



Full wwPDB EM Validation Report ⓘ

Aug 5, 2026 – 05:50 AM EDT

PDB ID : 7ML2 / pdb_00007ml2
EMDB ID : EMD-23906
Title : RNA polymerase II pre-initiation complex (PIC3)
Authors : Yang, C.; Fujiwara, R.; Kim, H.J.; Gorbea Colon, J.J.; Steimle, S.; Garcia, B.A.; Murakami, K.
Deposited on : 2021-04-27
Resolution : 3.40 Å(reported)
Based on initial model : 5OQJ

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

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

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

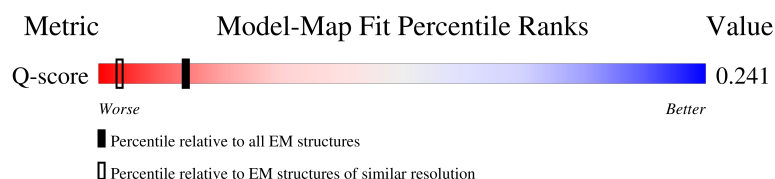
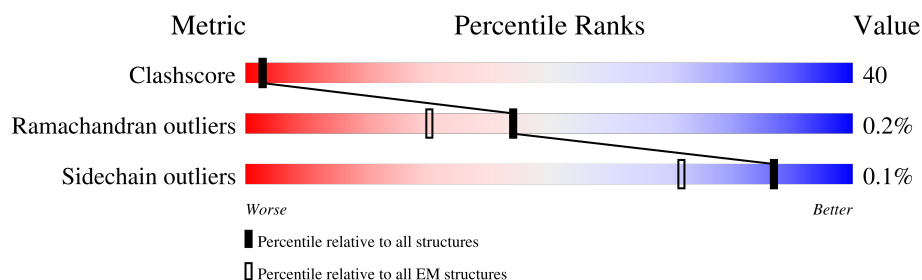
EMDB validation analysis : 0.0.1.dev133
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.50

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.40 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)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	14717 (2.90 - 3.90)

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 ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	1733	
2	B	1224	
3	C	318	
4	D	221	

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Mol	Chain	Length	Quality of chain
5	E	215	
6	F	155	
7	G	171	
8	H	146	
9	I	122	
10	J	70	
11	K	120	
12	L	70	
13	M	345	
14	Q	735	
15	R	400	
16	U	286	
17	V	122	
18	W	482	
19	X	328	
20	T	56	
21	N	56	
22	O	240	
23	1	542	
24	4	338	
25	0	778	
26	6	461	
27	2	513	
28	5	72	
29	7	843	

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Mol	Chain	Length	Quality of chain
30	3	321	

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
33	SF4	0	801	-	-	X	-

2 Entry composition

There are 33 unique types of molecules in this entry. The entry contains 64550 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-directed RNA polymerase subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	1398	Total	C	N	O	S	0	0
			10997	6931	1927	2078	61		

- Molecule 2 is a protein called DNA-directed RNA polymerase subunit beta.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	1152	Total	C	N	O	S	0	0
			9178	5807	1608	1708	55		

- Molecule 3 is a protein called DNA-directed RNA polymerase II subunit RPB3.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	262	Total	C	N	O	S	0	0
			2061	1299	343	406	13		

- Molecule 4 is a protein called DNA-directed RNA polymerase II subunit RPB4.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	D	157	Total	C	N	O	S	0	0
			1253	779	220	252	2		

- Molecule 5 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC1.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	E	213	Total	C	N	O	S	0	0
			1744	1107	308	318	11		

- Molecule 6 is a protein called DNA-directed RNA polymerases I,II,and III subunit RPABC2.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	F	83	Total	C	N	O	S	0	0
			670	428	114	125	3		

- Molecule 7 is a protein called DNA-directed RNA polymerase II subunit RPB7.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	G	171	Total	C	N	O	S	0	0
			1340	861	222	249	8		

- Molecule 8 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC3.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	H	136	Total	C	N	O	S	0	0
			1089	686	184	215	4		

- Molecule 9 is a protein called DNA-directed RNA polymerase II subunit RPB9.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	I	116	Total	C	N	O	S	0	0
			944	581	172	181	10		

- Molecule 10 is a protein called DNA-directed RNA polymerases II subunit RPABC5.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	J	65	Total	C	N	O	S	0	0
			532	339	93	94	6		

- Molecule 11 is a protein called DNA-directed RNA polymerase II subunit RPB11.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	K	112	Total	C	N	O	S	0	0
			904	580	154	168	2		

- Molecule 12 is a protein called DNA-directed RNA polymerases II subunit RPABC4.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	L	45	Total	C	N	O	S	0	0
			358	221	71	62	4		

- Molecule 13 is a protein called Transcription initiation factor IIB.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	M	279	Total	C	N	O	S	0	0
			2175	1382	373	403	17		

- Molecule 14 is a protein called Transcription initiation factor IIF subunit alpha.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	Q	148	Total	C	N	O	S	0	0
			1144	733	195	212	4		

- Molecule 15 is a protein called Transcription initiation factor IIF subunit beta.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	R	190	Total	C	N	O	S	0	0
			1303	812	238	246	7		

- Molecule 16 is a protein called Transcription initiation factor IIA large subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	U	46	Total	C	N	O	S	0	0
			383	242	67	71	3		

- Molecule 17 is a protein called Transcription initiation factor IIA subunit 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	V	49	Total	C	N	O	S	0	0
			381	241	63	74	3		

- Molecule 18 is a protein called Transcription initiation factor IIE subunit alpha.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	W	191	Total	C	N	O	S	0	0
			1469	932	254	277	6		

- Molecule 19 is a protein called Transcription initiation factor IIE subunit beta.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	X	156	Total	C	N	O	S	0	0
			984	608	180	192	4		

- Molecule 20 is a DNA chain called template strand DNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	T	56	Total	C	N	O	P	0	0
			1140	550	188	346	56		

- Molecule 21 is a DNA chain called non-template strand DNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	N	56	Total	C	N	O	P	0	0
			1156	552	222	326	56		

- Molecule 22 is a protein called BJ4_G0004860.mRNA.1.CDS.1.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	O	180	Total	C	N	O	S	0	0
			1416	921	242	247	6		

- Molecule 23 is a protein called Tfb1.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	1	367	Total	C	N	O	S	0	0
			2411	1536	438	430	7		

- Molecule 24 is a protein called Tfb4.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	4	284	Total	C	N	O	S	0	0
			2041	1310	343	376	12		

- Molecule 25 is a protein called General transcription and DNA repair factor IIH helicase subunit XPD.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	0	754	Total	C	N	O	S	0	0
			6108	3891	1032	1147	38		

- Molecule 26 is a protein called General transcription and DNA repair factor IIH.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	6	351	Total	C	N	O	S	0	0
			2527	1590	454	456	27		

- Molecule 27 is a protein called RNA polymerase II transcription factor B subunit 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	2	460	Total	C	N	O	S	0	0
			3011	1856	562	584	9		

- Molecule 28 is a protein called General transcription and DNA repair factor IIH subunit TFB5.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	5	66	Total	C	N	O	S	0	0
			498	314	89	93	2		

- Molecule 29 is a protein called General transcription and DNA repair factor IIH helicase subunit XPB.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	7	634	Total	C	N	O	S	0	0
			4447	2722	827	874	24		

- Molecule 30 is a protein called BJ4_G0050160.mRNA.1.CDS.1.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	3	138	Total	C	N	O	S	0	0
			860	533	160	160	7		

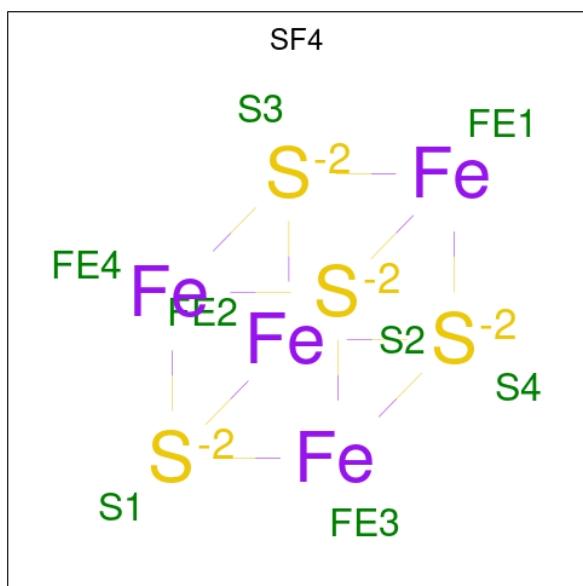
- Molecule 31 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
31	A	2	Total	Zn	0
			2	2	
31	B	1	Total	Zn	0
			1	1	
31	C	1	Total	Zn	0
			1	1	
31	I	2	Total	Zn	0
			2	2	
31	J	1	Total	Zn	0
			1	1	
31	L	1	Total	Zn	0
			1	1	
31	M	1	Total	Zn	0
			1	1	
31	W	1	Total	Zn	0
			1	1	
31	4	1	Total	Zn	0
			1	1	
31	6	4	Total	Zn	0
			4	4	
31	3	2	Total	Zn	0
			2	2	

- Molecule 32 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
32	A	1	Total	Mg	0
			1	1	

- Molecule 33 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).

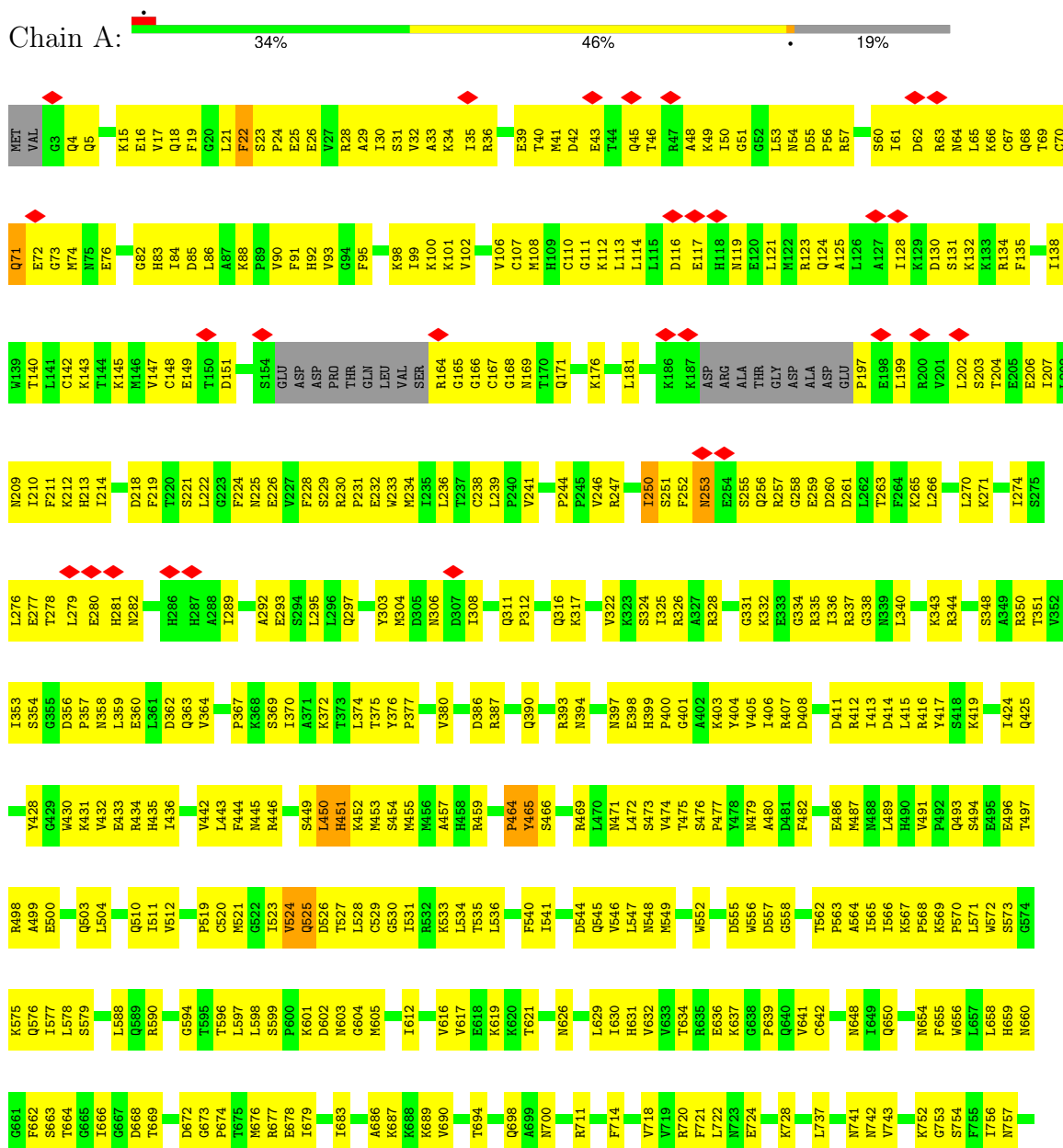


Mol	Chain	Residues	Atoms			AltConf
33	0	1	Total	Fe	S	0
			8	4	4	

3 Residue-property plots

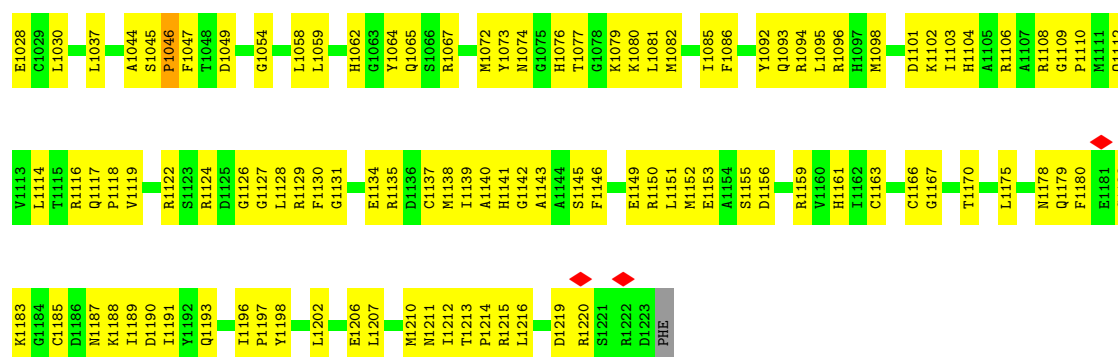
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

• Molecule 1: DNA-directed RNA polymerase subunit

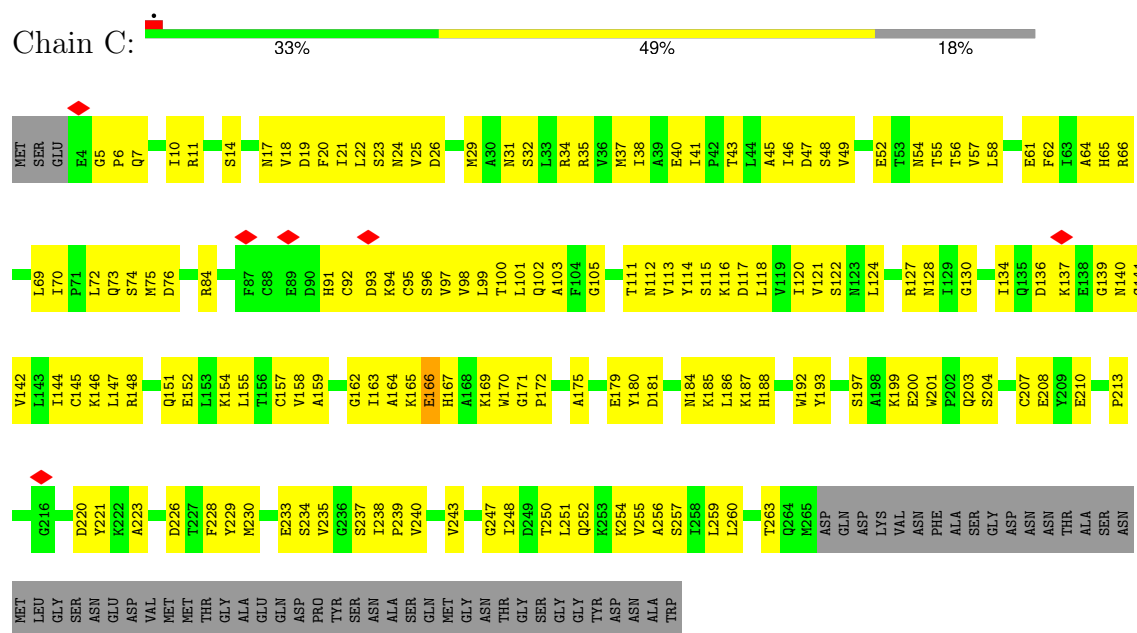


- Molecule 2: DNA-directed RNA polymerase subunit beta

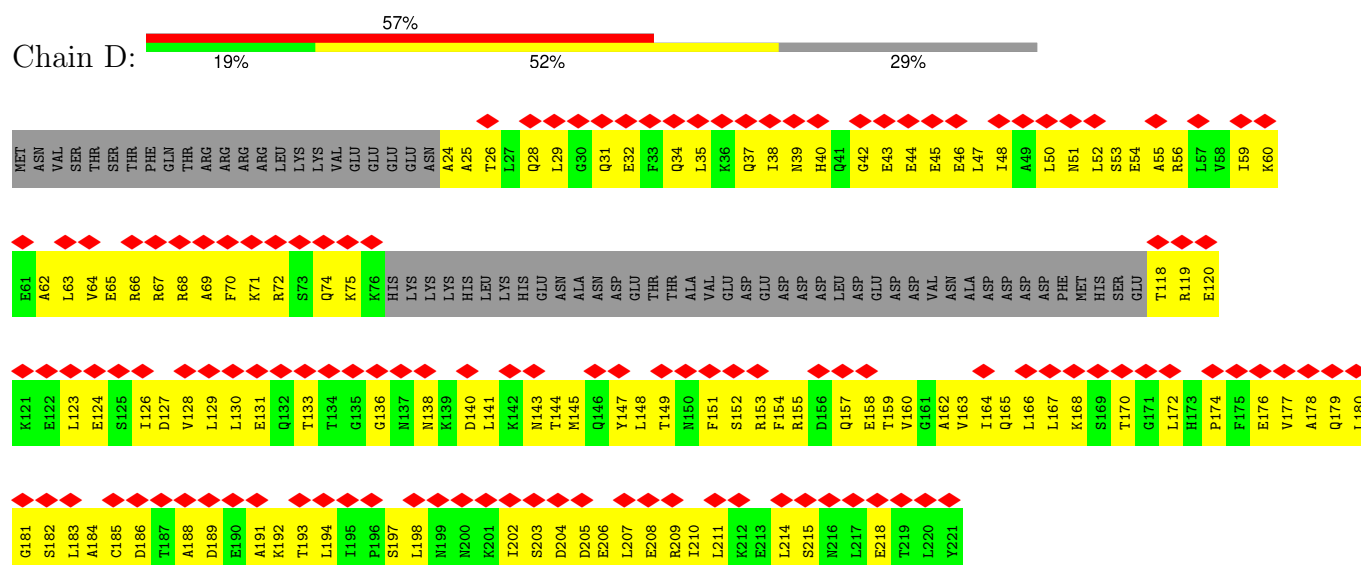




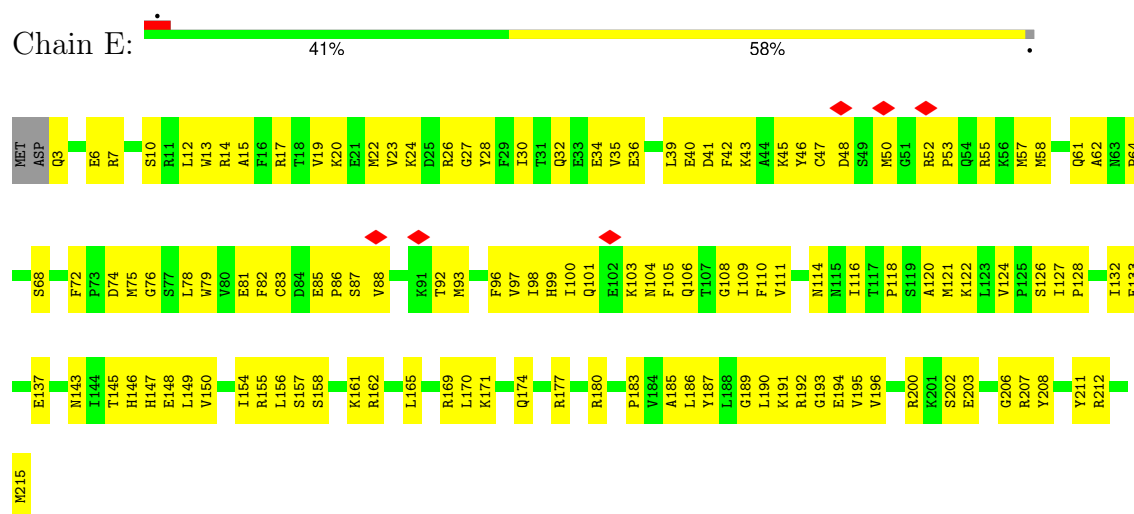
• Molecule 3: DNA-directed RNA polymerase II subunit RPB3



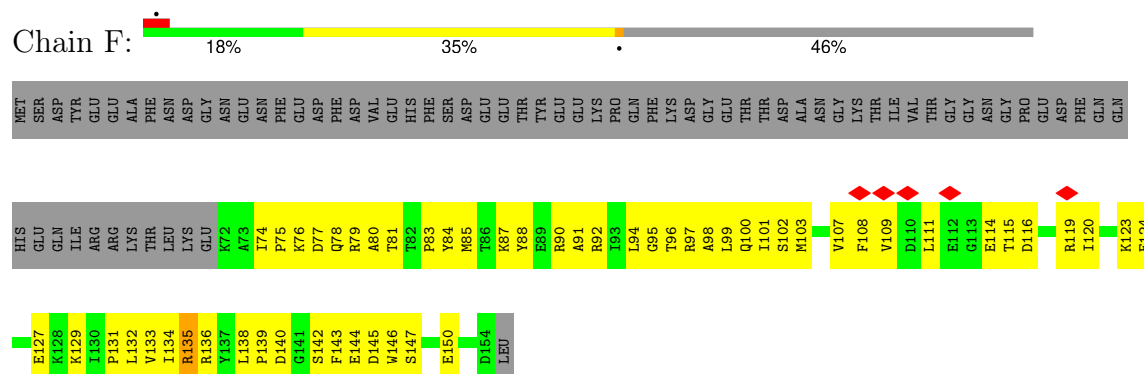
• Molecule 4: DNA-directed RNA polymerase II subunit RPB4



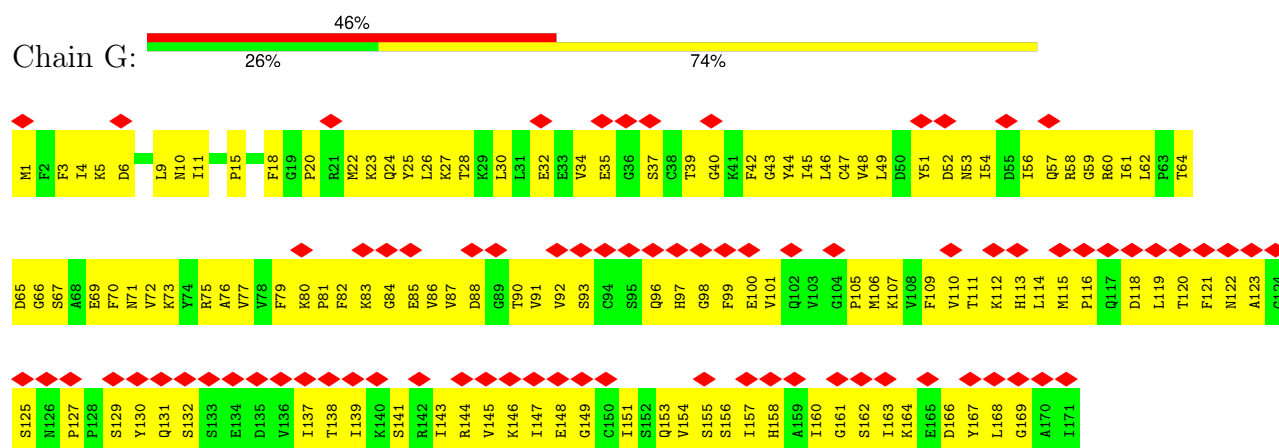
- Molecule 5: DNA-directed RNA polymerases I, II, and III subunit RPABC1



