3	15:M:1904:ARG:HB2	1.99	0.44
1:2:324:VAL:O	1:2:421:GLY:N	2.39	0.44
1:2:632:SER:HA	1:2:637:VAL:HA	2.00	0.44
1:2:680:LEU:HD11	1:2:844:SER:O	2.18	0.44
2:3:36:THR:HA	2:3:39:ARG:NE	2.27	0.44
2:3:446:VAL:O	2:3:455:ARG:HG3	2.17	0.44
2:3:493:GLN:OE1	2:3:509:ARG:HA	2.17	0.44
3:4:434:GLU:OE1	3:4:434:GLU:N	2.50	0.44
3:4:561:ASP:O	3:4:803:ARG:HD2	2.17	0.44
3:4:646:HIS:CE1	3:4:698:LEU:HG	2.53	0.44
4:5:259:GLN:HG2	4:5:271:PRO:HB2	1.99	0.44
4:5:553:ILE:H	4:5:658:ARG:HH22	1.62	0.44
4:5:666:LEU:HD23	4:5:669:SER:H	1.81	0.44
4:5:731:GLN:O	4:5:735:ARG:HG2	2.17	0.44
5:6:326:LYS:HB2	5:6:410:LEU:HD23	1.99	0.44
5:6:735:HIS:HA	5:6:739:ASP:OD2	2.18	0.44
5:6:800:LEU:HA	5:6:803:MET:CE	2.47	0.44
6:7:245:ILE:HD11	6:7:344:SER:O	2.17	0.44
6:7:291:GLN:O	6:7:292:ASN:OD1	2.36	0.44
8:B:8:GLN:NE2	8:B:9:GLN:HG3	2.33	0.44
8:B:51:GLN:HB2	10:D:129:MET:HE2	1.98	0.44
10:D:69:ASN:O	10:D:73:SER:N	2.44	0.44
10:D:233:ASN:H	10:D:291:VAL:HA	1.82	0.44
11:E:131:LEU:O	11:E:135:PHE:N	2.33	0.44
11:E:305:SER:HB3	12:F:766:PHE:HD2	1.83	0.44
11:E:488:LYS:HB3	11:E:491:LEU:HB3	2.00	0.44
12:F:549:SER:OG	12:F:578:ILE:O	2.23	0.44
12:G:538:PHE:O	12:G:545:LEU:N	2.31	0.44
12:G:673:ASN:OD1	12:G:674:LEU:N	2.50	0.44
15:M:1336:LEU:HD22	15:M:1435:GLN:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:1542:LYS:O	15:M:1545:THR:OG1	2.31	0.44
15:M:1730:VAL:O	15:M:1906:TRP:N	2.39	0.44
15:M:2156:SER:HA	15:M:2159:ILE:HG12	1.97	0.44
15:M:2211:ASP:OD1	15:M:2211:ASP:N	2.49	0.44
16:N:45:VAL:HG13	16:N:52:ASN:HB3	1.99	0.44
16:N:225:THR:HA	16:N:228:ARG:NE	2.32	0.44
1:2:386:GLN:O	1:2:410:LEU:N	2.29	0.44
1:2:418:SER:HA	1:2:458:ARG:HH22	1.83	0.44
1:2:820:PHE:HB3	1:2:833:ASP:OD1	2.18	0.44
2:3:22:GLY:O	2:3:26:ARG:HG3	2.18	0.44
2:3:412:SER:CA	18:3:1001:ADP:H5'1	2.39	0.44
3:4:260:GLN:HB3	3:4:264:TYR:CZ	2.53	0.44
3:4:703:ASP:HB2	3:4:803:ARG:NH1	2.32	0.44
3:4:713:ASP:OD1	3:4:714:GLU:N	2.48	0.44
3:4:724:LEU:O	3:4:728:TYR:N	2.41	0.44
3:4:820:GLU:O	3:4:823:GLN:HG3	2.16	0.44
4:5:145:GLN:HA	4:5:161:ARG:O	2.18	0.44
4:5:368:GLU:OE1	4:5:368:GLU:N	2.49	0.44
4:5:487:ASP:HA	4:5:490:ARG:NE	2.32	0.44
4:5:497:MET:HE3	4:5:550:PHE:CD1	2.53	0.44
4:5:775:VAL:O	15:M:2190:PRO:HD2	2.17	0.44
5:6:633:ASN:HA	5:6:675:ARG:O	2.16	0.44
5:6:695:LEU:HD21	5:6:712:PHE:HB2	1.99	0.44
5:6:751:LEU:HA	5:6:754:TYR:CE1	2.52	0.44
5:6:773:LEU:HA	5:6:824:ILE:HG21	1.98	0.44
6:7:458:LEU:HD23	6:7:458:LEU:HA	1.79	0.44
11:E:66:GLU:HA	11:E:69:ARG:NE	2.32	0.44
11:E:290:ARG:HH21	11:E:291:LEU:HD21	1.82	0.44
11:E:343:TYR:CE1	11:E:590:ARG:HB2	2.51	0.44
12:F:498:GLU:HA	12:F:745:LEU:HD12	1.99	0.44
12:F:695:PRO:HG2	12:F:707:LEU:HD23	2.00	0.44
12:F:862:TYR:HD2	12:F:890:LYS:HZ1	1.65	0.44
12:F:895:LEU:HB2	12:F:918:ARG:NH1	2.29	0.44
12:G:628:VAL:HG12	12:G:636:LEU:HD11	1.98	0.44
12:H:840:THR:O	12:H:844:ASP:N	2.46	0.44
12:H:864:LYS:NZ	12:H:893:ARG:HH22	2.16	0.44
15:M:1385:ASN:ND2	15:M:1387:PRO:HD2	2.32	0.44
15:M:1651:LYS:HG3	15:M:1808:THR:HG21	2.00	0.44
15:M:2003:PHE:O	15:M:2007:PHE:HD1	2.00	0.44
15:M:2047:VAL:HG22	15:M:2050:PRO:HD3	1.99	0.44
15:M:2111:CYS:HB2	15:M:2132:ARG:HD2	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:195:SER:O	1:2:199:THR:OG1	2.28	0.44
1:2:305:SER:H	1:2:308:GLU:HB2	1.82	0.44
1:2:500:SER:O	1:2:503:PRO:HD3	2.18	0.44
2:3:496:THR:HG23	2:3:498:ALA:H	1.82	0.44
3:4:758:ILE:HG23	3:4:815:ASN:HA	1.98	0.44
3:4:879:ASP:HB2	3:4:925:ARG:HD2	2.00	0.44
4:5:82:GLU:O	4:5:86:ILE:HG12	2.17	0.44
4:5:291:ARG:O	4:5:337:VAL:HG22	2.18	0.44
5:6:177:PHE:O	5:6:178:LEU:HB2	2.18	0.44
5:6:382:ARG:O	5:6:386:VAL:HG23	2.16	0.44
6:7:25:LEU:HA	6:7:63:TYR:CD2	2.53	0.44
6:7:203:TYR:CE2	6:7:339:LEU:HD23	2.52	0.44
7:A:1:MET:HG3	7:A:2:TYR:N	2.33	0.44
8:B:131:LYS:HA	8:B:134:PHE:CE2	2.52	0.44
9:C:12:ASP:HA	9:C:48:LEU:HD22	1.99	0.44
11:E:248:VAL:HA	11:E:287:VAL:HG21	1.98	0.44
11:E:346:ALA:HB2	11:E:554:GLU:HG3	1.99	0.44
12:F:543:GLY:HA2	12:F:559:HIS:N	2.33	0.44
12:F:546:PHE:HB2	12:F:555:GLN:HB3	1.99	0.44
12:H:640:LEU:HD21	12:H:710:TRP:HE3	1.82	0.44
12:H:880:GLU:HA	12:H:883:LEU:HG	1.99	0.44
15:M:1724:SER:HB2	15:M:2064:LEU:HD22	1.99	0.44
15:M:1892:ASN:HB2	15:M:1893:PRO:HD3	1.98	0.44
16:N:312:THR:O	16:N:559:PHE:HB3	2.17	0.44
1:2:617:ARG:NH1	1:2:670:THR:HG23	2.29	0.44
2:3:51:ASN:OD1	2:3:52:ASN:N	2.51	0.44
2:3:497:ILE:HB	2:3:504:THR:O	2.18	0.44
2:3:583:ARG:O	2:3:584:GLU:C	2.55	0.44
3:4:198:LEU:HD23	3:4:279:CYS:SG	2.58	0.44
3:4:207:LYS:HD2	3:4:216:ILE:HG22	1.99	0.44
3:4:445:ARG:CZ	5:6:419:SER:HB3	2.48	0.44
3:4:767:LYS:HD3	5:6:738:ARG:CZ	2.47	0.44
3:4:808:HIS:HA	3:4:811:MET:HE2	1.99	0.44
4:5:165:ILE:HG13	4:5:290:THR:C	2.37	0.44
4:5:434:PRO:HD2	4:5:600:LYS:HE2	1.98	0.44
5:6:306:LYS:HZ3	5:6:320:ASN:HB3	1.83	0.44
5:6:529:LEU:HB2	5:6:548:LEU:HD12	1.99	0.44
5:6:581:LYS:NZ	5:6:681:ALA:HB1	2.32	0.44
6:7:140:ASP:O	6:7:144:ASN:N	2.51	0.44
6:7:313:CYS:N	6:7:333:ILE:O	2.48	0.44
6:7:410:VAL:CG2	6:7:414:LEU:HB2	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:B:110:ASP:N	8:B:110:ASP:OD1	2.51	0.44
10:D:5:ILE:O	10:D:9:LEU:N	2.42	0.44
12:F:611:LYS:O	12:H:717:LYS:NZ	2.51	0.44
12:G:629:HIS:O	12:G:637:SER:N	2.29	0.44
12:H:582:ALA:N	12:H:589:ILE:O	2.35	0.44
12:H:597:PHE:CD1	12:H:610:GLU:HB3	2.52	0.44
12:H:626:PHE:HZ	12:H:638:TYR:HB2	1.83	0.44
16:N:400:VAL:HG22	16:N:674:GLU:HG2	2.00	0.44
16:N:484:ILE:HD12	16:N:528:ASN:HA	1.99	0.44
1:2:672:PRO:O	1:2:675:SER:OG	2.24	0.44
2:3:118:PRO:HG3	2:3:179:LEU:N	2.32	0.44
2:3:256:ILE:O	2:3:276:VAL:N	2.46	0.44
2:3:446:VAL:HG11	2:3:500:ALA:HB3	2.00	0.44
3:4:354:HIS:CD2	3:4:373:ARG:HB2	2.53	0.44
3:4:378:GLU:O	3:4:381:SER:OG	2.28	0.44
3:4:391:PHE:CE1	5:6:403:VAL:HG21	2.52	0.44
3:4:567:CYS:HB3	3:4:708:VAL:N	2.33	0.44
3:4:587:ARG:HB2	3:4:627:GLY:HA3	1.99	0.44
4:5:145:GLN:NE2	4:5:162:LEU:O	2.51	0.44
4:5:383:ASP:OD1	4:5:383:ASP:N	2.49	0.44
4:5:719:LYS:NZ	4:5:755:LEU:HD22	2.33	0.44
5:6:797:VAL:O	5:6:801:GLU:HG3	2.17	0.44
6:7:468:GLN:CB	20:7:903:AGS:H5'1	2.46	0.44
6:7:690:LEU:HG	6:7:694:ARG:HE	1.82	0.44
6:7:726:SER:O	6:7:729:GLN:HG2	2.18	0.44
11:E:404:ILE:H	11:E:404:ILE:HD12	1.83	0.44
11:E:517:LYS:NZ	11:E:519:ILE:O	2.50	0.44
12:F:539:LEU:HA	12:F:544:THR:HA	2.00	0.44
12:F:752:LEU:N	12:F:774:MET:O	2.50	0.44
12:G:534:TYR:CZ	12:G:555:GLN:HB2	2.53	0.44
12:H:587:ARG:HG3	12:H:607:PHE:HD2	1.83	0.44
12:H:661:LEU:HD12	12:H:662:PRO:HD2	1.98	0.44
12:H:755:ILE:HD11	12:H:764:PRO:HG3	2.00	0.44
15:M:2130:CYS:HB3	15:M:2137:PHE:CE2	2.53	0.44
1:2:306:LEU:HB2	1:2:392:GLU:HG3	2.00	0.44
1:2:484:PHE:HE1	1:2:762:LEU:HG	1.83	0.44
2:3:454:GLU:HG2	2:3:456:ARG:NH1	2.23	0.44
3:4:767:LYS:HD3	5:6:738:ARG:NE	2.32	0.44
5:6:396:LYS:HB3	5:6:462:ILE:HD13	2.00	0.44
5:6:525:ILE:HG21	5:6:814:ASN:OD1	2.17	0.44
5:6:585:LEU:HB3	5:6:597:TYR:HE1	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:641:PHE:H	5:6:682:ALA:HA	1.83	0.44
5:6:793:TYR:CD2	5:6:794:ARG:HG3	2.52	0.44
6:7:302:THR:HB	6:7:307:PHE:HZ	1.82	0.44
6:7:324:VAL:O	6:7:326:HIS:ND1	2.50	0.44
6:7:584:ILE:HG22	6:7:586:LEU:H	1.82	0.44
7:A:57:GLN:HB3	7:A:62:MET:HE3	2.00	0.44
10:D:253:LYS:NZ	10:D:271:ILE:H	2.08	0.44
11:E:385:LYS:HA	11:E:388:LEU:HG	2.00	0.44
12:F:516:SER:HA	12:F:525:GLU:HG2	2.00	0.44
12:G:617:ALA:HB1	12:G:687:LEU:HD22	1.99	0.44
12:G:629:HIS:HB2	12:G:637:SER:OG	2.18	0.44
12:G:688:PHE:HE2	12:G:747:LEU:HB2	1.83	0.44
12:G:723:ASP:OD1	12:G:723:ASP:N	2.46	0.44
12:G:837:LEU:O	12:G:841:LEU:HD23	2.18	0.44
12:H:555:GLN:HE22	12:H:557:ARG:HG2	1.83	0.44
12:H:892:ASP:O	12:H:896:THR:HG23	2.17	0.44
12:H:921:ARG:O	12:H:924:GLN:NE2	2.43	0.44
15:M:1533:LYS:O	15:M:1536:PHE:HB3	2.18	0.44
15:M:1542:LYS:HB3	15:M:1546:TYR:CE2	2.53	0.44
15:M:1727:TYR:HB3	15:M:1869:LYS:HD3	2.00	0.44
15:M:1939:TRP:HB3	15:M:1942:LYS:HB3	1.96	0.44
1:2:287:ALA:C	1:2:289:ILE:H	2.22	0.44
1:2:297:ILE:HG12	1:2:454:ASN:OD1	2.18	0.44
1:2:320:VAL:HG22	1:2:321:THR:N	2.32	0.44
1:2:786:VAL:HG13	1:2:810:LEU:HD11	2.00	0.44
2:3:260:GLU:HG2	2:3:271:PRO:HA	1.99	0.44
2:3:661:GLN:O	2:3:665:GLU:HG3	2.18	0.44
3:4:245:ALA:HB2	3:4:308:VAL:HA	2.00	0.44
3:4:746:PHE:CE1	3:4:750:TYR:HB2	2.53	0.44
4:5:182:MET:SD	4:5:184:ARG:N	2.90	0.44
4:5:366:LEU:HD13	4:5:369:ILE:HG13	1.99	0.44
4:5:430:GLU:OE2	4:5:477:VAL:HA	2.18	0.44
4:5:524:ASN:ND2	20:5:803:AGS:O2G	2.48	0.44
4:5:620:GLU:HG2	4:5:621:LYS:N	2.33	0.44
5:6:657:GLU:HG2	5:6:708:ARG:NE	2.33	0.44
6:7:29:LYS:HE2	6:7:29:LYS:HB2	1.81	0.44
6:7:350:ASP:N	6:7:382:ARG:O	2.43	0.44
6:7:470:LEU:CD2	6:7:482:TYR:HE1	2.26	0.44
7:A:69:LYS:HD3	7:A:69:LYS:HA	1.55	0.44
11:E:108:ASP:OD1	11:E:111:SER:OG	2.34	0.44
11:E:559:SER:OG	11:E:559:SER:O	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:F:485:PRO:HD2	12:F:763:TRP:HB3	2.00	0.44
12:F:626:PHE:CE2	12:F:687:LEU:HD21	2.53	0.44
12:G:621:GLN:HE22	12:G:624:ARG:HH21	1.66	0.44
12:G:624:ARG:NH1	12:G:711:ARG:HH21	2.14	0.44
12:G:785:LYS:HZ1	12:G:821:MET:HE2	1.83	0.44
12:G:824:GLU:HA	12:G:827:TYR:HE1	1.83	0.44
12:H:729:TRP:CE2	12:H:734:GLY:HA2	2.53	0.44
12:H:864:LYS:HG3	12:H:867:LEU:HD12	1.99	0.44
12:H:914:ILE:HD13	12:H:917:ILE:HD11	2.00	0.44
15:M:1563:PHE:CE2	15:M:1572:ARG:HD2	2.53	0.44
15:M:1730:VAL:HB	15:M:1906:TRP:HB2	1.99	0.44
15:M:2041:PRO:HB2	15:M:2120:CYS:SG	2.57	0.44
15:M:2123:ALA:O	15:M:2127:ILE:HD12	2.17	0.44
15:M:2144:GLU:OE2	16:N:453:SER:OG	2.32	0.44
16:N:184:ASN:HB3	16:N:187:LYS:O	2.18	0.44
1:2:178:ARG:CZ	1:2:205:ARG:HB2	2.48	0.43
1:2:194:TYR:OH	1:2:259:PHE:HA	2.18	0.43
1:2:264:PRO:O	1:2:268:LEU:HG	2.17	0.43
2:3:652:THR:OG1	2:3:655:PHE:HB3	2.18	0.43
2:3:697:ILE:HB	2:3:701:THR:HG21	1.99	0.43
5:6:294:VAL:HG23	5:6:360:ARG:O	2.17	0.43
5:6:409:GLN:NE2	5:6:449:THR:HG22	2.33	0.43
5:6:547:ILE:O	5:6:551:MET:HG2	2.17	0.43
5:6:628:LEU:HA	5:6:631:ALA:HB3	2.00	0.43
8:B:3:LEU:HD12	8:B:4:PRO:HD2	2.00	0.43
8:B:188:ILE:O	8:B:192:LEU:HG	2.18	0.43
9:C:170:GLU:N	9:C:173:GLU:OE1	2.41	0.43
10:D:293:LEU:HA	10:D:293:LEU:HD23	1.76	0.43
11:E:71:TYR:HA	11:E:74:LEU:HG	2.00	0.43
11:E:436:ASN:N	11:E:476:ASN:OD1	2.51	0.43
11:E:493:ASN:HB2	11:E:494:ARG:HH12	1.83	0.43
11:E:506:ILE:HG23	11:E:548:LEU:HD13	2.00	0.43
11:E:553:ILE:HD11	11:E:584:LEU:HB3	1.98	0.43
12:F:570:ILE:HD11	12:F:598:ARG:HD2	2.00	0.43
12:F:572:LEU:HB2	12:F:576:GLU:HB3	2.00	0.43
12:G:642:GLU:OE1	12:G:651:TYR:N	2.50	0.43
12:G:910:LEU:O	12:G:914:ILE:HG12	2.18	0.43
2:3:31:PHE:HB2	2:3:106:PHE:CZ	2.53	0.43
2:3:415:LYS:HG2	18:3:1001:ADP:O2B	2.18	0.43
2:3:670:GLN:NE2	6:7:621:MET:HB3	2.33	0.43
3:4:564:ILE:HG12	3:4:704:LEU:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:609:LYS:O	4:5:612:PRO:HD2	2.18	0.43
5:6:132:VAL:C	5:6:134:LYS:H	2.21	0.43
5:6:173:GLN:NE2	5:6:176:ARG:HA	2.33	0.43
6:7:574:TYR:CE1	6:7:580:PRO:HA	2.53	0.43
11:E:101:GLN:HA	11:E:104:VAL:HG12	2.00	0.43
11:E:103:TYR:HB3	11:E:116:PHE:CD1	2.53	0.43
11:E:328:LEU:HD21	11:E:496:ILE:HG12	1.99	0.43
12:H:501:TYR:O	12:H:516:SER:HB2	2.18	0.43
12:H:639:SER:CB	12:H:654:GLU:H	2.29	0.43
15:M:1340:VAL:CB	15:M:1348:ASN:HD22	2.31	0.43
15:M:1519:GLN:HB3	15:M:1521:GLN:NE2	2.33	0.43
16:N:322:PRO:HD3	16:N:555:LEU:HD21	2.00	0.43
1:2:205:ARG:NH1	1:2:209:ARG:HB2	2.32	0.43
1:2:429:ILE:H	1:2:429:ILE:HD12	1.83	0.43
1:2:475:SER:O	1:2:765:LYS:HE2	2.19	0.43
2:3:31:PHE:HB2	2:3:106:PHE:HZ	1.82	0.43
2:3:154:LYS:HE2	2:3:154:LYS:HB2	1.82	0.43
2:3:367:LEU:HD11	2:3:382:LEU:HB2	2.00	0.43
2:3:412:SER:H	4:5:549:ARG:NH2	2.17	0.43
2:3:446:VAL:HG12	2:3:455:ARG:HD3	2.00	0.43
2:3:684:THR:HG22	6:7:610:GLU:HG3	2.00	0.43
3:4:312:LYS:HG3	3:4:316:GLU:HG2	1.99	0.43
4:5:237:GLY:O	4:5:240:PRO:HD3	2.18	0.43
4:5:369:ILE:CG2	4:5:592:SER:HA	2.47	0.43
4:5:380:GLY:O	4:5:385:LYS:HD2	2.18	0.43
4:5:618:ALA:HB2	4:5:674:GLU:OE1	2.18	0.43
5:6:114:ALA:HA	5:6:117:GLN:CD	2.37	0.43
5:6:118:PHE:HZ	5:6:158:LEU:HA	1.84	0.43
5:6:137:ARG:C	5:6:139:GLN:H	2.22	0.43
5:6:744:PRO:C	5:6:746:PHE:H	2.21	0.43
6:7:486:LYS:CG	6:7:529:MET:HA	2.48	0.43
7:A:177:GLU:HG3	16:N:27:ARG:HH22	1.83	0.43
8:B:2:SER:O	10:D:145:ARG:HB3	2.18	0.43
11:E:299:VAL:O	11:E:303:THR:N	2.52	0.43
11:E:622:ILE:HD11	11:E:627:SER:HA	2.00	0.43
12:F:542:LYS:O	12:F:559:HIS:N	2.44	0.43
12:F:723:ASP:HB2	12:F:726:MET:HB3	2.00	0.43
15:M:1484:ILE:HG21	15:M:1591:LEU:HG	2.00	0.43
15:M:1945:LEU:HD23	15:M:1950:GLN:CA	2.36	0.43
1:2:232:ARG:HB2	1:2:283:TYR:CE1	2.53	0.43
1:2:491:ARG:NE	1:2:491:ARG:HA	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:552:ILE:O	1:2:556:VAL:HG23	2.19	0.43
2:3:104:ARG:NH1	9:C:86:ASN:O	2.47	0.43
2:3:212:ARG:NH1	2:3:231:TYR:H	2.14	0.43
2:3:414:ALA:HA	2:3:417:GLN:HG2	2.01	0.43
2:3:683:TYR:CE2	6:7:609:ASP:HB2	2.52	0.43
3:4:536:VAL:O	3:4:540:ILE:HG13	2.18	0.43
4:5:610:CYS:SG	4:5:667:GLU:HG3	2.59	0.43
4:5:666:LEU:HD23	4:5:669:SER:N	2.33	0.43
6:7:25:LEU:O	6:7:63:TYR:HB2	2.17	0.43
6:7:30:GLN:O	6:7:34:SER:N	2.44	0.43
6:7:109:ASN:O	6:7:113:PHE:HD2	2.01	0.43
7:A:162:PHE:HE1	11:E:55:GLN:HE21	1.65	0.43
8:B:37:ILE:HB	8:B:38:ARG:HH11	1.83	0.43
9:C:96:ASP:CG	9:C:168:LYS:HA	2.39	0.43
10:D:249:ASN:HB3	10:D:253:LYS:HB3	2.01	0.43
11:E:154:GLU:O	11:E:157:GLU:HG3	2.19	0.43
11:E:304:PRO:O	11:E:307:ARG:NH1	2.51	0.43
11:E:403:ASP:N	11:E:403:ASP:OD1	2.50	0.43
11:E:407:ASP:OD1	11:E:408:GLY:N	2.51	0.43
12:G:688:PHE:O	12:G:696:CYS:HB2	2.18	0.43
15:M:1361:PHE:CE2	15:M:1364:GLN:HB2	2.53	0.43
15:M:1665:LEU:CD1	16:N:450:ARG:HB2	2.48	0.43
1:2:477:THR:H	1:2:765:LYS:HD3	1.83	0.43
1:2:574:VAL:O	1:2:579:SER:OG	2.28	0.43
2:3:363:LEU:O	2:3:367:LEU:HG	2.18	0.43
2:3:415:LYS:HB3	18:3:1001:ADP:O3B	2.18	0.43
3:4:569:ASP:HB2	3:4:570:PRO:HD2	2.00	0.43
3:4:634:PHE:HA	3:4:637:MET:SD	2.58	0.43
3:4:748:THR:O	3:4:751:ILE:HG22	2.18	0.43
4:5:51:ARG:HH12	9:C:142:LEU:N	2.16	0.43
4:5:84:SER:O	4:5:197:PHE:HB3	2.18	0.43
4:5:149:ARG:HA	4:5:272:ARG:NH1	2.34	0.43
5:6:118:PHE:HB3	5:6:161:ARG:NH1	2.33	0.43
5:6:123:SER:H	5:6:132:VAL:CG2	2.32	0.43
5:6:140:ILE:O	5:6:143:MET:HB2	2.18	0.43
5:6:310:THR:N	5:6:345:THR:O	2.46	0.43
5:6:571:ILE:O	5:6:679:LEU:HA	2.18	0.43
5:6:722:LYS:HG3	5:6:723:ILE:N	2.33	0.43
6:7:320:GLN:NE2	6:7:321:GLN:HG3	2.33	0.43
7:A:33:HIS:O	7:A:37:ILE:HG12	2.19	0.43
7:A:35:ASP:N	7:A:35:ASP:OD1	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A:58:GLN:O	7:A:59:GLN:C	2.57	0.43
7:A:166:ARG:HB3	7:A:206:GLN:NE2	2.30	0.43
11:E:40:CYS:O	11:E:44:MET:HG2	2.18	0.43
12:F:824:GLU:HA	12:F:827:TYR:HE1	1.81	0.43
12:G:775:GLU:HB3	12:G:777:ARG:NH1	2.33	0.43
12:H:862:TYR:HD2	12:H:890:LYS:HZ2	1.65	0.43
15:M:1674:VAL:O	15:M:1678:ARG:HG3	2.18	0.43
15:M:1861:ALA:HA	15:M:1866:ILE:HD12	2.01	0.43
15:M:1945:LEU:O	15:M:2038:PRO:HD2	2.18	0.43
1:2:307:ARG:NH1	1:2:392:GLU:OE1	2.51	0.43
1:2:327:ARG:NH1	1:2:386:GLN:HE22	2.15	0.43
1:2:447:PHE:O	5:6:302:PRO:HG2	2.18	0.43
1:2:776:PRO:HB2	1:2:829:VAL:HG22	2.00	0.43
2:3:117:GLU:HB2	2:3:120:TYR:CD2	2.54	0.43
2:3:457:LEU:HD11	2:3:502:ILE:HG21	1.99	0.43
2:3:486:ILE:HG23	2:3:490:MET:HG3	2.00	0.43
3:4:563:ASN:H	3:4:703:ASP:HB2	1.82	0.43
4:5:258:LEU:HG	4:5:276:MET:CE	2.49	0.43
4:5:775:VAL:N	15:M:2190:PRO:HD2	2.33	0.43
6:7:234:PHE:HA	6:7:237:GLN:NE2	2.33	0.43
6:7:660:VAL:HB	6:7:689:LEU:HD11	2.01	0.43
7:A:73:PHE:O	7:A:76:LEU:HB2	2.18	0.43
7:A:102:TRP:NE1	7:A:134:TYR:OH	2.41	0.43
8:B:193:ARG:HH21	10:D:226:LYS:HA	1.83	0.43
9:C:54:LEU:HA	9:C:57:VAL:HG22	2.00	0.43
11:E:3:TYR:OH	11:E:141:GLN:HG2	2.19	0.43
11:E:557:ALA:HB1	11:E:589:PRO:HG3	1.99	0.43
12:F:577:ARG:O	12:F:592:THR:OG1	2.23	0.43
12:F:621:GLN:N	12:F:624:ARG:O	2.49	0.43
12:F:751:THR:HG22	12:F:775:GLU:HA	2.00	0.43
12:G:914:ILE:O	12:G:917:ILE:HG22	2.18	0.43
15:M:1359:MET:O	15:M:1418:PHE:CZ	2.71	0.43
15:M:1937:SER:HB2	15:M:1939:TRP:NE1	2.33	0.43
15:M:1938:GLN:O	15:M:1943:LYS:HE3	2.19	0.43
15:M:2041:PRO:HD3	15:M:2207:TYR:CE2	2.53	0.43
2:3:111:TRP:HA	2:3:114:ILE:HD12	1.99	0.43
2:3:353:LEU:HB3	2:3:359:ILE:HD13	2.01	0.43
2:3:711:ALA:O	2:3:715:VAL:HG23	2.19	0.43
3:4:367:GLU:HB2	5:6:441:ARG:HB3	2.01	0.43
3:4:526:ILE:HG13	3:4:584:ILE:HD11	2.01	0.43
4:5:377:SER:HA	4:5:571:HIS:CE1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:423:SER:H	20:5:803:AGS:PB	2.42	0.43
4:5:498:GLU:HG2	4:5:549:ARG:HH11	1.84	0.43
5:6:142:PHE:HA	5:6:145:ILE:HD13	2.00	0.43
5:6:176:ARG:C	5:6:178:LEU:H	2.21	0.43
5:6:388:ARG:HH11	5:6:459:VAL:H	1.67	0.43
8:B:138:ILE:O	8:B:142:ARG:HG3	2.18	0.43
9:C:18:CYS:SG	9:C:46:LEU:HB2	2.59	0.43
9:C:106:SER:HB3	9:C:110:LYS:HZ3	1.83	0.43
10:D:154:PHE:HB3	10:D:157:TYR:HB3	2.01	0.43
10:D:245:LEU:HB2	10:D:256:TYR:HE1	1.83	0.43
11:E:47:LEU:O	11:E:50:LYS:HG2	2.18	0.43
11:E:328:LEU:HD11	11:E:496:ILE:HG23	2.00	0.43
12:F:600:PHE:HA	12:F:606:PRO:HA	2.00	0.43
12:F:747:LEU:HD12	12:F:752:LEU:HA	2.01	0.43
12:G:543:GLY:HA2	12:G:559:HIS:N	2.30	0.43
12:G:636:LEU:HB3	12:H:634:HIS:NE2	2.34	0.43
15:M:1512:LEU:HD11	15:M:1569:LEU:CB	2.49	0.43
15:M:1527:SER:O	15:M:1530:GLN:HG3	2.18	0.43
15:M:1593:GLN:HB3	15:M:1615:LEU:H	1.83	0.43
16:N:25:LEU:HD23	16:N:31:LEU:HD23	2.00	0.43
16:N:398:LYS:HB3	16:N:429:PRO:HA	2.01	0.43
16:N:452:ILE:HG23	16:N:457:GLN:HE22	1.84	0.43
1:2:808:ARG:NH2	20:5:803:AGS:S1G	2.92	0.43
3:4:188:GLN:OE1	3:4:195:ARG:NH2	2.49	0.43
3:4:336:THR:HG22	3:4:396:VAL:O	2.19	0.43
4:5:534:LYS:HD2	4:5:534:LYS:HA	1.85	0.43
4:5:718:LEU:HD23	4:5:721:ARG:HH22	1.83	0.43
5:6:178:LEU:O	5:6:181:LEU:HG	2.18	0.43
5:6:187:ARG:HB3	5:6:191:LYS:NZ	2.34	0.43
6:7:461:ASP:HB2	6:7:600:MET:O	2.19	0.43
6:7:495:ALA:CA	6:7:512:ALA:HB3	2.49	0.43
6:7:650:PRO:CB	6:7:706:ASP:HB2	2.47	0.43
7:A:176:THR:H	16:N:18:ARG:HH22	1.67	0.43
8:B:18:PHE:HZ	10:D:135:ARG:HB3	1.84	0.43
11:E:380:MET:HB2	11:E:385:LYS:HD2	2.01	0.43
12:F:744:PRO:HB3	12:F:752:LEU:HD11	2.01	0.43
15:M:1669:ASP:HA	15:M:1672:ILE:HD12	2.00	0.43
15:M:2160:GLN:HE22	15:M:2162:LEU:HG	1.84	0.43
15:M:2204:VAL:HG13	15:M:2208:TYR:HD2	1.83	0.43
16:N:269:THR:N	16:N:283:LEU:O	2.47	0.43
16:N:284:LEU:HB2	16:N:328:VAL:CG2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:352:ARG:HB2	16:N:635:ILE:O	2.18	0.43
1:2:333:GLN:HE21	4:5:322:ALA:HB3	1.83	0.43
1:2:741:ARG:NH2	1:2:744:ARG:HG3	2.34	0.43
2:3:496:THR:HA	2:3:505:THR:HG23	2.00	0.43
3:4:509:ILE:HG23	3:4:750:TYR:CE1	2.54	0.43
4:5:650:ILE:HD11	4:5:653:LEU:HD23	2.01	0.43
5:6:275:ARG:O	5:6:290:ILE:HD12	2.18	0.43
5:6:515:GLU:O	5:6:518:GLU:HG3	2.19	0.43
6:7:258:ILE:HG22	6:7:271:GLN:HG3	2.01	0.43
6:7:310:PHE:CZ	6:7:334:HIS:HB3	2.54	0.43
7:A:53:TYR:O	7:A:57:GLN:CB	2.65	0.43
7:A:64:ASP:O	7:A:67:VAL:N	2.51	0.43
8:B:11:PHE:HZ	10:D:68:LYS:HA	1.84	0.43
8:B:73:LEU:O	8:B:77:LEU:HG	2.19	0.43
8:B:115:LEU:HB3	8:B:119:TRP:CD1	2.54	0.43
8:B:124:ARG:CD	9:C:191:MET:HA	2.48	0.43
9:C:48:LEU:HA	9:C:51:ALA:HB3	2.00	0.43
10:D:7:ASP:OD2	12:F:904:ARG:NH2	2.51	0.43
11:E:530:LEU:N	11:E:570:ALA:O	2.41	0.43
11:E:604:ASN:HA	11:E:607:MET:HE1	2.00	0.43
12:G:486:PHE:CZ	12:G:490:ASP:HA	2.54	0.43
12:G:702:ASN:O	12:G:724:SER:HB3	2.19	0.43
12:H:548:GLN:OE1	12:H:550:LYS:N	2.51	0.43
15:M:1531:ILE:HG23	15:M:1534:GLN:HE21	1.84	0.43
15:M:1592:LEU:HD22	15:M:1601:LEU:HD22	2.01	0.43
16:N:17:LEU:HD13	16:N:20:LEU:HD12	2.00	0.43
16:N:434:TRP:O	16:N:484:ILE:N	2.48	0.43
1:2:458:ARG:HE	1:2:471:LEU:HB2	1.84	0.43
1:2:601:LYS:N	1:2:643:ARG:O	2.52	0.43
1:2:624:MET:SD	1:2:676:ARG:HD3	2.59	0.43
2:3:198:ARG:HA	2:3:213:ASP:HA	2.00	0.43
2:3:407:MET:HE1	2:3:415:LYS:HG3	2.01	0.43
2:3:417:GLN:O	2:3:421:PHE:N	2.49	0.43
2:3:669:PRO:HA	2:3:719:LYS:O	2.19	0.43
3:4:315:ARG:HA	6:7:341:ARG:CZ	2.49	0.43
3:4:593:GLY:N	3:4:633:GLU:OE1	2.52	0.43
4:5:625:ASN:HB3	4:5:679:GLU:OE2	2.19	0.43
4:5:743:PHE:HD2	4:5:748:LEU:HB2	1.83	0.43
5:6:576:ASP:OD1	5:6:688:ARG:HA	2.19	0.43
6:7:534:ARG:NH1	6:7:587:PRO:HD3	2.34	0.43
7:A:58:GLN:HE21	7:A:58:GLN:HB3	1.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:E:162:LEU:HD23	11:E:230:ILE:HD12	2.00	0.43
11:E:642:GLU:O	11:E:646:LEU:HG	2.19	0.43
12:F:502:VAL:HG23	12:F:514:THR:O	2.19	0.43
12:F:874:CYS:HB3	12:F:905:ALA:HB2	2.01	0.43
12:G:514:THR:HA	12:G:527:HIS:CB	2.48	0.43
12:G:566:TRP:NE1	12:G:602:GLN:O	2.47	0.43
15:M:1358:TYR:HE2	15:M:1686:VAL:HG11	1.84	0.43
15:M:2165:SER:HA	15:M:2186:GLU:CD	2.40	0.43
15:M:2177:ALA:O	15:M:2178:HIS:HB3	2.19	0.43
16:N:534:TYR:HD2	16:N:537:GLN:H	1.67	0.43
1:2:404:ARG:NH1	5:6:299:GLU:HA	2.34	0.42
1:2:761:GLU:O	1:2:764:MET:HG3	2.19	0.42
1:2:816:ILE:HG22	1:2:837:ALA:HB1	1.99	0.42
2:3:104:ARG:CZ	9:C:89:LYS:HB3	2.48	0.42
2:3:161:PHE:HB2	2:3:165:ALA:N	2.33	0.42
2:3:660:VAL:C	2:3:664:LYS:HZ3	2.23	0.42
3:4:516:GLU:OE1	3:4:516:GLU:N	2.45	0.42
3:4:650:GLU:OE2	3:4:701:ARG:NE	2.52	0.42
4:5:402:ASP:OD1	4:5:403:GLY:N	2.50	0.42
4:5:482:PHE:CE2	4:5:521:ALA:HA	2.54	0.42
4:5:715:GLU:HB3	4:5:754:ALA:HB1	2.01	0.42
4:5:771:TYR:HA	15:M:2189:LEU:N	2.33	0.42
5:6:120:GLU:C	5:6:132:VAL:HB	2.39	0.42
5:6:290:ILE:HB	5:6:397:PHE:CE1	2.54	0.42
5:6:501:GLN:HG2	5:6:502:GLU:N	2.33	0.42
6:7:358:ALA:HB3	6:7:373:GLU:HG2	2.00	0.42
8:B:60:LEU:HA	8:B:63:MET:SD	2.59	0.42
10:D:256:TYR:HB3	10:D:269:LEU:HD12	2.01	0.42
12:F:521:GLY:O	12:F:524:ARG:NH2	2.51	0.42
12:G:745:LEU:HD23	12:G:745:LEU:H	1.83	0.42
12:H:614:PRO:HB2	12:H:630:TYR:O	2.19	0.42
15:M:1887:LYS:NZ	15:M:1900:LEU:HD13	2.34	0.42
16:N:180:ARG:HA	16:N:628:HIS:ND1	2.34	0.42
16:N:338:LYS:O	16:N:340:HIS:HD2	2.02	0.42
16:N:349:GLY:HA3	16:N:608:ASP:HA	2.01	0.42
1:2:504:SER:O	1:2:505:ILE:HD13	2.19	0.42
2:3:374:HIS:HB3	2:3:377:ILE:HB	2.00	0.42
3:4:213:GLU:HA	3:4:216:ILE:HG23	2.01	0.42
3:4:314:MET:SD	3:4:413:HIS:ND1	2.82	0.42
3:4:432:ARG:NH1	3:4:434:GLU:OE2	2.53	0.42
3:4:445:ARG:NH2	3:4:451:ARG:HG2	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:529:SER:HB2	3:4:580:TYR:CE2	2.54	0.42
3:4:764:GLU:HA	3:4:767:LYS:HD2	2.01	0.42
3:4:885:GLU:OE1	3:4:885:GLU:N	2.52	0.42
4:5:105:SER:O	4:5:106:ARG:HG2	2.20	0.42
4:5:413:LEU:HA	4:5:521:ALA:HB3	2.00	0.42
4:5:553:ILE:HB	4:5:685:GLN:NE2	2.34	0.42
4:5:558:ASP:HB3	4:5:560:HIS:CE1	2.54	0.42
5:6:360:ARG:HA	5:6:378:ASP:HA	2.01	0.42
5:6:551:MET:HB3	5:6:755:ILE:HD12	2.01	0.42
5:6:771:SER:O	5:6:775:GLU:HG2	2.19	0.42
6:7:410:VAL:O	6:7:414:LEU:N	2.34	0.42
6:7:498:MET:O	6:7:499:LYS:HD2	2.19	0.42
9:C:141:SER:O	9:C:181:HIS:NE2	2.52	0.42
10:D:217:ASN:ND2	10:D:219:ILE:HB	2.34	0.42
12:F:597:PHE:HB3	12:F:610:GLU:HG2	2.01	0.42
12:G:749:TYR:CE2	12:G:750:ASP:HB3	2.54	0.42
12:H:721:ILE:HD11	12:H:776:ILE:HD12	2.02	0.42
15:M:1376:ILE:HG13	15:M:1377:GLU:N	2.29	0.42
15:M:1512:LEU:O	15:M:1512:LEU:HD23	2.19	0.42
15:M:1824:ASN:HD21	16:N:446:SER:HB2	1.85	0.42
16:N:91:MET:O	16:N:95:GLU:HG2	2.19	0.42
16:N:640:VAL:HA	16:N:659:ILE:HG23	2.02	0.42
1:2:194:TYR:CE2	1:2:262:LYS:HD3	2.55	0.42
1:2:211:LEU:HD11	1:2:271:PHE:HD1	1.85	0.42
1:2:218:TYR:CE2	1:2:220:ASP:HB2	2.54	0.42
1:2:273:LEU:O	1:2:276:MET:HB2	2.19	0.42
1:2:661:LEU:HB3	1:2:666:ASN:ND2	2.35	0.42
1:2:707:HIS:NE2	5:6:557:LYS:HD3	2.34	0.42
1:2:790:TYR:O	1:2:794:ARG:HG2	2.20	0.42
2:3:94:HIS:HB2	2:3:154:LYS:NZ	2.32	0.42
2:3:201:HIS:HD2	2:3:241:LEU:HD21	1.84	0.42
2:3:266:PRO:HG2	2:3:269:GLN:HE21	1.83	0.42
2:3:372:TYR:CD2	2:3:564:HIS:HB2	2.50	0.42
3:4:445:ARG:NH2	5:6:419:SER:HB3	2.34	0.42
5:6:115:PHE:HA	5:6:118:PHE:HE1	1.83	0.42
5:6:360:ARG:HB3	5:6:378:ASP:OD1	2.18	0.42
6:7:263:ASP:HB3	6:7:299:PHE:HE2	1.83	0.42
6:7:708:VAL:HG22	6:7:710:ILE:HG12	2.01	0.42
8:B:87:ILE:HG22	8:B:133:ASP:OD2	2.19	0.42
10:D:192:LYS:HG3	10:D:193:LEU:N	2.34	0.42
11:E:131:LEU:HD21	11:E:152:LEU:HD13	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:E:549:GLY:O	11:E:553:ILE:HG13	2.19	0.42
12:F:884:SER:HA	12:F:887:HIS:ND1	2.34	0.42
12:F:895:LEU:HD11	12:F:921:ARG:HG3	2.01	0.42
12:G:831:LYS:HE3	12:G:862:TYR:CD1	2.55	0.42
12:H:554:ILE:N	12:H:568:LYS:O	2.28	0.42
12:H:587:ARG:HB3	12:H:643:LEU:HD22	2.01	0.42
12:H:762:ILE:H	12:H:762:ILE:HD12	1.84	0.42
15:M:1501:LEU:O	15:M:1510:THR:HB	2.18	0.42
15:M:1948:ILE:HG21	15:M:2035:TYR:CD1	2.53	0.42
15:M:2056:LYS:HB3	15:M:2094:PHE:CD1	2.54	0.42
15:M:2196:GLN:HA	15:M:2199:ASN:ND2	2.33	0.42
1:2:760:GLN:OE1	1:2:760:GLN:N	2.35	0.42
1:2:786:VAL:HG11	4:5:573:ILE:HD11	2.00	0.42
2:3:256:ILE:O	2:3:276:VAL:HG12	2.19	0.42
2:3:375:ASP:O	2:3:379:LYS:HG3	2.19	0.42
2:3:474:GLU:HA	2:3:516:ALA:HA	2.00	0.42
2:3:486:ILE:HG23	2:3:490:MET:CG	2.49	0.42
2:3:670:GLN:O	2:3:720:THR:OG1	2.37	0.42
2:3:690:ASP:OD1	2:3:691:ASN:N	2.52	0.42
3:4:209:LEU:HD22	3:4:250:ALA:HA	2.01	0.42
3:4:511:GLU:HA	3:4:514:ALA:HB3	2.02	0.42
3:4:912:GLN:HG2	5:6:696:ARG:NE	2.34	0.42
4:5:161:ARG:HG3	4:5:295:VAL:HG12	2.02	0.42
4:5:349:PHE:CE2	4:5:354:GLU:HB3	2.54	0.42
4:5:579:ASN:OD1	4:5:580:ALA:N	2.51	0.42
5:6:176:ARG:HD3	5:6:180:PHE:CE2	2.54	0.42
5:6:341:ARG:HA	5:6:344:TRP:HZ2	1.84	0.42
5:6:796:THR:HG22	5:6:797:VAL:HG22	2.01	0.42
6:7:24:PHE:HB2	6:7:88:TYR:CE2	2.55	0.42
6:7:260:TYR:HD2	6:7:269:VAL:HG23	1.84	0.42
7:A:17:LYS:HB3	7:A:92:LEU:HD11	2.01	0.42
10:D:82:GLN:HA	10:D:85:LYS:HG2	2.01	0.42
11:E:68:ARG:CZ	11:E:96:LEU:HA	2.49	0.42
11:E:464:GLN:O	11:E:467:THR:OG1	2.30	0.42
12:F:685:LYS:HE2	12:F:700:SER:HA	2.01	0.42
12:G:582:ALA:HB3	12:G:589:ILE:HB	2.01	0.42
12:H:492:ARG:N	12:H:504:THR:O	2.48	0.42
12:H:785:LYS:HE2	12:H:821:MET:HG2	2.01	0.42
15:M:1622:LEU:HD22	15:M:1626:ASN:HD21	1.85	0.42
15:M:1915:PHE:CE1	15:M:2121:LYS:HB3	2.55	0.42
15:M:1943:LYS:HA	15:M:1943:LYS:HD3	1.80	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:2151:ARG:HB3	16:N:494:MET:HE3	2.01	0.42
1:2:307:ARG:HH11	1:2:404:ARG:HG2	1.84	0.42
1:2:519:LEU:HD22	1:2:560:ALA:HB2	2.01	0.42
2:3:272:ARG:HA	2:3:272:ARG:HD3	1.63	0.42
2:3:383:LEU:HD21	2:3:708:LEU:HD22	2.01	0.42
2:3:558:ASP:HB3	4:5:630:ARG:HD3	2.01	0.42
2:3:677:ASN:HA	2:3:680:VAL:HG22	2.01	0.42
3:4:251:TYR:O	3:4:255:GLU:N	2.52	0.42
3:4:371:CYS:HB3	3:4:377:ASN:H	1.85	0.42
3:4:651:GLN:O	3:4:651:GLN:NE2	2.51	0.42
3:4:763:THR:O	3:4:767:LYS:N	2.51	0.42
4:5:261:ILE:HG22	4:5:264:LEU:H	1.84	0.42
4:5:291:ARG:H	4:5:337:VAL:HG13	1.84	0.42
5:6:274:HIS:HB3	5:6:278:ASP:HB2	2.01	0.42
5:6:361:ILE:HG21	5:6:397:PHE:CZ	2.54	0.42
5:6:532:SER:OG	5:6:745:PRO:HB2	2.19	0.42
5:6:728:ALA:O	5:6:731:ILE:HG13	2.20	0.42
5:6:782:LYS:HD3	5:6:790:ARG:NH1	2.35	0.42
6:7:121:ILE:HG23	6:7:198:ARG:HE	1.84	0.42
6:7:238:LEU:HD21	6:7:352:THR:HG22	2.01	0.42
6:7:255:VAL:HG12	6:7:307:PHE:CD1	2.54	0.42
6:7:264:GLN:HG2	6:7:265:CYS:N	2.34	0.42
6:7:383:GLN:OE1	6:7:386:LYS:HE2	2.20	0.42
7:A:2:TYR:HH	9:C:29:TYR:HD2	1.68	0.42
7:A:103:ASN:HA	7:A:107:LEU:HD12	2.01	0.42
8:B:27:ILE:HG22	8:B:87:ILE:HD12	2.01	0.42
12:F:549:SER:HB3	12:F:578:ILE:H	1.84	0.42
12:G:484:THR:HG23	12:G:493:TYR:HB2	2.02	0.42
12:H:558:PRO:HB2	12:H:561:SER:H	1.84	0.42
15:M:2108:CYS:O	15:M:2112:PHE:N	2.45	0.42
16:N:285:LEU:HA	16:N:326:VAL:O	2.19	0.42
1:2:343:LYS:HE2	1:2:371:GLY:HA3	2.02	0.42
1:2:505:ILE:HA	18:2:902:ADP:N1	2.35	0.42
1:2:542:LEU:O	1:2:683:VAL:N	2.52	0.42
2:3:685:ASP:HA	2:3:688:ASN:OD1	2.20	0.42
3:4:721:ALA:HA	3:4:724:LEU:HD12	2.00	0.42
3:4:762:ILE:HG23	3:4:767:LYS:NZ	2.34	0.42
4:5:29:LYS:NZ	4:5:32:LYS:HD2	2.35	0.42
4:5:182:MET:O	4:5:241:TYR:HA	2.20	0.42
5:6:113:GLU:O	5:6:117:GLN:OE1	2.36	0.42
5:6:276:ILE:HG21	5:6:363:GLU:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:6:517:LYS:O	5:6:521:LYS:HD3	2.19	0.42
5:6:706:MET:HB2	5:6:712:PHE:CZ	2.52	0.42
5:6:738:ARG:CZ	5:6:738:ARG:HB2	2.46	0.42
5:6:771:SER:HA	5:6:774:VAL:HG12	2.02	0.42
5:6:816:VAL:HG11	5:6:823:PHE:CZ	2.54	0.42
6:7:348:ILE:HG22	6:7:384:HIS:ND1	2.34	0.42
6:7:356:LEU:HB3	6:7:375:TYR:CZ	2.54	0.42
6:7:414:LEU:HB3	6:7:433:LEU:HD13	2.01	0.42
7:A:1:MET:HG3	7:A:2:TYR:H	1.84	0.42
9:C:166:LEU:O	9:C:174:LYS:HE2	2.20	0.42
10:D:7:ASP:OD1	10:D:8:ILE:N	2.46	0.42
10:D:249:ASN:N	10:D:253:LYS:O	2.36	0.42
11:E:28:VAL:HG23	11:E:78:ILE:HG21	2.01	0.42
11:E:258:LEU:O	11:E:262:ILE:HG12	2.19	0.42
12:F:519:ASP:OD1	12:F:522:ARG:N	2.50	0.42
12:F:868:ARG:HD3	12:F:868:ARG:C	2.39	0.42
12:G:661:LEU:HD12	12:G:662:PRO:HD2	2.02	0.42
12:G:847:MET:H	12:G:847:MET:HG3	1.55	0.42
12:H:534:TYR:HE2	12:H:555:GLN:HB2	1.83	0.42
12:H:866:LEU:HD13	12:H:889:LEU:HA	2.02	0.42
15:M:1593:GLN:HB3	15:M:1615:LEU:N	2.34	0.42