- Molecule 6: DNA-directed RNA polymerases I,II,and III subunit RPABC2

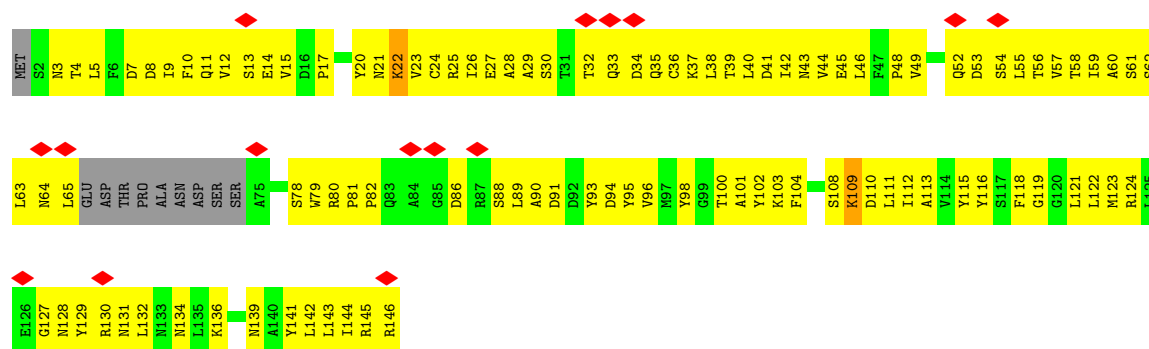


- Molecule 7: DNA-directed RNA polymerase II subunit RPB7

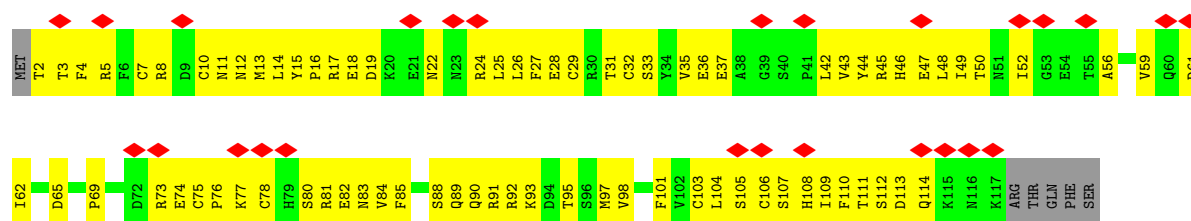


- Molecule 8: DNA-directed RNA polymerases I, II, and III subunit RPABC3

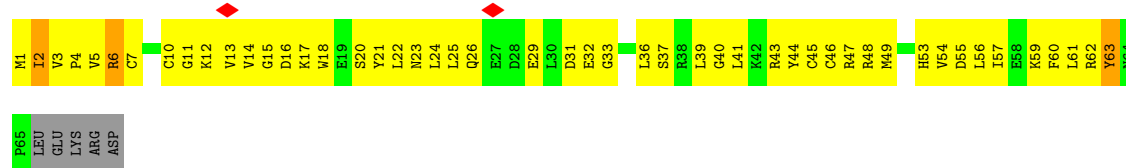




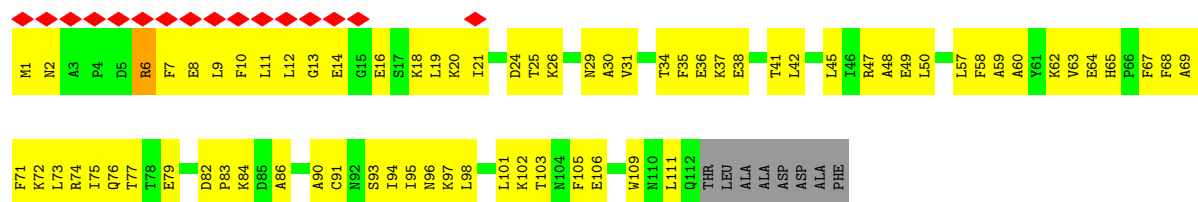
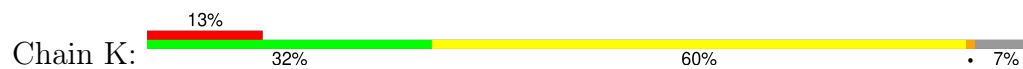
• Molecule 9: DNA-directed RNA polymerase II subunit RPB9



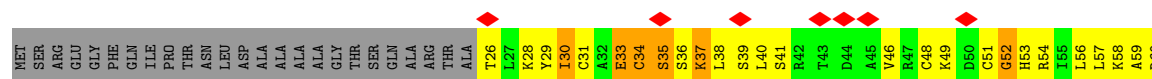
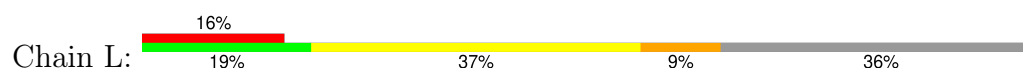
• Molecule 10: DNA-directed RNA polymerase II subunit RPABC5

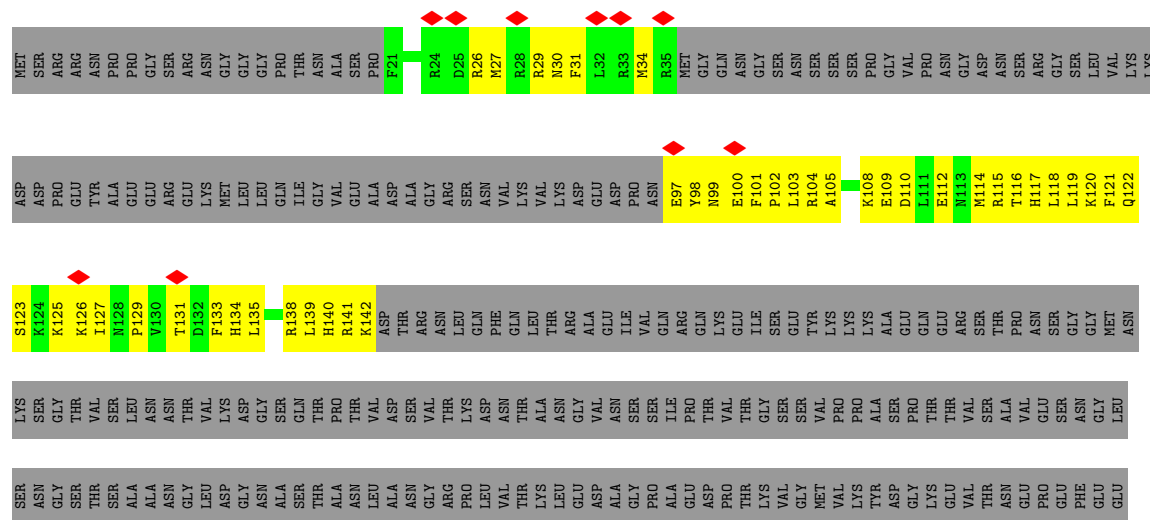


• Molecule 11: DNA-directed RNA polymerase II subunit RPB11



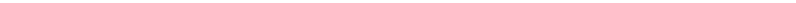
• Molecule 12: DNA-directed RNA polymerase II subunit RPABC4





E241	N242	L243	M244	L245	C246	L247	Y248	D249	K250	V251	T252	R253	T254	K255	A256	R257	W258	K259	C260	S261	L262	K263	D264	G265	V266	V267	T268	L269	N270	N271	N272	D273	Y274	T275	F276	Q277	K278	A279	Q280	V281	E282	A283	E284	W285	V286
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Chain V: 14% 26% 60%

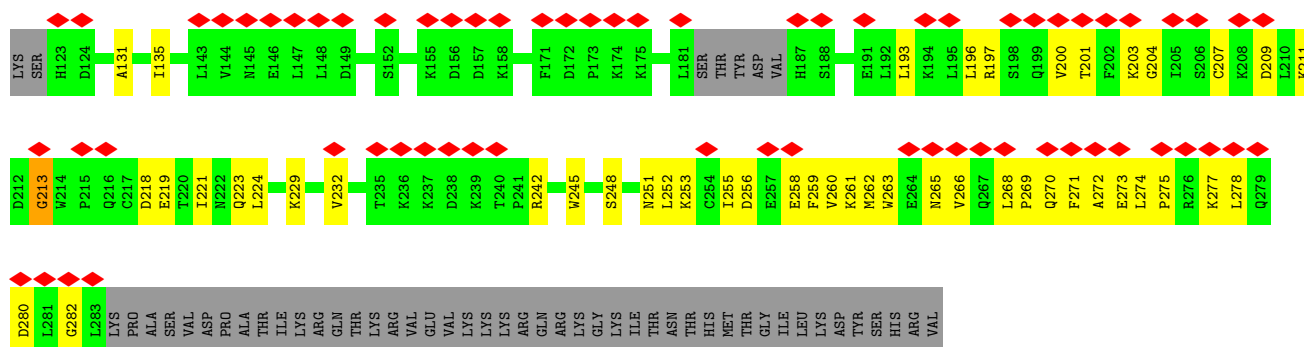
Chain W: 



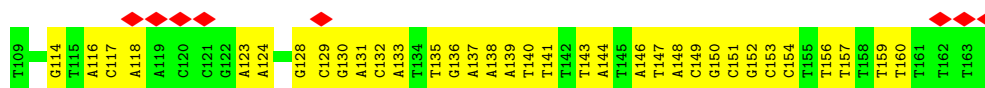
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Chain X:

ASN	SER	ALA	ALA	LYS	ASN	PRO	VAL	LEU	VAL	ASP	ILE	LYS	LYS	GLU	ALA	ALA	GLY	SER	ASN	SER	SER	ASN	ASN	ALA	ALA	ILE	SER	LEU	ASP	ASP	ASP	ASP	ASP	ASP	GLU	GLY	PHE	SER	SER	SER	SER	LYS	LYS	VAL	ARG	PRO	GLY	ILE	ALA	ALA	ALA	ALA	LEU	GLN	GLN	ASN	ASN	THR	ASP	ILE	SER
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Chain T:

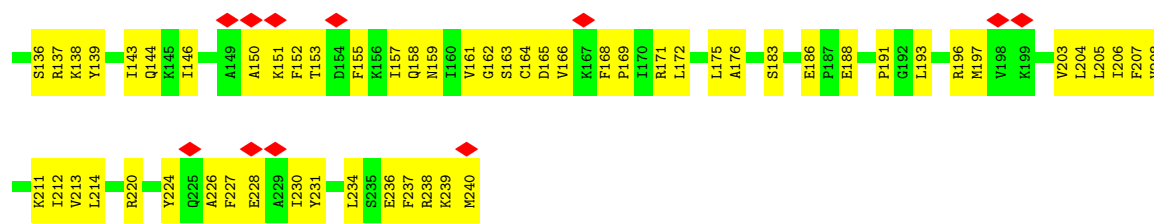


Chain N: 18% 27% 73%

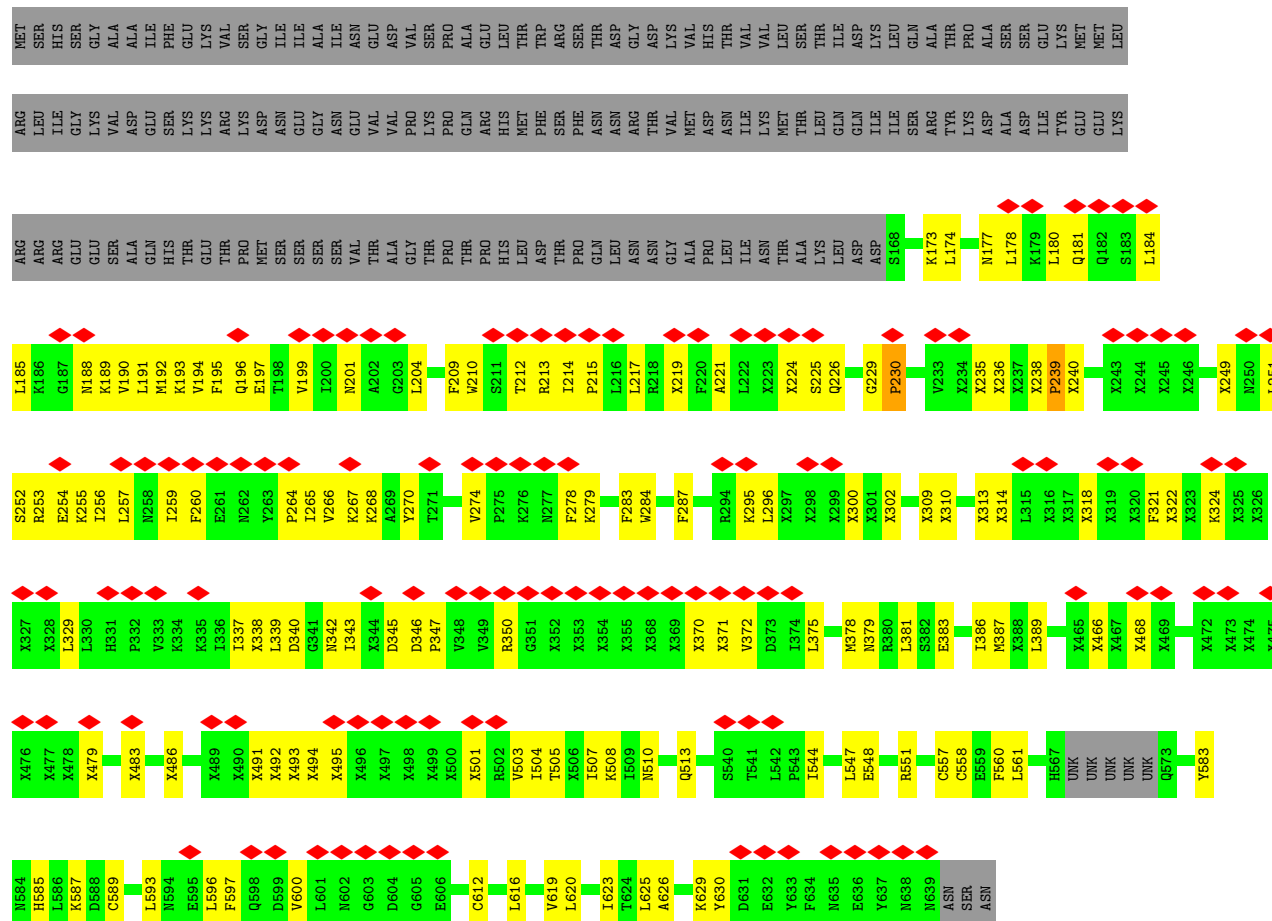
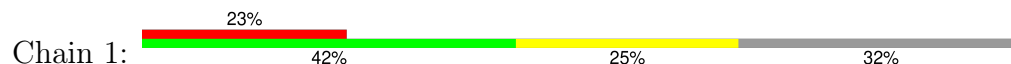


Chain O:

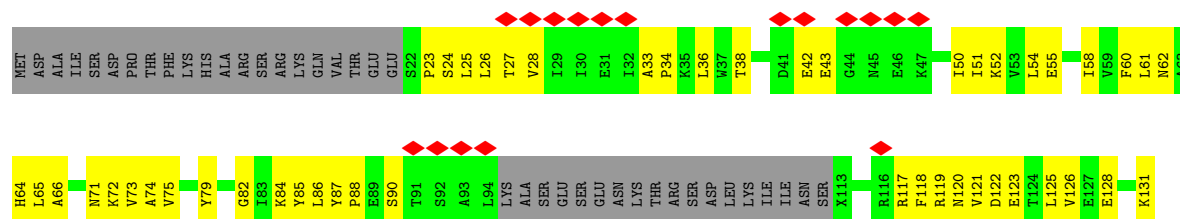
Figure 1: A horizontal bar chart showing the distribution of 1000 samples across 100 categories. The categories are labeled S61, G62, I63, V64, P65, L66, L67, Q68, N69, L70, V71, A72, T73, V74, T75, L76, G77, C78, D81, L82, K83, T84, V85, A86, L87, H88, A89, R90, N91, A92, E93, Y94, K97, R98, F99, A100, A101, V102, I103, M104, R105, I106, R107, E108, P109, T112, A113, L114, I115, K120, M121, V122, V123, T124, and A127. The bars are colored in a repeating pattern of red, green, and blue. The height of each bar represents the number of samples in that category. The distribution is highly skewed, with most categories having a count of 1 or 2, and a few categories having counts of 3 or 4. The categories are ordered by their sample count in descending order.

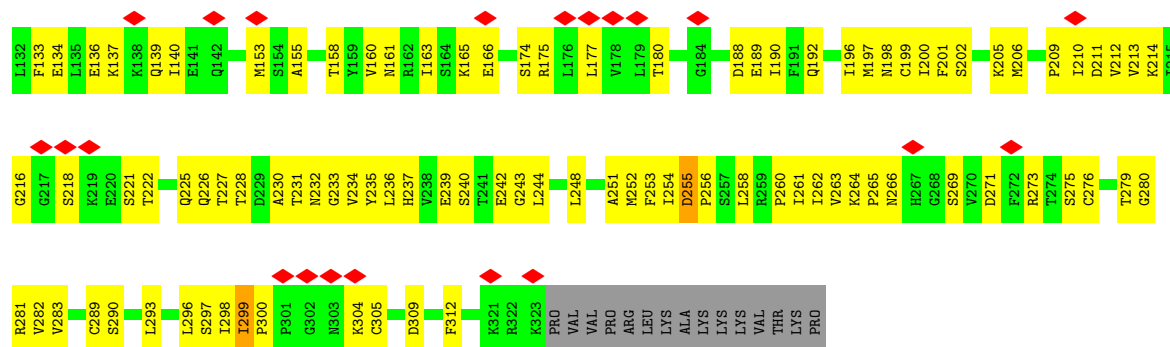


• Molecule 23: Tfb1

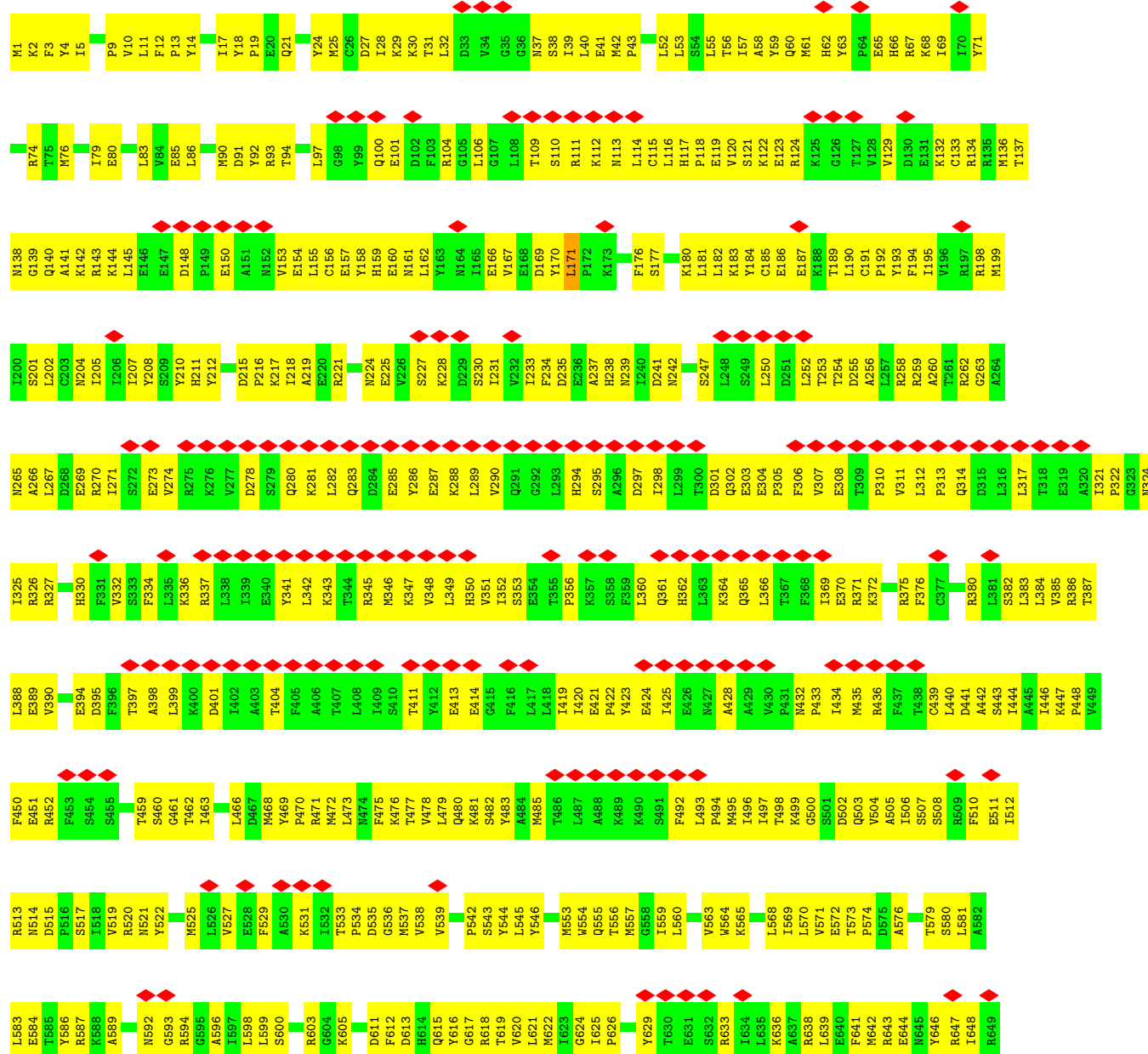


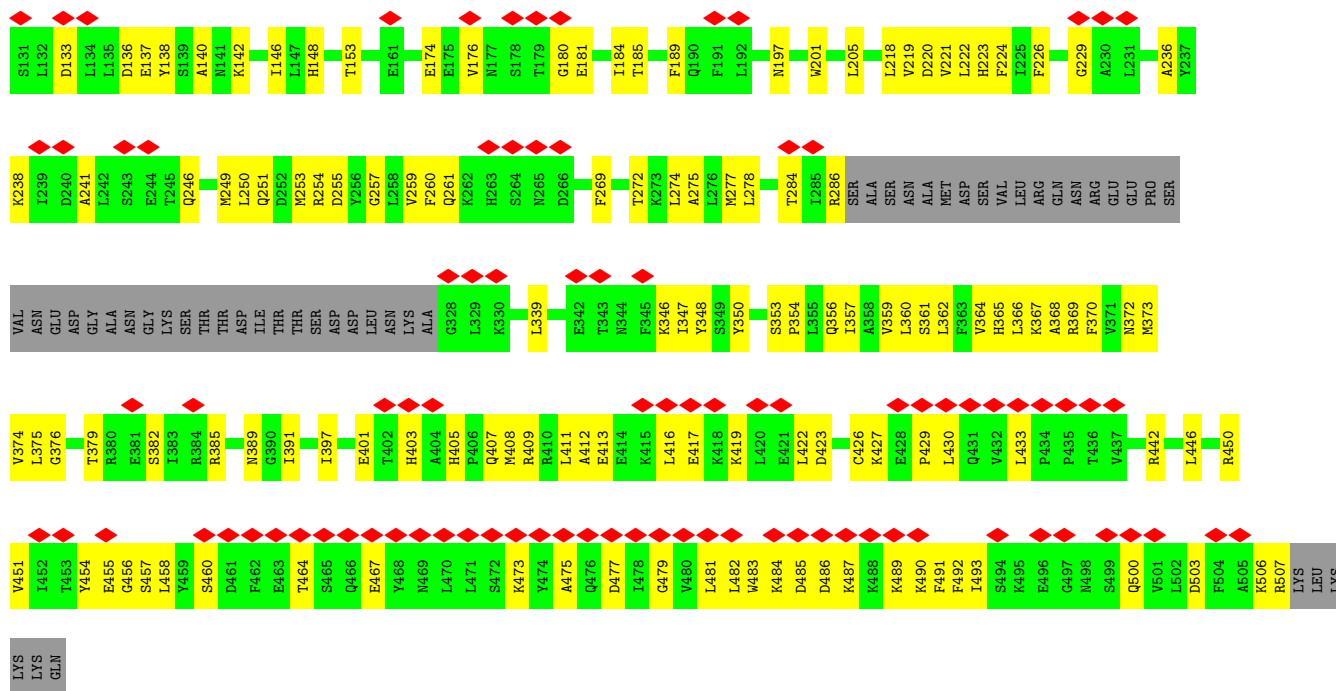
• Molecule 24: Tfb4



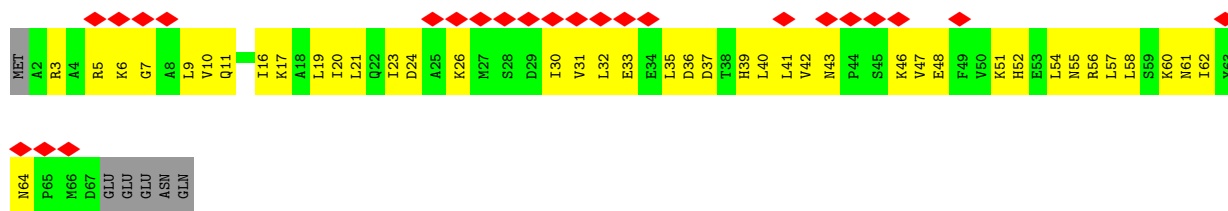


• Molecule 25: General transcription and DNA repair factor IIH helicase subunit XPD

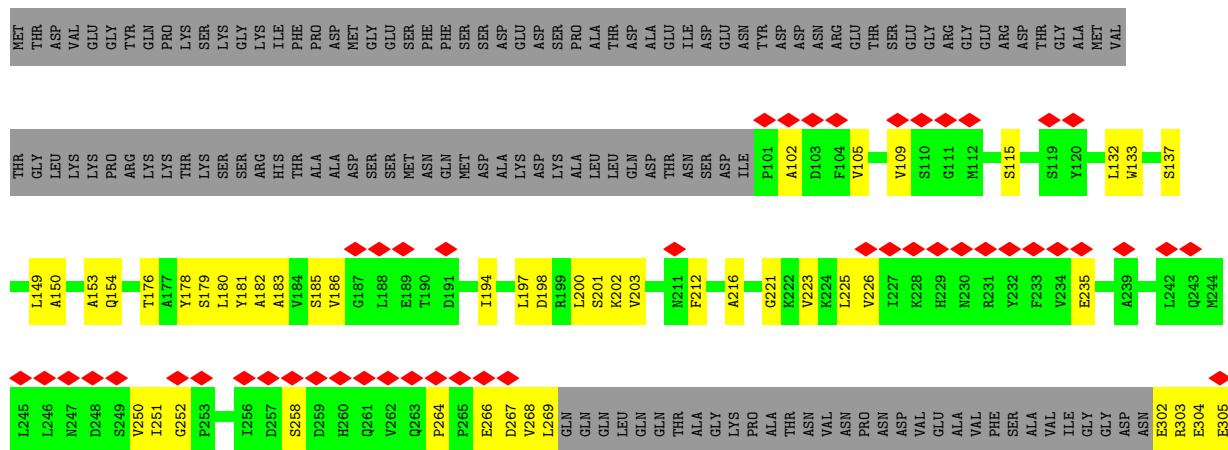


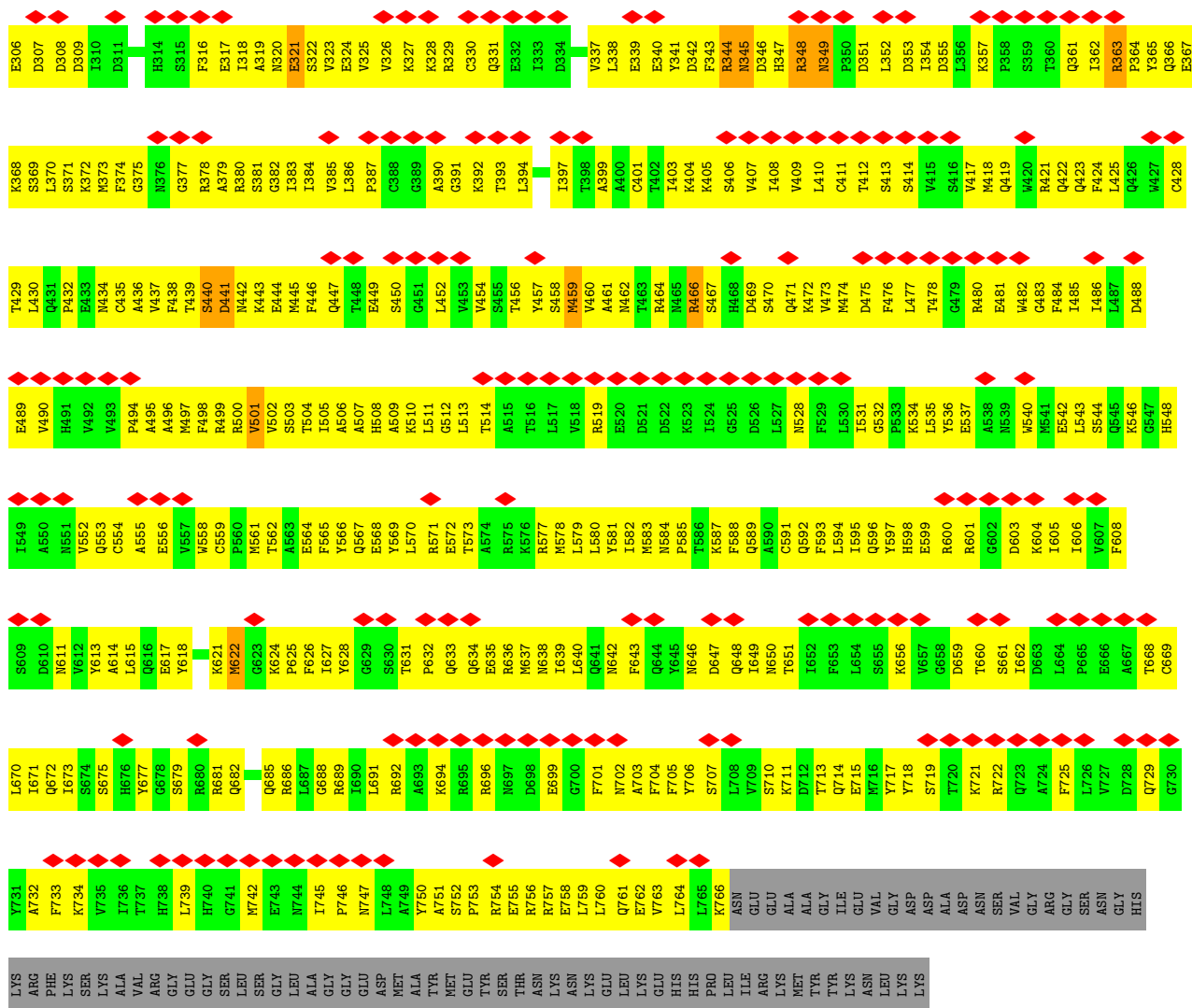


- Molecule 28: General transcription and DNA repair factor IIH subunit TFB5

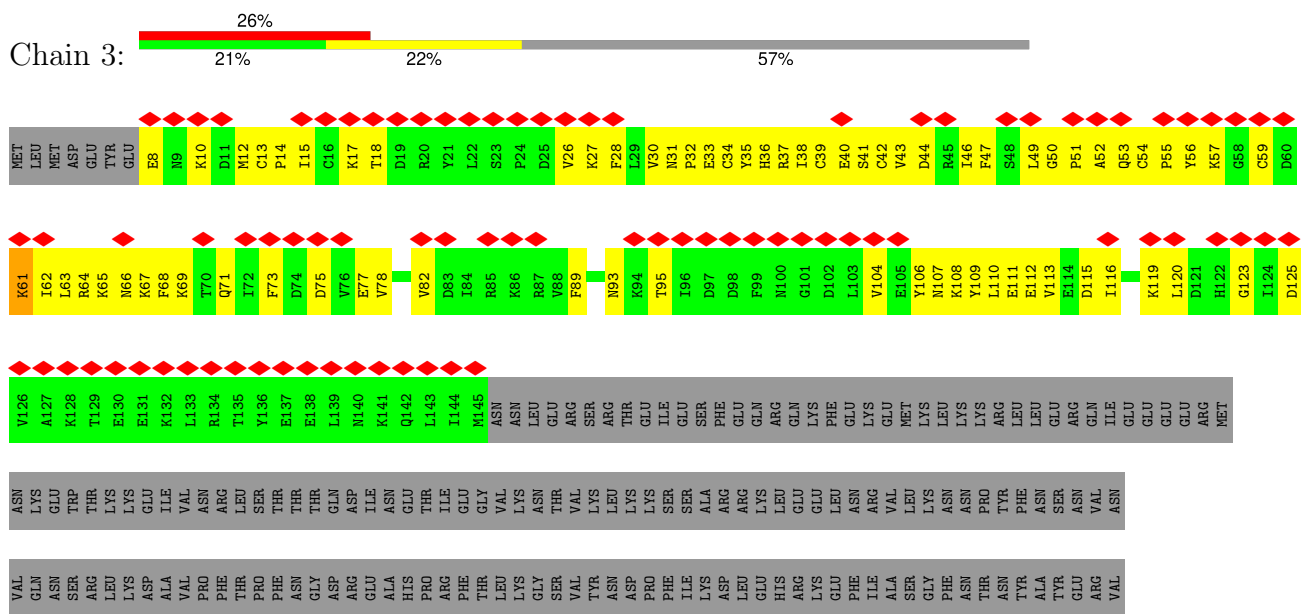


- Molecule 29: General transcription and DNA repair factor IIH helicase subunit XPB





• Molecule 30: BJ4_G0050160.mRNA.1.CDS.1



LEU
THR
GLU
ALA
PHE
MET
GLY
LEU
GLY
CYS
VAL
ILE
SER
GLU
GLU
LEU

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	69513	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 ($e^-/\text{\AA}^2$)	45	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.056	Depositor
Minimum map value	0.000	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.003	Depositor
Recommended contour level	0.018	Depositor
Map size (Å)	474.87997, 501.37997, 473.81998	wwPDB
Map dimensions	448, 473, 447	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: SF4, MG, ZN

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	A	0.46	1/11192 (0.0%)	0.71	8/15128 (0.1%)
2	B	0.48	1/9357 (0.0%)	0.70	1/12618 (0.0%)
3	C	0.53	1/2099 (0.0%)	0.76	0/2845
4	D	0.31	0/1262	0.65	0/1693
5	E	0.41	0/1780	0.69	0/2395
6	F	0.59	1/682 (0.1%)	0.89	0/922
7	G	0.32	0/1368	0.62	0/1844
8	H	0.47	0/1107	0.79	0/1499
9	I	0.40	0/962	0.83	0/1295
10	J	0.55	0/541	1.03	3/727 (0.4%)
11	K	0.53	0/922	0.88	2/1244 (0.2%)
12	L	0.39	0/360	0.94	0/478
13	M	0.32	0/2204	0.69	0/2963
14	Q	0.26	0/1168	0.52	0/1579
15	R	0.24	0/1312	0.51	0/1777
16	U	0.16	0/389	0.47	0/523
17	V	0.18	0/384	0.39	0/518
18	W	0.21	0/1490	0.47	0/2014
19	X	0.17	0/993	0.47	0/1357
20	T	0.41	0/1273	0.55	0/1962
21	N	0.42	0/1301	0.60	0/2006
22	O	0.24	0/1443	0.49	0/1942
23	1	0.20	0/1896	0.48	0/2543
24	4	0.26	0/2062	0.58	0/2805
25	0	0.26	0/6226	0.57	1/8407 (0.0%)
26	6	0.25	0/2506	0.56	0/3402
27	2	0.23	0/3057	0.53	1/4071 (0.0%)
28	5	0.23	0/502	0.53	0/677
29	7	0.32	0/4521	0.67	4/6036 (0.1%)
30	3	0.49	1/870 (0.1%)	0.71	2/1190 (0.2%)
All	All	0.38	5/65229 (0.0%)	0.65	22/88460 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	7
2	B	0	4
8	H	0	3
9	I	0	1
10	J	0	1
13	M	0	3
18	W	0	1
19	X	0	1
24	4	0	2
25	0	0	2
26	6	0	1
29	7	0	8
30	3	0	2
All	All	0	36

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	3	61	LYS	CE-NZ	-6.75	1.29	1.49
1	A	1074	GLU	CD-OE2	-5.86	1.14	1.25
6	F	135	ARG	CA-CB	-5.54	1.39	1.53
3	C	166	GLU	CA-CB	-5.31	1.44	1.53
2	B	112	LEU	C-N	-5.14	1.23	1.33

All (22) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	7	501	VAL	N-CA-C	-11.57	101.38	112.83
27	2	70	GLY	N-CA-C	-8.83	103.97	114.48
10	J	63	TYR	CA-C-N	-8.14	108.93	120.49
10	J	63	TYR	C-N-CA	-8.14	108.93	120.49
10	J	6	ARG	N-CA-C	7.68	121.11	110.35
11	K	6	ARG	NE-CZ-NH1	-7.38	114.12	121.50
11	K	6	ARG	CA-CB-CG	-7.09	99.91	114.10
1	A	510	GLN	CA-C-N	-7.04	115.84	122.66
1	A	510	GLN	C-N-CA	-7.04	115.84	122.66
1	A	54	ASN	CA-C-N	-6.64	108.34	123.15
1	A	54	ASN	C-N-CA	-6.64	108.34	123.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	868	MET	CB-CG-SD	-5.90	95.01	112.70
30	3	61	LYS	CG-CD-CE	5.79	124.61	111.30
29	7	622	MET	CB-CG-SD	-5.76	95.43	112.70
25	0	738	VAL	N-CA-C	-5.63	108.01	113.53
1	A	464	PRO	CA-C-N	5.59	132.21	121.54
1	A	464	PRO	C-N-CA	5.59	132.21	121.54
30	3	61	LYS	CA-CB-CG	-5.47	103.17	114.10
29	7	441	ASP	N-CA-C	-5.38	105.85	112.90
29	7	459	MET	CB-CG-SD	-5.38	96.56	112.70
1	A	451	HIS	CB-CA-C	-5.14	101.32	109.80
1	A	451	HIS	CA-CB-CG	5.05	118.85	113.80

There are no chirality outliers.

All (36) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
25	0	171	LEU	Peptide
25	0	740	SER	Peptide
30	3	125	ASP	Peptide
30	3	95	THR	Peptide
24	4	255	ASP	Peptide
24	4	299	ILE	Peptide
26	6	449	HIS	Peptide
29	7	321	GLU	Peptide
29	7	344	ARG	Peptide
29	7	345	ASN	Peptide
29	7	348	ARG	Peptide
29	7	363	ARG	Peptide
29	7	440	SER	Peptide
29	7	458	SER	Peptide
29	7	466	ARG	Peptide
1	A	22	PHE	Peptide
1	A	250	ILE	Peptide
1	A	450	LEU	Peptide
1	A	465	TYR	Peptide
1	A	524	VAL	Peptide
1	A	71	GLN	Peptide
1	A	957	PRO	Peptide
2	B	1017	ILE	Peptide
2	B	363	HIS	Peptide
2	B	834	ASN	Peptide
2	B	99	LYS	Peptide

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Mol	Chain	Res	Type	Group
8	H	109	LYS	Peptide
8	H	22	LYS	Peptide
8	H	48	PRO	Peptide
9	I	82	GLU	Peptide
10	J	2	ILE	Peptide
13	M	269	ILE	Peptide
13	M	270	ALA	Peptide
13	M	272	LYS	Peptide
18	W	159	ASP	Peptide
19	X	213	GLY	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	10997	0	11081	837	0
2	B	9178	0	9195	650	0
3	C	2061	0	2029	162	0
4	D	1253	0	1275	133	0
5	E	1744	0	1772	126	0
6	F	670	0	690	66	0
7	G	1340	0	1357	138	0
8	H	1089	0	1062	129	0
9	I	944	0	899	106	0
10	J	532	0	542	65	0
11	K	904	0	911	93	0
12	L	358	0	383	39	0
13	M	2175	0	2283	231	0
14	Q	1144	0	1034	115	0
15	R	1303	0	1110	125	0
16	U	383	0	384	25	0
17	V	381	0	388	35	0
18	W	1469	0	1432	112	0
19	X	984	0	722	60	0
20	T	1140	0	641	73	0
21	N	1156	0	631	87	0
22	O	1416	0	1493	105	0
23	1	2411	0	1881	126	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
24	4	2041	0	1954	147	0
25	0	6108	0	6168	577	0
26	6	2527	0	2321	226	0
27	2	3011	0	2600	229	0
28	5	498	0	506	59	0
29	7	4447	0	3905	498	0
30	3	860	0	623	103	0
31	3	2	0	0	0	0
31	4	1	0	0	0	0
31	6	4	0	0	0	0
31	A	2	0	0	0	0
31	B	1	0	0	0	0
31	C	1	0	0	0	0
31	I	2	0	0	0	0
31	J	1	0	0	0	0
31	L	1	0	0	0	0
31	M	1	0	0	0	0
31	W	1	0	0	0	0
32	A	1	0	0	0	0
33	0	8	0	0	3	0
All	All	64550	0	61272	5031	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 40.