15:M:1701:ILE:HG13	15:M:1703:ASN:H	1.85	0.42
15:M:2004:SER:HA	15:M:2007:PHE:HE1	1.84	0.42
1:2:248:HIS:H	1:2:251:GLU:CD	2.22	0.42
1:2:811:GLU:OE2	20:5:803:AGS:H1'	2.19	0.42
2:3:198:ARG:HG3	2:3:213:ASP:OD1	2.20	0.42
2:3:266:PRO:HG2	2:3:269:GLN:HG2	2.02	0.42
2:3:317:PHE:HE2	4:5:176:ALA:HB2	1.84	0.42
2:3:728:VAL:O	2:3:732:LEU:HG	2.18	0.42
3:4:264:TYR:HB2	3:4:267:GLU:OE1	2.19	0.42
3:4:417:LEU:HA	3:4:461:VAL:O	2.20	0.42
3:4:559:ARG:HD3	3:4:668:ARG:NH1	2.34	0.42
3:4:919:LEU:HD13	3:4:925:ARG:HB3	2.02	0.42
4:5:152:ASP:OD1	4:5:152:ASP:N	2.50	0.42
4:5:572:VAL:O	4:5:576:HIS:HB2	2.20	0.42
4:5:773:SER:OG	15:M:2186:GLU:O	2.38	0.42
5:6:313:MET:HE1	5:6:343:PHE:HB3	2.02	0.42
5:6:511:ASP:OD1	5:6:512:GLU:N	2.53	0.42
5:6:594:ARG:O	5:6:594:ARG:HG2	2.19	0.42
5:6:620:ASP:OD1	5:6:620:ASP:N	2.52	0.42
5:6:689:TYR:CE2	5:6:691:ARG:HD3	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:500:ASP:N	6:7:501:PRO:CD	2.82	0.42
7:A:188:GLN:NE2	7:A:207:LYS:HE2	2.33	0.42
8:B:16:ILE:HD11	8:B:179:ASN:ND2	2.31	0.42
10:D:260:ILE:HB	10:D:263:LEU:HB3	2.02	0.42
11:E:162:LEU:HD21	11:E:233:TYR:HB2	2.01	0.42
12:F:484:THR:HG23	12:F:763:TRP:HB2	2.01	0.42
12:G:555:GLN:HG2	12:G:567:THR:OG1	2.20	0.42
12:H:583:ALA:HA	12:H:588:VAL:HG22	2.02	0.42
12:H:599:SER:HB2	12:H:608:ALA:N	2.34	0.42
15:M:1345:LYS:HE3	15:M:1345:LYS:HB3	1.48	0.42
15:M:1499:PHE:H	15:M:1513:VAL:HA	1.85	0.42
15:M:2146:LEU:HG	15:M:2201:PHE:CE2	2.55	0.42
16:N:208:LEU:HD23	16:N:208:LEU:HA	1.81	0.42
2:3:95:ARG:HD2	2:3:154:LYS:CB	2.49	0.42
3:4:574:LYS:HZ3	3:4:674:SER:HA	1.84	0.42
3:4:591:THR:OG1	3:4:631:ILE:HG23	2.19	0.42
3:4:910:LEU:HD22	3:4:915:LYS:HD2	2.00	0.42
4:5:65:MET:SD	4:5:139:LEU:HB3	2.60	0.42
4:5:176:ALA:HB1	4:5:179:LEU:HG	2.01	0.42
4:5:183:CYS:HB2	4:5:188:HIS:HB3	2.02	0.42
4:5:257:LYS:HG3	4:5:273:ASN:HB3	2.01	0.42
4:5:371:THR:O	4:5:385:LYS:HE2	2.19	0.42
4:5:415:LEU:O	4:5:556:VAL:N	2.53	0.42
5:6:309:PHE:C	5:6:347:ASN:HB2	2.40	0.42
6:7:76:ASN:O	6:7:200:TYR:HA	2.19	0.42
6:7:262:CYS:N	6:7:298:LEU:HD13	2.35	0.42
6:7:456:VAL:HA	6:7:596:ILE:HG23	2.01	0.42
6:7:573:ARG:HH22	6:7:577:ARG:HH22	1.67	0.42
8:B:111:ARG:O	8:B:155:LYS:NZ	2.38	0.42
9:C:13:GLY:HA2	9:C:49:TRP:HD1	1.83	0.42
10:D:63:LEU:HD22	10:D:87:LEU:HD13	2.02	0.42
11:E:482:ASP:HB3	11:E:488:LYS:HE2	2.02	0.42
11:E:639:PRO:HA	11:E:642:GLU:HG2	2.01	0.42
12:G:818:PRO:HB2	12:G:821:MET:HB3	2.02	0.42
12:G:891:GLN:HB3	12:G:894:ALA:HB3	2.00	0.42
12:G:918:ARG:HB3	12:G:922:TYR:CZ	2.55	0.42
15:M:1336:LEU:HG	15:M:1350:THR:CG2	2.50	0.42
15:M:1939:TRP:CB	15:M:1942:LYS:HB2	2.34	0.42
15:M:1945:LEU:CD2	15:M:2054:LEU:CD1	2.98	0.42
16:N:40:ALA:HA	16:N:43:GLU:CD	2.40	0.42
16:N:459:LYS:HB2	16:N:512:PHE:CD1	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:227:TYR:CE1	1:2:248:HIS:HB2	2.55	0.42
1:2:564:VAL:HG12	1:2:604:CYS:HA	2.02	0.42
2:3:23:ASP:O	2:3:27:ARG:HG3	2.19	0.42
2:3:276:VAL:HG21	2:3:294:VAL:HG21	2.01	0.42
2:3:376:HIS:CD2	2:3:732:LEU:HD22	2.54	0.42
2:3:410:ASP:CG	2:3:522:GLN:HG3	2.40	0.42
2:3:425:THR:HA	2:3:657:ARG:HE	1.85	0.42
2:3:537:ASP:HA	2:3:540:LEU:HD23	2.00	0.42
3:4:378:GLU:O	5:6:441:ARG:NH2	2.52	0.42
3:4:826:VAL:HG13	3:4:830:ARG:CZ	2.49	0.42
4:5:192:ILE:HG22	4:5:194:ILE:HG12	2.02	0.42
4:5:259:GLN:NE2	4:5:260:GLU:O	2.52	0.42
4:5:376:PRO:O	4:5:377:SER:OG	2.35	0.42
4:5:416:GLY:HA2	4:5:530:TYR:HB2	2.02	0.42
4:5:416:GLY:H	4:5:525:PRO:HD3	1.84	0.42
4:5:476:VAL:HG13	4:5:518:SER:HB2	2.02	0.42
4:5:564:ARG:NH1	4:5:568:ILE:HD11	2.35	0.42
4:5:681:ILE:HA	4:5:684:PHE:CD2	2.55	0.42
6:7:429:LYS:O	6:7:433:LEU:HG	2.19	0.42
6:7:579:SER:O	6:7:583:ASN:ND2	2.53	0.42
6:7:597:LEU:O	6:7:723:SER:HB3	2.19	0.42
7:A:10:VAL:HB	9:C:6:ILE:HD11	2.02	0.42
7:A:130:TYR:CD1	10:D:189:ILE:HG12	2.54	0.42
7:A:174:ILE:HD13	7:A:174:ILE:HA	1.93	0.42
8:B:122:LEU:O	8:B:126:LEU:HG	2.20	0.42
9:C:135:LEU:HA	9:C:135:LEU:HD12	1.77	0.42
11:E:243:GLN:HB3	11:E:602:LEU:HD13	2.01	0.42
12:F:600:PHE:CE2	12:F:606:PRO:HG3	2.54	0.42
12:F:677:TYR:HA	12:F:680:ASN:O	2.20	0.42
12:F:691:SER:HB3	12:F:748:ALA:HA	2.02	0.42
12:F:865:ALA:O	12:F:869:LEU:HG	2.20	0.42
12:F:913:LYS:HE2	12:F:913:LYS:HA	2.01	0.42
15:M:1841:LYS:HA	15:M:1863:ARG:NH2	2.34	0.42
16:N:93:GLU:HA	16:N:96:LYS:HE2	2.02	0.42
16:N:292:PHE:CZ	16:N:293:LYS:HE3	2.54	0.42
1:2:325:THR:HB	1:2:389:THR:HB	2.02	0.42
1:2:388:VAL:N	1:2:407:GLU:OE2	2.53	0.42
1:2:860:SER:O	1:2:863:ILE:HG12	2.20	0.42
3:4:312:LYS:O	3:4:328:LEU:HD12	2.19	0.42
3:4:559:ARG:HD2	3:4:559:ARG:HA	1.84	0.42
4:5:34:PHE:HD1	4:5:71:TYR:CG	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:53:ASN:OD1	4:5:58:ASN:ND2	2.49	0.42
4:5:71:TYR:HA	11:E:415:TYR:CD1	2.55	0.42
4:5:552:MET:HA	4:5:658:ARG:CZ	2.50	0.42
4:5:738:VAL:HB	4:5:741:HIS:CE1	2.55	0.42
5:6:351:SER:O	5:6:352:ARG:NE	2.53	0.42
5:6:519:MET:HB3	5:6:746:PHE:HE1	1.84	0.42
5:6:642:ASP:HB3	5:6:643:LYS:NZ	2.35	0.42
5:6:730:HIS:CG	5:6:734:LEU:HD11	2.55	0.42
6:7:466:LYS:HE3	6:7:567:ALA:O	2.20	0.42
9:C:131:ARG:HE	9:C:165:PHE:HE1	1.68	0.42
9:C:138:HIS:ND1	9:C:162:THR:HA	2.35	0.42
10:D:159:ARG:HH21	10:D:187:SER:HB2	1.85	0.42
11:E:96:LEU:HB3	11:E:98:ILE:HG12	2.01	0.42
12:F:627:SER:O	12:F:639:SER:N	2.42	0.42
12:F:712:SER:HB3	12:F:715:GLU:HB2	2.01	0.42
12:F:742:VAL:HA	12:F:755:ILE:O	2.19	0.42
12:G:848:TYR:H	12:G:851:GLU:CD	2.22	0.42
12:H:864:LYS:HZ3	12:H:893:ARG:HH22	1.66	0.42
12:H:912:LYS:HA	12:H:915:ASN:ND2	2.35	0.42
15:M:1433:PRO:HB2	15:M:1436:ARG:HG2	2.02	0.42
15:M:1723:ASN:HB2	15:M:1859:VAL:HA	2.02	0.42
16:N:402:LEU:H	16:N:435:GLN:HE22	1.67	0.42
1:2:236:GLU:HG3	11:E:360:HIS:HB2	2.01	0.41
1:2:701:ASP:HB2	1:2:705:ARG:HH21	1.85	0.41
2:3:94:HIS:HB2	2:3:154:LYS:HZ3	1.85	0.41
2:3:131:ASP:HA	2:3:134:ASP:OD2	2.19	0.41
2:3:350:ILE:HD11	2:3:655:PHE:CZ	2.55	0.41
3:4:205:PHE:CZ	3:4:252:LYS:HE3	2.54	0.41
3:4:418:CYS:HB3	3:4:462:ASP:CG	2.40	0.41
4:5:195:ASN:HB2	4:5:197:PHE:HD2	1.84	0.41
4:5:377:SER:O	20:5:803:AGS:H2	2.20	0.41
4:5:393:MET:HE1	4:5:606:CYS:HB3	2.01	0.41
4:5:563:GLU:OE1	4:5:563:GLU:N	2.33	0.41
4:5:630:ARG:NH2	4:5:652:GLN:HB2	2.33	0.41
4:5:683:LEU:HB3	15:M:2182:ALA:HA	2.02	0.41
7:A:193:GLN:HG2	7:A:197:GLU:CD	2.40	0.41
8:B:34:ARG:NE	8:B:34:ARG:HA	2.35	0.41
9:C:110:LYS:HA	9:C:113:MET:HE2	2.02	0.41
10:D:153:LYS:HE2	10:D:153:LYS:HB2	1.88	0.41
10:D:178:ASP:OD1	10:D:179:GLU:N	2.53	0.41
11:E:3:TYR:HA	11:E:7:GLN:OE1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:E:410:VAL:HG13	11:E:419:ILE:C	2.40	0.41
11:E:577:ASP:O	11:E:634:ARG:HG2	2.20	0.41
12:G:549:SER:HA	12:G:578:ILE:HB	2.02	0.41
12:G:571:PRO:HG2	12:G:598:ARG:CZ	2.50	0.41
16:N:23:ARG:HA	16:N:27:ARG:NE	2.34	0.41
16:N:78:PHE:O	16:N:82:SER:OG	2.24	0.41
16:N:450:ARG:H	16:N:450:ARG:HD3	1.85	0.41
1:2:423:GLU:OE2	1:2:459:ARG:NH1	2.53	0.41
1:2:525:LYS:O	1:2:533:ILE:N	2.30	0.41
2:3:353:LEU:HA	2:3:356:LYS:HE3	2.02	0.41
2:3:544:ASP:OD1	2:3:704:THR:HG22	2.19	0.41
3:4:329:LYS:HD2	3:4:432:ARG:NH2	2.35	0.41
3:4:530:ILE:HB	3:4:537:LYS:NZ	2.35	0.41
3:4:569:ASP:OD1	3:4:574:LYS:HE3	2.20	0.41
5:6:117:GLN:HA	5:6:120:GLU:HG3	2.02	0.41
5:6:350:ARG:O	5:6:352:ARG:HG2	2.20	0.41
5:6:527:ASP:O	5:6:531:ARG:HG3	2.20	0.41
5:6:761:PHE:HB2	5:6:815:CYS:HB3	2.02	0.41
5:6:781:ARG:O	5:6:790:ARG:HB3	2.20	0.41
5:6:796:THR:O	5:6:800:LEU:N	2.53	0.41
6:7:71:ALA:HA	6:7:128:PRO:HB3	2.02	0.41
6:7:116:LEU:HG	6:7:119:ARG:HH21	1.85	0.41
6:7:149:ARG:CZ	6:7:267:TYR:HA	2.50	0.41
6:7:358:ALA:N	6:7:374:THR:HA	2.35	0.41
6:7:484:THR:HA	6:7:524:ASP:H	1.85	0.41
7:A:56:GLU:HA	7:A:59:GLN:OE1	2.20	0.41
7:A:70:CYS:O	7:A:73:PHE:HD2	2.02	0.41
7:A:180:VAL:HG21	11:E:75:ASP:HB2	2.01	0.41
8:B:18:PHE:CZ	10:D:135:ARG:HB3	2.55	0.41
8:B:26:LYS:HD2	8:B:69:THR:O	2.20	0.41
8:B:57:ASP:HA	8:B:60:LEU:HB2	2.02	0.41
10:D:223:ASP:OD2	10:D:226:LYS:N	2.53	0.41
11:E:314:ASP:OD1	11:E:314:ASP:N	2.49	0.41
12:F:694:ASP:OD2	12:F:706:LEU:HD11	2.19	0.41
15:M:1486:TYR:HB3	15:M:1502:PHE:CD2	2.54	0.41
15:M:2013:LYS:HA	15:M:2016:LYS:NZ	2.35	0.41
16:N:632:LEU:HD11	16:N:636:PRO:HD2	2.02	0.41
1:2:244:VAL:HG22	1:2:296:ARG:O	2.20	0.41
1:2:304:TYR:CD2	1:2:318:VAL:HB	2.55	0.41
1:2:319:ARG:HA	1:2:427:THR:HA	2.03	0.41
1:2:324:VAL:HG12	1:2:423:GLU:H	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:384:ASN:HB2	1:2:412:ALA:HA	2.02	0.41
1:2:548:ALA:HA	18:2:902:ADP:O5'	2.20	0.41
1:2:613:ASN:HB2	1:2:616:ASP:OD2	2.20	0.41
1:2:661:LEU:HD22	3:4:919:LEU:HD11	2.01	0.41
1:2:709:GLU:OE1	5:6:762:LYS:HE3	2.19	0.41
2:3:96:ILE:HD11	2:3:153:TRP:HZ3	1.84	0.41
2:3:332:ARG:NH2	2:3:426:ALA:O	2.48	0.41
2:3:697:ILE:HB	2:3:701:THR:OG1	2.21	0.41
4:5:179:LEU:HD13	4:5:192:ILE:HG22	2.02	0.41
4:5:346:VAL:HG13	4:5:348:MET:SD	2.60	0.41
4:5:377:SER:HA	4:5:571:HIS:NE2	2.35	0.41
4:5:390:CYS:HB2	4:5:665:LYS:NZ	2.34	0.41
4:5:412:VAL:HA	4:5:552:MET:CB	2.49	0.41
5:6:137:ARG:HD2	5:6:138:ALA:N	2.35	0.41
5:6:304:LEU:HD12	5:6:353:PHE:CZ	2.55	0.41
5:6:690:ASN:ND2	5:6:693:LEU:HD13	2.30	0.41
5:6:761:PHE:O	5:6:812:ARG:NE	2.53	0.41
5:6:826:GLU:O	5:6:830:LEU:HG	2.20	0.41
6:7:92:LYS:O	6:7:96:GLY:N	2.53	0.41
7:A:72:TYR:O	7:A:76:LEU:HG	2.21	0.41
7:A:165:VAL:CG1	7:A:205:LEU:HB3	2.49	0.41
8:B:127:PHE:CE2	8:B:142:ARG:HG2	2.55	0.41
10:D:280:GLU:HA	10:D:283:ARG:NE	2.32	0.41
12:F:535:ASP:N	12:F:547:GLY:O	2.53	0.41
12:F:629:HIS:HB2	12:F:637:SER:OG	2.21	0.41
12:G:621:GLN:OE1	12:G:689:PHE:HE2	2.03	0.41
12:G:907:LEU:HD11	12:G:910:LEU:HD12	2.02	0.41
12:H:708:SER:O	12:H:716:SER:HA	2.21	0.41
12:H:915:ASN:O	12:H:919:GLU:HG2	2.19	0.41
15:M:1666:ASP:OD1	15:M:1666:ASP:N	2.51	0.41
15:M:1726:VAL:HG22	15:M:1910:ILE:HA	2.01	0.41
15:M:1838:ASN:HB3	15:M:1842:LYS:HZ3	1.84	0.41
15:M:2151:ARG:HB3	16:N:494:MET:HE1	2.02	0.41
15:M:2166:ARG:HD3	15:M:2182:ALA:HB3	2.02	0.41
16:N:179:GLN:HE22	16:N:193:VAL:HG22	1.85	0.41
16:N:328:VAL:HG12	16:N:344:MET:HG2	2.02	0.41
16:N:611:HIS:CE1	16:N:630:LEU:HB3	2.55	0.41
1:2:320:VAL:HG12	1:2:426:VAL:O	2.21	0.41
1:2:839:LYS:NZ	1:2:843:ASP:OD2	2.47	0.41
2:3:95:ARG:HD2	2:3:154:LYS:HB3	2.03	0.41
2:3:377:ILE:O	2:3:381:ILE:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:403:ILE:HA	2:3:544:ASP:OD2	2.20	0.41
2:3:414:ALA:HB2	18:3:1001:ADP:N9	2.35	0.41
2:3:489:VAL:HG21	2:3:495:VAL:HB	2.01	0.41
5:6:308:SER:CB	5:6:347:ASN:HB3	2.50	0.41
5:6:588:VAL:O	5:6:592:ALA:N	2.46	0.41
6:7:256:GLU:O	6:7:272:GLU:HG3	2.21	0.41
11:E:43:LYS:HD3	11:E:481:TRP:CZ3	2.56	0.41
11:E:522:LEU:C	11:E:524:ILE:H	2.23	0.41
12:F:698:PHE:HB2	12:F:704:LEU:HD12	2.02	0.41
12:G:544:THR:HB	12:G:559:HIS:CE1	2.55	0.41
12:G:614:PRO:HB2	12:G:630:TYR:O	2.21	0.41
12:H:870:PHE:HA	12:H:885:LEU:HD13	2.01	0.41
15:M:1337:GLU:OE1	15:M:1349:ILE:HG22	2.21	0.41
15:M:1523:ILE:HD13	15:M:1628:GLN:HB2	2.01	0.41
15:M:2089:ALA:O	15:M:2093:GLU:HG3	2.20	0.41
16:N:267:SER:O	16:N:283:LEU:HB3	2.20	0.41
3:4:293:LEU:O	3:4:296:ILE:HB	2.20	0.41
3:4:336:THR:O	3:4:395:GLN:NE2	2.24	0.41
4:5:149:ARG:HD3	4:5:272:ARG:NH1	2.34	0.41
4:5:291:ARG:HB3	4:5:336:ASP:HB3	2.02	0.41
4:5:625:ASN:HB2	4:5:675:ARG:HD3	2.02	0.41
5:6:402:ILE:O	5:6:452:ILE:HG23	2.20	0.41
5:6:638:ILE:HB	5:6:644:MET:HE3	2.01	0.41
5:6:836:ILE:H	5:6:836:ILE:HD12	1.85	0.41
6:7:149:ARG:NH2	6:7:268:GLU:H	2.18	0.41
6:7:228:ARG:NH1	6:7:329:ARG:HB2	2.36	0.41
6:7:481:VAL:O	6:7:522:CYS:HB2	2.20	0.41
7:A:166:ARG:HD3	11:E:478:TRP:CD1	2.56	0.41
8:B:160:LEU:HA	8:B:163:LEU:HG	2.03	0.41
9:C:27:LEU:HB3	9:C:30:LEU:HD12	2.02	0.41
10:D:11:GLU:HA	10:D:14:LYS:HE2	2.02	0.41
11:E:74:LEU:HB2	11:E:118:ARG:NH1	2.36	0.41
11:E:344:VAL:HG12	11:E:350:LEU:HD11	2.01	0.41
12:F:728:ILE:HD12	12:F:740:ILE:HD13	2.03	0.41
12:F:820:SER:HA	12:F:868:ARG:NH1	2.34	0.41
12:G:514:THR:HA	12:G:527:HIS:HB3	2.03	0.41
12:G:571:PRO:HG2	12:G:598:ARG:NH2	2.36	0.41
12:H:597:PHE:HB3	12:H:610:GLU:HB3	2.01	0.41
15:M:1336:LEU:HD23	15:M:1434:HIS:ND1	2.36	0.41
15:M:1489:HIS:HB3	15:M:1594:SER:HB2	2.02	0.41
15:M:1820:VAL:HG13	15:M:1832:LEU:HG	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:2032:GLU:HA	15:M:2035:TYR:HB2	2.02	0.41
15:M:2055:VAL:HA	15:M:2058:LEU:HD12	2.03	0.41
15:M:2071:GLU:O	15:M:2074:THR:OG1	2.24	0.41
15:M:2181:CYS:SG	15:M:2182:ALA:N	2.93	0.41
1:2:551:GLN:HG3	18:2:902:ADP:H3'	2.03	0.41
1:2:589:TRP:HB3	1:2:636:ILE:HD11	2.03	0.41
2:3:413:THR:N	18:3:1001:ADP:PB	2.93	0.41
3:4:347:PHE:CE2	3:4:384:LEU:HG	2.54	0.41
3:4:577:ILE:O	3:4:581:VAL:HG13	2.20	0.41
4:5:161:ARG:C	4:5:162:LEU:HD12	2.41	0.41
4:5:169:THR:HB	4:5:254:GLN:NE2	2.34	0.41
4:5:596:ILE:HD12	4:5:599:MET:SD	2.61	0.41
4:5:616:PRO:CD	4:5:668:LEU:HD11	2.49	0.41
5:6:499:ARG:C	5:6:760:THR:HG22	2.41	0.41
5:6:524:HIS:O	5:6:524:HIS:CG	2.71	0.41
5:6:548:LEU:O	5:6:551:MET:HB2	2.21	0.41
5:6:689:TYR:HB2	5:6:715:ILE:HG12	2.02	0.41
5:6:729:SER:O	5:6:732:VAL:HG13	2.20	0.41
5:6:796:THR:HG22	5:6:797:VAL:N	2.34	0.41
6:7:17:LEU:HD13	6:7:113:PHE:CZ	2.55	0.41
6:7:79:ILE:HG22	6:7:205:LYS:NZ	2.36	0.41
6:7:264:GLN:NE2	6:7:289:CYS:SG	2.93	0.41
6:7:606:ARG:HD3	6:7:606:ARG:H	1.85	0.41
8:B:18:PHE:HA	8:B:21:GLU:OE1	2.20	0.41
9:C:106:SER:HA	9:C:109:ILE:HD12	2.02	0.41
10:D:151:ILE:HA	10:D:158:LEU:HD11	2.02	0.41
10:D:224:TRP:O	10:D:280:GLU:N	2.53	0.41
11:E:266:ASN:N	11:E:269:ASN:OD1	2.48	0.41
11:E:433:GLU:OE1	11:E:544:THR:OG1	2.26	0.41
12:F:522:ARG:HA	12:F:522:ARG:NE	2.35	0.41
12:F:626:PHE:HE2	12:F:687:LEU:HD21	1.84	0.41
12:F:755:ILE:HD11	12:F:769:PRO:HD2	2.02	0.41
12:H:629:HIS:HB2	12:H:637:SER:OG	2.20	0.41
12:H:703:THR:HB	12:H:723:ASP:HA	2.02	0.41
12:H:704:LEU:HD21	12:H:747:LEU:HD22	2.01	0.41
15:M:1378:LYS:NZ	15:M:1685:ILE:HA	2.35	0.41
16:N:55:GLN:HA	16:N:58:ALA:HB3	2.02	0.41
1:2:471:LEU:HD23	1:2:471:LEU:H	1.85	0.41
1:2:855:ARG:HA	1:2:858:ARG:HG2	2.02	0.41
2:3:43:ARG:HE	2:3:47:VAL:HG13	1.84	0.41
2:3:195:LYS:CD	6:7:371:LEU:H	2.27	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:363:LEU:O	2:3:366:SER:OG	2.30	0.41
3:4:204:LYS:HG3	3:4:205:PHE:N	2.36	0.41
3:4:347:PHE:CD2	3:4:384:LEU:HA	2.55	0.41
3:4:637:MET:HB3	3:4:641:THR:HB	2.02	0.41
4:5:165:ILE:CG2	4:5:259:GLN:HB3	2.51	0.41
4:5:432:VAL:HG22	4:5:596:ILE:HD11	2.02	0.41