All (5031) 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)
12:L:48:CYS:SG	12:L:53:HIS:HB3	1.70	1.32
12:L:34:CYS:SG	12:L:36:SER:OG	1.98	1.18
2:B:649:LYS:NZ	2:B:736:THR:O	1.83	1.11
25:0:162:LEU:HD22	25:0:194:PHE:HB3	1.27	1.09
1:A:253:ASN:HA	2:B:935:ARG:HH12	1.17	1.07
22:O:197:MET:HE2	22:O:204:LEU:HD11	1.38	1.05
12:L:52:GLY:O	12:L:54:ARG:NH1	1.90	1.02
29:7:438:PHE:HB3	29:7:459:MET:HE2	1.45	0.97
9:I:56:ALA:HB3	9:I:89:GLN:HG2	1.46	0.97
24:4:175:ARG:HG2	24:4:256:PRO:HA	1.46	0.97
11:K:9:LEU:HD12	11:K:69:ALA:HB2	1.45	0.96
14:Q:122:GLN:HG3	14:Q:394:LYS:HD2	1.47	0.96
25:0:112:LYS:HD3	25:0:129:VAL:HG21	1.45	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:7:348:ARG:HD3	29:7:481:GLU:HB3	1.48	0.96
21:N:38:DC:H2'	21:N:39:DG:C8	2.01	0.95
29:7:303:ARG:H	29:7:323:VAL:HG13	1.32	0.95
20:T:136:DG:N2	21:N:30:DC:O2	2.01	0.94
6:F:85:MET:HE3	6:F:90:ARG:HB2	1.49	0.94
24:4:254:ILE:HD13	24:4:263:VAL:HA	1.49	0.94
18:W:105:VAL:HB	19:X:262:MET:HE2	1.50	0.93
15:R:138:GLN:HB2	15:R:211:LYS:HB2	1.50	0.92
1:A:1443:VAL:O	7:G:60:ARG:NH1	2.02	0.92
1:A:1171:GLN:O	1:A:1175:SER:N	2.02	0.91
29:7:572:GLU:O	29:7:577:ARG:NH2	2.02	0.91
14:Q:121:PHE:HB2	15:R:131:ASN:HB3	1.51	0.91
7:G:119:LEU:HD11	7:G:130:TYR:HB3	1.52	0.91
24:4:273:ARG:HG3	26:6:373:SER:HB3	1.52	0.91
9:I:24:ARG:HH12	9:I:26:LEU:HD23	1.35	0.91
25:0:133:CYS:O	25:0:137:THR:N	2.05	0.90
25:0:420:ILE:HG23	25:0:435:MET:HE1	1.51	0.90
29:7:303:ARG:HB2	29:7:323:VAL:HG22	1.54	0.90
2:B:364:ILE:HG22	2:B:585:VAL:HG13	1.50	0.90
4:D:64:VAL:HG22	4:D:67:ARG:HH12	1.37	0.90
2:B:496:ARG:NH2	2:B:540:SER:O	2.02	0.90
2:B:276:ILE:HG21	2:B:280:ILE:HD11	1.53	0.90
30:3:33:GLU:O	30:3:61:LYS:NZ	2.03	0.90
28:5:31:VAL:HG22	28:5:42:VAL:HG22	1.54	0.90
7:G:44:TYR:HB2	7:G:79:PHE:HB3	1.53	0.89
25:0:190:LEU:HB3	25:0:195:ILE:HD11	1.54	0.89
12:L:30:ILE:O	12:L:56:LEU:HA	1.70	0.89
1:A:450:LEU:HD12	1:A:1074:GLU:HG2	1.55	0.89
13:M:214:LEU:HA	13:M:217:LYS:HB2	1.52	0.89
8:H:128:ASN:HD22	8:H:130:ARG:HH12	1.20	0.89
25:0:534:PRO:HG2	25:0:618:ARG:HG3	1.55	0.89
25:0:139:GLY:H	25:0:303:GLU:HB2	1.38	0.88
2:B:998:ASP:OD1	3:C:35:ARG:NH2	2.06	0.88
20:T:131:DA:N6	21:N:35:DT:O4	2.07	0.88
29:7:561:MET:HE2	29:7:566:TYR:HB2	1.55	0.88
18:W:121:GLY:HA2	18:W:132:THR:HA	1.56	0.88
25:0:576:ALA:HA	25:0:579:THR:HB	1.56	0.88
2:B:1106:ARG:NH2	2:B:1110:PRO:O	2.06	0.87
5:E:100:ILE:O	5:E:104:ASN:N	2.07	0.87
26:6:325:PRO:HG3	26:6:370:LEU:HB3	1.55	0.87
26:6:277:CYS:HB3	26:6:287:PHE:HB2	1.55	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:7:583:MET:HB3	29:7:763:VAL:HG21	1.56	0.87
1:A:1386:ARG:HG2	1:A:1403:GLU:HG2	1.53	0.87
29:7:542:GLU:HB3	29:7:543:LEU:HD12	1.56	0.87
2:B:309:GLN:OE1	2:B:392:ARG:NH2	2.08	0.87
14:Q:362:VAL:HB	14:Q:398:ARG:HH11	1.41	0.86
26:6:174:MET:HE2	26:6:209:SER:H	1.39	0.86
1:A:445:ASN:HB2	1:A:455:MET:HG2	1.57	0.86
13:M:313:TYR:O	13:M:317:TYR:N	2.08	0.86
20:T:131:DA:H2''	20:T:132:DC:H5''	1.55	0.86
28:5:23:ILE:HG12	28:5:57:LEU:HD21	1.56	0.86
6:F:107:VAL:HG11	6:F:111:LEU:HD23	1.56	0.86
25:0:191:CYS:SG	25:0:194:PHE:HB2	2.15	0.86
1:A:1158:PRO:HB3	1:A:1188:GLN:HB2	1.57	0.85
1:A:867:ILE:HG22	5:E:208:TYR:HE1	1.40	0.85
10:J:6:ARG:HH12	10:J:13:VAL:HA	1.42	0.85
27:2:21:VAL:HA	27:2:24:ARG:HB2	1.58	0.85
1:A:43:GLU:HG3	13:M:90:ASN:HD22	1.41	0.85
13:M:286:ILE:HD12	13:M:289:PHE:HB2	1.58	0.85
1:A:870:GLU:OE1	5:E:202:SER:OG	1.94	0.85
12:L:28:LYS:HA	12:L:39:SER:HA	1.58	0.85
16:U:267:VAL:HB	16:U:274:TYR:HB2	1.58	0.85
29:7:498:PHE:HA	29:7:501:VAL:HG22	1.57	0.85
29:7:669:CYS:HA	29:7:704:PHE:HB2	1.59	0.84
27:2:454:TYR:CE1	28:5:11:GLN:HB3	2.11	0.84
3:C:61:GLU:O	3:C:65:HIS:N	2.09	0.84
26:6:169:MET:O	26:6:192:HIS:NE2	2.10	0.84
2:B:211:VAL:HG21	2:B:483:LEU:HD13	1.56	0.84
2:B:806:THR:HG23	2:B:1045:SER:HA	1.60	0.84
20:T:128:DG:N2	21:N:38:DC:O2	2.11	0.84
7:G:115:MET:HE3	7:G:116:PRO:HD2	1.59	0.84
2:B:73:GLN:HB3	2:B:86:ARG:HB2	1.60	0.84
25:0:321:ILE:HD12	25:0:326:ARG:HD2	1.58	0.84
25:0:743:ASP:O	25:0:747:HIS:N	2.10	0.84
2:B:217:ARG:NH1	2:B:407:ASP:OD1	2.10	0.84
11:K:20:LYS:HB2	11:K:34:THR:HB	1.60	0.84
29:7:266:GLU:O	29:7:508:HIS:NE2	2.10	0.84
2:B:232:SER:O	2:B:261:ARG:NH1	2.11	0.84
13:M:188:THR:N	13:M:191:GLU:OE1	2.11	0.84
25:0:37:ASN:HD22	25:0:475:PHE:HD2	1.22	0.84
1:A:1444:MET:HE1	6:F:135:ARG:HD2	1.60	0.83
6:F:79:ARG:NH1	6:F:150:GLU:OE2	2.11	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:48:CYS:SG	12:L:53:HIS:CB	2.62	0.83
15:R:129:VAL:HG21	15:R:218:VAL:HG12	1.59	0.83
25:0:512:ILE:HG21	25:0:545:LEU:HG	1.59	0.83
26:6:175:ARG:NH2	26:6:203:GLU:O	2.11	0.83
22:O:104:MET:HE2	22:O:115:ILE:HD11	1.59	0.83
1:A:276:LEU:HD13	1:A:292:ALA:HB3	1.59	0.83
13:M:286:ILE:HG12	13:M:293:ILE:HG13	1.61	0.83
9:I:83:ASN:HD22	9:I:110:PHE:HZ	1.26	0.82
30:3:28:PHE:O	30:3:37:ARG:NH1	2.10	0.82
1:A:898:ARG:NH2	1:A:900:ASP:OD1	2.12	0.82
24:4:175:ARG:NH2	24:4:252:MET:O	2.12	0.82
14:Q:120:LYS:HB3	14:Q:394:LYS:HZ3	1.45	0.82
2:B:736:THR:O	2:B:738:PHE:N	2.13	0.82
3:C:70:ILE:HD12	3:C:142:VAL:HG11	1.60	0.82
29:7:370:LEU:O	29:7:374:PHE:N	2.09	0.82
30:3:63:LEU:HG	30:3:68:PHE:HE1	1.45	0.82
2:B:684:LEU:HA	2:B:689:LEU:HD12	1.62	0.82
21:N:15:DG:H2"	21:N:16:DC:C5	2.14	0.82
27:2:84:LEU:HD11	27:2:86:LEU:HD23	1.60	0.82
5:E:40:GLU:HA	5:E:43:LYS:HE2	1.62	0.82
8:H:109:LYS:O	8:H:111:LEU:N	2.13	0.82
24:4:202:SER:HB2	24:4:206:MET:HE1	1.62	0.82
2:B:771:SER:O	2:B:775:LYS:NZ	2.12	0.82
4:D:194:LEU:HB3	7:G:86:VAL:HG21	1.60	0.82
23:1:194:VAL:HA	23:1:197:GLU:HG2	1.60	0.82
30:3:46:ILE:HG21	30:3:63:LEU:HB3	1.61	0.82
1:A:767:GLN:NE2	1:A:768:GLN:O	2.12	0.81
13:M:191:GLU:HG2	15:R:268:MET:SD	2.19	0.81
28:5:20:ILE:O	28:5:24:ASP:N	2.12	0.81
29:7:383:ILE:HG13	29:7:528:ASN:HA	1.61	0.81
2:B:904:ARG:NH1	12:L:68:GLU:OE2	2.12	0.81
1:A:412:ARG:HH22	2:B:1108:ARG:NH1	1.78	0.81
27:2:26:TYR:CE1	27:2:35:ILE:HD13	2.15	0.81
29:7:408:ILE:HD13	29:7:477:LEU:HD11	1.62	0.81
1:A:526:ASP:O	1:A:530:GLY:N	2.11	0.81
1:A:939:ASP:OD2	1:A:1023:ARG:NH1	2.14	0.81
4:D:159:THR:O	4:D:163:VAL:N	2.11	0.81
13:M:123:ASP:O	13:M:127:GLN:N	2.10	0.81
13:M:268:GLU:OE2	13:M:319:HIS:NE2	2.13	0.81
25:0:63:TYR:O	25:0:67:ARG:NH2	2.14	0.81
25:0:625:ILE:HB	25:0:686:PHE:HE1	1.45	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:7:628:TYR:N	29:7:631:THR:OG1	2.12	0.81
30:3:107:ASN:O	30:3:111:GLU:N	2.13	0.81
24:4:52:LYS:HD3	24:4:243:GLY:HA2	1.63	0.81
27:2:81:MET:HG3	27:2:87:LEU:HD22	1.60	0.81
21:N:21:DA:H5''	22:O:203:VAL:HG11	1.63	0.81
9:I:18:GLU:HA	9:I:25:LEU:HA	1.62	0.81
14:Q:141:ARG:NE	14:Q:348:TYR:O	2.14	0.81
20:T:137:DA:H2''	20:T:138:DA:H5'	1.63	0.81
23:1:251:LEU:HB3	23:1:254:GLU:HB2	1.63	0.81
1:A:1189:SER:OG	1:A:1256:GLU:OE2	1.98	0.81
14:Q:127:ILE:HG23	14:Q:129:PRO:HD3	1.63	0.81
7:G:112:LYS:HE2	7:G:120:THR:HA	1.63	0.80
23:1:188:ASN:HD22	23:1:191:LEU:HG	1.45	0.80
26:6:263:VAL:HG22	26:6:277:CYS:SG	2.21	0.80
3:C:61:GLU:N	3:C:61:GLU:OE1	2.15	0.80
25:0:271:ILE:HD13	25:0:332:VAL:HG21	1.64	0.80
25:0:542:PRO:HB3	25:0:626:PRO:HA	1.63	0.80
25:0:136:MET:HG3	25:0:154:GLU:HG2	1.64	0.80
1:A:1100:ARG:NH1	1:A:1111:MET:SD	2.53	0.80
2:B:278:GLN:OE1	2:B:337:ARG:NH1	2.14	0.80
3:C:47:ASP:OD1	3:C:169:LYS:NZ	2.15	0.80
21:N:21:DA:OP1	22:O:196:ARG:NH2	2.14	0.80
26:6:349:CYS:SG	26:6:363:CYS:HB2	2.22	0.80
4:D:192:LYS:HG2	4:D:198:LEU:O	1.82	0.80
28:5:58:LEU:O	28:5:62:ILE:N	2.14	0.80
8:H:34:ASP:O	8:H:37:LYS:NZ	2.15	0.80
9:I:19:ASP:OD1	9:I:22:ASN:N	2.13	0.80
2:B:890:TYR:O	2:B:893:LEU:N	2.14	0.80
8:H:10:PHE:HB3	8:H:28:ALA:HB1	1.63	0.80
29:7:460:VAL:HG12	29:7:501:VAL:HG12	1.64	0.80
29:7:495:ALA:O	29:7:499:ARG:N	2.11	0.79
30:3:61:LYS:HD3	30:3:62:ILE:N	1.96	0.79
1:A:253:ASN:HA	2:B:935:ARG:NH1	1.97	0.79
1:A:1216:ILE:HD12	1:A:1267:MET:HE1	1.62	0.79
7:G:88:ASP:OD1	7:G:144:ARG:NE	2.15	0.79
9:I:29:CYS:SG	9:I:31:THR:OG1	2.40	0.79
26:6:291:LEU:HD13	26:6:297:LEU:HB2	1.64	0.79
29:7:670:LEU:O	29:7:706:TYR:N	2.15	0.79
11:K:7:PHE:O	11:K:11:LEU:N	2.13	0.79
25:0:321:ILE:HD11	30:3:104:VAL:HA	1.65	0.79
20:T:153:DC:O2	21:N:13:DG:N2	2.15	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:O:102:VAL:HB	22:O:115:ILE:HB	1.62	0.79
22:O:114:LEU:HB2	22:O:122:VAL:HB	1.63	0.79
29:7:267:ASP:O	29:7:348:ARG:NH2	2.14	0.79
5:E:3:GLN:N	5:E:6:GLU:OE1	2.16	0.79
26:6:262:LYS:HB2	26:6:287:PHE:HD2	1.48	0.79
29:7:385:VAL:HG12	29:7:514:THR:HB	1.64	0.79
9:I:28:GLU:HA	9:I:35:VAL:HA	1.65	0.79
22:O:93:GLU:O	22:O:103:ILE:N	2.15	0.79
25:0:514:ASN:HD21	25:0:553:MET:HG2	1.47	0.79
2:B:287:ARG:HD3	2:B:292:ILE:HA	1.63	0.79
13:M:125:GLU:O	13:M:154:TYR:OH	2.01	0.79
13:M:250:MET:O	13:M:253:THR:OG1	2.00	0.79
26:6:174:MET:HE2	26:6:209:SER:N	1.98	0.79
29:7:485:ILE:HB	29:7:510:LYS:HA	1.63	0.79
2:B:363:HIS:O	2:B:365:THR:N	2.15	0.79
25:0:161:ASN:ND2	25:0:189:THR:O	2.14	0.79
27:2:7:LYS:HD2	27:2:201:TRP:CD1	2.18	0.79
28:5:30:ILE:HG21	28:5:46:LYS:HB2	1.65	0.79
29:7:617:GLU:HG2	29:7:759:LEU:HD11	1.65	0.78
1:A:1144:LYS:HB3	1:A:1268:LEU:HB3	1.64	0.78
25:0:270:ARG:NH2	25:0:388:LEU:O	2.14	0.78
27:2:31:THR:HG22	27:2:226:PHE:HD2	1.48	0.78
2:B:219:ALA:HB3	2:B:222:ILE:HD11	1.65	0.78
8:H:11:GLN:HA	8:H:54:SER:HA	1.66	0.78
13:M:210:MET:HA	13:M:213:ILE:HD12	1.65	0.78
27:2:86:LEU:O	27:2:101:ASN:N	2.11	0.78
29:7:302:GLU:O	29:7:321:GLU:N	2.16	0.78
2:B:197:PHE:O	2:B:488:TYR:OH	2.01	0.78
25:0:30:LYS:HD3	25:0:479:LEU:HD21	1.65	0.78
27:2:24:ARG:HB3	27:2:219:VAL:HG21	1.65	0.78
29:7:485:ILE:O	29:7:511:LEU:N	2.17	0.78
25:0:60:GLN:HE22	25:0:204:ASN:HB3	1.48	0.78
2:B:72:GLU:HA	2:B:87:LYS:HA	1.64	0.78
1:A:590:ARG:NH2	1:A:621:THR:OG1	2.16	0.78
1:A:604:GLY:O	1:A:605:MET:HE2	1.84	0.78
13:M:284:LEU:HA	13:M:287:LEU:HB2	1.66	0.78
26:6:137:LEU:HG	26:6:204:PRO:HG2	1.65	0.78
1:A:408:ASP:H	1:A:430:TRP:CD1	2.02	0.78
25:0:171:LEU:HD22	25:0:184:TYR:CE2	2.19	0.78
1:A:1342:GLU:OE2	5:E:212:ARG:NE	2.16	0.78
8:H:56:THR:OG1	8:H:146:ARG:NH2	2.18	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:0:32:LEU:HD22	25:0:231:ILE:HD11	1.65	0.77
25:0:625:ILE:HG22	25:0:685:ARG:HH21	1.47	0.77
5:E:28:TYR:HA	5:E:64:PRO:HA	1.65	0.77
13:M:272:LYS:HD3	20:T:148:DA:H4'	1.66	0.77
30:3:75:ASP:O	30:3:78:VAL:N	2.16	0.77
8:H:45:GLU:HB2	8:H:46:LEU:HD12	1.66	0.77
1:A:935:GLN:NE2	1:A:939:ASP:OD1	2.18	0.77
1:A:1113:THR:O	1:A:1330:ASN:ND2	2.18	0.77
1:A:1100:ARG:NH1	1:A:1103:GLU:OE1	2.17	0.77
6:F:88:TYR:O	6:F:92:ARG:N	2.15	0.77
25:0:278:ASP:O	25:0:281:LYS:NZ	2.16	0.77
2:B:604:ARG:HA	2:B:609:ILE:HB	1.65	0.77
4:D:189:ASP:O	4:D:193:THR:N	2.18	0.77
13:M:239:ILE:HG23	13:M:282:ILE:HD11	1.67	0.77
14:Q:101:PHE:HB2	15:R:95:ILE:HB	1.66	0.77
17:V:68:THR:HG22	22:O:90:ARG:HA	1.67	0.77
23:1:375:LEU:HD13	25:0:571:VAL:HG11	1.67	0.77
1:A:1199:ARG:HD2	1:A:1236:LEU:HD11	1.65	0.77
24:4:289:CYS:SG	24:4:290:SER:N	2.58	0.77
15:R:223:GLN:HG2	15:R:224:VAL:H	1.48	0.77
1:A:451:HIS:CD2	1:A:1074:GLU:OE2	2.37	0.77
1:A:556:TRP:O	11:K:26:LYS:NZ	2.18	0.77
1:A:1005:GLU:O	1:A:1009:ASN:ND2	2.18	0.77
3:C:55:THR:OG1	3:C:152:GLU:N	2.17	0.77
4:D:39:ASN:OD1	4:D:43:GLU:N	2.17	0.77
6:F:124:GLU:HA	6:F:127:GLU:OE2	1.85	0.77
25:0:564:TRP:O	25:0:594:ARG:NH2	2.17	0.77
1:A:525:GLN:HG3	1:A:526:ASP:H	1.49	0.77
1:A:1151:GLU:HG2	9:I:45:ARG:HG3	1.65	0.77
2:B:380:TYR:OH	2:B:623:GLU:OE2	2.03	0.77
7:G:39:THR:HG23	7:G:45:ILE:HD11	1.66	0.77
25:0:497:ILE:HD11	25:0:713:ALA:HB2	1.66	0.77
26:6:261:VAL:O	26:6:281:ASN:ND2	2.17	0.77
9:I:19:ASP:N	9:I:24:ARG:O	2.17	0.76
14:Q:343:ARG:NH2	14:Q:346:GLU:O	2.17	0.76
15:R:67:GLN:HB3	15:R:219:CYS:HB2	1.68	0.76
26:6:163:GLN:HE21	26:6:305:VAL:HG11	1.49	0.76
2:B:861:ASP:OD1	2:B:862:GLN:N	2.17	0.76
13:M:277:ILE:HA	13:M:280:VAL:HG22	1.67	0.76
2:B:198:ASP:OD1	2:B:199:MET:N	2.19	0.76
26:6:289:LYS:NZ	26:6:290:ILE:O	2.19	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:340:ALA:O	2:B:348:ARG:NH2	2.19	0.76
5:E:17:ARG:HH12	5:E:36:GLU:HG2	1.48	0.76
7:G:24:GLN:O	7:G:28:THR:N	2.18	0.76
23:1:343:ILE:O	23:1:345:ASP:N	2.18	0.76
25:0:307:VAL:HB	25:0:382:SER:HB2	1.68	0.76
2:B:604:ARG:NH2	2:B:691:GLU:OE2	2.18	0.76
8:H:104:PHE:HE2	8:H:136:LYS:HA	1.51	0.76
29:7:621:LYS:O	29:7:747:ASN:ND2	2.19	0.76
4:D:154:PHE:HE2	4:D:163:VAL:HG21	1.50	0.76
25:0:643:ARG:HH11	25:0:650:GLU:HG3	1.50	0.76
18:W:123:MET:HG2	18:W:130:LYS:HD3	1.68	0.76
25:0:642:MET:HE2	25:0:653:PHE:CE2	2.21	0.76
1:A:226:GLU:N	1:A:226:GLU:OE1	2.19	0.76
1:A:356:ASP:HB2	1:A:469:ARG:HD2	1.68	0.75
23:1:284:TRP:HA	23:1:287:PHE:HB3	1.66	0.75
29:7:497:MET:HA	29:7:500:ARG:HE	1.51	0.75
4:D:148:LEU:O	4:D:152:SER:N	2.18	0.75
5:E:97:VAL:HB	5:E:127:ILE:HD11	1.68	0.75
9:I:50:THR:HG23	9:I:52:ILE:HG12	1.67	0.75
23:1:274:VAL:HG13	23:1:279:LYS:HE3	1.68	0.75
25:0:136:MET:HE2	25:0:154:GLU:HG3	1.66	0.75
25:0:725:ALA:HB1	26:6:290:ILE:HD11	1.67	0.75
2:B:879:ARG:HA	2:B:885:MET:HE1	1.67	0.75
8:H:7:ASP:HA	8:H:57:VAL:O	1.86	0.75
23:1:479:UNK:O	23:1:483:UNK:N	2.19	0.75
7:G:49:LEU:HD11	7:G:75:ARG:HE	1.51	0.75
24:4:58:ILE:O	24:4:62:ASN:ND2	2.19	0.75
28:5:10:VAL:HB	28:5:40:LEU:HB2	1.68	0.75
2:B:67:SER:OG	2:B:92:PHE:N	2.19	0.75
25:0:13:PRO:HA	25:0:92:TYR:CD2	2.21	0.75
2:B:798:TYR:HD2	10:J:4:PRO:HG3	1.52	0.75
14:Q:116:THR:HA	15:R:136:THR:HA	1.68	0.75
29:7:588:PHE:HE1	29:7:622:MET:HG2	1.51	0.75
30:3:30:VAL:HB	30:3:71:GLN:CD	2.12	0.75
3:C:29:MET:HE1	11:K:98:LEU:HD21	1.69	0.75
1:A:417:TYR:OH	13:M:37:ARG:NH1	2.20	0.75
1:A:951:GLU:OE2	1:A:953:ASN:N	2.20	0.75
25:0:478:VAL:HG12	25:0:479:LEU:HD12	1.67	0.75
3:C:180:TYR:HB3	3:C:228:PHE:HD1	1.50	0.75
13:M:87:LEU:HD11	13:M:151:LYS:HB3	1.66	0.75
16:U:285:TRP:HZ2	22:O:91:ASN:HD21	1.35	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:V:72:CYS:HA	22:O:83:LYS:HD2	1.69	0.75
23:1:339:LEU:HD11	25:0:583:LEU:HD23	1.69	0.75
26:6:347:TYR:N	26:6:356:VAL:O	2.13	0.75
7:G:91:VAL:HA	7:G:101:VAL:HA	1.69	0.74
14:Q:102:PRO:HA	15:R:94:LYS:HA	1.66	0.74
20:T:136:DG:N1	21:N:30:DC:N3	2.30	0.74
25:0:722:ARG:HG2	26:6:267:SER:HB3	1.69	0.74
29:7:579:LEU:HA	29:7:582:ILE:HB	1.68	0.74
13:M:33:LYS:HD2	13:M:47:LEU:HD11	1.67	0.74
13:M:123:ASP:HA	13:M:126:VAL:HB	1.68	0.74
14:Q:123:SER:HB3	14:Q:361:TRP:HH2	1.50	0.74
25:0:162:LEU:HD12	25:0:166:GLU:HB3	1.69	0.74
29:7:418:MET:HG3	29:7:421:ARG:HH12	1.49	0.74
30:3:63:LEU:HG	30:3:68:PHE:CE1	2.22	0.74
2:B:1124:ARG:NE	13:M:61:SER:OG	2.19	0.74
5:E:177:ARG:HE	5:E:215:MET:HE2	1.52	0.74
18:W:124:CYS:HB2	18:W:131:TYR:HE2	1.53	0.74
1:A:230:ARG:HB2	1:A:233:TRP:CD2	2.22	0.74
2:B:230:ALA:O	2:B:261:ARG:NH1	2.20	0.74
7:G:146:LYS:NZ	7:G:148:GLU:OE1	2.20	0.74
8:H:104:PHE:CE2	8:H:136:LYS:HA	2.23	0.74
9:I:15:TYR:O	9:I:27:PHE:HA	1.87	0.74
26:6:262:LYS:HA	26:6:287:PHE:HB3	1.68	0.74
3:C:243:VAL:O	3:C:247:GLY:N	2.21	0.74
26:6:164:ASN:ND2	26:6:305:VAL:O	2.20	0.74
22:O:104:MET:HE3	22:O:139:TYR:CD1	2.23	0.74
27:2:51:VAL:O	27:2:109:ARG:NH2	2.17	0.74
27:2:419:LYS:NZ	27:2:426:CYS:O	2.20	0.74
29:7:671:ILE:HG13	29:7:706:TYR:HB2	1.70	0.74
2:B:70:ILE:HD11	14:Q:333:LYS:HB2	1.69	0.74
18:W:108:ARG:NH2	18:W:112:ASP:OD2	2.20	0.74
25:0:11:LEU:HD21	25:0:97:LEU:HG	1.69	0.74
2:B:304:ASP:OD1	2:B:306:ASN:ND2	2.19	0.74
9:I:17:ARG:O	9:I:26:LEU:N	2.16	0.74
13:M:24:CYS:SG	13:M:27:CYS:N	2.60	0.74
29:7:646:ASN:ND2	29:7:648:GLN:OE1	2.21	0.74
1:A:390:GLN:HA	1:A:393:ARG:HH12	1.52	0.74
1:A:1012:ARG:O	1:A:1016:THR:OG1	2.06	0.74
2:B:658:ILE:HG22	2:B:662:MET:HE1	1.70	0.74
25:0:322:PRO:HB2	25:0:325:ILE:HB	1.69	0.74
9:I:7:CYS:HB3	9:I:12:ASN:H	1.51	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:V:62:VAL:HG22	17:V:85:VAL:HG22	1.68	0.73