5:6:173:GLN:HE22	5:6:176:ARG:HA	1.86	0.41
5:6:189:VAL:HG13	5:6:196:LEU:HB3	2.02	0.41
5:6:570:ASN:HB3	5:6:709:PHE:HA	2.02	0.41
6:7:235:LEU:HG	6:7:355:PHE:CE1	2.55	0.41
6:7:239:ILE:HD13	6:7:355:PHE:HD2	1.85	0.41
7:A:84:ARG:NH1	10:D:216:VAL:HG11	2.36	0.41
7:A:176:THR:H	16:N:18:ARG:NH2	2.18	0.41
8:B:139:HIS:ND1	11:E:314:ASP:OD2	2.47	0.41
8:B:152:ARG:NH1	8:B:173:LEU:HA	2.36	0.41
11:E:1:MET:HE3	11:E:4:GLY:HA2	2.02	0.41
11:E:131:LEU:HD22	11:E:135:PHE:HE2	1.84	0.41
11:E:359:LEU:O	11:E:362:MET:HG3	2.21	0.41
11:E:392:PHE:HB3	11:E:396:LEU:HG	2.03	0.41
11:E:535:ASP:HA	11:E:538:LEU:HD13	2.02	0.41
11:E:579:TYR:CD2	11:E:634:ARG:HA	2.54	0.41
11:E:608:ALA:HB2	11:E:649:LEU:HD11	2.02	0.41
12:F:590:VAL:HB	12:F:598:ARG:HB2	2.03	0.41
12:F:621:GLN:HB2	12:F:689:PHE:CD2	2.55	0.41
12:G:538:PHE:CD1	12:G:583:ALA:HB3	2.55	0.41
12:H:484:THR:HG22	12:H:764:PRO:HD2	2.02	0.41
12:H:589:ILE:HA	12:H:598:ARG:O	2.20	0.41
12:H:821:MET:O	12:H:824:GLU:HB3	2.21	0.41
12:H:837:LEU:HB2	12:H:855:LEU:HD13	2.01	0.41
15:M:1387:PRO:O	15:M:1391:ASN:ND2	2.54	0.41
15:M:1484:ILE:HG23	15:M:1589:LEU:HB3	2.02	0.41
15:M:1502:PHE:CG	15:M:1509:ILE:HD12	2.56	0.41
15:M:2129:SER:HA	15:M:2136:ALA:HA	2.03	0.41
15:M:2176:SER:OG	15:M:2185:TRP:NE1	2.46	0.41
16:N:67:ALA:O	16:N:71:LYS:HG2	2.21	0.41
16:N:80:ASP:O	16:N:84:VAL:HG23	2.20	0.41
16:N:325:MET:HB2	16:N:609:GLN:OE1	2.20	0.41
1:2:292:GLU:OE1	1:2:294:HIS:ND1	2.54	0.41
1:2:339:PHE:HB2	1:2:351:PHE:HZ	1.85	0.41
1:2:501:MET:HE3	1:2:502:ALA:HB2	2.02	0.41
1:2:523:VAL:N	1:2:818:GLU:OE1	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:425:THR:O	2:3:657:ARG:NH2	2.53	0.41
2:3:563:GLU:O	2:3:567:ARG:NE	2.35	0.41
2:3:586:LEU:H	2:3:586:LEU:HD23	1.86	0.41
2:3:679:ILE:HG12	2:3:705:LEU:CD2	2.51	0.41
3:4:213:GLU:O	3:4:216:ILE:HG12	2.21	0.41
3:4:371:CYS:CB	3:4:377:ASN:H	2.33	0.41
3:4:794:THR:HG22	3:4:796:ARG:H	1.86	0.41
5:6:499:ARG:HG2	5:6:759:ARG:CB	2.51	0.41
7:A:135:CYS:O	7:A:139:THR:HG23	2.21	0.41
9:C:49:TRP:C	9:C:52:ARG:HH11	2.23	0.41
11:E:640:PHE:HE1	11:E:644:LEU:HD21	1.86	0.41
12:F:482:ALA:HB2	12:F:686:SER:HB3	2.03	0.41
12:F:605:VAL:HG23	12:H:881:LYS:HE3	2.02	0.41
12:G:780:VAL:HB	12:G:825:GLU:HG3	2.03	0.41
12:H:535:ASP:N	12:H:547:GLY:O	2.54	0.41
12:H:582:ALA:HB2	12:H:618:LEU:HB3	2.03	0.41
12:H:694:ASP:HB3	12:H:710:TRP:HE1	1.85	0.41
16:N:214:LYS:O	16:N:217:MET:HG3	2.20	0.41
16:N:298:LEU:HD11	16:N:326:VAL:HG12	2.03	0.41
16:N:535:LEU:HD12	16:N:536:SER:N	2.35	0.41
1:2:211:LEU:HA	1:2:214:PHE:CE1	2.56	0.41
1:2:227:TYR:OH	1:2:244:VAL:O	2.39	0.41
1:2:276:MET:O	1:2:279:THR:HB	2.21	0.41
1:2:286:TYR:HA	1:2:289:ILE:HD12	2.03	0.41
1:2:300:PHE:H	1:2:319:ARG:NH1	2.19	0.41
1:2:439:ASN:O	5:6:326:LYS:NZ	2.52	0.41
1:2:463:THR:HA	1:2:468:GLU:HG2	2.03	0.41
1:2:690:GLU:HG2	1:2:694:ARG:NH2	2.36	0.41
1:2:791:ALA:O	1:2:795:ARG:NH1	2.54	0.41
18:2:902:ADP:O2B	5:6:798:ARG:NH2	2.45	0.41
2:3:431:ALA:HB2	2:3:471:CYS:HB2	2.03	0.41
2:3:506:LEU:HD12	6:7:328:PRO:HD3	2.03	0.41
2:3:528:ASP:O	2:3:532:ASN:N	2.45	0.41
3:4:204:LYS:HG3	3:4:205:PHE:H	1.85	0.41
3:4:243:LEU:O	3:4:305:PRO:HA	2.21	0.41
3:4:410:GLN:NE2	3:4:411:THR:O	2.54	0.41
3:4:511:GLU:O	3:4:515:ARG:N	2.43	0.41
3:4:568:GLY:O	3:4:681:ARG:NH2	2.52	0.41
3:4:772:ARG:NH1	3:4:773:ALA:HB2	2.36	0.41
4:5:175:ARG:O	4:5:250:PHE:HA	2.20	0.41
4:5:236:CYS:HB3	4:5:240:PRO:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:372:ASN:ND2	4:5:382:GLU:OE1	2.53	0.41
4:5:595:SER:O	4:5:598:LYS:N	2.54	0.41
5:6:134:LYS:HB3	5:6:137:ARG:O	2.21	0.41
5:6:311:CYS:SG	5:6:344:TRP:HD1	2.44	0.41
5:6:504:PHE:O	5:6:508:LEU:HB2	2.20	0.41
5:6:532:SER:HA	5:6:745:PRO:HD2	2.03	0.41
5:6:680:ALA:HB2	5:6:709:PHE:CZ	2.56	0.41
5:6:706:MET:HA	5:6:709:PHE:HB2	2.03	0.41
5:6:781:ARG:C	5:6:790:ARG:HB3	2.41	0.41
6:7:28:PHE:CD2	6:7:62:LYS:HB3	2.56	0.41
6:7:29:LYS:HB2	6:7:32:THR:H	1.85	0.41
6:7:209:GLN:NE2	6:7:224:PRO:HD3	2.36	0.41
6:7:350:ASP:HB2	6:7:384:HIS:CE1	2.56	0.41
6:7:361:THR:HB	6:7:364:LYS:HZ1	1.86	0.41
6:7:451:ARG:O	6:7:560:ARG:HG3	2.20	0.41
6:7:457:CYS:HB2	6:7:594:PHE:CG	2.56	0.41
6:7:459:MET:CE	6:7:599:LEU:HD13	2.51	0.41
7:A:86:LEU:HD23	10:D:198:ILE:HG23	2.03	0.41
7:A:141:LEU:HD21	10:D:182:TYR:HB2	2.02	0.41
7:A:166:ARG:NH2	7:A:188:GLN:HE21	2.18	0.41
8:B:94:THR:O	8:B:98:LEU:HG	2.20	0.41
8:B:96:LYS:O	8:B:100:ARG:HG3	2.21	0.41
9:C:76:PRO:HA	9:C:77:PRO:HD3	1.96	0.41
9:C:134:GLU:HA	9:C:137:HIS:ND1	2.35	0.41
10:D:93:MET:SD	10:D:94:GLN:HG2	2.61	0.41
10:D:124:LEU:N	10:D:125:PRO:HD2	2.36	0.41
11:E:64:TYR:HB3	11:E:95:PHE:CZ	2.55	0.41
11:E:82:LEU:HD13	11:E:121:TYR:HB2	2.02	0.41
11:E:573:ASP:OD2	11:E:576:THR:N	2.49	0.41
11:E:578:THR:HB	11:E:632:ILE:O	2.20	0.41
11:E:594:THR:O	11:E:598:LYS:HG2	2.21	0.41
11:E:626:GLU:HG3	11:E:629:ILE:H	1.85	0.41
11:E:632:ILE:HD13	11:E:637:LEU:HA	2.03	0.41
12:F:543:GLY:HA3	12:F:556:TYR:CE1	2.56	0.41
12:G:491:ARG:HB2	12:G:505:VAL:HG22	2.03	0.41
12:G:671:ASP:OD1	12:G:672:ALA:N	2.54	0.41
12:G:695:PRO:O	12:G:706:LEU:HD12	2.20	0.41
12:G:722:LEU:HD13	12:G:777:ARG:H	1.86	0.41
12:G:826:GLU:HB3	12:G:829:ARG:HH11	1.86	0.41
13:I:55:DT:H2"	13:I:56:DT:C6	2.56	0.41
15:M:2054:LEU:HD12	15:M:2054:LEU:HA	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:2100:SER:HB2	15:M:2118:ASP:OD2	2.21	0.41
16:N:19:PRO:HB2	16:N:23:ARG:NH1	2.36	0.41
16:N:37:GLY:HA3	16:N:76:GLY:HA2	2.03	0.41
1:2:394:PRO:HA	1:2:397:VAL:HB	2.02	0.41
1:2:487:ILE:HG22	1:2:493:ILE:HD12	2.02	0.41
1:2:494:ILE:O	1:2:498:ILE:HG13	2.21	0.41
1:2:693:GLU:HA	5:6:778:LYS:HZ1	1.85	0.41
2:3:344:ASP:HA	2:3:347:ILE:HB	2.02	0.41
2:3:496:THR:CG2	6:7:489:SER:HB2	2.51	0.41
3:4:237:GLY:O	3:4:299:LYS:HD3	2.21	0.41
3:4:312:LYS:HG3	3:4:316:GLU:CG	2.50	0.41
3:4:570:PRO:HD3	3:4:681:ARG:NH1	2.36	0.41
3:4:579:GLN:HB3	3:4:583:LYS:NZ	2.36	0.41
3:4:590:TYR:HE1	3:4:632:ASP:HB2	1.86	0.41
3:4:769:GLU:HG2	3:4:822:VAL:HB	2.03	0.41
4:5:83:PRO:HB2	4:5:297:ILE:HD12	2.02	0.41
4:5:259:GLN:HA	4:5:273:ASN:OD1	2.20	0.41
6:7:615:HIS:O	6:7:619:VAL:HG23	2.20	0.41
6:7:685:THR:O	6:7:688:THR:OG1	2.20	0.41
11:E:27:LEU:HD12	11:E:28:VAL:N	2.36	0.41
11:E:63:GLY:N	11:E:66:GLU:OE1	2.49	0.41
11:E:253:ALA:HA	11:E:273:ASN:ND2	2.35	0.41
12:F:662:PRO:HG3	12:F:683:GLY:HA3	2.03	0.41
12:G:505:VAL:HB	12:G:512:SER:OG	2.21	0.41
12:G:846:GLU:HB3	12:G:849:GLY:HA2	2.03	0.41
12:G:880:GLU:HA	12:G:883:LEU:HD12	2.03	0.41
12:H:581:VAL:HG12	12:H:590:VAL:HG22	2.03	0.41
15:M:1588:PHE:CZ	15:M:1590:LEU:HB2	2.56	0.41
15:M:1885:MET:O	15:M:1889:VAL:HG23	2.21	0.41
15:M:1948:ILE:HG21	15:M:2035:TYR:HD1	1.85	0.41
15:M:2020:LYS:HA	15:M:2023:GLN:HG2	2.02	0.41
15:M:2052:LEU:HA	15:M:2055:VAL:HG22	2.03	0.41
16:N:509:PRO:O	16:N:513:THR:HG23	2.21	0.41
1:2:501:MET:HG2	1:2:515:VAL:HG23	2.03	0.40
2:3:444:ALA:HA	2:3:459:ALA:HA	2.03	0.40
2:3:466:ASP:HB2	2:3:508:ALA:HA	2.03	0.40
2:3:570:ARG:HH22	4:5:623:SER:N	2.18	0.40
3:4:198:LEU:HG	3:4:230:LEU:HD21	2.02	0.40
3:4:256:ASP:HA	3:4:259:HIS:CD2	2.56	0.40
3:4:545:PHE:CE1	3:4:811:MET:HA	2.56	0.40
3:4:601:LEU:HA	3:4:620:ALA:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:824:GLU:O	3:4:827:ARG:HG2	2.21	0.40
4:5:398:LYS:HZ1	4:5:614:LEU:HD13	1.87	0.40
4:5:410:ILE:HG22	4:5:411:ASN:N	2.36	0.40
4:5:419:GLY:HA2	20:5:803:AGS:H5'1	2.03	0.40
4:5:679:GLU:O	4:5:683:LEU:HD23	2.20	0.40
5:6:181:LEU:HD12	5:6:182:GLN:N	2.35	0.40
5:6:276:ILE:HG22	5:6:277:ARG:NH2	2.37	0.40
6:7:479:ARG:HA	6:7:479:ARG:HD2	1.74	0.40
6:7:523:ILE:O	6:7:566:ALA:HB2	2.21	0.40
7:A:48:ARG:HH21	10:D:201:TYR:C	2.24	0.40
7:A:54:LEU:CA	7:A:57:GLN:HB2	2.49	0.40
7:A:58:GLN:HG2	7:A:62:MET:O	2.21	0.40
10:D:151:ILE:O	10:D:155:SER:OG	2.31	0.40
11:E:76:ASP:HB2	11:E:117:ARG:HE	1.85	0.40
12:F:486:PHE:HA	12:F:492:ARG:HD2	2.03	0.40
12:F:652:LYS:CG	12:F:655:CYS:HB2	2.50	0.40
15:M:1358:TYR:HA	15:M:1404:GLU:N	2.36	0.40
15:M:1499:PHE:HB3	15:M:1512:LEU:HB3	2.02	0.40
15:M:1666:ASP:HB3	16:N:450:ARG:CB	2.50	0.40
15:M:2202:LYS:HB3	15:M:2206:LYS:NZ	2.36	0.40
16:N:299:GLU:HA	16:N:304:SER:HA	2.03	0.40
16:N:463:ASP:HB3	16:N:515:LYS:NZ	2.36	0.40
16:N:490:LEU:HG	16:N:491:TRP:CE3	2.57	0.40
1:2:661:LEU:HB3	1:2:666:ASN:HD21	1.86	0.40
2:3:196:LEU:HD13	2:3:250:PHE:CE1	2.56	0.40
2:3:199:SER:O	2:3:211:TYR:HA	2.21	0.40
2:3:493:GLN:HB3	2:3:509:ARG:HB3	2.02	0.40
2:3:535:LEU:HA	2:3:536:PRO:HD3	1.98	0.40
3:4:727:LEU:O	3:4:730:GLU:HG3	2.22	0.40
4:5:178:TYR:CD2	4:5:248:SER:HA	2.56	0.40
4:5:675:ARG:HH21	4:5:679:GLU:N	2.19	0.40
4:5:714:PHE:O	4:5:717:GLU:HG3	2.21	0.40
5:6:178:LEU:HD23	5:6:178:LEU:HA	1.94	0.40
5:6:356:TRP:HE1	5:6:380:ILE:HA	1.85	0.40
6:7:234:PHE:HA	6:7:237:GLN:CD	2.42	0.40
6:7:471:LYS:HG3	6:7:475:LYS:NZ	2.36	0.40
7:A:76:LEU:HA	7:A:79:MET:HG2	2.04	0.40
7:A:119:ASP:CG	7:A:121:ASN:H	2.25	0.40
7:A:157:PRO:HA	7:A:158:PRO:HD3	1.87	0.40
11:E:100:PRO:O	11:E:104:VAL:N	2.49	0.40
11:E:313:PRO:HA	11:E:414:GLY:HA2	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:E:537:ASP:HA	11:E:540:ARG:NE	2.36	0.40
12:F:638:TYR:HD2	12:F:657:LEU:HB2	1.86	0.40
12:G:741:HIS:HB2	12:G:757:VAL:HG23	2.04	0.40
15:M:1357:ILE:O	15:M:1405:SER:HA	2.21	0.40
15:M:2026:ILE:O	15:M:2027:LEU:HB2	2.21	0.40
15:M:2071:GLU:OE1	15:M:2071:GLU:N	2.52	0.40
1:2:333:GLN:O	1:2:382:TYR:HA	2.21	0.40
1:2:404:ARG:HH11	5:6:299:GLU:HA	1.86	0.40
1:2:610:ASP:CG	1:2:651:ASN:H	2.25	0.40
1:2:671:GLU:N	1:2:672:PRO:HD2	2.36	0.40
1:2:689:GLU:O	1:2:692:ASP:N	2.54	0.40
2:3:161:PHE:HB3	2:3:164:HIS:HB2	2.03	0.40
4:5:152:ASP:OD2	4:5:154:GLU:HB3	2.21	0.40
4:5:411:ASN:HD22	4:5:550:PHE:HE1	1.67	0.40
4:5:430:GLU:HG3	4:5:438:TYR:HB2	2.02	0.40
4:5:668:LEU:O	4:5:669:SER:HB2	2.21	0.40
5:6:395:CYS:N	5:6:462:ILE:HG22	2.36	0.40
5:6:675:ARG:HD3	5:6:675:ARG:H	1.87	0.40
6:7:251:VAL:HG12	6:7:340:VAL:HG22	2.03	0.40
6:7:357:PRO:HA	6:7:374:THR:HA	2.02	0.40
6:7:414:LEU:HD12	6:7:414:LEU:HA	1.83	0.40
6:7:598:PHE:HE1	6:7:722:VAL:HG12	1.87	0.40
7:A:84:ARG:HG3	7:A:85:CYS:N	2.36	0.40
11:E:14:LYS:HA	11:E:17:ARG:HG2	2.04	0.40
11:E:326:LEU:HD22	11:E:338:PHE:HA	2.01	0.40
11:E:636:ASP:O	11:E:639:PRO:HD2	2.21	0.40
12:F:684:ILE:O	12:F:684:ILE:HG13	2.22	0.40
12:H:522:ARG:NH2	12:H:541:GLU:HB2	2.36	0.40
12:H:548:GLN:OE1	12:H:551:THR:N	2.41	0.40
12:H:706:LEU:HD23	12:H:719:LEU:HD12	2.04	0.40
15:M:1357:ILE:HD13	15:M:1431:ILE:HD13	2.02	0.40
15:M:1478:SER:HB3	15:M:1480:PHE:CD2	2.56	0.40
15:M:1525:ALA:HB1	15:M:1528:LEU:HD22	2.03	0.40
15:M:1721:ILE:HB	15:M:1861:ALA:HB3	2.03	0.40
16:N:13:GLN:HG3	16:N:16:LEU:HB3	2.01	0.40
16:N:431:LEU:HD21	16:N:433:ILE:HG12	2.03	0.40
16:N:433:ILE:O	16:N:435:GLN:NE2	2.54	0.40
1:2:323:VAL:HB	1:2:391:GLN:HB3	2.04	0.40
1:2:353:GLN:O	1:2:383:ARG:NH2	2.46	0.40
1:2:794:ARG:NH2	1:2:805:ILE:HB	2.28	0.40
1:2:853:VAL:HA	1:2:856:GLN:NE2	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:700:ARG:HH11	20:7:903:AGS:H8	1.86	0.40
3:4:340:PRO:HB3	5:6:281:SER:HB2	2.04	0.40
3:4:354:HIS:ND1	3:4:373:ARG:HD3	2.36	0.40
3:4:394:LYS:HE2	3:4:418:CYS:SG	2.62	0.40
3:4:522:LEU:HD22	3:4:747:LEU:HD13	2.03	0.40
3:4:704:LEU:HD21	3:4:828:LEU:HD23	2.03	0.40
3:4:912:GLN:HG2	5:6:696:ARG:HB3	2.03	0.40
4:5:370:LEU:O	4:5:374:ILE:HG12	2.20	0.40
4:5:613:ARG:HD2	4:5:614:LEU:N	2.35	0.40
4:5:634:LEU:O	4:5:637:GLU:HG2	2.21	0.40
4:5:655:ALA:HA	4:5:658:ARG:HB3	2.03	0.40
5:6:635:ILE:HA	5:6:677:SER:O	2.22	0.40
5:6:762:LYS:HA	5:6:763:PRO:HD3	1.97	0.40
6:7:28:PHE:O	6:7:62:LYS:N	2.46	0.40
6:7:518:ASN:HA	6:7:561:THR:HA	2.04	0.40
8:B:126:LEU:HB3	8:B:134:PHE:CZ	2.57	0.40
11:E:251:ILE:HA	11:E:254:GLN:HE22	1.86	0.40
11:E:381:ASP:O	11:E:385:LYS:HG3	2.22	0.40
12:F:485:PRO:HD2	12:F:763:TRP:CB	2.52	0.40
12:F:685:LYS:HB2	12:F:698:PHE:CD2	2.46	0.40
12:G:614:PRO:HD2	12:G:631:SER:HB2	2.04	0.40
12:H:625:VAL:HG12	12:H:643:LEU:HG	2.03	0.40
15:M:1322:TRP:CD1	15:M:1325:LEU:HD13	2.56	0.40
15:M:1498:PHE:HA	15:M:1513:VAL:HA	2.02	0.40
15:M:2012:MET:SD	15:M:2013:LYS:N	2.94	0.40
15:M:2026:ILE:HA	15:M:2032:GLU:OE2	2.21	0.40
15:M:2139:GLN:O	15:M:2143:GLN:HG3	2.21	0.40
1:2:178:ARG:HA	1:2:205:ARG:CB	2.52	0.40
2:3:49:ASN:HA	2:3:91:ILE:HD12	2.04	0.40
2:3:686:LEU:HD21	2:3:734:ARG:HH12	1.86	0.40
3:4:271:ILE:HD12	3:4:271:ILE:HA	1.98	0.40
3:4:363:GLY:HA2	5:6:436:GLY:N	2.36	0.40
3:4:387:ASN:HA	5:6:403:VAL:CG1	2.52	0.40
3:4:631:ILE:HB	3:4:634:PHE:HD2	1.87	0.40
3:4:797:GLN:O	3:4:800:SER:OG	2.22	0.40
3:4:907:LEU:HD22	3:4:924:ARG:HG2	2.04	0.40
4:5:29:LYS:HD2	4:5:32:LYS:NZ	2.37	0.40
4:5:82:GLU:OE1	4:5:85:ASP:HB2	2.21	0.40
4:5:197:PHE:HA	4:5:329:LYS:NZ	2.36	0.40
4:5:293:THR:N	4:5:334:GLN:O	2.53	0.40
4:5:413:LEU:HD13	4:5:552:MET:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:595:SER:O	4:5:598:LYS:HG3	2.21	0.40
5:6:649:GLN:O	5:6:652:ILE:HG12	2.22	0.40
6:7:454:ILE:HD12	6:7:695:LEU:HD23	2.03	0.40
6:7:499:LYS:HZ3	13:I:51:DT:H2''	1.86	0.40
6:7:503:THR:O	6:7:504:ASP:C	2.60	0.40
6:7:615:HIS:HA	6:7:626:PRO:HB3	2.03	0.40
6:7:622:HIS:HB3	6:7:624:LYS:NZ	2.36	0.40
11:E:636:ASP:C	11:E:639:PRO:HD2	2.42	0.40
12:F:543:GLY:HA3	12:F:556:TYR:HE1	1.87	0.40
12:H:899:VAL:O	12:H:903:GLU:OE1	2.40	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	2	664/868 (76%)	621 (94%)	42 (6%)	1 (0%)	47	81
2	3	629/971 (65%)	580 (92%)	49 (8%)	0	100	100
3	4	658/933 (70%)	616 (94%)	40 (6%)	2 (0%)	41	76
4	5	662/775 (85%)	609 (92%)	50 (8%)	3 (0%)	29	68
5	6	619/1017 (61%)	547 (88%)	67 (11%)	5 (1%)	19	60
6	7	622/845 (74%)	570 (92%)	47 (8%)	5 (1%)	19	60
7	A	196/208 (94%)	183 (93%)	12 (6%)	1 (0%)	29	68
8	B	189/213 (89%)	184 (97%)	5 (3%)	0	100	100
9	C	166/194 (86%)	164 (99%)	2 (1%)	0	100	100
10	D	237/294 (81%)	230 (97%)	7 (3%)	0	100	100
11	E	560/650 (86%)	548 (98%)	12 (2%)	0	100	100
12	F	418/927 (45%)	404 (97%)	14 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
12	G	416/927 (45%)	408 (98%)	8 (2%)	0	100	100
12	H	419/927 (45%)	410 (98%)	9 (2%)	0	100	100
15	M	800/2222 (36%)	725 (91%)	72 (9%)	3 (0%)	34	72
16	N	517/689 (75%)	490 (95%)	27 (5%)	0	100	100
All	All	7772/12660 (61%)	7289 (94%)	463 (6%)	20 (0%)	44	76