29:7:251:ILE:H	29:7:329:ARG:HE	1.35	0.73
2:B:57:TYR:HE1	15:R:251:ARG:HG2	1.53	0.73
2:B:835:GLN:HA	2:B:1013:ASN:HD22	1.53	0.73
18:W:144:ARG:HH22	18:W:146:GLU:HB3	1.52	0.73
25:0:169:ASP:O	25:0:198:ARG:NH1	2.19	0.73
25:0:422:PRO:HG2	25:0:423:TYR:HD1	1.53	0.73
29:7:370:LEU:HA	29:7:373:MET:HG2	1.69	0.73
29:7:559:CYS:HB2	29:7:710:SER:HA	1.70	0.73
1:A:443:LEU:HD11	1:A:455:MET:HB3	1.71	0.73
2:B:93:GLY:HA3	2:B:131:ASP:HB2	1.70	0.73
5:E:177:ARG:HD2	5:E:215:MET:HG2	1.71	0.73
24:4:275:SER:HA	24:4:282:VAL:HA	1.70	0.73
29:7:304:GLU:HB3	29:7:507:ALA:O	1.89	0.73
1:A:18:GLN:NE2	1:A:19:PHE:O	2.21	0.73
4:D:172:LEU:HD21	4:D:198:LEU:HD21	1.71	0.73
18:W:14:LYS:NZ	18:W:30:ASP:OD1	2.20	0.73
24:4:254:ILE:HA	24:4:261:ILE:HD11	1.70	0.73
1:A:98:LYS:HA	1:A:101:LYS:HB2	1.70	0.73
1:A:471:ASN:ND2	1:A:650:GLN:OE1	2.18	0.73
13:M:84:ASN:N	13:M:88:ASP:OD2	2.21	0.73
1:A:1170:ILE:O	1:A:1174:PHE:N	2.21	0.73
25:0:171:LEU:HD22	25:0:184:TYR:HE2	1.54	0.73
25:0:687:SER:HA	25:0:706:LEU:HD12	1.70	0.73
18:W:35:HIS:HB2	18:W:38:LEU:HB2	1.69	0.73
29:7:435:CYS:HB3	29:7:454:VAL:HG12	1.69	0.73
1:A:568:PRO:HG2	8:H:46:LEU:HD23	1.70	0.72
1:A:1010:ALA:O	1:A:1014:ALA:N	2.22	0.72
1:A:1013:ASP:OD1	5:E:207:ARG:NH1	2.20	0.72
2:B:844:SER:O	2:B:847:ASP:N	2.22	0.72
13:M:280:VAL:HG12	13:M:309:ILE:HA	1.70	0.72
15:R:97:ILE:HB	15:R:104:ILE:HD12	1.70	0.72
1:A:874:ASP:OD1	1:A:875:ALA:N	2.22	0.72
25:0:301:ASP:HB2	25:0:305:PRO:HG3	1.69	0.72
2:B:521:LEU:HD22	2:B:633:VAL:HG12	1.71	0.72
25:0:625:ILE:HD12	25:0:626:PRO:HD2	1.71	0.72
29:7:583:MET:HE2	29:7:759:LEU:HB3	1.69	0.72
3:C:91:HIS:HA	3:C:95:CYS:SG	2.30	0.72
9:I:28:GLU:HB2	9:I:35:VAL:HG22	1.72	0.72
25:0:468:MET:HE1	25:0:648:ILE:HD13	1.72	0.72
26:6:176:ASN:HA	26:6:206:GLY:HA3	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:564:ALA:HB2	1:A:576:GLN:NE2	2.04	0.72
4:D:66:ARG:O	4:D:70:PHE:N	2.17	0.72
25:0:195:ILE:HG22	25:0:199:MET:HE1	1.70	0.72
29:7:381:SER:HB3	29:7:484:PHE:CE1	2.25	0.72
14:Q:141:ARG:NH2	14:Q:346:GLU:O	2.22	0.72
19:X:200:VAL:HG22	19:X:201:THR:HG23	1.69	0.72
23:1:329:LEU:HD11	23:1:383:GLU:HB3	1.71	0.72
26:6:124:ARG:NH1	26:6:305:VAL:O	2.23	0.72
27:2:106:ILE:O	27:2:110:ASN:N	2.14	0.72
1:A:889:SER:HB3	1:A:1297:GLU:OE1	1.89	0.72
20:T:114:DG:N3	29:7:464:ARG:NH1	2.37	0.72
29:7:372:LYS:HE3	29:7:543:LEU:HD11	1.71	0.72
1:A:885:THR:HG23	1:A:1024:SER:HB2	1.71	0.72
3:C:61:GLU:HA	3:C:64:ALA:HB3	1.72	0.72
24:4:236:LEU:HD22	24:4:252:MET:HE1	1.71	0.72
29:7:499:ARG:O	29:7:503:SER:OG	2.05	0.72
1:A:311:GLN:O	13:M:101:THR:HG23	1.89	0.72
22:O:68:GLN:N	22:O:161:VAL:O	2.20	0.72
24:4:65:LEU:O	24:4:117:ARG:NH2	2.22	0.72
1:A:1309:ASP:OD1	1:A:1310:GLY:N	2.23	0.72
13:M:303:GLN:HB2	15:R:270:MET:SD	2.30	0.72
23:1:251:LEU:O	23:1:255:LYS:N	2.14	0.72
25:0:138:ASN:O	25:0:142:LYS:N	2.20	0.72
1:A:92:HIS:NE2	1:A:304:MET:HE1	2.05	0.71
2:B:314:LEU:HD21	2:B:386:LEU:HD11	1.72	0.71
25:0:114:LEU:HD22	25:0:182:LEU:HD21	1.72	0.71
1:A:1259:MET:O	1:A:1263:ILE:N	2.19	0.71
27:2:184:ILE:O	27:2:389:ASN:ND2	2.23	0.71
27:2:185:THR:O	27:2:189:PHE:N	2.19	0.71
1:A:53:LEU:HD11	1:A:266:LEU:HB3	1.73	0.71
1:A:475:THR:OG1	1:A:480:ALA:O	2.08	0.71
1:A:1148:ILE:HG23	9:I:49:ILE:HD12	1.73	0.71
4:D:206:GLU:O	4:D:210:ILE:HG12	1.90	0.71
25:0:506:ILE:HD12	25:0:522:TYR:HE1	1.55	0.71
29:7:348:ARG:HE	29:7:508:HIS:CD2	2.07	0.71
1:A:451:HIS:CD2	1:A:1074:GLU:CD	2.68	0.71
5:E:171:LYS:N	5:E:174:GLN:HE22	1.89	0.71
13:M:98:LYS:HB2	13:M:107:THR:HG22	1.73	0.71
24:4:201:PHE:O	24:4:205:LYS:N	2.22	0.71
22:O:94:TYR:HB2	22:O:102:VAL:HA	1.71	0.71
24:4:304:LYS:HG3	24:4:309:ASP:HA	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:7:583:MET:O	29:7:618:TYR:OH	2.08	0.71
4:D:176:GLU:OE2	4:D:197:SER:OG	2.07	0.71
27:2:71:LYS:NZ	27:2:500:GLN:HB3	2.06	0.71
1:A:1199:ARG:NH1	1:A:1233:ASP:O	2.23	0.71
2:B:886:LYS:NZ	2:B:938:SER:O	2.19	0.71
3:C:165:LYS:O	11:K:6:ARG:NH2	2.24	0.71
7:G:60:ARG:HH11	7:G:61:ILE:H	1.38	0.71
26:6:186:SER:HB2	26:6:192:HIS:CE1	2.26	0.71
11:K:36:GLU:OE1	11:K:70:ARG:NH2	2.23	0.71
20:T:151:DC:H42	21:N:15:DG:H1	1.39	0.71
24:4:74:ALA:HA	24:4:87:TYR:HD2	1.54	0.71
25:0:274:VAL:HG23	25:0:282:LEU:HD11	1.73	0.71
27:2:90:ASN:HB3	27:2:97:MET:HB2	1.72	0.71
28:5:23:ILE:HA	28:5:26:LYS:HD2	1.72	0.71
1:A:1147:THR:HG21	1:A:1195:LEU:HD12	1.73	0.71
2:B:199:MET:HE2	2:B:492:LEU:HD21	1.72	0.71
2:B:662:MET:HA	2:B:665:GLU:HB3	1.72	0.71
2:B:834:ASN:HB3	2:B:1013:ASN:HB2	1.72	0.71
24:4:258:LEU:C	24:4:260:PRO:HD3	2.15	0.71
25:0:506:ILE:HD13	25:0:525:MET:HE1	1.71	0.71
28:5:9:LEU:HD11	28:5:39:HIS:HB3	1.73	0.71
1:A:626:ASN:O	1:A:631:HIS:ND1	2.23	0.71
1:A:1193:LEU:HB2	1:A:1260:LEU:HD11	1.73	0.71
26:6:160:PHE:HA	26:6:305:VAL:HG13	1.70	0.71
29:7:583:MET:HE3	29:7:760:LEU:N	2.06	0.71
1:A:84:ILE:O	1:A:239:LEU:N	2.23	0.70
2:B:367:LEU:HB2	2:B:370:PHE:HE2	1.53	0.70
2:B:997:GLU:OE1	2:B:997:GLU:N	2.21	0.70
8:H:8:ASP:OD1	8:H:9:ILE:N	2.24	0.70
13:M:272:LYS:HG2	22:O:191:PRO:HB3	1.72	0.70
22:O:68:GLN:NE2	22:O:163:SER:OG	2.24	0.70
24:4:75:VAL:H	24:4:88:PRO:HD3	1.55	0.70
26:6:294:GLU:OE1	26:6:294:GLU:N	2.23	0.70
29:7:417:VAL:HG13	29:7:454:VAL:HG22	1.73	0.70
24:4:25:LEU:HD22	24:4:163:ILE:HD13	1.73	0.70
25:0:747:HIS:O	25:0:751:ARG:HG2	1.91	0.70
1:A:636:GLU:OE2	1:A:962:ARG:NH1	2.23	0.70
1:A:686:ALA:O	1:A:690:VAL:N	2.24	0.70
13:M:84:ASN:O	13:M:88:ASP:N	2.23	0.70
25:0:327:ARG:HG3	25:0:330:HIS:H	1.56	0.70
1:A:795:GLU:N	1:A:795:GLU:OE1	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:71:LEU:O	2:B:88:TYR:N	2.16	0.70
29:7:446:PHE:HB3	29:7:473:VAL:HG22	1.74	0.70
1:A:149:GLU:OE1	1:A:164:ARG:NH2	2.25	0.70
29:7:303:ARG:N	29:7:323:VAL:HG13	2.04	0.70
1:A:1019:CYS:HB3	1:A:1023:ARG:HH21	1.56	0.70
1:A:1444:MET:CE	6:F:135:ARG:HD2	2.20	0.70
7:G:87:VAL:N	7:G:145:VAL:O	2.22	0.70
22:O:102:VAL:N	22:O:115:ILE:O	2.24	0.70
27:2:442:ARG:O	27:2:446:LEU:N	2.21	0.70
29:7:225:LEU:H	29:7:309:ASP:HB2	1.56	0.70
1:A:98:LYS:O	1:A:102:VAL:N	2.24	0.70
2:B:96:TYR:N	2:B:129:PHE:O	2.18	0.70
6:F:87:LYS:O	6:F:91:ALA:N	2.22	0.70
8:H:103:LYS:HB3	8:H:115:TYR:HB2	1.74	0.70
9:I:80:SER:OG	9:I:103:CYS:SG	2.49	0.70
29:7:327:LYS:HE3	29:7:499:ARG:HG2	1.74	0.70
1:A:493:GLN:HB2	2:B:1149:GLU:OE2	1.91	0.70
1:A:867:ILE:HG22	5:E:208:TYR:CE1	2.25	0.70
18:W:20:PHE:HA	19:X:260:VAL:HG22	1.73	0.70
27:2:482:LEU:HG	27:2:493:ILE:HG22	1.74	0.70
3:C:148:ARG:HG2	3:C:151:GLN:CD	2.16	0.70
5:E:72:PHE:HB2	5:E:75:MET:HG3	1.74	0.70
29:7:459:MET:HE1	29:7:470:SER:HA	1.74	0.70
1:A:473:SER:OG	1:A:650:GLN:NE2	2.25	0.70
1:A:1240:CYS:SG	1:A:1241:ARG:N	2.65	0.70
2:B:604:ARG:HE	2:B:615:MET:HE1	1.57	0.70
2:B:1213:THR:OG1	2:B:1215:ARG:NH1	2.25	0.70
23:1:558:CYS:HB2	23:1:623:ILE:HG22	1.74	0.70
26:6:136:MET:HB3	26:6:146:HIS:HB2	1.74	0.70
1:A:981:LEU:HD21	1:A:1039:LYS:HA	1.74	0.69
3:C:259:LEU:HD11	11:K:91:CYS:HB3	1.73	0.69
11:K:58:PHE:HB3	11:K:76:GLN:HB3	1.73	0.69
14:Q:109:GLU:OE1	14:Q:109:GLU:N	2.24	0.69
15:R:62:GLU:HG3	15:R:213:ALA:HB1	1.73	0.69
25:0:115:CYS:O	25:0:121:SER:OG	2.07	0.69
9:I:27:PHE:N	9:I:36:GLU:O	2.25	0.69
24:4:66:ALA:HB2	24:4:118:PHE:HZ	1.56	0.69
25:0:157:GLU:HA	25:0:160:GLU:HG2	1.73	0.69
25:0:424:GLU:OE1	25:0:432:ASN:ND2	2.25	0.69
4:D:172:LEU:HD23	4:D:177:VAL:HG13	1.73	0.69
10:J:1:MET:O	10:J:53:HIS:NE2	2.23	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:1:249:UNK:O	23:1:252:SER:OG	2.09	0.69
29:7:587:LYS:HD3	29:7:673:ILE:HD12	1.73	0.69
11:K:29:ASN:HD22	11:K:79:GLU:HA	1.57	0.69
17:V:78:PHE:HB2	17:V:113:ILE:HB	1.74	0.69
25:0:39:ILE:HD11	25:0:463:ILE:HG21	1.73	0.69
25:0:625:ILE:HB	25:0:686:PHE:CE1	2.27	0.69
29:7:321:GLU:HG3	29:7:322:SER:HB2	1.74	0.69
5:E:109:ILE:HG12	5:E:133:GLU:HB2	1.74	0.69
5:E:145:THR:HA	5:E:150:VAL:HG11	1.74	0.69
14:Q:115:ARG:O	15:R:137:GLU:N	2.22	0.69
24:4:276:CYS:SG	24:4:297:SER:N	2.65	0.69
27:2:451:VAL:HG11	28:5:51:LYS:HE2	1.74	0.69
29:7:412:THR:HG22	29:7:489:GLU:HB2	1.75	0.69
2:B:86:ARG:HA	2:B:138:GLU:HG2	1.74	0.69
27:2:238:LYS:H	27:2:269:PHE:N	1.89	0.69
2:B:299:GLU:HG2	2:B:571:PRO:HG2	1.75	0.69
2:B:1161:HIS:CD2	2:B:1193:GLN:HB3	2.28	0.69
20:T:136:DG:H2'	20:T:137:DA:C8	2.27	0.69
24:4:79:TYR:N	24:4:82:GLY:O	2.23	0.69
25:0:195:ILE:CG2	25:0:199:MET:HE1	2.23	0.69
25:0:681:LEU:HB3	25:0:686:PHE:CD2	2.28	0.69
26:6:328:ILE:N	26:6:346:GLY:O	2.26	0.69
1:A:229:SER:HB3	1:A:1416:ALA:HB2	1.75	0.69
1:A:450:LEU:HD12	1:A:1074:GLU:CG	2.22	0.69
1:A:1063:MET:SD	1:A:1436:ILE:HG23	2.32	0.69
1:A:1293:SER:HG	1:A:1295:THR:HG1	1.37	0.69
2:B:125:SER:HA	2:B:171:PRO:HA	1.75	0.69
9:I:16:PRO:HB2	9:I:25:LEU:HD11	1.74	0.69
9:I:89:GLN:HA	9:I:91:ARG:CZ	2.22	0.69
10:J:12:LYS:HG2	10:J:13:VAL:H	1.57	0.69
18:W:99:LYS:HG2	18:W:186:LEU:HD13	1.75	0.69
23:1:180:LEU:HD11	23:1:221:ALA:HB2	1.75	0.69
25:0:263:GLY:O	25:0:267:LEU:N	2.20	0.69
28:5:47:VAL:HG12	28:5:51:LYS:HE3	1.73	0.69
29:7:407:VAL:HG22	29:7:484:PHE:HB3	1.75	0.69
29:7:460:VAL:HG13	29:7:474:MET:SD	2.33	0.69
8:H:80:ARG:NE	11:K:57:LEU:HD22	2.07	0.69
12:L:34:CYS:SG	12:L:36:SER:CB	2.81	0.69
27:2:458:LEU:N	28:5:5:ARG:O	2.25	0.69
2:B:20:ASP:OD1	2:B:23:ALA:N	2.26	0.69
25:0:448:PRO:O	25:0:452:ARG:N	2.26	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:0:657:ASP:OD1	25:0:660:ARG:NH2	2.26	0.69
27:2:22:GLN:O	27:2:26:TYR:N	2.25	0.69
1:A:768:GLN:OE1	1:A:816:HIS:ND1	2.24	0.68
8:H:32:THR:OG1	8:H:33:GLN:OE1	2.05	0.68
9:I:7:CYS:SG	9:I:8:ARG:N	2.65	0.68
28:5:35:LEU:HB2	28:5:39:HIS:HB2	1.75	0.68
29:7:439:THR:HB	29:7:442:ASN:H	1.59	0.68
1:A:450:LEU:CD1	1:A:1074:GLU:HG2	2.22	0.68
13:M:45:CYS:HB3	13:M:48:CYS:SG	2.33	0.68
14:Q:120:LYS:HG2	15:R:132:GLU:HG2	1.75	0.68
25:0:83:LEU:HD13	25:0:177:SER:HA	1.74	0.68
25:0:120:VAL:HG12	25:0:129:VAL:HG13	1.75	0.68
30:3:78:VAL:O	30:3:82:VAL:N	2.25	0.68
23:1:378:MET:HE2	25:0:564:TRP:CD2	2.28	0.68
3:C:254:LYS:HZ3	11:K:42:LEU:HD21	1.58	0.68
8:H:8:ASP:OD2	8:H:32:THR:OG1	2.12	0.68
25:0:139:GLY:H	25:0:303:GLU:CB	2.06	0.68
26:6:294:GLU:O	26:6:298:LYS:N	2.26	0.68
1:A:1450:LEU:HD21	7:G:20:PRO:HA	1.75	0.68
2:B:120:ARG:HB2	2:B:122:LEU:HG	1.75	0.68
2:B:345:LYS:HA	2:B:348:ARG:HB3	1.76	0.68
4:D:204:ASP:O	4:D:208:GLU:N	2.21	0.68
7:G:91:VAL:HB	7:G:139:ILE:HA	1.76	0.68
18:W:176:MET:HA	18:W:179:ILE:HG22	1.75	0.68
24:4:276:CYS:HB3	24:4:279:THR:HB	1.74	0.68
25:0:495:MET:HB2	25:0:680:VAL:HG23	1.76	0.68
27:2:197:ASN:O	27:2:201:TRP:N	2.26	0.68
1:A:406:ILE:HB	1:A:431:LYS:HB2	1.75	0.68
2:B:199:MET:N	2:B:199:MET:SD	2.67	0.68
2:B:749:LEU:HB3	2:B:753:ALA:HB3	1.76	0.68
27:2:73:GLN:HA	27:2:76:ASN:HB2	1.76	0.68
1:A:134:ARG:O	1:A:138:ILE:N	2.21	0.68
1:A:407:ARG:N	1:A:411:ASP:O	2.25	0.68
4:D:56:ARG:NE	4:D:152:SER:OG	2.25	0.68
4:D:60:LYS:O	4:D:64:VAL:HG23	1.93	0.68
5:E:170:LEU:HB3	5:E:174:GLN:NE2	2.08	0.68
25:0:144:LYS:HB2	25:0:153:VAL:HG21	1.74	0.68
27:2:54:GLU:OE2	27:2:109:ARG:NH2	2.25	0.68
27:2:138:TYR:O	27:2:142:LYS:N	2.24	0.68
11:K:93:SER:OG	11:K:97:LYS:NZ	2.27	0.68
14:Q:103:LEU:HD11	15:R:106:LEU:HD11	1.73	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:W:108:ARG:HE	19:X:262:MET:HE3	1.59	0.68
1:A:250:ILE:HD11	13:M:62:GLU:HB2	1.76	0.68
5:E:47:CYS:HA	5:E:53:PRO:HA	1.76	0.68
10:J:36:LEU:HD23	10:J:39:LEU:HD12	1.75	0.68
14:Q:386:MET:HE1	15:R:92:LEU:HA	1.74	0.68
29:7:564:GLU:O	29:7:568:GLU:N	2.20	0.68
3:C:248:ILE:HG23	11:K:98:LEU:HD12	1.75	0.68
7:G:157:ILE:O	7:G:158:HIS:ND1	2.27	0.68
14:Q:373:TYR:HB3	15:R:70:LEU:HD11	1.74	0.68
29:7:608:PHE:HB3	29:7:672:GLN:HA	1.74	0.68
1:A:134:ARG:NH1	1:A:221:SER:O	2.27	0.67
1:A:446:ARG:HB2	1:A:487:MET:HG2	1.75	0.67
2:B:428:ILE:HD11	2:B:448:ILE:HG12	1.76	0.67
13:M:163:LEU:HD21	13:M:213:ILE:HD11	1.75	0.67
1:A:398:GLU:OE1	1:A:400:PRO:HD2	1.94	0.67
2:B:878:GLN:O	2:B:882:THR:OG1	2.13	0.67
15:R:125:THR:OG1	15:R:223:GLN:N	2.28	0.67
26:6:323:GLY:H	26:6:368:LEU:HD13	1.58	0.67
29:7:642:ASN:HB3	29:7:649:ILE:HD13	1.74	0.67
30:3:17:LYS:HE3	30:3:57:LYS:HE3	1.77	0.67
1:A:1062:GLU:OE2	6:F:88:TYR:OH	2.04	0.67
2:B:188:ASP:O	2:B:192:LEU:N	2.24	0.67
4:D:123:LEU:HD11	4:D:145:MET:CG	2.25	0.67
25:0:182:LEU:HD13	25:0:192:PRO:HG3	1.76	0.67
26:6:127:ILE:HD13	26:6:221:LEU:HD11	1.77	0.67
1:A:1104:ILE:HD11	1:A:1351:GLU:HG3	1.76	0.67
1:A:1433:MET:HE2	2:B:1145:SER:HB2	1.77	0.67
14:Q:117:HIS:HB2	15:R:135:PHE:CE1	2.30	0.67
26:6:264:LEU:HD23	26:6:300:LEU:HB3	1.76	0.67
27:2:106:ILE:HA	27:2:109:ARG:HB3	1.77	0.67
1:A:1169:ILE:O	1:A:1173:HIS:ND1	2.21	0.67
2:B:173:MET:HE3	2:B:201:GLY:HA2	1.76	0.67
8:H:7:ASP:OD1	8:H:8:ASP:N	2.27	0.67
8:H:98:TYR:CD2	8:H:141:TYR:CE1	2.83	0.67
17:V:71:PHE:CZ	17:V:74:ASP:HA	2.30	0.67
25:0:120:VAL:HG22	25:0:132:LYS:HB3	1.76	0.67
1:A:544:ASP:OD1	1:A:545:GLN:N	2.27	0.67
2:B:282:ILE:HA	2:B:285:ILE:HD12	1.77	0.67
24:4:25:LEU:HB3	24:4:174:SER:HB3	1.77	0.67
27:2:370:PHE:HB2	27:2:373:MET:HG3	1.77	0.67
27:2:450:ARG:HH12	28:5:54:LEU:HD11	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:30:VAL:HG13	30:3:35:TYR:H	1.58	0.67
1:A:1386:ARG:CG	1:A:1403:GLU:HG2	2.25	0.67
2:B:209:GLU:OE1	2:B:485:ARG:NE	2.28	0.67
3:C:148:ARG:NH1	10:J:63:TYR:O	2.28	0.67
13:M:171:ILE:O	13:M:175:SER:N	2.27	0.67
1:A:451:HIS:CD2	1:A:1074:GLU:OE1	2.48	0.67
4:D:166:LEU:HD21	4:D:210:ILE:HD12	1.76	0.67
9:I:50:THR:HB	9:I:92:ARG:HH22	1.58	0.67
10:J:6:ARG:NH1	10:J:13:VAL:HA	2.10	0.67
20:T:130:DG:H1'	20:T:131:DA:H5'	1.77	0.67
29:7:582:ILE:HG12	29:7:673:ILE:HG22	1.76	0.67
8:H:64:ASN:OD1	8:H:65:LEU:N	2.27	0.67
13:M:87:LEU:HD13	13:M:130:PHE:CE1	2.29	0.67
13:M:164:LYS:HZ3	20:T:138:DA:H5''	1.59	0.67
18:W:67:ILE:HA	18:W:89:VAL:HA	1.75	0.67
18:W:122:TYR:HE2	18:W:147:PHE:HD2	1.41	0.67
2:B:481:GLN:OE1	2:B:494:HIS:NE2	2.23	0.67
7:G:96:GLN:NE2	18:W:145:THR:OG1	2.27	0.67
1:A:114:LEU:HD12	1:A:142:CYS:HB3	1.76	0.66
2:B:344:LYS:O	2:B:348:ARG:N	2.28	0.66
3:C:101:LEU:HD12	3:C:118:LEU:HD21	1.75	0.66
13:M:286:ILE:HG12	13:M:293:ILE:CG1	2.25	0.66
22:O:175:LEU:HD23	22:O:193:LEU:HD13	1.76	0.66
1:A:151:ASP:HA	1:A:164:ARG:HG2	1.76	0.66
9:I:7:CYS:HB2	9:I:29:CYS:HB2	1.76	0.66
9:I:74:GLU:HA	9:I:81:ARG:HA	1.76	0.66
29:7:352:LEU:HD22	29:7:406:SER:HA	1.76	0.66
8:H:10:PHE:N	8:H:55:LEU:O	2.29	0.66
27:2:368:ALA:H	27:2:375:LEU:HB3	1.61	0.66
28:5:10:VAL:N	28:5:40:LEU:O	2.26	0.66
1:A:1107:VAL:HG12	1:A:1383:SER:HB3	1.77	0.66
2:B:129:PHE:HE1	15:R:266:THR:HG21	1.60	0.66
4:D:31:GLN:HA	4:D:34:GLN:HG2	1.75	0.66
6:F:114:GLU:OE1	6:F:116:ASP:N	2.28	0.66
13:M:140:ALA:O	13:M:141:GLU:HG2	1.95	0.66
25:0:447:LYS:O	25:0:451:GLU:N	2.28	0.66
25:0:514:ASN:ND2	25:0:553:MET:HG2	2.09	0.66
29:7:194:ILE:O	29:7:198:ASP:N	2.27	0.66
29:7:583:MET:CE	29:7:759:LEU:HB3	2.26	0.66
1:A:668:ASP:OD1	1:A:742:ASN:N	2.24	0.66
15:R:63:ARG:O	15:R:65:ASN:ND2	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:4:50:ILE:O	24:4:54:LEU:N	2.22	0.66
25:0:190:LEU:CB	25:0:195:ILE:HD11	2.24	0.66
25:0:364:LYS:NZ	25:0:370:GLU:OE1	2.28	0.66
1:A:1212:VAL:O	1:A:1216:ILE:HG12	1.96	0.66
10:J:10:CYS:SG	10:J:11:GLY:N	2.68	0.66
25:0:620:VAL:HG22	25:0:679:MET:HG3	1.77	0.66
27:2:50:MET:HE3	27:2:100:LEU:HG	1.76	0.66
27:2:481:LEU:HD21	27:2:484:LYS:HG2	1.77	0.66
29:7:608:PHE:N	29:7:671:ILE:O	2.29	0.66
1:A:500:GLU:OE1	2:B:1145:SER:OG	2.12	0.66
2:B:573:GLN:OE1	2:B:573:GLN:N	2.28	0.66
3:C:180:TYR:HB3	3:C:228:PHE:CD1	2.31	0.66
8:H:12:VAL:O	8:H:52:GLN:N	2.21	0.66
9:I:24:ARG:NH1	9:I:25:LEU:O	2.29	0.66
10:J:3:VAL:HG11	10:J:18:TRP:HB2	1.77	0.66
13:M:310:LYS:O	13:M:314:LYS:N	2.29	0.66
25:0:266:ALA:O	25:0:270:ARG:N	2.29	0.66
1:A:1389:PHE:O	1:A:1392:SER:OG	2.12	0.66