All (20) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	6	178	LEU
5	6	714	VAL
15	M	1945	LEU
4	5	669	SER
5	6	744	PRO
15	M	1346	VAL
3	4	374	ILE
5	6	736	MET
6	7	411	TYR
6	7	704	LEU
7	A	62	MET
6	7	550	LYS
1	2	423	GLU
3	4	532	GLU
4	5	594	ILE
5	6	745	PRO
6	7	292	ASN
15	M	1347	GLN
6	7	631	THR
4	5	738	VAL

### 5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	2	578/770 (75%)	570 (99%)	8 (1%)	67	81
2	3	541/835 (65%)	535 (99%)	6 (1%)	73	85
3	4	614/848 (72%)	607 (99%)	7 (1%)	73	85
4	5	602/688 (88%)	598 (99%)	4 (1%)	84	90
5	6	543/886 (61%)	529 (97%)	14 (3%)	46	67
6	7	544/753 (72%)	530 (97%)	14 (3%)	46	67
7	A	184/193 (95%)	167 (91%)	17 (9%)	9	31
8	B	183/198 (92%)	183 (100%)	0	100	100
9	C	155/173 (90%)	153 (99%)	2 (1%)	69	82
10	D	234/279 (84%)	234 (100%)	0	100	100
11	E	510/586 (87%)	509 (100%)	1 (0%)	93	96
12	F	375/825 (46%)	373 (100%)	2 (0%)	88	93
12	G	372/825 (45%)	365 (98%)	7 (2%)	57	75
12	H	375/825 (46%)	372 (99%)	3 (1%)	81	89
15	M	713/2014 (35%)	696 (98%)	17 (2%)	49	69
16	N	467/629 (74%)	459 (98%)	8 (2%)	60	78
All	All	6990/11327 (62%)	6880 (98%)	110 (2%)	64	79