4:D:157:GLN:H	4:D:157:GLN:CD	2.04	0.66
14:Q:103:LEU:N	15:R:93:GLY:O	2.28	0.66
15:R:94:LYS:O	15:R:107:LEU:N	2.25	0.66
22:O:104:MET:O	22:O:113:ALA:N	2.17	0.66
25:0:286:TYR:HA	25:0:289:LEU:HD12	1.77	0.66
25:0:348:VAL:O	25:0:422:PRO:HB3	1.96	0.66
25:0:394:GLU:HA	25:0:397:THR:HG23	1.78	0.66
27:2:136:ASP:O	27:2:140:ALA:N	2.20	0.66
1:A:722:LEU:HD13	1:A:799:PHE:CD1	2.30	0.66
1:A:999:VAL:H	1:A:1011:GLN:HE22	1.44	0.66
2:B:841:MET:SD	2:B:846:ILE:HD11	2.35	0.66
9:I:88:SER:O	9:I:91:ARG:NH1	2.29	0.66
15:R:65:ASN:O	15:R:67:GLN:NE2	2.28	0.66
15:R:123:GLU:OE2	15:R:125:THR:OG1	2.11	0.66
24:4:298:ILE:C	24:4:300:PRO:HD3	2.21	0.66
25:0:353:SER:HA	25:0:419:ILE:HA	1.78	0.66
25:0:492:PHE:HB2	25:0:679:MET:HE1	1.78	0.66
26:6:120:ARG:HB3	26:6:307:PRO:HB2	1.78	0.66
29:7:352:LEU:O	29:7:404:LYS:NZ	2.29	0.66
29:7:386:LEU:HD12	29:7:513:LEU:HD22	1.78	0.66
29:7:437:VAL:N	29:7:444:GLU:OE1	2.29	0.66
29:7:510:LYS:HB2	29:7:531:ILE:HG12	1.76	0.66
29:7:566:TYR:O	29:7:570:LEU:N	2.21	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:82:GLY:O	1:A:241:VAL:N	2.25	0.66
1:A:390:GLN:HA	1:A:393:ARG:NH1	2.10	0.66
1:A:1151:GLU:HA	9:I:45:ARG:HA	1.78	0.66
13:M:259:THR:OG1	13:M:281:SER:OG	2.14	0.66
21:N:14:DC:H2"	21:N:15:DG:C8	2.30	0.66
23:1:174:LEU:O	23:1:181:GLN:NE2	2.27	0.66
23:1:339:LEU:H	25:0:580:SER:HB2	1.61	0.66
25:0:74:ARG:NH1	25:0:239:ASN:OD1	2.29	0.66
26:6:291:LEU:HD23	26:6:291:LEU:H	1.60	0.66
26:6:403:CYS:SG	26:6:404:PHE:N	2.69	0.66
29:7:348:ARG:HG2	29:7:508:HIS:CE1	2.31	0.66
29:7:580:LEU:HD21	29:7:764:LEU:HG	1.76	0.66
1:A:862:ASN:HA	5:E:174:GLN:HB2	1.77	0.65
1:A:1152:ILE:HG12	9:I:44:TYR:HB3	1.77	0.65
1:A:1348:LEU:HD23	1:A:1372:VAL:HG13	1.77	0.65
2:B:1065:GLN:OE1	2:B:1067:ARG:N	2.25	0.65
2:B:1074:ASN:HB2	2:B:1081:LEU:HD21	1.77	0.65
3:C:164:ALA:HB2	3:C:171:GLY:HA2	1.77	0.65
13:M:124:ASN:HA	13:M:127:GLN:HG2	1.78	0.65
15:R:97:ILE:HA	15:R:104:ILE:HG23	1.77	0.65
20:T:153:DC:N3	21:N:13:DG:N1	2.37	0.65
25:0:167:VAL:HG22	25:0:198:ARG:HD2	1.78	0.65
1:A:1171:GLN:HA	1:A:1174:PHE:HB3	1.77	0.65
1:A:1423:GLY:O	1:A:1427:ASN:ND2	2.28	0.65
4:D:67:ARG:HA	4:D:133:THR:HG21	1.76	0.65
5:E:48:ASP:OD1	5:E:52:ARG:N	2.29	0.65
17:V:78:PHE:N	17:V:113:ILE:O	2.19	0.65
20:T:150:DG:H21	21:N:17:DG:H1	1.44	0.65
26:6:451:CYS:HB3	26:6:454:CYS:HB2	1.77	0.65
29:7:409:VAL:HG22	29:7:486:ILE:HD12	1.78	0.65
29:7:497:MET:HA	29:7:500:ARG:HB2	1.78	0.65
30:3:51:PRO:HB3	30:3:64:ARG:HD2	1.79	0.65
1:A:42:ASP:OD2	1:A:46:THR:OG1	2.14	0.65
1:A:837:ILE:HG12	1:A:840:ARG:HH21	1.62	0.65
24:4:66:ALA:HB2	24:4:118:PHE:CZ	2.31	0.65
29:7:197:LEU:O	29:7:201:SER:N	2.24	0.65
30:3:32:PRO:HB3	30:3:69:LYS:HD3	1.78	0.65
4:D:25:ALA:N	7:G:83:LYS:O	2.29	0.65
13:M:41:GLY:HA2	13:M:56:LEU:HB3	1.79	0.65
18:W:19:GLY:HA3	19:X:255:ILE:HG13	1.78	0.65
18:W:100:TRP:HE3	19:X:277:LYS:HZ3	1.43	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:0:341:TYR:OH	25:0:362:HIS:ND1	2.24	0.65
1:A:1187:GLN:HG3	1:A:1188:GLN:HG3	1.78	0.65
1:A:1200:ALA:O	1:A:1204:ASP:N	2.27	0.65
2:B:868:MET:HE1	13:M:182:ARG:HG2	1.79	0.65
2:B:894:ASP:N	2:B:898:LEU:O	2.29	0.65
4:D:51:ASN:HD22	4:D:181:GLY:HA3	1.62	0.65
5:E:61:GLN:HG3	5:E:105:PHE:HE1	1.61	0.65
18:W:5:ILE:HD11	18:W:189:ILE:HA	1.79	0.65
21:N:31:DA:H1'	21:N:32:DA:C8	2.32	0.65
25:0:117:HIS:HD2	25:0:156:CYS:HA	1.61	0.65
25:0:224:ASN:HA	25:0:227:SER:HB3	1.79	0.65
25:0:301:ASP:HB3	25:0:304:GLU:HB2	1.77	0.65
26:6:157:VAL:HG13	26:6:169:MET:HE1	1.77	0.65
1:A:1155:ASP:OD2	1:A:1241:ARG:NH2	2.27	0.65
7:G:137:ILE:HG23	7:G:143:ILE:HD11	1.77	0.65
10:J:56:LEU:O	10:J:59:LYS:N	2.26	0.65
13:M:113:ALA:O	13:M:116:LYS:HG2	1.96	0.65
18:W:101:LYS:HD3	19:X:263:TRP:CE2	2.32	0.65
25:0:158:TYR:HB3	25:0:191:CYS:HB3	1.79	0.65
29:7:179:SER:O	29:7:183:ALA:N	2.17	0.65
29:7:555:ALA:N	29:7:705:PHE:O	2.29	0.65
1:A:110:CYS:SG	1:A:112:LYS:N	2.70	0.65
2:B:195:CYS:HG	2:B:783:THR:HG1	0.65	0.65
14:Q:103:LEU:HB3	14:Q:386:MET:SD	2.35	0.65
24:4:210:ILE:O	24:4:233:GLY:HA3	1.97	0.65
27:2:25:LEU:O	27:2:31:THR:OG1	2.06	0.65
27:2:492:PHE:HB3	28:5:9:LEU:HD22	1.79	0.65
1:A:88:LYS:HG2	1:A:293:GLU:CD	2.22	0.65
1:A:225:ASN:OD1	1:A:228:PHE:N	2.28	0.65
1:A:1397:LEU:HA	1:A:1400:CYS:SG	2.36	0.65
2:B:94:LYS:HE3	2:B:96:TYR:HE1	1.60	0.65
14:Q:377:SER:HA	15:R:68:VAL:HG12	1.78	0.65
25:0:441:ASP:HB3	25:0:444:ILE:HG12	1.78	0.65
27:2:7:LYS:HD2	27:2:201:TRP:HD1	1.61	0.65
29:7:302:GLU:HG3	29:7:322:SER:H	1.61	0.65
8:H:118:PHE:HE1	8:H:123:MET:HB2	1.62	0.65
25:0:494:PRO:HA	25:0:679:MET:O	1.95	0.65
29:7:381:SER:HB3	29:7:484:PHE:HE1	1.60	0.65
1:A:890:ASP:OD1	1:A:940:ARG:NH1	2.30	0.65
1:A:1013:ASP:HA	1:A:1016:THR:OG1	1.97	0.65
1:A:1449:SER:OG	1:A:1452:LYS:NZ	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:0:603:ARG:HE	25:0:626:PRO:HB2	1.62	0.65
1:A:278:THR:HA	1:A:281:HIS:HB3	1.80	0.64
2:B:120:ARG:NH2	2:B:956:THR:O	2.24	0.64
2:B:287:ARG:NE	2:B:292:ILE:O	2.27	0.64
2:B:1002:THR:HG22	2:B:1072:MET:HG2	1.79	0.64
5:E:24:LYS:NZ	5:E:30:ILE:O	2.21	0.64
5:E:170:LEU:HB3	5:E:174:GLN:HE21	1.60	0.64
7:G:143:ILE:HG22	7:G:145:VAL:HG23	1.79	0.64
10:J:7:CYS:HB3	10:J:10:CYS:SG	2.37	0.64
24:4:258:LEU:HB3	24:4:260:PRO:HD3	1.79	0.64
28:5:10:VAL:O	28:5:40:LEU:N	2.29	0.64
29:7:182:ALA:O	29:7:186:VAL:N	2.30	0.64
29:7:306:GLU:OE2	29:7:343:PHE:HA	1.97	0.64
30:3:33:GLU:HB2	30:3:61:LYS:NZ	2.12	0.64
1:A:15:LYS:HD2	2:B:1219:ASP:HA	1.79	0.64
1:A:32:VAL:O	1:A:57:ARG:NH1	2.30	0.64
9:I:26:LEU:HD13	9:I:35:VAL:HG11	1.80	0.64
18:W:140:LEU:HB2	18:W:147:PHE:CE1	2.33	0.64
29:7:372:LYS:HB3	29:7:535:LEU:HD12	1.78	0.64
29:7:577:ARG:HD2	29:7:714:GLN:HB2	1.77	0.64
3:C:29:MET:HE1	11:K:98:LEU:CD2	2.27	0.64
4:D:64:VAL:HG13	4:D:67:ARG:HH22	1.62	0.64
5:E:3:GLN:O	5:E:7:ARG:N	2.27	0.64
5:E:48:ASP:N	5:E:52:ARG:O	2.24	0.64
8:H:86:ASP:O	8:H:88:SER:N	2.30	0.64
14:Q:127:ILE:O	15:R:133:TYR:OH	2.13	0.64
25:0:176:PHE:HB3	25:0:181:LEU:HB2	1.79	0.64
5:E:76:GLY:N	5:E:106:GLN:OE1	2.30	0.64
5:E:171:LYS:O	5:E:174:GLN:NE2	2.30	0.64
6:F:108:PHE:N	6:F:124:GLU:OE2	2.29	0.64
9:I:24:ARG:HH12	9:I:26:LEU:CD2	2.09	0.64
27:2:246:GLN:O	27:2:250:LEU:N	2.28	0.64
28:5:56:ARG:O	28:5:60:LYS:N	2.19	0.64
29:7:325:VAL:O	29:7:329:ARG:HG2	1.98	0.64
29:7:565:PHE:O	29:7:569:TYR:N	2.26	0.64
29:7:710:SER:O	29:7:713:THR:OG1	2.12	0.64
30:3:31:ASN:O	30:3:34:CYS:N	2.28	0.64
1:A:86:LEU:HD11	1:A:239:LEU:HG	1.80	0.64
1:A:308:ILE:HG23	1:A:311:GLN:HB2	1.79	0.64
2:B:286:PHE:CD2	2:B:297:ILE:HG23	2.32	0.64
2:B:656:GLY:O	2:B:660:LYS:HG3	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:153:DC:H2''	20:T:154:DC:C5	2.33	0.64
23:1:505:THR:HA	23:1:508:LYS:HG2	1.80	0.64
24:4:289:CYS:HB2	24:4:312:PHE:HZ	1.62	0.64
25:0:265:ASN:O	25:0:269:GLU:N	2.30	0.64
25:0:270:ARG:HG3	25:0:388:LEU:HD22	1.79	0.64
1:A:1167:GLU:HB3	1:A:1171:GLN:HE22	1.62	0.64
2:B:121:ASN:HA	2:B:207:GLY:HA3	1.80	0.64
2:B:1138:MET:HA	2:B:1138:MET:HE2	1.80	0.64
7:G:57:GLN:NE2	7:G:71:ASN:O	2.30	0.64
23:1:310:UNK:O	23:1:314:UNK:N	2.31	0.64
25:0:304:GLU:HB3	25:0:386:ARG:HD2	1.80	0.64
27:2:29:PRO:HB3	27:2:107:SER:O	1.98	0.64
1:A:878:ILE:HG21	1:A:955:PRO:HB2	1.79	0.64
2:B:73:GLN:NE2	2:B:74:LEU:O	2.31	0.64
7:G:93:SER:HB3	7:G:100:GLU:OE1	1.98	0.64
25:0:198:ARG:NH1	25:0:199:MET:SD	2.71	0.64
25:0:304:GLU:HB3	25:0:386:ARG:CD	2.28	0.64
25:0:496:ILE:HG13	25:0:706:LEU:HD13	1.80	0.64
29:7:599:GLU:HA	29:7:650:ASN:HD22	1.63	0.64
1:A:1134:ILE:O	1:A:1137:ALA:N	2.31	0.64
5:E:81:GLU:O	5:E:111:VAL:N	2.30	0.64
25:0:311:VAL:HG11	25:0:317:LEU:HD11	1.79	0.64
4:D:47:LEU:HD21	7:G:3:PHE:HD2	1.63	0.64
23:1:190:VAL:HA	23:1:193:LYS:HB2	1.80	0.64
25:0:117:HIS:CD2	25:0:156:CYS:HA	2.33	0.64
25:0:224:ASN:HD21	25:0:228:LYS:HD3	1.61	0.64
29:7:411:CYS:SG	29:7:412:THR:N	2.70	0.64
29:7:593:PHE:HB2	29:7:745:ILE:HG21	1.79	0.64
5:E:50:MET:SD	5:E:52:ARG:HG2	2.38	0.64
13:M:163:LEU:O	13:M:166:LYS:HG2	1.97	0.64
22:O:91:ASN:O	22:O:104:MET:HG3	1.98	0.64
29:7:605:ILE:HA	29:7:669:CYS:HB3	1.80	0.64
1:A:110:CYS:SG	1:A:112:LYS:HG2	2.37	0.63
1:A:1141:THR:O	1:A:1273:LEU:N	2.24	0.63
2:B:802:PRO:HD3	2:B:814:PHE:HE2	1.61	0.63
3:C:32:SER:HB2	11:K:45:LEU:HD21	1.79	0.63
3:C:166:GLU:HA	11:K:6:ARG:CZ	2.29	0.63
7:G:23:LYS:O	7:G:27:LYS:HG3	1.98	0.63
11:K:24:ASP:OD1	11:K:25:THR:N	2.31	0.63
23:1:230:PRO:HD2	26:6:244:PRO:HA	1.79	0.63
25:0:166:GLU:HG2	25:0:195:ILE:HG12	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:116:ILE:O	30:3:120:LEU:N	2.28	0.63
3:C:41:ILE:HB	3:C:172:PRO:HG3	1.79	0.63
5:E:22:MET:HE3	5:E:187:TYR:HA	1.80	0.63
16:U:258:TRP:HB2	16:U:283:ALA:HB3	1.79	0.63
25:0:161:ASN:HD21	25:0:189:THR:C	2.04	0.63
25:0:294:HIS:CE1	25:0:297:ASP:HB3	2.33	0.63
25:0:641:PHE:HA	25:0:644:GLU:HG3	1.79	0.63
30:3:33:GLU:HB2	30:3:61:LYS:HZ1	1.62	0.63
1:A:1100:ARG:HH21	1:A:1351:GLU:CD	2.06	0.63
22:O:193:LEU:HD22	22:O:206:ILE:HD12	1.80	0.63
29:7:617:GLU:OE2	29:7:621:LYS:NZ	2.29	0.63
1:A:1293:SER:N	1:A:1297:GLU:O	2.30	0.63
2:B:47:GLN:C	2:B:173:MET:HE1	2.24	0.63
2:B:122:LEU:O	2:B:207:GLY:N	2.30	0.63
2:B:957:ASN:ND2	2:B:961:LEU:HB2	2.13	0.63
10:J:18:TRP:O	10:J:21:TYR:HB3	1.99	0.63
25:0:117:HIS:HE1	25:0:119:GLU:HB3	1.63	0.63
1:A:834:THR:HG21	1:A:1077:THR:HA	1.80	0.63
1:A:1008:GLN:HB3	1:A:1012:ARG:HH12	1.64	0.63
2:B:88:TYR:CZ	15:R:278:LEU:HD21	2.34	0.63
7:G:84:GLY:N	7:G:147:ILE:O	2.26	0.63
8:H:57:VAL:HG22	8:H:144:ILE:HD12	1.80	0.63
10:J:12:LYS:NZ	10:J:40:GLY:O	2.28	0.63
18:W:12:LEU:HD11	18:W:182:ILE:HG23	1.81	0.63
24:4:289:CYS:HB2	24:4:312:PHE:CZ	2.33	0.63
29:7:176:THR:O	29:7:180:LEU:N	2.26	0.63
1:A:737:LEU:HD22	1:A:741:ASN:HD22	1.63	0.63
1:A:1143:LEU:HA	1:A:1273:LEU:HD11	1.79	0.63
4:D:140:ASP:HA	4:D:143:ASN:ND2	2.14	0.63
4:D:166:LEU:HD11	4:D:210:ILE:CD1	2.28	0.63
5:E:177:ARG:O	5:E:212:ARG:NH1	2.30	0.63
21:N:11:DA:H2"	21:N:12:DG:H8	1.63	0.63
29:7:303:ARG:HA	29:7:506:ALA:HB2	1.81	0.63
29:7:306:GLU:O	29:7:341:TYR:HA	1.99	0.63
29:7:382:GLY:HA2	29:7:532:GLY:HA3	1.79	0.63
1:A:63:ARG:NH2	13:M:55:LYS:O	2.32	0.63
1:A:336:ILE:HA	1:A:340:LEU:HD12	1.79	0.63
1:A:1150:SER:O	9:I:46:HIS:N	2.28	0.63
6:F:147:SER:O	6:F:150:GLU:HG2	1.99	0.63
10:J:1:MET:HE2	10:J:60:PHE:HE2	1.62	0.63
23:1:551:ARG:HG3	23:1:619:VAL:HG21	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:7:456:THR:O	29:7:459:MET:HB2	1.99	0.63
29:7:750:TYR:CD2	29:7:759:LEU:HB2	2.34	0.63
1:A:662:PHE:HD2	2:B:829:CYS:HG	1.45	0.63
1:A:1074:GLU:O	1:A:1077:THR:N	2.30	0.63
2:B:324:ILE:HD13	2:B:330:ALA:HA	1.81	0.63
2:B:551:PRO:HA	2:B:554:ILE:HD13	1.81	0.63
5:E:116:ILE:HB	5:E:121:MET:SD	2.39	0.63
9:I:50:THR:CB	9:I:92:ARG:HH22	2.12	0.63
9:I:106:CYS:SG	9:I:108:HIS:HB2	2.39	0.63
22:O:92:ALA:HA	22:O:104:MET:HA	1.81	0.63
23:1:318:UNK:O	23:1:322:UNK:N	2.32	0.63
27:2:250:LEU:O	27:2:254:ARG:N	2.32	0.63
29:7:577:ARG:HH11	29:7:714:GLN:HB2	1.63	0.63
1:A:1210:GLY:HA2	1:A:1228:TRP:CE2	2.34	0.63
1:A:1325:THR:HA	5:E:147:HIS:HA	1.79	0.63
2:B:120:ARG:NH2	2:B:956:THR:OG1	2.32	0.63
8:H:63:LEU:CD2	8:H:141:TYR:HE2	2.12	0.63
13:M:255:SER:O	13:M:259:THR:HG23	1.98	0.63
13:M:306:GLU:HB3	13:M:310:LYS:HZ3	1.62	0.63
20:T:137:DA:H2'	20:T:138:DA:C8	2.34	0.63
25:0:158:TYR:CB	25:0:191:CYS:HB3	2.29	0.63
26:6:152:TYR:HD2	26:6:298:LYS:HD3	1.63	0.63
26:6:262:LYS:HB2	26:6:287:PHE:CD2	2.33	0.63
27:2:7:LYS:HG2	27:2:9:SER:H	1.63	0.63
29:7:500:ARG:HA	29:7:503:SER:OG	1.98	0.63
1:A:491:VAL:O	1:A:493:GLN:NE2	2.31	0.62
2:B:47:GLN:HB3	2:B:173:MET:HE1	1.80	0.62
2:B:612:GLU:O	2:B:632:ARG:NH2	2.31	0.62
2:B:868:MET:HE2	13:M:149:CYS:SG	2.39	0.62
2:B:1004:GLU:OE1	2:B:1064:TYR:OH	2.14	0.62
4:D:24:ALA:HA	7:G:83:LYS:HB2	1.81	0.62
17:V:70:GLY:N	17:V:77:THR:OG1	2.32	0.62
18:W:65:ARG:NH2	19:X:269:PRO:O	2.32	0.62
22:O:104:MET:HE3	22:O:139:TYR:HD1	1.61	0.62
24:4:218:SER:HA	24:4:237:HIS:NE2	2.13	0.62
29:7:387:PRO:HG2	29:7:390:ALA:HB3	1.81	0.62
29:7:443:LYS:HE2	29:7:446:PHE:CE1	2.34	0.62
29:7:598:HIS:HB3	29:7:603:ASP:HB2	1.80	0.62
2:B:1001:PHE:HB3	2:B:1007:VAL:HG12	1.80	0.62
9:I:73:ARG:O	9:I:83:ASN:ND2	2.32	0.62
25:0:521:ASN:O	25:0:525:MET:HG3	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:2:450:ARG:HH21	28:5:16:ILE:HD12	1.64	0.62
1:A:33:ALA:O	1:A:83:HIS:ND1	2.30	0.62
1:A:119:ASN:OD1	1:A:121:LEU:N	2.32	0.62
1:A:357:PRO:HD2	2:B:833:TYR:CE1	2.34	0.62
1:A:1446:ASP:OD1	1:A:1448:GLU:N	2.32	0.62
2:B:73:GLN:O	2:B:86:ARG:N	2.27	0.62
2:B:249:ARG:NH1	2:B:418:LYS:HG3	2.14	0.62
2:B:404:LYS:O	2:B:405:ARG:NH1	2.29	0.62
4:D:211:LEU:O	4:D:215:SER:N	2.28	0.62
17:V:66:LEU:HD11	17:V:78:PHE:HB3	1.80	0.62
23:1:235:UNK:O	23:1:239:PRO:HD2	1.99	0.62
25:0:166:GLU:O	25:0:198:ARG:NH1	2.32	0.62
27:2:460:SER:HB2	28:5:3:ARG:HD2	1.80	0.62
29:7:460:VAL:HG12	29:7:501:VAL:CG1	2.28	0.62
1:A:687:LYS:NZ	1:A:801:GLU:OE1	2.25	0.62
2:B:867:GLY:C	2:B:869:SER:H	2.07	0.62
14:Q:372:SER:OG	15:R:72:ARG:NH1	2.32	0.62
15:R:74:PRO:HD3	15:R:224:VAL:HG11	1.80	0.62
15:R:125:THR:HB	15:R:221:GLU:HG3	1.81	0.62
24:4:276:CYS:SG	24:4:296:LEU:HA	2.39	0.62
29:7:258:SER:O	29:7:317:GLU:N	2.31	0.62
29:7:484:PHE:HA	29:7:509:ALA:HB3	1.82	0.62
29:7:536:TYR:HH	29:7:540:TRP:CD1	2.17	0.62
1:A:407:ARG:NH1	1:A:413:ILE:HD11	2.13	0.62
1:A:567:LYS:HB3	8:H:96:VAL:CG1	2.29	0.62
9:I:28:GLU:CB	9:I:35:VAL:HG22	2.29	0.62
11:K:8:GLU:O	11:K:37:LYS:HD2	1.99	0.62
21:N:37:DG:H2''	21:N:38:DC:C5	2.35	0.62
25:0:330:HIS:CE1	30:3:111:GLU:HA	2.34	0.62
29:7:425:LEU:HA	29:7:428:CYS:HB3	1.81	0.62
29:7:477:LEU:HD12	29:7:482:TRP:NE1	2.14	0.62
30:3:33:GLU:CB	30:3:61:LYS:HZ1	2.12	0.62
30:3:50:GLY:HA2	30:3:65:LYS:HG3	1.82	0.62
1:A:913:LEU:HA	1:A:979:SER:N	2.15	0.62
2:B:709:ASP:OD2	2:B:730:ARG:HD3	1.99	0.62
9:I:10:CYS:SG	9:I:32:CYS:HB3	2.39	0.62
25:0:37:ASN:ND2	25:0:476:LYS:O	2.33	0.62
25:0:252:LEU:HB2	25:0:435:MET:HB2	1.81	0.62
29:7:302:GLU:HA	29:7:318:ILE:HG12	1.79	0.62
29:7:579:LEU:HD22	29:7:611:ASN:HB3	1.80	0.62
1:A:274:ILE:O	1:A:277:GLU:HB2	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:128:DG:N1	21:N:38:DC:N3	2.47	0.62
24:4:160:VAL:HA	24:4:163:ILE:HG22	1.81	0.62
25:0:538:VAL:HG12	25:0:598:LEU:HB3	1.81	0.62
25:0:619:THR:HG22	25:0:678:VAL:HB	1.80	0.62
26:6:293:ASP:O	26:6:297:LEU:N	2.29	0.62
27:2:458:LEU:HD11	27:2:490:LYS:HB3	1.81	0.62
1:A:451:HIS:HD2	1:A:1074:GLU:OE2	1.80	0.62
1:A:594:GLY:HA3	1:A:601:LYS:HZ1	1.63	0.62
2:B:727:LYS:HE2	2:B:1049:ASP:HB3	1.80	0.62
7:G:15:PRO:HA	7:G:18:PHE:CE1	2.35	0.62
8:H:63:LEU:HD12	8:H:89:LEU:H	1.64	0.62
13:M:133:ILE:HG22	13:M:176:ILE:HD11	1.82	0.62
13:M:172:MET:HA	13:M:175:SER:HB3	1.81	0.62
17:V:74:ASP:OD2	22:O:97:LYS:NZ	2.31	0.62
18:W:110:LYS:HA	18:W:172:LEU:HD11	1.81	0.62
22:O:71:VAL:O	22:O:158:GLN:N	2.30	0.62
25:0:350:HIS:HA	25:0:422:PRO:HG3	1.80	0.62
25:0:495:MET:HE1	25:0:678:VAL:CG1	2.30	0.62
27:2:19:GLN:HG3	27:2:85:HIS:CG	2.35	0.62
29:7:344:ARG:HH22	29:7:403:ILE:HA	1.63	0.62
1:A:903:ASN:CG	1:A:904:THR:H	2.07	0.62
1:A:1157:ASP:O	1:A:1241:ARG:NH1	2.33	0.62
2:B:96:TYR:O	2:B:129:PHE:N	2.33	0.62
25:0:274:VAL:HG21	25:0:388:LEU:HD23	1.82	0.62
27:2:137:GLU:H	27:2:286:ARG:HH21	1.48	0.62
29:7:675:SER:HB2	29:7:722:ARG:HH12	1.63	0.62
2:B:876:LYS:O	2:B:878:GLN:NE2	2.33	0.62
6:F:111:LEU:HB2	6:F:123:LYS:HZ1	1.65	0.62
8:H:14:GLU:OE1	8:H:15:VAL:N	2.30	0.62
15:R:69:TRP:CE2	15:R:220:HIS:HB3	2.35	0.62
19:X:224:LEU:O	19:X:229:LYS:N	2.32	0.62
25:0:43:PRO:HB3	25:0:696:TRP:CD2	2.35	0.62
27:2:389:ASN:HB3	27:2:391:ILE:HG12	1.81	0.62
29:7:132:LEU:N	29:7:200:LEU:O	2.32	0.62
1:A:4:GLN:HB3	2:B:1159:ARG:HH21	1.64	0.61
2:B:435:THR:O	2:B:439:ALA:N	2.33	0.61
2:B:857:ARG:NH2	2:B:945:GLU:OE2	2.32	0.61