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

Mol	Chain	Res	Type
1	2	205	ARG
1	2	224	ARG
1	2	562	ARG
1	2	694	ARG
1	2	750	LYS
1	2	771	ARG
1	2	788	ARG
1	2	795	ARG
2	3	150	ARG
2	3	415	LYS
2	3	417	GLN
2	3	420	ARG
2	3	567	ARG
2	3	723	LYS
3	4	178	ARG
3	4	315	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	4	449	ARG
3	4	550	LYS
3	4	691	ASN
3	4	772	ARG
3	4	924	ARG
4	5	280	ARG
4	5	516	ARG
4	5	557	LYS
4	5	598	LYS
5	6	110	LYS
5	6	144	LYS
5	6	296	ARG
5	6	594	ARG
5	6	675	ARG
5	6	731	ILE
5	6	732	VAL
5	6	733	ASP
5	6	738	ARG
5	6	743	GLU
5	6	747	SER
5	6	752	ARG
5	6	805	ARG
5	6	832	ARG
6	7	198	ARG
6	7	276	ARG
6	7	416	LYS
6	7	483	THR
6	7	484	THR
6	7	486	LYS
6	7	488	SER
6	7	498	MET
6	7	502	VAL
6	7	577	ARG
6	7	606	ARG
6	7	706	ASP
6	7	707	MET
6	7	709	ASP
7	A	17	LYS
7	A	47	LEU
7	A	48	ARG
7	A	55	LYS
7	A	56	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
7	A	58	GLN
7	A	60	LEU
7	A	62	MET
7	A	66	LYS
7	A	69	LYS
7	A	70	CYS
7	A	73	PHE
7	A	75	THR
7	A	108	ASP
7	A	117	GLN
7	A	119	ASP
7	A	207	LYS
9	C	52	ARG
9	C	188	LYS
11	E	117	ARG
12	F	868	ARG
12	F	912	LYS
12	G	491	ARG
12	G	524	ARG
12	G	542	LYS
12	G	624	ARG
12	G	785	LYS
12	G	868	ARG
12	G	900	LYS
12	H	524	ARG
12	H	904	ARG
12	H	912	LYS
15	M	1343	ASN
15	M	1345	LYS
15	M	1350	THR
15	M	1351	PHE
15	M	1353	ILE
15	M	1408	LEU
15	M	1409	GLU
15	M	1411	LYS
15	M	1412	GLU
15	M	1415	THR
15	M	1540	LYS
15	M	1571	ARG
15	M	1869	LYS
15	M	1942	LYS
15	M	1946	SER

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Mol	Chain	Res	Type
15	M	2016	LYS
15	M	2066	LYS
16	N	221	ARG
16	N	267	SER
16	N	450	ARG
16	N	514	LYS
16	N	543	ARG
16	N	600	ARG
16	N	669	ARG
16	N	681	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (42) such sidechains are listed below:

Mol	Chain	Res	Type
1	2	248	HIS
1	2	340	ASN
1	2	376	ASN
1	2	391	GLN
1	2	641	GLN
1	2	658	ASN
2	3	201	HIS
2	3	269	GLN
2	3	424	ASN
2	3	670	GLN
3	4	354	HIS
3	4	576	GLN
3	4	666	ASN
3	4	691	ASN
4	5	590	ASN
5	6	409	GLN
5	6	698	ASN
5	6	730	HIS
5	6	833	GLN
6	7	334	HIS
6	7	518	ASN
6	7	544	GLN
7	A	50	ASN
7	A	71	GLN
7	A	122	ASN
8	B	8	GLN
8	B	167	HIS
10	D	120	ASN

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Mol	Chain	Res	Type
11	E	52	GLN
11	E	402	GLN
11	E	497	GLN
12	G	507	ASN
12	G	629	HIS
12	H	510	GLN
12	H	573	GLN
12	H	629	HIS
15	M	1369	GLN
15	M	1435	GLN
15	M	1931	GLN
15	M	2001	ASN
16	N	340	HIS
16	N	505	GLN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

### 5.6 Ligand geometry [i](#)

Of 15 ligands modelled in this entry, 11 are monoatomic - leaving 4 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
20	AGS	5	803	19	26,33,33	0.80	1 (3%)	26,52,52	0.79	1 (3%)
18	ADP	3	1001	19	24,29,29	0.73	0	29,45,45	0.78	1 (3%)
18	ADP	2	902	19	24,29,29	0.66	0	29,45,45	0.88	1 (3%)
20	AGS	7	903	-	26,33,33	0.81	1 (3%)	26,52,52	0.86	1 (3%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
20	AGS	5	803	19	-	6/17/38/38	0/3/3/3
18	ADP	3	1001	19	-	5/12/32/32	0/3/3/3
18	ADP	2	902	19	-	6/12/32/32	0/3/3/3
20	AGS	7	903	-	-	7/17/38/38	0/3/3/3

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	7	903	AGS	PG-S1G	2.13	1.95	1.90
20	5	803	AGS	PG-S1G	2.07	1.95	1.90

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	7	903	AGS	C5-C6-N6	2.29	123.83	120.35
18	2	902	ADP	C5-C6-N6	2.27	123.81	120.35
18	3	1001	ADP	C5-C6-N6	2.27	123.80	120.35
20	5	803	AGS	C5-C6-N6	2.26	123.79	120.35

There are no chirality outliers.

All (24) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
18	2	902	ADP	PA-O3A-PB-O3B
18	3	1001	ADP	PA-O3A-PB-O2B
18	3	1001	ADP	C5'-O5'-PA-O1A
20	5	803	AGS	C5'-O5'-PA-O3A
20	5	803	AGS	O4'-C4'-C5'-O5'

*Continued on next page...*



*Continued from previous page...*

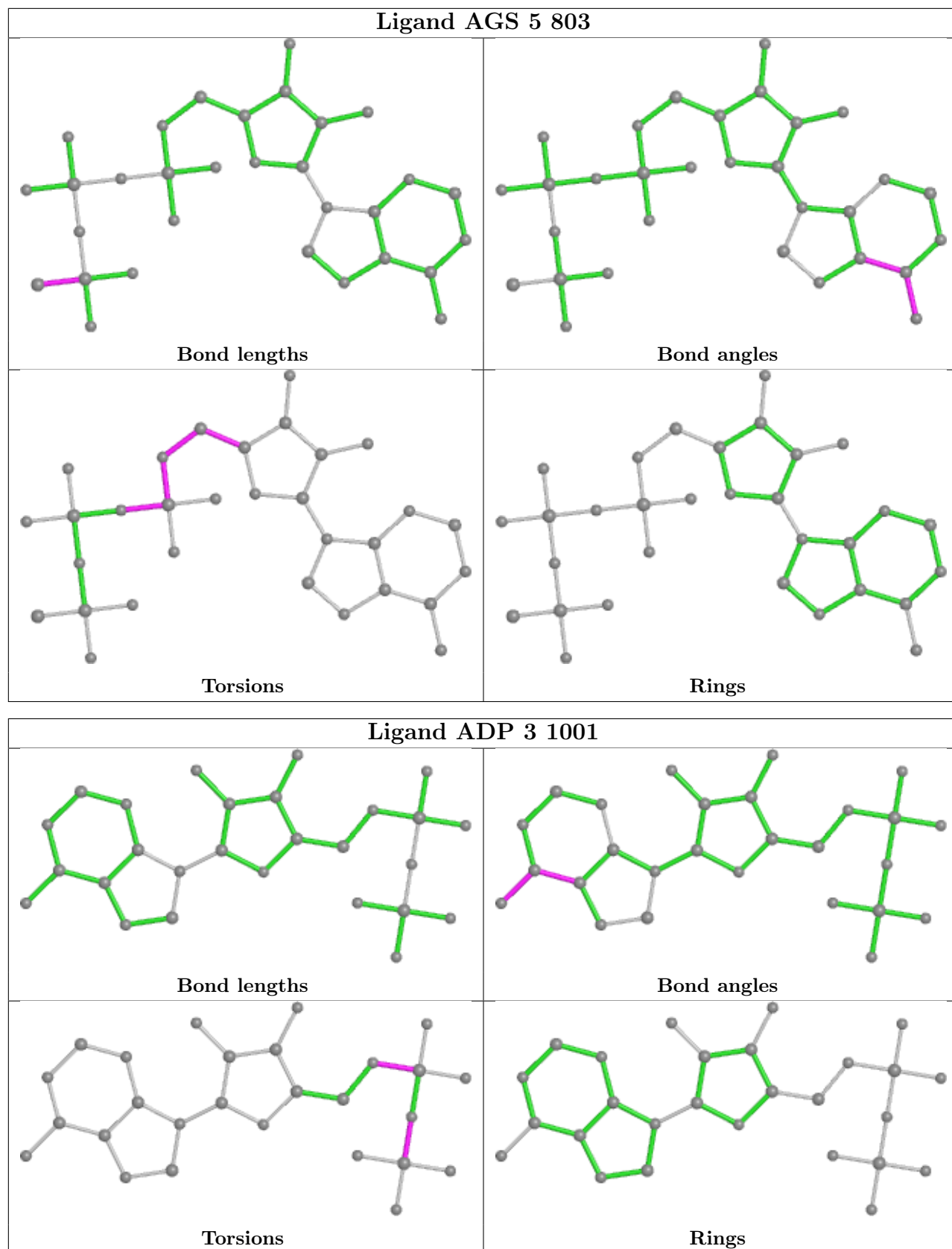
Mol	Chain	Res	Type	Atoms
20	7	903	AGS	PB-O3B-PG-O2G
20	7	903	AGS	C5'-O5'-PA-O1A
20	5	803	AGS	C3'-C4'-C5'-O5'
20	7	903	AGS	C3'-C4'-C5'-O5'
20	7	903	AGS	O4'-C4'-C5'-O5'
18	3	1001	ADP	PA-O3A-PB-O1B
20	5	803	AGS	C4'-C5'-O5'-PA
20	5	803	AGS	PB-O3A-PA-O5'
20	7	903	AGS	C4'-C5'-O5'-PA
18	3	1001	ADP	C5'-O5'-PA-O3A
18	3	1001	ADP	C5'-O5'-PA-O2A
20	5	803	AGS	C5'-O5'-PA-O1A
18	2	902	ADP	O4'-C4'-C5'-O5'
20	7	903	AGS	PB-O3B-PG-O3G
18	2	902	ADP	PA-O3A-PB-O2B
18	2	902	ADP	C5'-O5'-PA-O3A
20	7	903	AGS	C5'-O5'-PA-O3A
18	2	902	ADP	C3'-C4'-C5'-O5'
18	2	902	ADP	PA-O3A-PB-O1B

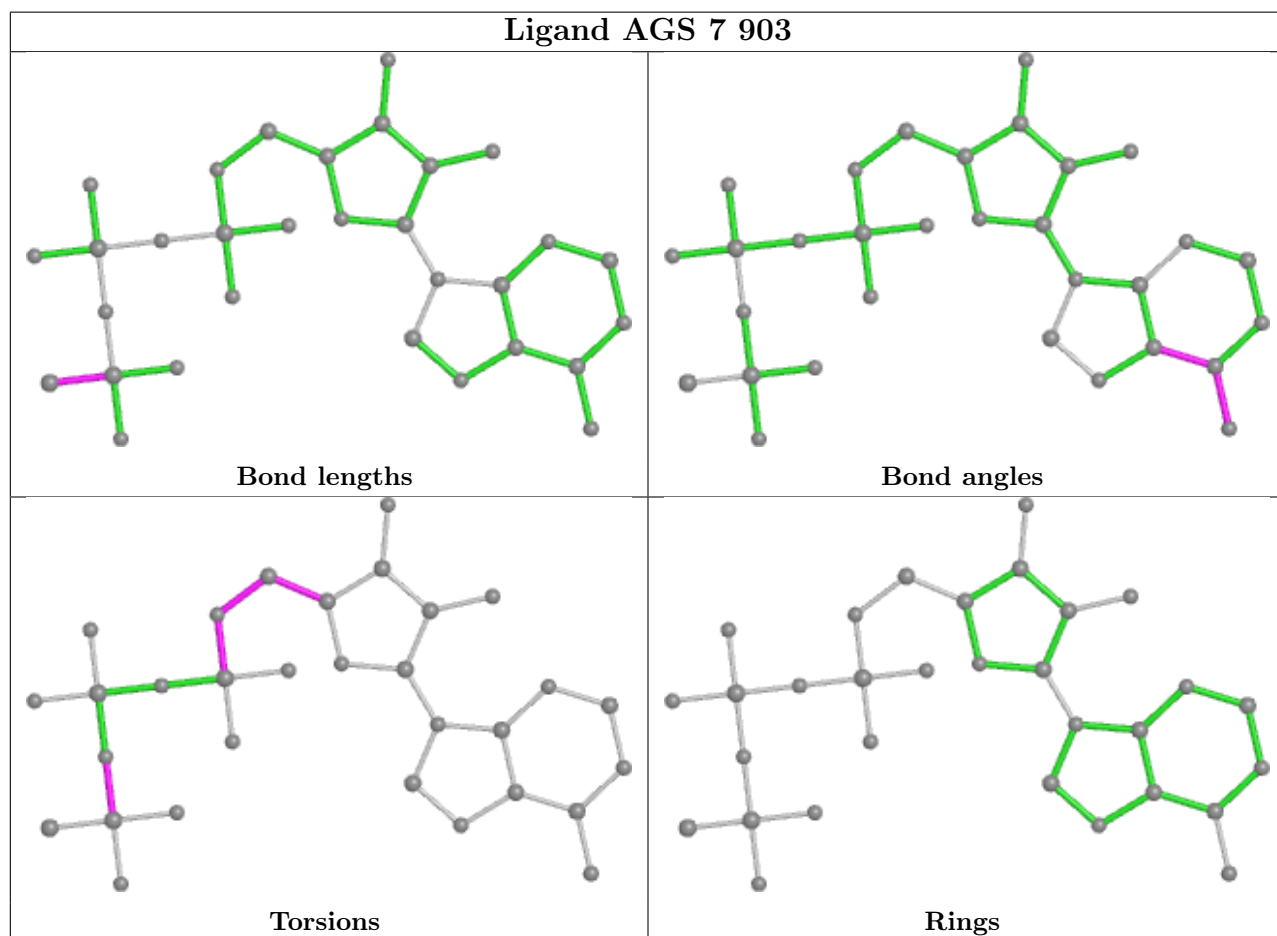
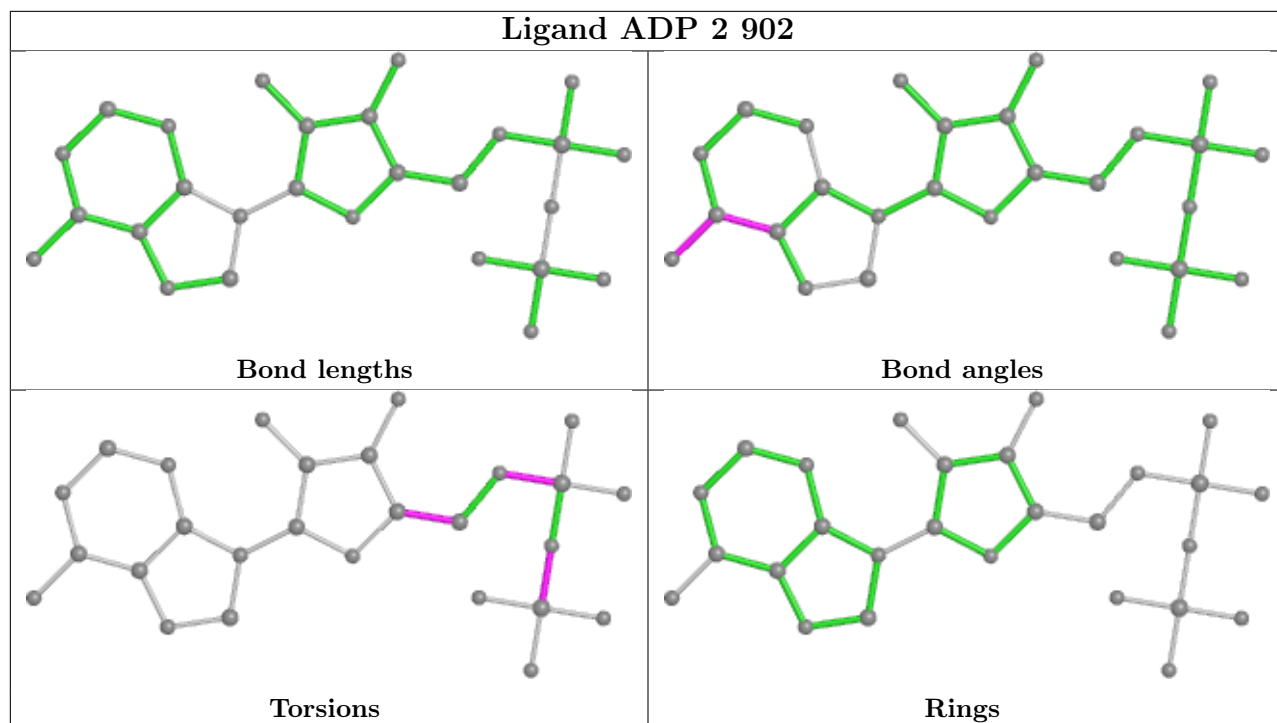
There are no ring outliers.

4 monomers are involved in 56 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
20	5	803	AGS	12	0
18	3	1001	ADP	16	0
18	2	902	ADP	19	0
20	7	903	AGS	9	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.





## 5.7 Other polymers [i](#)

There are no such residues in this entry.

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

There are no chain breaks in this entry.

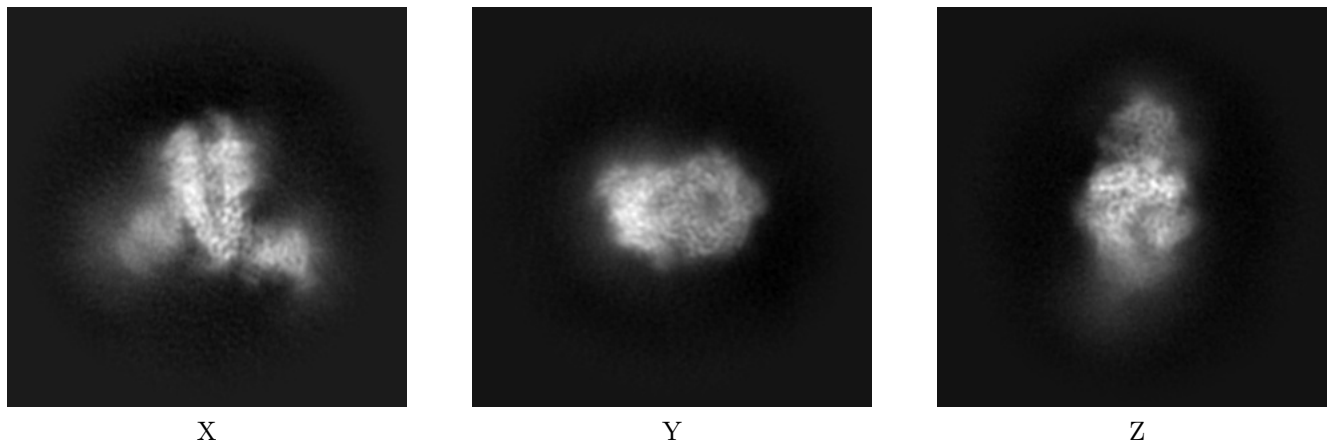
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-37215. These allow visual inspection of the internal detail of the map and identification of artifacts.