4:D:203:SER:OG	4:D:206:GLU:OE1	2.17	0.61
7:G:96:GLN:OE1	7:G:96:GLN:N	2.23	0.61
8:H:15:VAL:HG22	8:H:26:ILE:HD12	1.82	0.61
13:M:189:PHE:HE1	13:M:207:LEU:HD23	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:Q:133:PHE:CE1	14:Q:359:ASN:HB2	2.34	0.61
25:0:496:ILE:HD12	25:0:686:PHE:HB3	1.81	0.61
28:5:48:GLU:O	28:5:52:HIS:ND1	2.33	0.61
29:7:599:GLU:HG3	29:7:650:ASN:HB2	1.82	0.61
1:A:597:LEU:O	8:H:102:TYR:OH	2.17	0.61
2:B:957:ASN:HD21	2:B:961:LEU:HB2	1.65	0.61
2:B:1106:ARG:HH22	2:B:1119:VAL:H	1.48	0.61
13:M:201:LYS:HG3	21:N:19:DA:OP2	2.00	0.61
13:M:249:PRO:HG2	13:M:251:GLN:NE2	2.14	0.61
20:T:149:DC:N4	20:T:150:DG:O6	2.33	0.61
25:0:285:GLU:HA	25:0:288:LYS:HB2	1.81	0.61
1:A:1162:VAL:HG23	1:A:1163:ILE:HD12	1.81	0.61
2:B:70:ILE:HD12	2:B:87:LYS:HE3	1.82	0.61
2:B:927:GLN:HG3	13:M:32:PRO:HG2	1.81	0.61
3:C:259:LEU:H	3:C:259:LEU:HD12	1.63	0.61
6:F:97:ARG:HA	6:F:100:GLN:NE2	2.15	0.61
18:W:122:TYR:HE2	18:W:147:PHE:CD2	2.18	0.61
24:4:211:ASP:CG	24:4:234:VAL:HG12	2.25	0.61
25:0:270:ARG:HG2	25:0:388:LEU:HD13	1.81	0.61
26:6:152:TYR:CD2	26:6:298:LYS:HD3	2.35	0.61
26:6:164:ASN:O	26:6:167:SER:OG	2.18	0.61
27:2:454:TYR:HE1	28:5:11:GLN:HB3	1.61	0.61
1:A:5:GLN:O	2:B:1159:ARG:NH2	2.34	0.61
3:C:162:GLY:HA3	3:C:170:TRP:CE3	2.35	0.61
5:E:86:PRO:O	5:E:114:ASN:ND2	2.33	0.61
22:O:169:PRO:HA	22:O:208:VAL:O	2.00	0.61
24:4:51:ILE:HA	24:4:54:LEU:HB3	1.81	0.61
24:4:61:LEU:HD11	24:4:73:VAL:HB	1.82	0.61
26:6:133:SER:O	26:6:204:PRO:HB2	2.00	0.61
29:7:421:ARG:NH1	29:7:437:VAL:HG11	2.15	0.61
29:7:439:THR:C	29:7:459:MET:SD	2.84	0.61
30:3:108:LYS:O	30:3:112:GLU:N	2.32	0.61
2:B:235:SER:O	2:B:236:HIS:ND1	2.34	0.61
5:E:202:SER:O	5:E:206:GLY:N	2.32	0.61
6:F:99:LEU:O	6:F:102:SER:OG	2.14	0.61
9:I:113:ASP:OD1	9:I:114:GLN:N	2.34	0.61
12:L:30:ILE:O	12:L:56:LEU:CA	2.45	0.61
25:0:385:VAL:O	25:0:389:GLU:N	2.34	0.61
25:0:507:SER:HG	25:0:685:ARG:HH22	1.47	0.61
26:6:349:CYS:SG	26:6:370:LEU:HD21	2.40	0.61
27:2:8:HIS:HB2	27:2:205:LEU:HD13	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:39:CYS:SG	30:3:41:SER:OG	2.55	0.61
3:C:5:GLY:O	3:C:7:GLN:NE2	2.34	0.61
4:D:154:PHE:HD2	4:D:160:VAL:HG22	1.65	0.61
12:L:65:VAL:HG13	12:L:67:PHE:HE1	1.66	0.61
13:M:30:TYR:CD1	13:M:31:PRO:HD2	2.36	0.61
27:2:81:MET:SD	27:2:86:LEU:HD11	2.41	0.61
27:2:491:PHE:HD2	27:2:493:ILE:HG12	1.65	0.61
29:7:373:MET:HB2	29:7:380:ARG:O	2.00	0.61
2:B:20:ASP:OD1	2:B:22:SER:N	2.34	0.61
2:B:615:MET:HG3	2:B:626:ILE:HG12	1.83	0.61
3:C:43:THR:N	3:C:162:GLY:O	2.32	0.61
6:F:97:ARG:O	6:F:101:ILE:HG12	2.01	0.61
10:J:57:ILE:O	10:J:61:LEU:HG	1.99	0.61
20:T:146:DA:H2'	20:T:147:DT:O4'	2.01	0.61
22:O:67:LEU:HD11	22:O:220:ARG:HB3	1.81	0.61
25:0:66:HIS:ND1	25:0:231:ILE:HB	2.15	0.61
26:6:143:PRO:HB2	26:6:147:ALA:HB3	1.82	0.61
27:2:356:GLN:HE21	27:2:403:HIS:HE1	1.48	0.61
29:7:562:THR:HB	29:7:756:ARG:HH11	1.66	0.61
1:A:1192:LEU:HD13	1:A:1241:ARG:HE	1.66	0.61
2:B:138:GLU:N	2:B:149:TYR:O	2.32	0.61
2:B:361:LEU:HD13	2:B:377:PHE:HD2	1.66	0.61
2:B:788:ARG:NE	2:B:790:ASP:OD2	2.24	0.61
2:B:1046:PRO:HB2	2:B:1047:PHE:CD1	2.36	0.61
4:D:25:ALA:HB2	7:G:84:GLY:C	2.25	0.61
8:H:13:SER:N	8:H:27:GLU:O	2.29	0.61
11:K:102:LYS:O	11:K:106:GLU:N	2.28	0.61
25:0:112:LYS:NZ	25:0:123:GLU:O	2.27	0.61
25:0:270:ARG:HD2	25:0:273:GLU:OE2	2.01	0.61
25:0:439:CYS:SG	25:0:440:LEU:N	2.73	0.61
25:0:512:ILE:HA	25:0:546:TYR:HD1	1.66	0.61
29:7:337:VAL:HG23	29:7:339:GLU:HG3	1.82	0.61
29:7:443:LYS:HB2	29:7:469:ASP:OD2	2.01	0.61
29:7:642:ASN:HA	29:7:646:ASN:HB3	1.83	0.61
30:3:33:GLU:CB	30:3:61:LYS:NZ	2.64	0.61
2:B:996:ARG:HG3	2:B:1007:VAL:HG21	1.82	0.61
3:C:46:ILE:H	3:C:46:ILE:HD12	1.65	0.61
4:D:52:LEU:HB2	4:D:148:LEU:HD22	1.81	0.61
7:G:57:GLN:O	7:G:58:ARG:HD2	2.01	0.61
18:W:132:THR:HG22	18:W:133:GLN:H	1.66	0.61
25:0:620:VAL:CG2	25:0:679:MET:HG3	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:7:324:GLU:O	29:7:328:LYS:N	2.32	0.61
29:7:365:TYR:OH	29:7:390:ALA:O	2.18	0.61
1:A:95:PHE:HE1	1:A:1414:ALA:HB2	1.65	0.61
1:A:798:GLY:HA2	1:A:815:PHE:CD2	2.36	0.61
1:A:1287:TYR:O	1:A:1302:PRO:HA	2.01	0.61
2:B:273:LEU:HD13	2:B:280:ILE:HD13	1.83	0.61
2:B:889:THR:OG1	2:B:891:ASP:OD1	2.15	0.61
5:E:161:LYS:NZ	5:E:193:GLY:O	2.32	0.61
9:I:10:CYS:HB3	9:I:12:ASN:OD1	2.01	0.61
9:I:24:ARG:HD2	9:I:25:LEU:N	2.15	0.61
10:J:7:CYS:HB3	10:J:11:GLY:H	1.66	0.61
13:M:249:PRO:HG2	13:M:251:GLN:HE22	1.65	0.61
29:7:342:ASP:CG	29:7:345:ASN:HD22	2.09	0.61
1:A:117:GLU:O	1:A:123:ARG:NE	2.32	0.60
1:A:1068:ALA:HA	1:A:1367:HIS:ND1	2.16	0.60
24:4:23:PRO:HA	24:4:71:ASN:HB3	1.83	0.60
26:6:199:ILE:O	26:6:202:GLN:HG3	2.01	0.60
26:6:323:GLY:N	26:6:368:LEU:HD13	2.15	0.60
2:B:1155:SER:OG	2:B:1156:ASP:OD1	2.16	0.60
3:C:111:THR:OG1	3:C:147:LEU:HB2	2.01	0.60
6:F:96:THR:O	6:F:99:LEU:N	2.34	0.60
6:F:140:ASP:OD1	6:F:142:SER:N	2.34	0.60
8:H:94:ASP:OD2	8:H:146:ARG:N	2.34	0.60
12:L:31:CYS:HB2	12:L:53:HIS:HD2	1.66	0.60
15:R:94:LYS:N	15:R:107:LEU:O	2.33	0.60
15:R:110:GLU:HA	15:R:117:PRO:HA	1.83	0.60
19:X:196:LEU:HD22	19:X:245:TRP:H	1.65	0.60
21:N:30:DC:H2"	21:N:31:DA:C8	2.36	0.60
24:4:87:TYR:CE1	24:4:121:VAL:HG22	2.36	0.60
26:6:250:THR:O	26:6:254:LEU:N	2.30	0.60
29:7:403:ILE:O	29:7:405:LYS:HG2	2.01	0.60
1:A:806:ARG:O	2:B:728:ARG:HB3	2.01	0.60
2:B:806:THR:O	2:B:809:MET:HG2	2.00	0.60
2:B:1112:GLN:N	2:B:1117:GLN:O	2.32	0.60
3:C:102:GLN:HE22	3:C:154:LYS:HB3	1.64	0.60
5:E:83:CYS:SG	5:E:85:GLU:HB2	2.40	0.60
8:H:96:VAL:HA	8:H:142:LEU:O	2.02	0.60
11:K:49:GLU:OE2	11:K:94:ILE:HG12	2.01	0.60
19:X:269:PRO:HG2	19:X:274:LEU:HD13	1.83	0.60
23:1:346:ASP:HB2	23:1:347:PRO:HD3	1.83	0.60
25:0:267:LEU:O	25:0:271:ILE:N	2.27	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:0:345:ARG:HA	25:0:348:VAL:HG23	1.83	0.60
25:0:564:TRP:HZ3	25:0:568:LEU:HD23	1.65	0.60
26:6:347:TYR:HB2	26:6:356:VAL:HG23	1.83	0.60
1:A:557:ASP:OD1	1:A:558:GLY:N	2.34	0.60
2:B:416:LEU:HD21	2:B:460:ALA:HB3	1.84	0.60
3:C:19:ASP:OD1	3:C:20:PHE:N	2.34	0.60
4:D:44:GLU:HG2	4:D:45:GLU:H	1.66	0.60
27:2:50:MET:HA	27:2:53:ASN:OD1	2.01	0.60
1:A:128:ILE:HB	1:A:134:ARG:HG3	1.82	0.60
1:A:1124:HIS:HA	1:A:1127:ASP:OD2	2.01	0.60
1:A:1434:ALA:O	1:A:1436:ILE:N	2.33	0.60
2:B:310:MET:O	2:B:314:LEU:HG	2.02	0.60
2:B:797:TYR:O	2:B:799:PRO:HD3	2.02	0.60
2:B:906:SER:O	2:B:941:LEU:HD23	2.01	0.60
15:R:126:LYS:HB3	15:R:221:GLU:HB3	1.84	0.60
16:U:248:TYR:HB3	17:V:115:ALA:HB1	1.84	0.60
25:0:589:ALA:HB3	25:0:596:ALA:HB2	1.83	0.60
26:6:136:MET:HE1	26:6:237:GLY:HA3	1.83	0.60
1:A:1148:ILE:HD12	1:A:1196:GLU:HG2	1.83	0.60
3:C:254:LYS:NZ	11:K:42:LEU:HD21	2.16	0.60
8:H:98:TYR:O	8:H:118:PHE:HB3	2.01	0.60
15:R:305:LYS:O	15:R:309:GLU:N	2.28	0.60
26:6:157:VAL:HG22	26:6:169:MET:HE1	1.84	0.60
27:2:86:LEU:C	27:2:101:ASN:H	2.08	0.60
1:A:90:VAL:HG23	1:A:236:LEU:HB2	1.82	0.60
2:B:952:VAL:HG22	2:B:966:VAL:HG22	1.82	0.60
6:F:134:ILE:HG22	6:F:146:TRP:O	2.01	0.60
13:M:122:LYS:O	13:M:125:GLU:N	2.33	0.60
22:O:75:THR:N	22:O:153:THR:O	2.33	0.60
29:7:368:LYS:HA	29:7:371:SER:HB3	1.82	0.60
29:7:473:VAL:O	29:7:477:LEU:N	2.33	0.60
1:A:1229:SER:OG	1:A:1237:ILE:N	2.34	0.60
2:B:116:GLU:HG2	2:B:120:ARG:HG3	1.84	0.60
8:H:10:PHE:HB3	8:H:28:ALA:CB	2.31	0.60
11:K:30:ALA:HA	11:K:76:GLN:HA	1.84	0.60
13:M:283:TYR:HA	13:M:286:ILE:HG22	1.84	0.60
25:0:142:LYS:O	25:0:145:LEU:N	2.33	0.60
25:0:290:VAL:HA	25:0:321:ILE:HG21	1.83	0.60
27:2:481:LEU:HD11	27:2:484:LYS:HB3	1.83	0.60
29:7:212:PHE:O	29:7:216:ALA:N	2.31	0.60
29:7:368:LYS:HE2	29:7:543:LEU:HG	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:436:ILE:HD11	1:A:491:VAL:HG21	1.83	0.60
2:B:249:ARG:HH11	2:B:418:LYS:HE3	1.66	0.60
22:O:171:ARG:NH1	22:O:238:ARG:O	2.35	0.60
24:4:228:THR:HG21	24:4:235:TYR:HB2	1.84	0.60
25:0:346:MET:HA	25:0:435:MET:HE3	1.82	0.60
29:7:498:PHE:O	29:7:502:VAL:N	2.34	0.60
29:7:536:TYR:CE1	29:7:543:LEU:HD22	2.37	0.60
1:A:306:ASN:HB2	1:A:324:SER:HB3	1.84	0.60
2:B:248:SER:HB3	2:B:250:PHE:CE1	2.37	0.60
13:M:50:LEU:HG	13:M:51:VAL:O	2.02	0.60
14:Q:340:LYS:HE3	14:Q:344:PHE:HB2	1.83	0.60
16:U:256:ALA:HB3	16:U:257:ARG:HH11	1.67	0.60
22:O:238:ARG:HG2	22:O:240:MET:HG3	1.83	0.60
25:0:134:ARG:NH2	25:0:303:GLU:O	2.35	0.60
25:0:310:PRO:HG3	25:0:404:THR:HA	1.84	0.60
25:0:726:GLN:HE22	26:6:296:HIS:CE1	2.19	0.60
26:6:132:CYS:HB2	26:6:175:ARG:HG2	1.82	0.60
1:A:496:GLU:O	1:A:500:GLU:N	2.29	0.59
2:B:323:VAL:HG13	14:Q:409:ALA:HB1	1.84	0.59
3:C:66:ARG:NH2	3:C:144:ILE:O	2.35	0.59
4:D:185:CYS:SG	4:D:186:ASP:N	2.75	0.59
8:H:10:PHE:HA	8:H:29:ALA:O	2.02	0.59
25:0:140:GLN:O	25:0:144:LYS:HG3	2.02	0.59
25:0:259:ARG:NH1	25:0:397:THR:OG1	2.29	0.59
27:2:176:VAL:O	27:2:181:GLU:N	2.35	0.59
1:A:915:SER:O	1:A:919:ILE:HG12	2.01	0.59
2:B:294:ASP:OD1	9:I:12:ASN:HA	2.02	0.59
2:B:333:PHE:O	2:B:337:ARG:HG2	2.01	0.59
14:Q:114:MET:HE1	15:R:138:GLN:HG3	1.84	0.59
25:0:156:CYS:C	25:0:158:TYR:H	2.10	0.59
25:0:372:LYS:HA	25:0:375:ARG:HD3	1.83	0.59
26:6:179:ALA:HB3	26:6:216:MET:HE3	1.83	0.59
1:A:250:ILE:CD1	13:M:62:GLU:HB2	2.31	0.59
2:B:660:LYS:HB2	2:B:679:TYR:CD2	2.37	0.59
5:E:10:SER:O	5:E:14:ARG:HG3	2.02	0.59
8:H:111:LEU:HA	8:H:127:GLY:O	2.03	0.59
15:R:235:LYS:O	15:R:239:GLN:N	2.29	0.59
17:V:71:PHE:HD2	17:V:76:TRP:CD2	2.19	0.59
23:1:585:HIS:O	23:1:589:CYS:N	2.29	0.59
25:0:185:CYS:O	25:0:190:LEU:N	2.36	0.59
29:7:577:ARG:HA	29:7:580:LEU:HD12	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:61:LYS:HD3	30:3:61:LYS:C	2.26	0.59
2:B:621:GLU:O	2:B:623:GLU:HG3	2.01	0.59
5:E:62:ALA:N	5:E:78:LEU:O	2.30	0.59
25:0:587:ARG:NH2	25:0:611:ASP:O	2.34	0.59
27:2:148:HIS:O	27:2:153:THR:N	2.35	0.59
29:7:499:ARG:HA	29:7:502:VAL:HB	1.83	0.59
29:7:562:THR:OG1	29:7:753:PRO:HB3	2.03	0.59
30:3:54:CYS:HB3	30:3:63:LEU:HD22	1.84	0.59
1:A:1124:HIS:HB3	1:A:1130:GLN:HG2	1.84	0.59
2:B:71:LEU:N	2:B:88:TYR:O	2.22	0.59
2:B:780:VAL:HG22	2:B:795:ILE:HG23	1.85	0.59
7:G:1:MET:HB2	7:G:3:PHE:CE1	2.37	0.59
9:I:98:VAL:HG11	9:I:113:ASP:HB2	1.83	0.59
14:Q:133:PHE:HE1	14:Q:359:ASN:HB2	1.66	0.59
25:0:385:VAL:HA	25:0:388:LEU:HD12	1.84	0.59
25:0:462:THR:HG21	25:0:664:GLN:HA	1.84	0.59
26:6:286:SER:H	26:6:287:PHE:HD1	1.49	0.59
27:2:56:GLU:HG3	27:2:97:MET:HB3	1.85	0.59
1:A:316:GLN:HE21	1:A:317:LYS:HG3	1.68	0.59
2:B:563:MET:HE3	2:B:580:VAL:HB	1.83	0.59
2:B:906:SER:HA	2:B:946:ASN:HB3	1.83	0.59
26:6:214:LEU:HD22	26:6:250:THR:HB	1.84	0.59
27:2:48:MET:HE1	27:2:112:LEU:HD13	1.84	0.59
29:7:656:LYS:HE3	29:7:677:TYR:HD1	1.66	0.59
1:A:992:ASP:O	1:A:996:ASN:ND2	2.35	0.59
2:B:169:ARG:H	2:B:454:THR:HG1	1.47	0.59
3:C:74:SER:OG	3:C:237:SER:O	2.16	0.59
4:D:177:VAL:O	4:D:181:GLY:N	2.32	0.59
13:M:257:GLU:O	13:M:261:LYS:N	2.31	0.59
18:W:10:LYS:HE3	18:W:33:LEU:HD22	1.84	0.59
24:4:158:THR:HA	26:6:443:PHE:CE2	2.38	0.59
25:0:485:MET:HG2	25:0:696:TRP:HB2	1.84	0.59
26:6:221:LEU:HD23	26:6:230:ARG:HB3	1.84	0.59
28:5:16:ILE:O	28:5:20:ILE:N	2.21	0.59
29:7:354:ILE:HG21	29:7:401:CYS:HA	1.84	0.59
29:7:564:GLU:HG3	29:7:757:ARG:HA	1.85	0.59
29:7:685:GLN:O	29:7:689:ARG:N	2.26	0.59
1:A:252:PHE:CE2	1:A:253:ASN:OD1	2.56	0.59
1:A:722:LEU:HD13	1:A:799:PHE:HD1	1.64	0.59
2:B:1080:LYS:HD3	3:C:188:HIS:HB2	1.85	0.59
3:C:169:LYS:HG3	3:C:170:TRP:CD1	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:166:LEU:HD11	4:D:210:ILE:HD12	1.84	0.59
5:E:165:LEU:O	5:E:169:ARG:N	2.35	0.59
8:H:24:CYS:SG	8:H:44:VAL:HG11	2.43	0.59
13:M:195:LEU:HD23	13:M:196:ILE:HG13	1.84	0.59
25:0:554:TRP:CD1	25:0:557:MET:HE2	2.37	0.59
30:3:44:ASP:HA	30:3:47:PHE:CZ	2.38	0.59
1:A:399:HIS:O	1:A:401:GLY:N	2.31	0.59
1:A:913:LEU:HA	1:A:979:SER:H	1.68	0.59
2:B:577:ALA:HB1	2:B:589:VAL:HB	1.85	0.59
5:E:154:ILE:HG22	5:E:155:ARG:O	2.02	0.59
19:X:209:ASP:O	19:X:213:GLY:HA3	2.03	0.59
21:N:30:DC:N3	21:N:31:DA:N6	2.50	0.59
29:7:348:ARG:NH2	29:7:506:ALA:O	2.36	0.59
29:7:406:SER:O	29:7:483:GLY:N	2.31	0.59
1:A:253:ASN:CA	2:B:935:ARG:HH12	2.05	0.59
1:A:399:HIS:HB3	1:A:400:PRO:HD3	1.84	0.59
1:A:660:ASN:OD1	2:B:1082:MET:HB3	2.02	0.59
1:A:669:THR:O	1:A:762:SER:OG	2.17	0.59
2:B:60:GLN:OE1	2:B:95:ILE:HG22	2.02	0.59
3:C:69:LEU:HB2	10:J:5:VAL:HG21	1.85	0.59
3:C:116:LYS:HD3	3:C:140:ASN:HA	1.83	0.59
5:E:185:ALA:O	5:E:189:GLY:N	2.35	0.59
7:G:111:THR:HB	7:G:114:LEU:HD13	1.85	0.59
13:M:128:ALA:O	13:M:132:LYS:N	2.27	0.59
13:M:259:THR:HA	13:M:323:LEU:HD11	1.85	0.59
14:Q:373:TYR:OH	15:R:72:ARG:NH2	2.36	0.59
21:N:12:DG:N2	21:N:13:DG:C2	2.71	0.59
24:4:161:ASN:O	24:4:165:LYS:HB2	2.03	0.59
25:0:297:ASP:OD1	25:0:386:ARG:NH1	2.36	0.59
25:0:298:ILE:HD13	25:0:383:LEU:HB2	1.85	0.59
27:2:109:ARG:HA	27:2:112:LEU:HD12	1.85	0.59
28:5:51:LYS:O	28:5:55:ASN:N	2.27	0.59
28:5:62:ILE:HA	29:7:570:LEU:HD22	1.85	0.59
29:7:348:ARG:O	29:7:349:ASN:HB2	2.02	0.59
29:7:437:VAL:HG12	29:7:454:VAL:HG13	1.84	0.59
1:A:108:MET:N	1:A:171:GLN:OE1	2.33	0.58
1:A:335:ARG:HE	2:B:1202:LEU:HD21	1.67	0.58
1:A:451:HIS:HD2	1:A:1074:GLU:CD	2.09	0.58
20:T:116:DA:H8	29:7:441:ASP:OD1	1.86	0.58
23:1:486:UNK:HA	24:4:55:GLU:CD	2.28	0.58
25:0:191:CYS:O	25:0:195:ILE:HG13	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:7:341:TYR:HE2	29:7:380:ARG:HA	1.68	0.58
1:A:407:ARG:HB2	1:A:411:ASP:HB3	1.85	0.58
2:B:281:PRO:HB3	2:B:320:ASP:OD2	2.03	0.58
7:G:115:MET:HE1	7:G:163:ILE:HD11	1.85	0.58
13:M:147:LYS:O	13:M:151:LYS:N	2.36	0.58
14:Q:102:PRO:HG2	14:Q:383:SER:HB2	1.84	0.58
25:0:79:ILE:HG23	25:0:207:ILE:HG22	1.85	0.58
27:2:458:LEU:HB3	28:5:5:ARG:HB2	1.85	0.58
29:7:595:ILE:HD13	29:7:622:MET:HE2	1.84	0.58
30:3:64:ARG:HH11	30:3:65:LYS:H	1.51	0.58
2:B:957:ASN:OD1	2:B:961:LEU:N	2.33	0.58
5:E:55:ARG:HA	5:E:58:MET:HE2	1.85	0.58
10:J:22:LEU:O	10:J:25:LEU:N	2.36	0.58
18:W:140:LEU:HB2	18:W:147:PHE:HE1	1.66	0.58
20:T:131:DA:N6	21:N:35:DT:H3	2.01	0.58
25:0:136:MET:HG3	25:0:154:GLU:CG	2.32	0.58
26:6:144:ASN:OD1	26:6:147:ALA:N	2.29	0.58
26:6:182:VAL:HG21	26:6:199:ILE:HD11	1.84	0.58
26:6:352:CYS:SG	26:6:353:HIS:N	2.76	0.58
26:6:389:PHE:HA	26:6:429:CYS:HA	1.86	0.58
29:7:483:GLY:O	29:7:509:ALA:N	2.31	0.58
1:A:935:GLN:NE2	1:A:935:GLN:O	2.36	0.58
2:B:129:PHE:CE1	15:R:266:THR:HG21	2.37	0.58
2:B:313:MET:N	2:B:313:MET:SD	2.76	0.58
2:B:364:ILE:HD11	2:B:374:LYS:HG2	1.86	0.58
2:B:1037:LEU:HB3	2:B:1062:HIS:CD2	2.37	0.58
7:G:57:GLN:HG2	7:G:58:ARG:N	2.18	0.58
25:0:137:THR:HB	25:0:159:HIS:CD2	2.38	0.58
1:A:17:VAL:O	1:A:1419:ASP:N	2.28	0.58
1:A:181:LEU:O	1:A:202:LEU:N	2.31	0.58
2:B:173:MET:CE	2:B:201:GLY:HA2	2.32	0.58
2:B:807:ARG:N	2:B:1045:SER:OG	2.25	0.58
6:F:97:ARG:HA	6:F:100:GLN:HE22	1.69	0.58
13:M:161:LYS:O	13:M:164:LYS:HB2	2.03	0.58
22:O:205:LEU:HB2	22:O:213:VAL:HB	1.84	0.58
25:0:137:THR:HG21	25:0:159:HIS:HB3	1.86	0.58
25:0:512:ILE:HA	25:0:546:TYR:CD1	2.39	0.58
27:2:117:VAL:O	27:2:121:PHE:N	2.36	0.58
29:7:595:ILE:HG21	29:7:622:MET:HE2	1.85	0.58
29:7:715:GLU:HA	29:7:718:TYR:HD2	1.68	0.58
1:A:446:ARG:HB2	1:A:487:MET:CG	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:986:ILE:HG21	1:A:1028:THR:HG22	1.86	0.58
1:A:1209:MET:HE1	1:A:1236:LEU:HD22	1.86	0.58
1:A:1345:ARG:HG2	1:A:1372:VAL:HG12	1.84	0.58
2:B:797:TYR:HB3	2:B:798:TYR:CD1	2.37	0.58
2:B:824:ILE:N	2:B:1009:ASP:OD2	2.29	0.58
4:D:31:GLN:O	4:D:37:GLN:NE2	2.31	0.58
11:K:49:GLU:CD	11:K:94:ILE:HG12	2.28	0.58
22:O:68:GLN:O	22:O:127:LYS:NZ	2.37	0.58
25:O:288:LYS:HD3	25:O:294:HIS:CD2	2.38	0.58
25:O:312:LEU:HG	25:O:313:PRO:HD2	1.85	0.58
27:2:137:GLU:N	27:2:286:ARG:HH21	2.02	0.58
29:7:497:MET:SD	29:7:498:PHE:N	2.77	0.58
29:7:554:CYS:HA	29:7:705:PHE:HB3	1.85	0.58
29:7:569:TYR:HA	29:7:577:ARG:NE	2.18	0.58