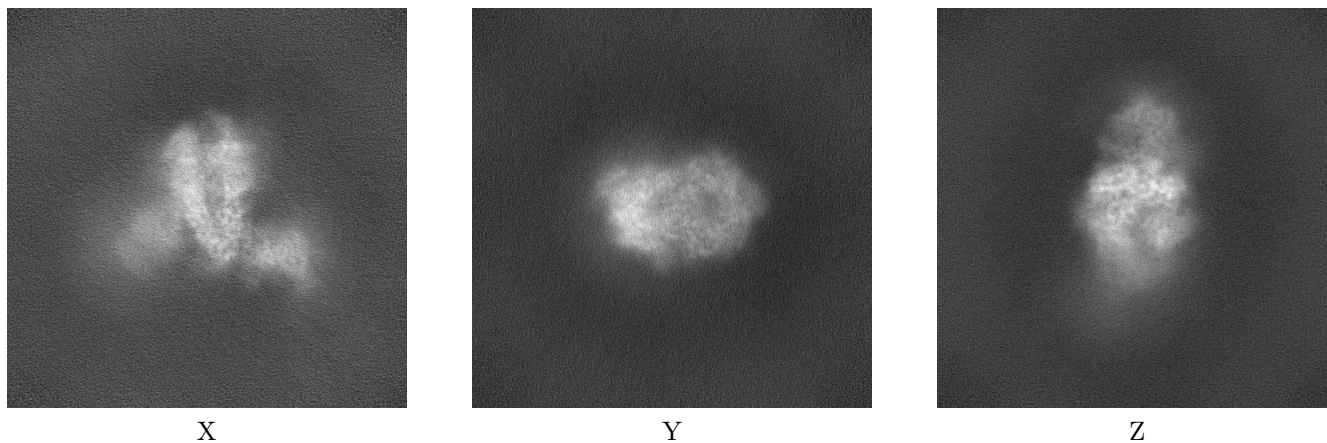
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

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

#### 6.1.1 Primary map



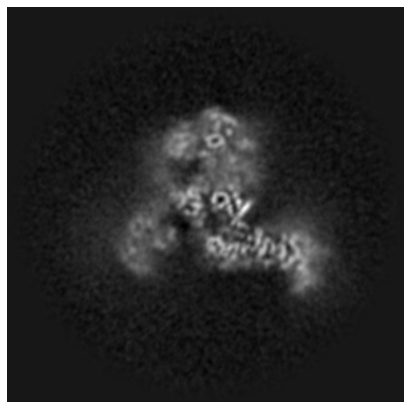
#### 6.1.2 Raw map



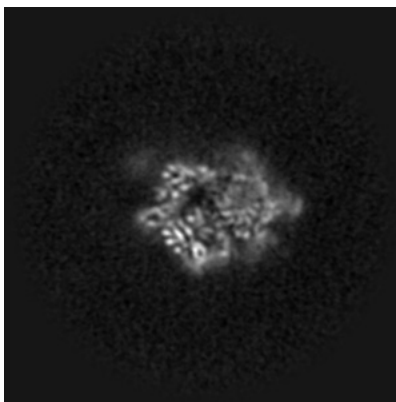
The images above show the map projected in three orthogonal directions.

## 6.2 Central slices [i](#)

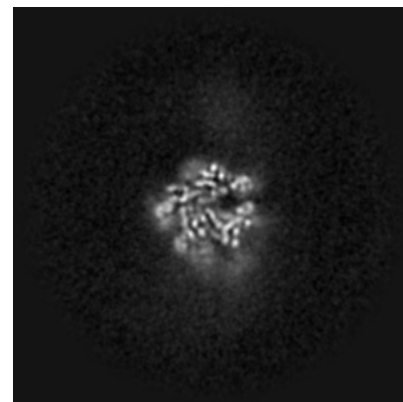
### 6.2.1 Primary map



X Index: 220

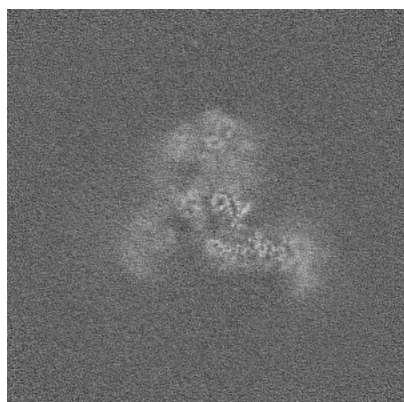


Y Index: 220

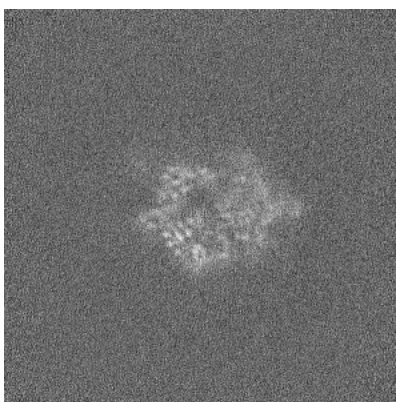


Z Index: 220

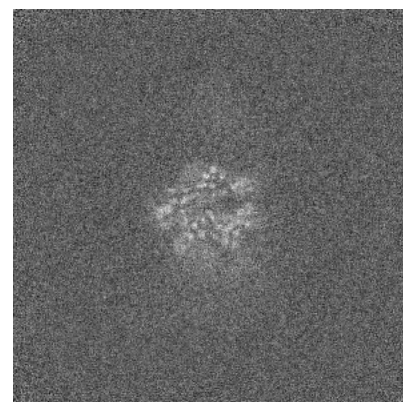
### 6.2.2 Raw map



X Index: 220



Y Index: 220

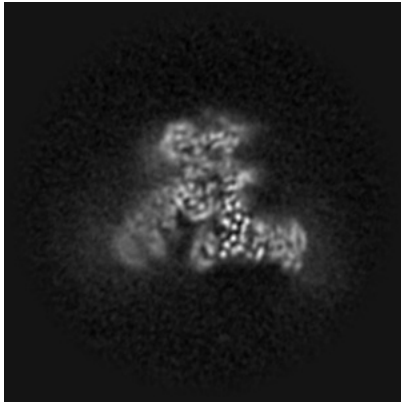


Z Index: 220

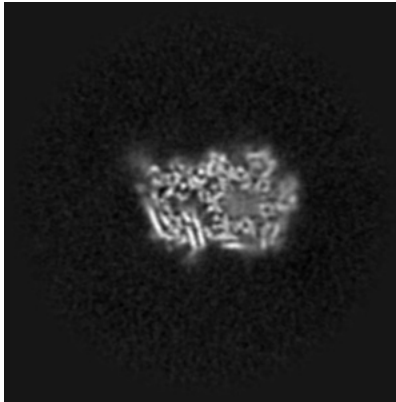
The images above show central slices of the map in three orthogonal directions.

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

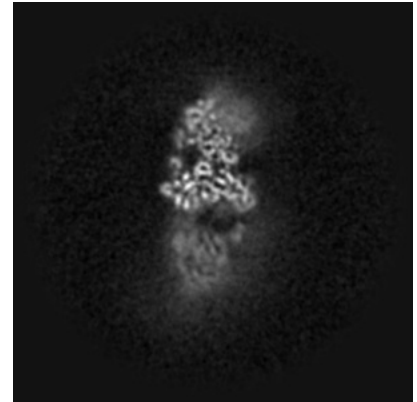
### 6.3.1 Primary map



X Index: 207

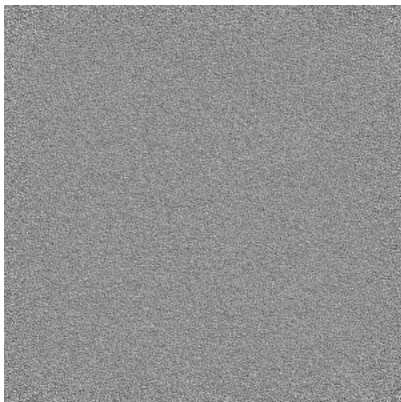


Y Index: 241

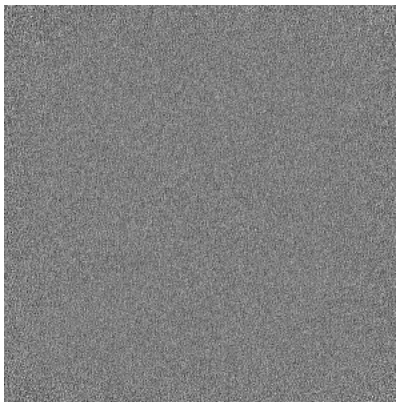


Z Index: 181

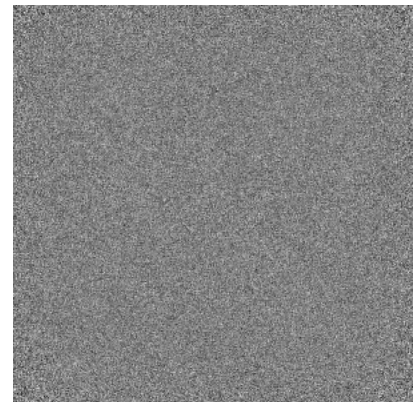
### 6.3.2 Raw map



X Index: 0



Y Index: 0

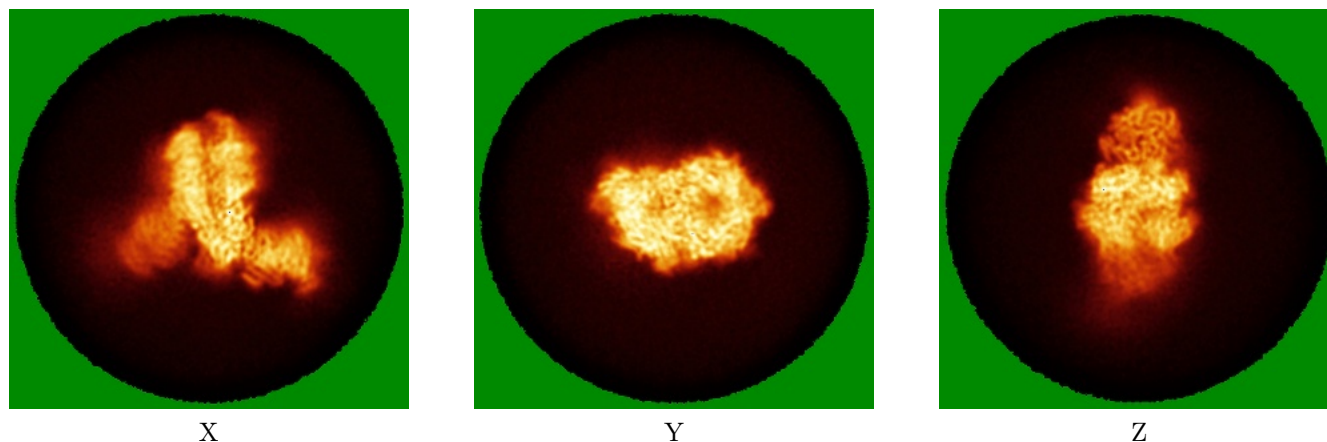


Z Index: 0

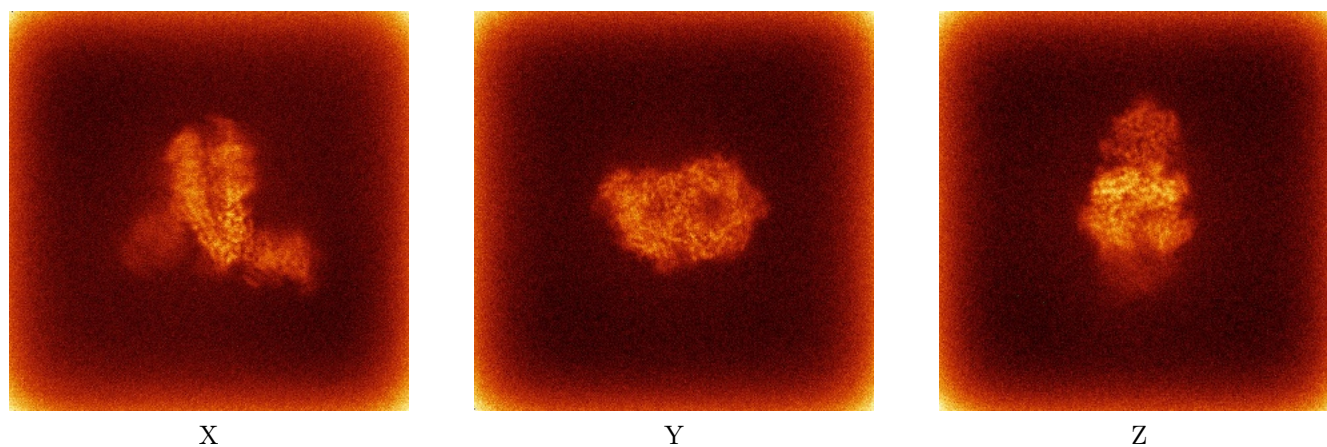
The images above show the largest variance slices of the map in three orthogonal directions.

## 6.4 Orthogonal standard-deviation projections (False-color) [i](#)

### 6.4.1 Primary map



### 6.4.2 Raw map



The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

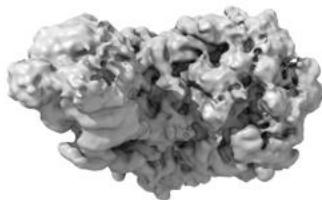


## 6.5 Orthogonal surface views [i](#)

### 6.5.1 Primary map



X



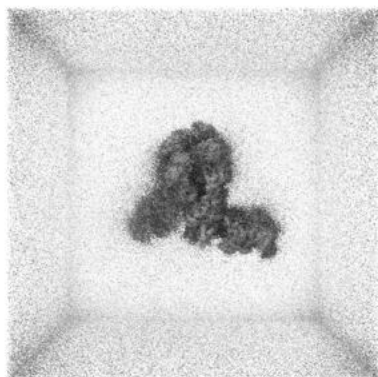
Y



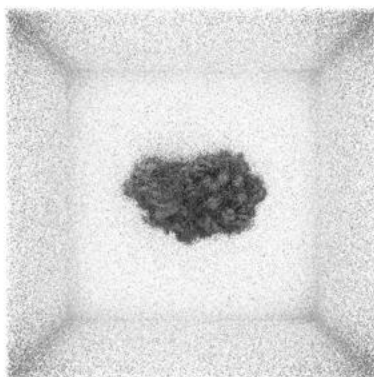
Z

The images above show the 3D surface view of the map at the recommended contour level 0.25. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

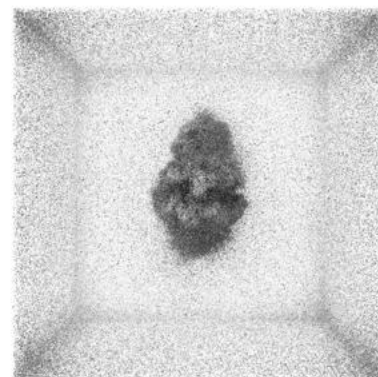
### 6.5.2 Raw map



X



Y



Z

These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

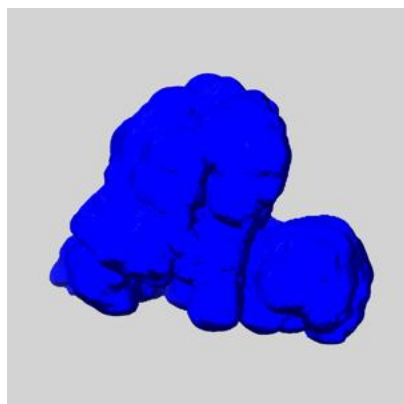
## 6.6 Mask visualisation [i](#)

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

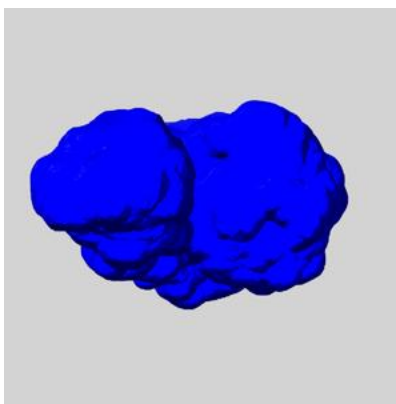
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

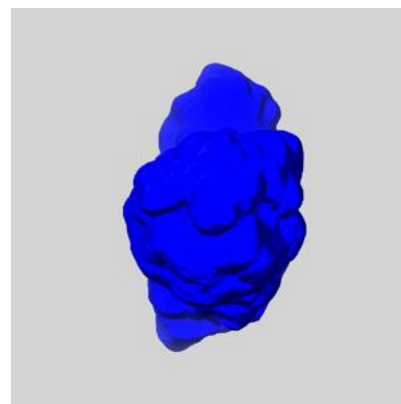
### 6.6.1 emd\_37215\_msk\_1.map [i](#)



X



Y

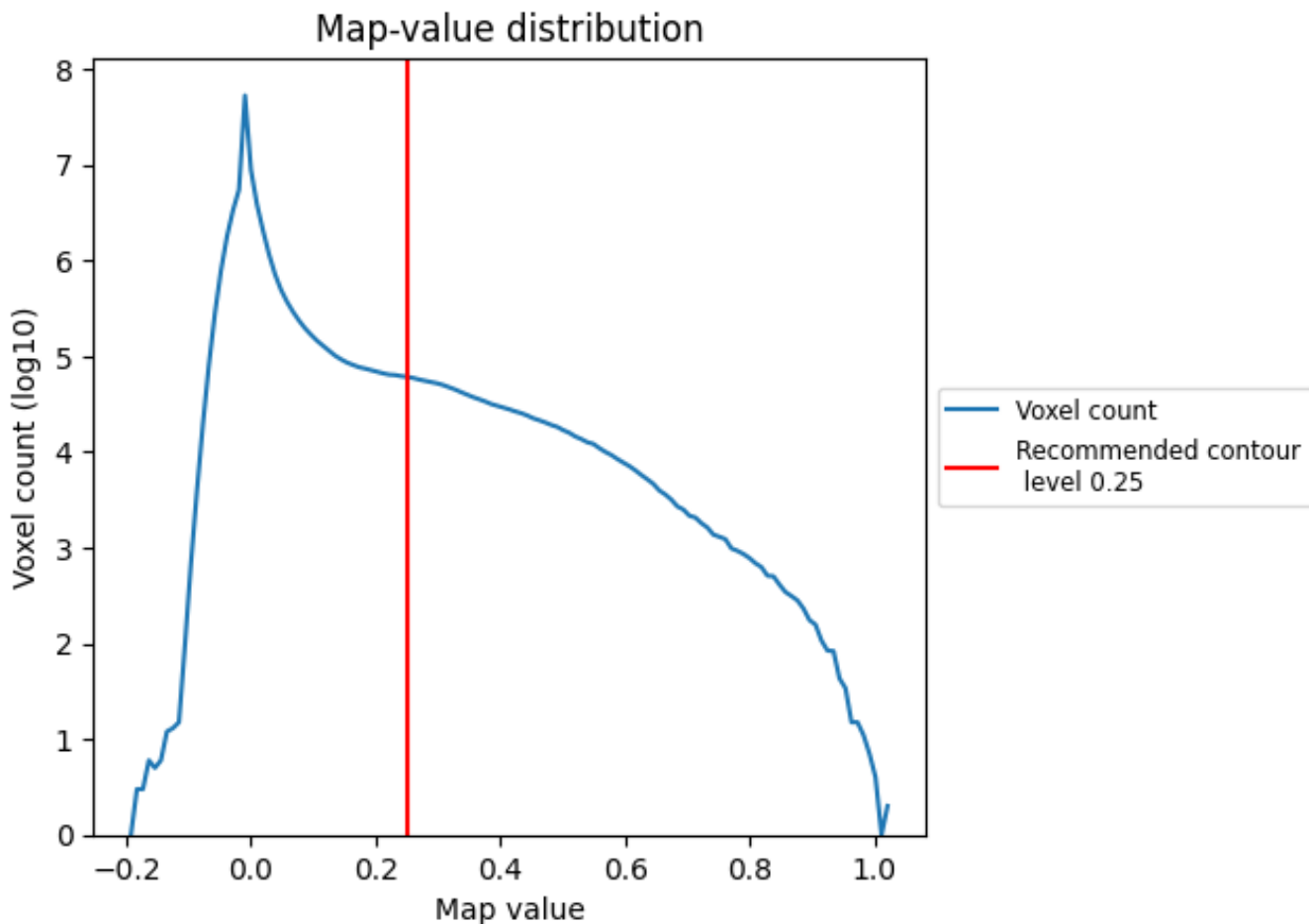


Z

## 7 Map analysis [i](#)

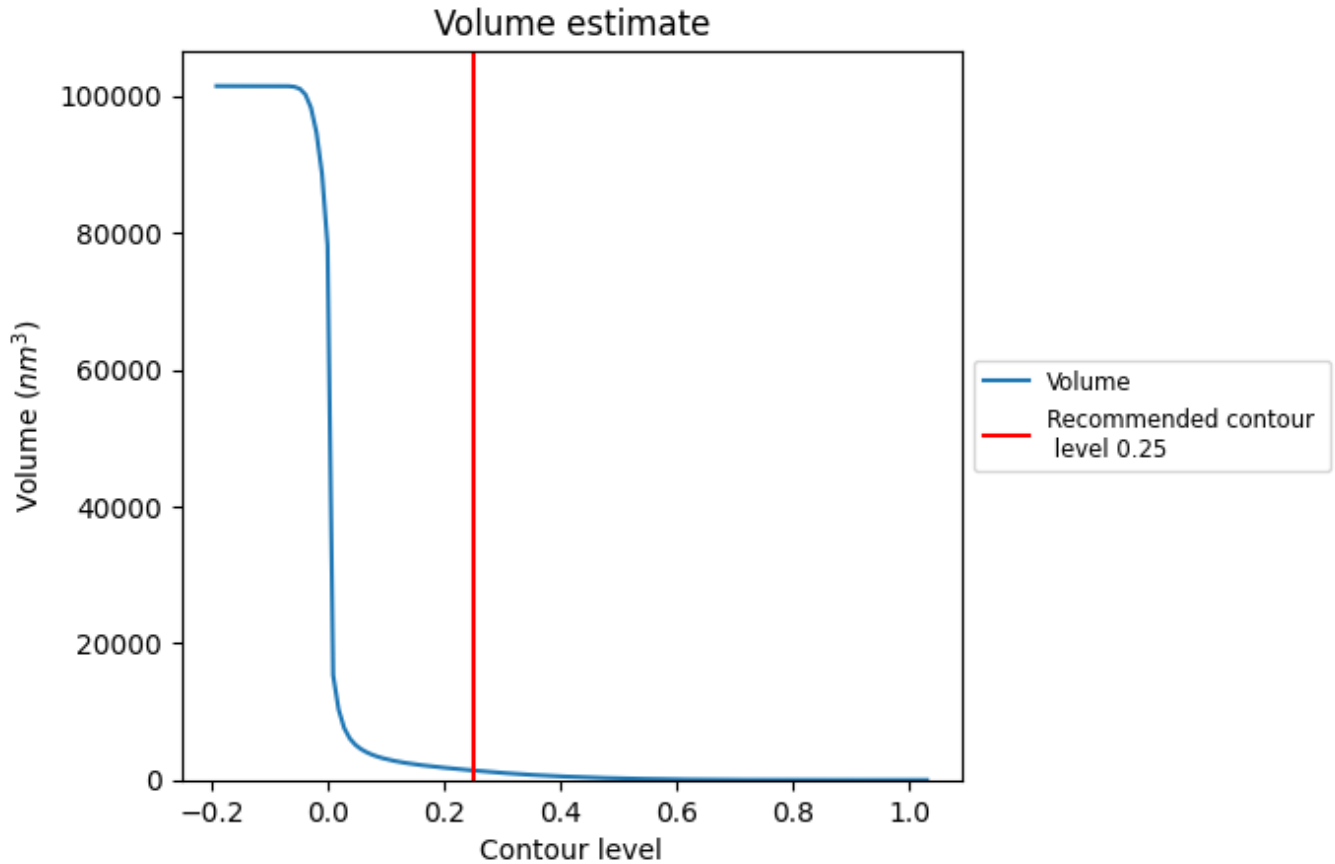
This section contains the results of statistical analysis of the map.

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



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

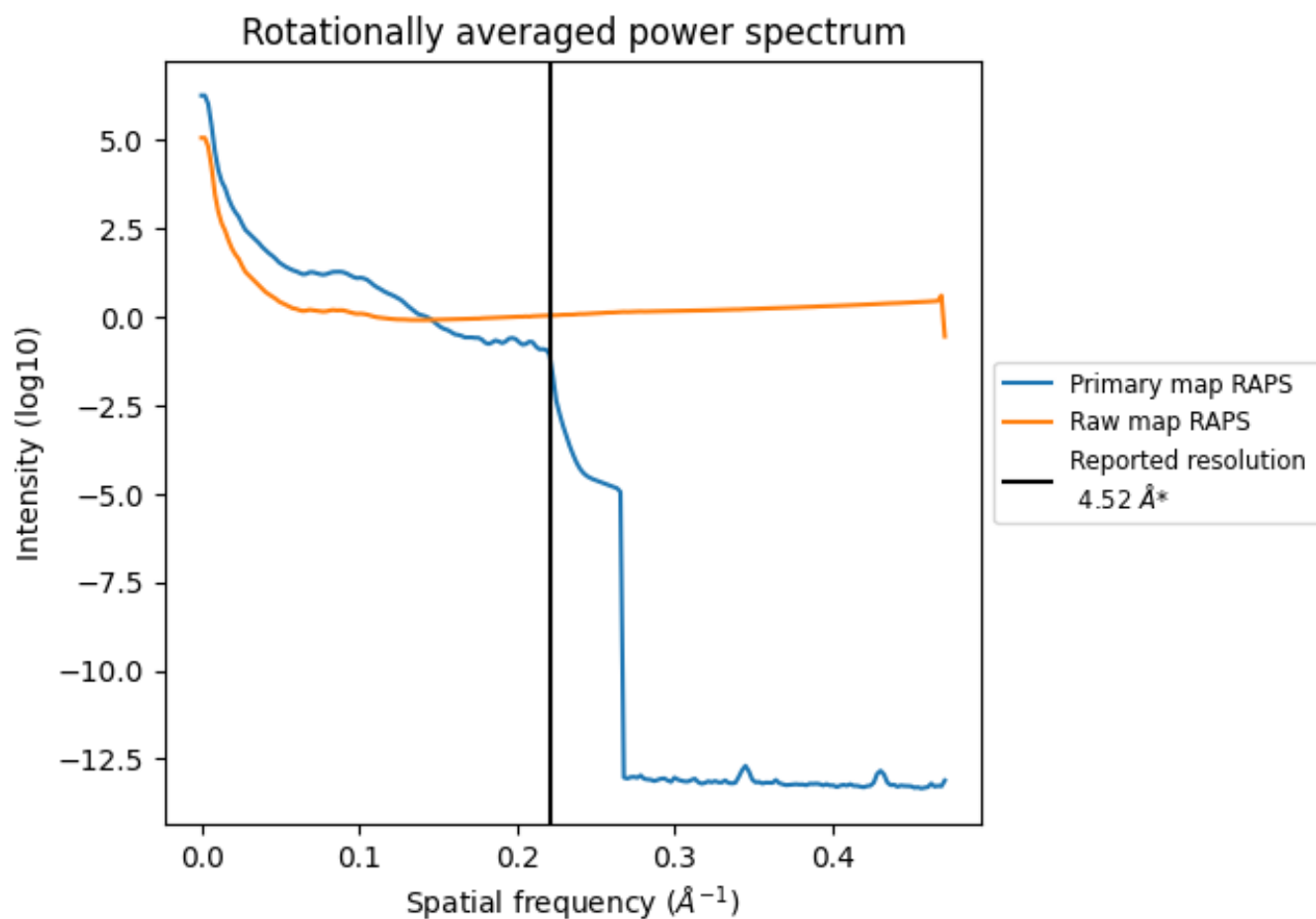
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1385  $\text{nm}^3$ ; this corresponds to an approximate mass of 1251 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

### 7.3 Rotationally averaged power spectrum [i](#)

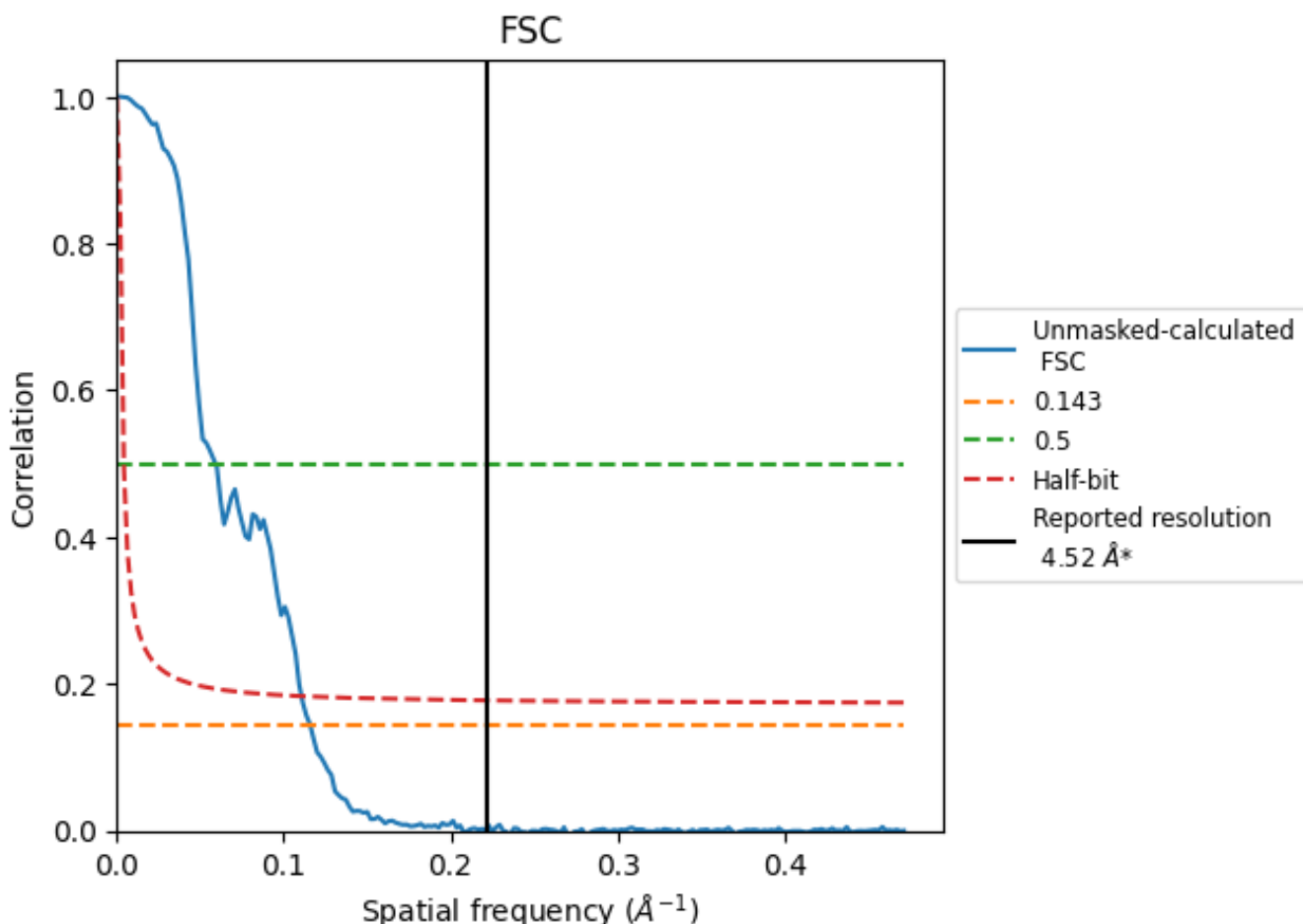


\*Reported resolution corresponds to spatial frequency of 0.221 Å<sup>-1</sup>

## 8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

### 8.1 FSC [i](#)



\*Reported resolution corresponds to spatial frequency of 0.221 Å<sup>-1</sup>

## 8.2 Resolution estimates [i](#)

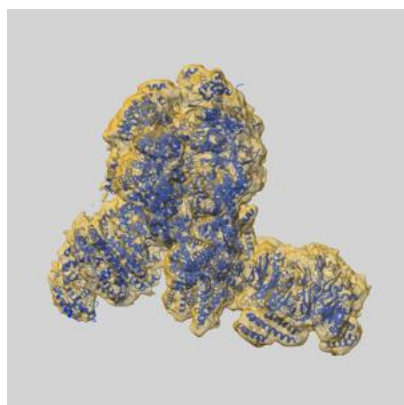
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.52	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	8.62	16.92	9.03

\*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 8.62 differs from the reported value 4.52 by more than 10 %

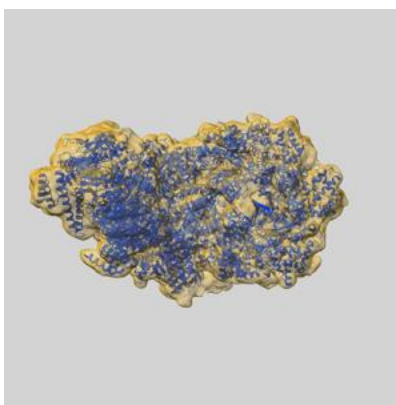
## 9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-37215 and PDB model 8KG9. Per-residue inclusion information can be found in section 3 on page 9.

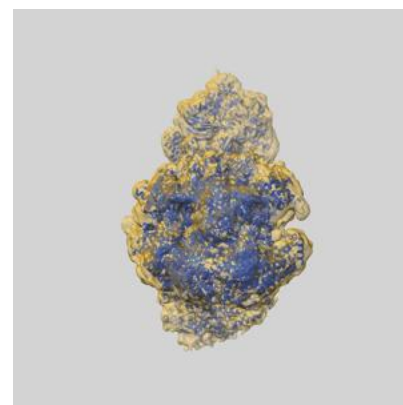
### 9.1 Map-model overlay [i](#)



X



Y

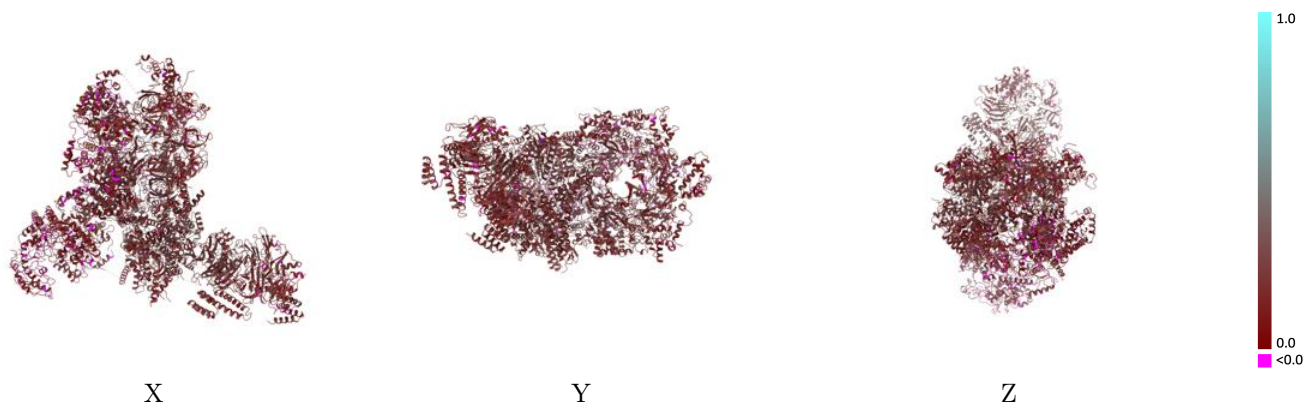


Z

The images above show the 3D surface view of the map at the recommended contour level 0.25 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

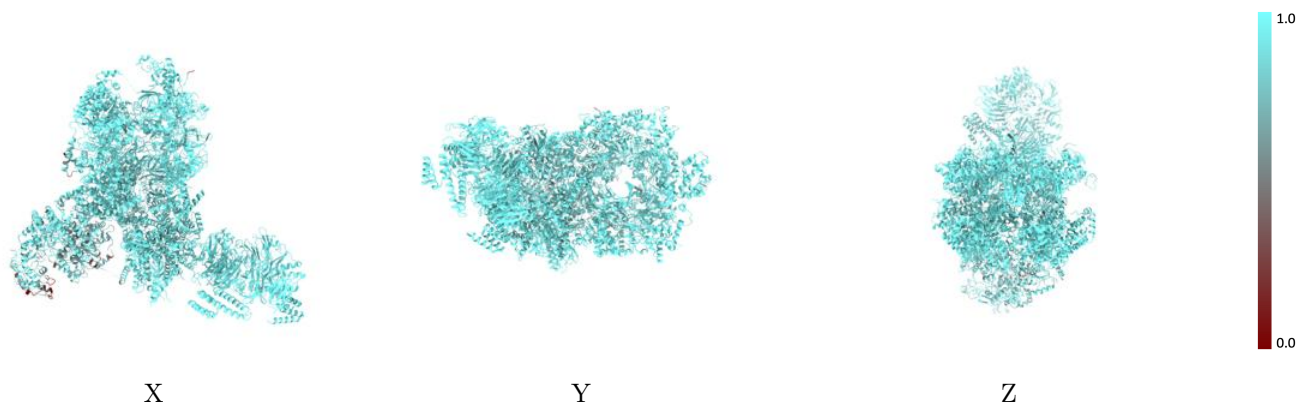


## 9.2 Q-score mapped to coordinate model [i](#)



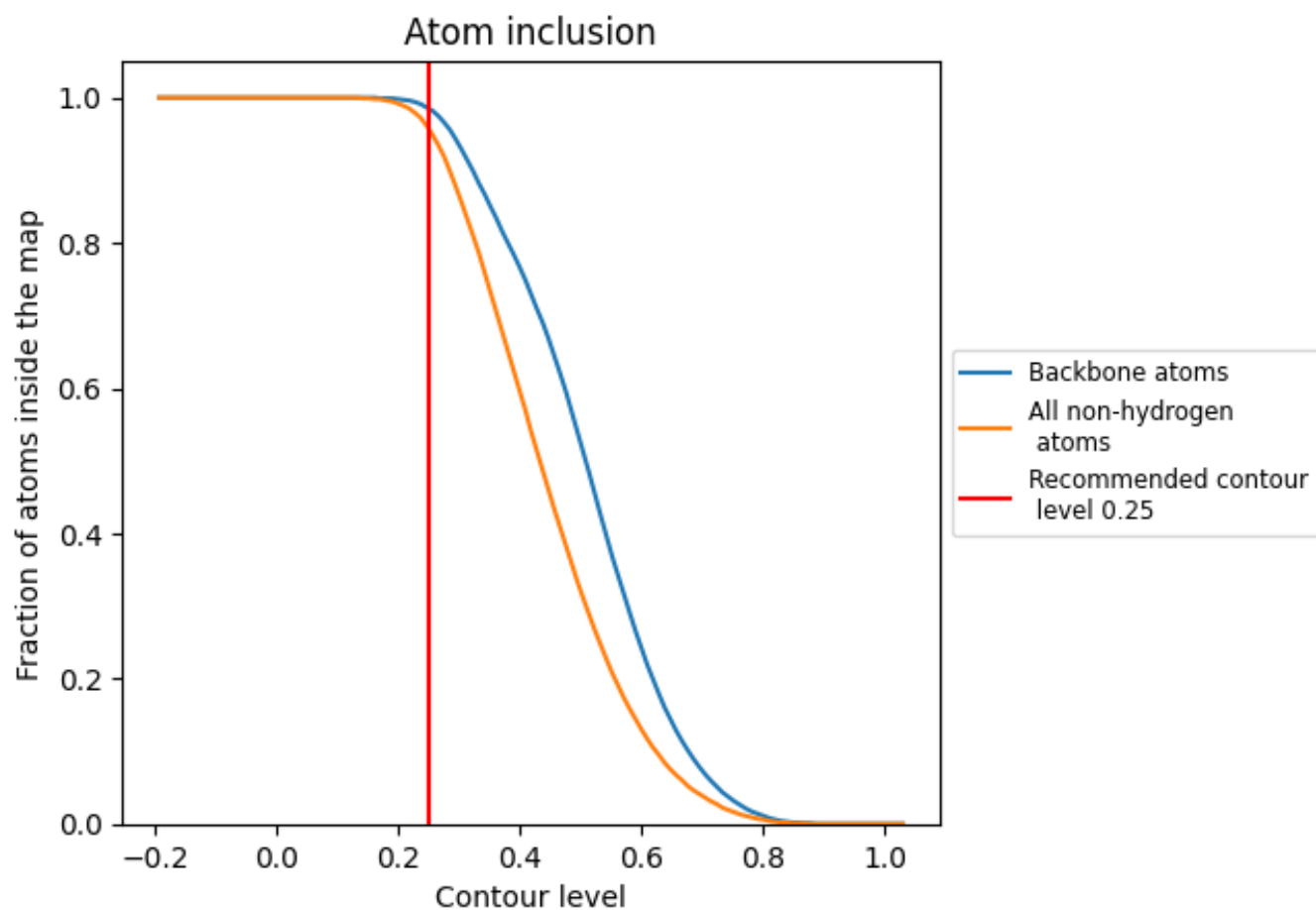
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.25).







































## 9.4 Atom inclusion [i](#)



At the recommended contour level, 98% of all backbone atoms, 96% of all non-hydrogen atoms, are inside the map.

## 9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.25) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9580	 0.1900
2	 0.9700	 0.1940
3	 0.9880	 0.2150
4	 0.9710	 0.1590
5	 0.9620	 0.1950
6	 0.9880	 0.1660
7	 0.9900	 0.1930
A	 0.9760	 0.2100
B	 0.9740	 0.2370
C	 0.9800	 0.2200
D	 0.9800	 0.2310
E	 0.9740	 0.2230
F	 0.9820	 0.2270
G	 0.9940	 0.1930
H	 0.9910	 0.2000
I	 0.9380	 0.1820
J	 0.8110	 0.1360
M	 0.8210	 0.1410
N	 0.9070	 0.1640