29:7:593:PHE:O	29:7:596:GLN:HG2	2.03	0.58
29:7:611:ASN:HD22	29:7:614:ALA:HB3	1.68	0.58
10:J:6:ARG:HB3	10:J:6:ARG:CZ	2.33	0.58
10:J:31:ASP:OD1	10:J:32:GLU:N	2.35	0.58
18:W:28:VAL:HG12	18:W:47:LEU:HD11	1.83	0.58
18:W:34:PHE:HB3	19:X:201:THR:HA	1.85	0.58
27:2:86:LEU:HD22	27:2:104:PHE:CE2	2.38	0.58
27:2:108:LEU:O	27:2:112:LEU:N	2.29	0.58
27:2:361:SER:HB2	27:2:366:LEU:HD23	1.86	0.58
29:7:347:HIS:O	29:7:405:LYS:HG3	2.03	0.58
29:7:373:MET:O	29:7:380:ARG:HG2	2.03	0.58
29:7:477:LEU:HG	29:7:505:ILE:HG12	1.86	0.58
1:A:91:PHE:N	1:A:297:GLN:OE1	2.33	0.58
1:A:494:SER:O	1:A:497:THR:OG1	2.22	0.58
1:A:886:ILE:HD12	1:A:943:LEU:HB3	1.85	0.58
2:B:770:GLN:O	2:B:770:GLN:NE2	2.36	0.58
2:B:924:GLU:HA	2:B:928:ARG:HG2	1.86	0.58
3:C:14:SER:HB3	3:C:17:ASN:H	1.68	0.58
4:D:151:PHE:HA	4:D:153:ARG:HH11	1.68	0.58
8:H:38:LEU:HD11	8:H:40:LEU:HB2	1.85	0.58
13:M:250:MET:N	13:M:250:MET:SD	2.77	0.58
13:M:270:ALA:HB1	13:M:277:ILE:HG21	1.86	0.58
14:Q:378:VAL:HA	14:Q:384:PHE:CD1	2.39	0.58
18:W:109:LEU:HD21	18:W:171:LYS:HB3	1.86	0.58
25:O:104:ARG:NH1	25:O:171:LEU:O	2.37	0.58
25:O:500:GLY:HA3	25:O:521:ASN:HD21	1.68	0.58
30:3:31:ASN:HA	30:3:68:PHE:HA	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:562:THR:HG21	8:H:98:TYR:CD2	2.39	0.58
1:A:601:LYS:HE2	1:A:603:ASN:HD22	1.69	0.58
1:A:1224:LEU:HD22	1:A:1242:VAL:HG22	1.86	0.58
7:G:148:GLU:HG2	7:G:161:GLY:HA2	1.84	0.58
14:Q:331:GLN:HG2	14:Q:332:LEU:N	2.18	0.58
25:0:111:ARG:O	25:0:115:CYS:N	2.36	0.58
25:0:500:GLY:O	25:0:709:SER:OG	2.20	0.58
26:6:121:GLY:N	26:6:307:PRO:HB3	2.18	0.58
27:2:87:LEU:HA	27:2:101:ASN:N	2.19	0.58
1:A:663:SER:OG	1:A:664:THR:N	2.35	0.58
1:A:1008:GLN:CB	1:A:1012:ARG:HH12	2.17	0.58
1:A:1126:ALA:HB2	1:A:1303:GLU:HA	1.86	0.58
2:B:217:ARG:HG3	2:B:218:SER:O	2.04	0.58
2:B:890:TYR:HB3	2:B:893:LEU:HD12	1.86	0.58
9:I:103:CYS:SG	9:I:105:SER:OG	2.57	0.58
21:N:11:DA:H2"	21:N:12:DG:C8	2.37	0.58
25:0:572:GLU:HG3	25:0:600:SER:HB3	1.84	0.58
25:0:576:ALA:O	25:0:580:SER:N	2.24	0.58
27:2:11:THR:OG1	27:2:12:GLN:OE1	2.21	0.58
27:2:422:LEU:O	27:2:426:CYS:N	2.32	0.58
2:B:57:TYR:CE1	15:R:251:ARG:HG2	2.36	0.57
2:B:87:LYS:N	2:B:137:TYR:O	2.37	0.57
2:B:566:LEU:O	2:B:569:TYR:N	2.35	0.57
2:B:757:PRO:HD3	2:B:983:ARG:CZ	2.34	0.57
2:B:1076:HIS:O	3:C:31:ASN:ND2	2.36	0.57
2:B:1206:GLU:O	2:B:1210:MET:N	2.32	0.57
13:M:279:VAL:HG22	13:M:302:LEU:HD23	1.86	0.57
18:W:18:ARG:HH22	19:X:248:SER:H	1.52	0.57
22:O:193:LEU:HB3	22:O:206:ILE:HB	1.86	0.57
25:0:325:ILE:HG12	25:0:334:PHE:CD2	2.39	0.57
28:5:51:LYS:HA	28:5:54:LEU:HB3	1.86	0.57
29:7:105:VAL:O	29:7:109:VAL:N	2.37	0.57
29:7:418:MET:HA	29:7:421:ARG:NH1	2.19	0.57
29:7:536:TYR:CD1	29:7:543:LEU:HD22	2.39	0.57
29:7:591:CYS:O	29:7:595:ILE:HG13	2.03	0.57
1:A:266:LEU:O	1:A:270:LEU:N	2.27	0.57
2:B:29:ASP:O	2:B:32:ALA:N	2.33	0.57
2:B:293:PRO:HG2	2:B:296:GLU:HB2	1.86	0.57
2:B:1085:ILE:HG22	2:B:1086:PHE:O	2.04	0.57
4:D:64:VAL:HG13	4:D:67:ARG:NH2	2.18	0.57
4:D:119:ARG:HH11	4:D:155:ARG:CZ	2.17	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:72:PHE:HE1	5:E:157:SER:HA	1.69	0.57
7:G:23:LYS:HG2	7:G:27:LYS:HE3	1.85	0.57
7:G:114:LEU:HB3	7:G:162:SER:HB2	1.86	0.57
27:2:229:GLY:HA2	27:2:275:ALA:HB1	1.86	0.57
27:2:482:LEU:H	27:2:493:ILE:CG2	2.17	0.57
29:7:440:SER:HB3	29:7:470:SER:HB2	1.86	0.57
30:3:30:VAL:HG13	30:3:35:TYR:N	2.19	0.57
30:3:32:PRO:HG3	30:3:69:LYS:NZ	2.18	0.57
2:B:983:ARG:HG2	2:B:1093:GLN:NE2	2.19	0.57
3:C:40:GLU:HA	3:C:163:ILE:HB	1.86	0.57
3:C:54:ASN:OD1	3:C:56:THR:N	2.37	0.57
6:F:146:TRP:HA	6:F:150:GLU:OE2	2.04	0.57
7:G:115:MET:HE2	7:G:119:LEU:HD23	1.84	0.57
13:M:281:SER:O	13:M:285:ASN:ND2	2.24	0.57
18:W:137:VAL:HA	18:W:147:PHE:CE1	2.39	0.57
24:4:236:LEU:HD13	24:4:252:MET:SD	2.44	0.57
25:0:24:TYR:O	25:0:28:ILE:HG12	2.05	0.57
25:0:29:LYS:HB2	25:0:55:LEU:HD11	1.85	0.57
25:0:117:HIS:CE1	25:0:119:GLU:HB3	2.39	0.57
26:6:135:ALA:O	26:6:145:ARG:HD2	2.04	0.57
29:7:252:GLY:HA2	29:7:316:PHE:CZ	2.39	0.57
29:7:252:GLY:HA2	29:7:316:PHE:HZ	1.70	0.57
30:3:47:PHE:HB3	30:3:68:PHE:HE2	1.68	0.57
1:A:252:PHE:HB3	1:A:256:GLN:HB2	1.86	0.57
4:D:50:LEU:HD13	4:D:54:GLU:HG2	1.86	0.57
11:K:7:PHE:O	11:K:10:PHE:N	2.30	0.57
11:K:68:PHE:HB2	11:K:70:ARG:HG2	1.85	0.57
12:L:49:LYS:N	12:L:49:LYS:HD2	2.18	0.57
14:Q:123:SER:C	14:Q:125:LYS:H	2.12	0.57
24:4:24:SER:O	24:4:71:ASN:HB2	2.05	0.57
25:0:446:ILE:HG13	25:0:473:LEU:HD22	1.87	0.57
26:6:136:MET:HA	26:6:145:ARG:HB2	1.87	0.57
26:6:143:PRO:HD2	26:6:148:MET:HB2	1.85	0.57
26:6:161:PHE:HE2	26:6:169:MET:HE2	1.69	0.57
29:7:342:ASP:OD2	29:7:345:ASN:ND2	2.30	0.57
2:B:344:LYS:HB2	2:B:347:LYS:HB2	1.87	0.57
3:C:112:ASN:OD1	3:C:146:LYS:NZ	2.37	0.57
8:H:142:LEU:HD21	8:H:144:ILE:HG12	1.86	0.57
9:I:85:PHE:HB3	9:I:101:PHE:CD1	2.39	0.57
13:M:157:CYS:SG	13:M:158:HIS:N	2.76	0.57
20:T:128:DG:N2	21:N:38:DC:C2	2.72	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:4:153:MET:HE1	24:4:199:CYS:HB2	1.85	0.57
25:0:17:ILE:HG21	25:0:745:ILE:HG21	1.87	0.57
29:7:225:LEU:H	29:7:309:ASP:CB	2.16	0.57
30:3:89:PHE:O	30:3:93:ASN:HA	2.03	0.57
1:A:34:LYS:NZ	1:A:85:ASP:OD1	2.34	0.57
1:A:445:ASN:OD1	1:A:446:ARG:N	2.37	0.57
1:A:752:LYS:HE3	1:A:753:GLY:H	1.70	0.57
1:A:902:LEU:HA	1:A:921:GLY:HA2	1.85	0.57
2:B:216:GLU:OE1	2:B:500:THR:OG1	2.18	0.57
2:B:313:MET:HE3	2:B:390:LEU:HD21	1.85	0.57
2:B:887:HIS:NE2	2:B:908:GLU:OE1	2.37	0.57
2:B:906:SER:HA	2:B:946:ASN:CB	2.34	0.57
2:B:1146:PHE:HE1	2:B:1150:ARG:HH21	1.52	0.57
5:E:158:SER:O	5:E:162:ARG:N	2.23	0.57
7:G:57:GLN:HG2	7:G:58:ARG:H	1.70	0.57
14:Q:384:PHE:CE2	15:R:95:ILE:HD12	2.40	0.57
15:R:98:ASN:O	15:R:103:LYS:N	2.37	0.57
22:O:171:ARG:N	22:O:237:PHE:O	2.31	0.57
25:0:443:SER:HB3	25:0:472:MET:O	2.03	0.57
25:0:639:LEU:O	25:0:643:ARG:N	2.37	0.57
27:2:110:ASN:O	27:2:115:GLY:N	2.37	0.57
27:2:174:GLU:H	27:2:185:THR:H	1.51	0.57
27:2:219:VAL:O	27:2:223:HIS:N	2.30	0.57
29:7:365:TYR:HB2	29:7:543:LEU:HB3	1.87	0.57
29:7:725:PHE:O	29:7:729:GLN:HG2	2.04	0.57
30:3:14:PRO:HB3	30:3:55:PRO:C	2.28	0.57
1:A:567:LYS:HZ1	8:H:91:ASP:HA	1.70	0.57
5:E:110:PHE:N	5:E:133:GLU:O	2.31	0.57
7:G:99:PHE:CE1	7:G:110:VAL:HB	2.39	0.57
13:M:283:TYR:O	13:M:287:LEU:N	2.35	0.57
25:0:539:VAL:HG12	25:0:621:LEU:HB2	1.86	0.57
27:2:31:THR:HG22	27:2:226:PHE:CD2	2.36	0.57
29:7:555:ALA:HB3	29:7:706:TYR:CD1	2.39	0.57
1:A:765:VAL:HG23	1:A:803:SER:HA	1.86	0.57
3:C:45:ALA:HB3	3:C:170:TRP:CD1	2.39	0.57
5:E:81:GLU:HG3	5:E:82:PHE:O	2.04	0.57
13:M:168:MET:O	13:M:172:MET:HG2	2.04	0.57
13:M:171:ILE:HG13	13:M:172:MET:N	2.20	0.57
13:M:306:GLU:HG3	13:M:309:ILE:HD12	1.87	0.57
17:V:68:THR:OG1	17:V:79:ILE:HD13	2.04	0.57
18:W:124:CYS:HB2	18:W:131:TYR:CE2	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:W:190:ASP:OD1	18:W:193:ARG:NH1	2.33	0.57
20:T:137:DA:H2	21:N:29:DT:H3	1.52	0.57
23:1:192:MET:O	23:1:196:GLN:HG3	2.04	0.57
23:1:283:PHE:HD1	23:1:284:TRP:HD1	1.51	0.57
29:7:627:ILE:HG12	29:7:636:ARG:HA	1.85	0.57
30:3:12:MET:H	30:3:17:LYS:HA	1.69	0.57
2:B:550:ASP:OD1	2:B:552:MET:HG2	2.05	0.57
2:B:567:GLU:OE1	2:B:567:GLU:N	2.32	0.57
2:B:1054:GLY:O	2:B:1058:LEU:HD23	2.04	0.57
9:I:59:VAL:HG23	9:I:61:ASP:C	2.29	0.57
13:M:38:PHE:HA	13:M:56:LEU:HD23	1.87	0.57
13:M:243:CYS:HA	13:M:246:LEU:HB2	1.87	0.57
14:Q:381:ASP:OD1	14:Q:382:GLY:N	2.37	0.57
18:W:100:TRP:HD1	19:X:269:PRO:HD3	1.70	0.57
24:4:34:PRO:HG2	24:4:136:GLU:OE1	2.05	0.57
2:B:1021:MET:O	2:B:1023:VAL:N	2.32	0.57
4:D:176:GLU:O	4:D:180:LEU:N	2.28	0.57
12:L:30:ILE:HG22	12:L:57:LEU:HB2	1.87	0.57
13:M:127:GLN:O	13:M:130:PHE:HB2	2.05	0.57
29:7:555:ALA:HB3	29:7:706:TYR:HD1	1.70	0.57
1:A:25:GLU:H	1:A:25:GLU:CD	2.13	0.56
1:A:92:HIS:CD2	1:A:304:MET:HE1	2.40	0.56
1:A:350:ARG:HD2	2:B:1128:LEU:HD11	1.87	0.56
1:A:630:ILE:O	1:A:634:THR:OG1	2.20	0.56
1:A:1066:VAL:HG12	2:B:1140:ALA:HB2	1.86	0.56
2:B:944:THR:HG23	2:B:945:GLU:HG3	1.87	0.56
3:C:6:PRO:HA	3:C:24:ASN:HB3	1.87	0.56
3:C:75:MET:HE1	3:C:238:ILE:HA	1.87	0.56
5:E:12:LEU:HD21	5:E:58:MET:HE1	1.87	0.56
14:Q:116:THR:HB	15:R:136:THR:HG22	1.87	0.56
16:U:244:MET:HB2	16:U:266:VAL:O	2.05	0.56
24:4:244:LEU:HB3	24:4:248:LEU:HG	1.86	0.56
25:0:137:THR:HA	25:0:155:LEU:HD23	1.85	0.56
25:0:138:ASN:HB3	25:0:141:ALA:HB3	1.85	0.56
25:0:215:ASP:HA	25:0:247:SER:HB2	1.86	0.56
25:0:330:HIS:HE2	30:3:115:ASP:N	2.03	0.56
25:0:719:GLN:OE1	25:0:722:ARG:NH1	2.38	0.56
25:0:745:ILE:HG13	25:0:746:LYS:N	2.20	0.56
26:6:291:LEU:HA	26:6:296:HIS:ND1	2.20	0.56
26:6:379:SER:O	26:6:383:LEU:N	2.31	0.56
27:2:455:GLU:HG2	27:2:456:GLY:N	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:7:302:GLU:HG3	29:7:322:SER:N	2.19	0.56
29:7:357:LYS:O	29:7:429:THR:HG21	2.05	0.56
30:3:64:ARG:NH1	30:3:65:LYS:HB2	2.20	0.56
1:A:72:GLU:HB2	13:M:20:ILE:HD11	1.86	0.56
1:A:209:ASN:OD1	1:A:213:HIS:NE2	2.37	0.56
6:F:114:GLU:OE1	6:F:115:THR:N	2.38	0.56
18:W:179:ILE:HG13	18:W:183:ILE:HG23	1.85	0.56
1:A:69:THR:OG1	1:A:70:CYS:N	2.38	0.56
1:A:107:CYS:SG	1:A:171:GLN:NE2	2.77	0.56
1:A:145:LYS:NZ	1:A:149:GLU:OE2	2.34	0.56
1:A:390:GLN:OE1	1:A:393:ARG:NH1	2.37	0.56
1:A:601:LYS:HE2	1:A:603:ASN:ND2	2.21	0.56
2:B:512:ARG:NH2	2:B:531:GLN:O	2.35	0.56
7:G:138:THR:O	7:G:141:SER:OG	2.21	0.56
20:T:151:DC:N4	21:N:15:DG:H1	2.02	0.56
21:N:34:DG:H2"	21:N:35:DT:H71	1.88	0.56
24:4:234:VAL:HG21	24:4:251:ALA:HB1	1.86	0.56
25:0:136:MET:O	25:0:155:LEU:HD23	2.05	0.56
25:0:253:THR:HG22	25:0:255:ASP:H	1.71	0.56
25:0:639:LEU:HD11	25:0:650:GLU:HA	1.86	0.56
25:0:683:ASP:HB3	25:0:686:PHE:CE2	2.40	0.56
26:6:142:ARG:HB2	26:6:143:PRO:HD3	1.87	0.56
26:6:149:ILE:HD13	26:6:297:LEU:HD11	1.86	0.56
26:6:186:SER:HB2	26:6:192:HIS:HE1	1.67	0.56
26:6:208:PRO:HG3	26:6:238:SER:HB3	1.87	0.56
27:2:401:GLU:HG3	27:2:433:LEU:HD13	1.87	0.56
29:7:364:PRO:HD2	29:7:548:HIS:CA	2.36	0.56
29:7:457:TYR:HB3	29:7:497:MET:CE	2.35	0.56
29:7:592:GLN:HA	29:7:595:ILE:HD12	1.86	0.56
2:B:956:THR:HA	2:B:962:LYS:HA	1.85	0.56
8:H:93:TYR:CD2	8:H:143:LEU:HD23	2.40	0.56
9:I:14:LEU:HA	9:I:28:GLU:O	2.05	0.56
13:M:24:CYS:SG	13:M:27:CYS:HB2	2.45	0.56
13:M:306:GLU:HB3	13:M:310:LYS:NZ	2.20	0.56
26:6:126:LEU:O	26:6:169:MET:HA	2.05	0.56
27:2:23:ASN:HA	27:2:26:TYR:HB2	1.88	0.56
29:7:374:PHE:HD1	29:7:379:ALA:HA	1.68	0.56
29:7:439:THR:OG1	29:7:442:ASN:OD1	2.13	0.56
29:7:446:PHE:CE2	29:7:472:LYS:HG2	2.41	0.56
1:A:523:ILE:O	1:A:528:LEU:HB2	2.04	0.56
1:A:809:THR:O	1:A:812:GLU:N	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:429:PHE:HA	2:B:432:MET:HE2	1.86	0.56
3:C:7:GLN:HB2	3:C:23:SER:HB3	1.88	0.56
4:D:42:GLY:C	4:D:43:GLU:HG3	2.31	0.56
5:E:192:ARG:HA	5:E:215:MET:O	2.06	0.56
10:J:6:ARG:HH12	10:J:13:VAL:CA	2.15	0.56
16:U:256:ALA:HB3	16:U:257:ARG:NH1	2.20	0.56
16:U:267:VAL:O	16:U:274:TYR:N	2.30	0.56
17:V:87:VAL:N	17:V:104:SER:O	2.31	0.56
29:7:343:PHE:O	29:7:346:ASP:HB3	2.06	0.56
1:A:369:SER:HB3	11:K:2:ASN:HD21	1.71	0.56
1:A:405:VAL:HG23	1:A:415:LEU:HD21	1.87	0.56
1:A:567:LYS:NZ	8:H:91:ASP:HA	2.20	0.56
1:A:577:ILE:H	1:A:577:ILE:HD12	1.71	0.56
1:A:840:ARG:HH22	1:A:1105:LEU:HD12	1.70	0.56
4:D:177:VAL:HA	4:D:180:LEU:HB2	1.88	0.56
5:E:118:PRO:HA	5:E:121:MET:HE2	1.88	0.56
13:M:129:ALA:O	13:M:133:ILE:HG12	2.06	0.56
13:M:179:GLY:O	13:M:183:ALA:N	2.39	0.56
29:7:446:PHE:CD2	29:7:447:GLN:HG2	2.41	0.56
29:7:588:PHE:HB2	29:7:618:TYR:CZ	2.40	0.56
30:3:31:ASN:HD21	30:3:64:ARG:HB3	1.69	0.56
1:A:557:ASP:O	11:K:26:LYS:HB3	2.06	0.56
2:B:294:ASP:OD1	2:B:295:GLY:N	2.39	0.56
4:D:148:LEU:O	4:D:151:PHE:N	2.38	0.56
7:G:5:LYS:O	7:G:75:ARG:HG3	2.06	0.56
7:G:49:LEU:HD11	7:G:75:ARG:NE	2.17	0.56
10:J:4:PRO:HG2	10:J:49:MET:HE1	1.88	0.56
14:Q:27:MET:O	14:Q:31:PHE:N	2.32	0.56
14:Q:376:LEU:HB2	15:R:69:TRP:HB2	1.88	0.56
23:1:583:TYR:O	23:1:587:LYS:N	2.27	0.56
29:7:643:PHE:HA	29:7:649:ILE:O	2.05	0.56
30:3:119:LYS:O	30:3:123:GLY:N	2.27	0.56
1:A:84:ILE:N	1:A:239:LEU:O	2.30	0.56
1:A:446:ARG:NH1	1:A:479:ASN:O	2.39	0.56
1:A:1424:VAL:O	1:A:1428:VAL:HG23	2.06	0.56
7:G:98:GLY:HA3	7:G:110:VAL:O	2.05	0.56
8:H:9:ILE:O	8:H:30:SER:HA	2.06	0.56
18:W:138:GLN:NE2	18:W:138:GLN:O	2.39	0.56
25:0:155:LEU:HD13	25:0:160:GLU:CD	2.29	0.56
29:7:469:ASP:O	29:7:473:VAL:HG23	2.05	0.56
1:A:526:ASP:HA	1:A:529:CYS:HB3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:172:ILE:HG13	2:B:178:ASN:OD1	2.06	0.56
3:C:234:SER:OG	3:C:235:VAL:N	2.39	0.56
3:C:260:LEU:O	3:C:263:THR:OG1	2.23	0.56
5:E:85:GLU:HB3	5:E:87:SER:O	2.05	0.56
13:M:241:ARG:HG2	13:M:245:HIS:CE1	2.41	0.56
20:T:124:DA:H2	21:N:42:DT:H3	1.52	0.56
25:0:106:LEU:HD22	25:0:176:PHE:HB2	1.86	0.56
29:7:132:LEU:C	29:7:202:LYS:H	2.12	0.56
1:A:416:ARG:HG3	1:A:417:TYR:CD2	2.40	0.56
2:B:67:SER:O	2:B:91:SER:HA	2.06	0.56
2:B:1104:HIS:ND1	2:B:1122:ARG:HG3	2.21	0.56
4:D:164:ILE:HG23	4:D:168:LYS:HG2	1.88	0.56
10:J:44:TYR:HA	10:J:47:ARG:HB2	1.88	0.56
12:L:51:CYS:O	12:L:53:HIS:N	2.38	0.56
13:M:198:VAL:HG23	13:M:200:THR:H	1.71	0.56
24:4:225:GLN:HG2	24:4:235:TYR:CD2	2.41	0.56
25:0:60:GLN:O	25:0:67:ARG:NH2	2.37	0.56
25:0:171:LEU:HD21	25:0:195:ILE:HD13	1.88	0.56
1:A:56:PRO:HB2	1:A:68:GLN:NE2	2.21	0.55
1:A:367:PRO:HB3	1:A:466:SER:HA	1.88	0.55
1:A:1210:GLY:O	1:A:1214:GLU:HG2	2.05	0.55
1:A:1260:LEU:O	1:A:1264:GLU:N	2.28	0.55
2:B:863:GLU:OE1	2:B:874:PHE:N	2.37	0.55
3:C:142:VAL:HG23	10:J:15:GLY:HA3	1.89	0.55
5:E:17:ARG:NH1	5:E:36:GLU:HG2	2.20	0.55
5:E:192:ARG:NH1	5:E:215:MET:OXT	2.39	0.55
11:K:35:PHE:HB3	11:K:38:GLU:OE2	2.06	0.55
25:0:576:ALA:HB2	25:0:605:LYS:HE2	1.88	0.55
29:7:582:ILE:HA	29:7:587:LYS:HZ2	1.71	0.55
29:7:588:PHE:CZ	29:7:621:LYS:HB3	2.41	0.55
29:7:752:SER:O	29:7:756:ARG:HG3	2.06	0.55
1:A:757:ASN:HA	2:B:1021:MET:HE1	1.87	0.55
1:A:890:ASP:HA	1:A:893:PHE:HB3	1.88	0.55
6:F:74:ILE:HD12	6:F:74:ILE:H	1.71	0.55
8:H:21:ASN:HB2	8:H:22:LYS:NZ	2.21	0.55
15:R:126:LYS:O	15:R:220:HIS:ND1	2.39	0.55
20:T:123:DA:H2"	20:T:124:DA:C8	2.41	0.55
27:2:10:VAL:HG12	27:2:205:LEU:HD21	1.88	0.55
29:7:578:MET:HE3	29:7:582:ILE:HD11	1.88	0.55
1:A:1139:GLU:O	1:A:1275:GLY:HA3	2.06	0.55
1:A:1238:ILE:C	1:A:1239:ARG:HD3	2.30	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:842:ASN:ND2	2:B:845:SER:OG	2.39	0.55
3:C:105:GLY:N	3:C:151:GLN:O	2.32	0.55
3:C:175:ALA:HB3	10:J:43:ARG:NH2	2.21	0.55
4:D:123:LEU:HD11	4:D:145:MET:HG3	1.88	0.55
5:E:180:ARG:HH21	5:E:191:LYS:HA	1.71	0.55
8:H:80:ARG:HE	11:K:57:LEU:HD22	1.70	0.55
17:V:77:THR:HA	17:V:114:VAL:HA	1.86	0.55
19:X:278:LEU:O	19:X:282:GLY:N	2.39	0.55
22:O:197:MET:HE1	22:O:226:ALA:CB	2.36	0.55
25:O:19:PRO:HD2	25:O:673:LYS:HZ1	1.70	0.55
25:O:622:MET:HE2	25:O:686:PHE:CZ	2.42	0.55
29:7:558:TRP:HB3	29:7:711:LYS:HB3	1.88	0.55
1:A:4:GLN:HB3	2:B:1159:ARG:NH2	2.21	0.55
1:A:821:ARG:O	1:A:824:LEU:N	2.40	0.55
1:A:1387:HIS:HA	1:A:1391:ARG:HG2	1.87	0.55
7:G:166:ASP:O	7:G:168:LEU:HG	2.07	0.55
13:M:301:THR:C	15:R:270:MET:HE1	2.31	0.55
15:R:71:VAL:HA	15:R:222:CYS:O	2.06	0.55
22:O:65:PRO:HD2	22:O:224:TYR:HD1	1.72	0.55
23:1:544:ILE:O	23:1:548:GLU:N	2.32	0.55
24:4:24:SER:O	24:4:64:HIS:HE1	1.88	0.55
29:7:250:VAL:H	29:7:329:ARG:HD3	1.70	0.55
29:7:302:GLU:HG3	29:7:321:GLU:HB3	1.88	0.55
30:3:26:VAL:HB	30:3:40:GLU:HG3	1.88	0.55
30:3:32:PRO:HG3	30:3:69:LYS:HZ3	1.72	0.55
1:A:1132:LYS:HD3	1:A:1284:MET:HE3	1.89	0.55
2:B:46:GLN:HG3	2:B:545:ILE:HD13	1.88	0.55
3:C:31:ASN:O	3:C:34:ARG:HB3	2.07	0.55
7:G:60:ARG:NH1	7:G:61:ILE:H	2.03	0.55
10:J:17:LYS:NZ	10:J:39:LEU:O	2.29	0.55
18:W:144:ARG:HH11	18:W:148:LEU:HG	1.72	0.55
25:O:384:LEU:O	25:O:388:LEU:N	2.32	0.55
25:O:496:ILE:HG23	25:O:686:PHE:HB2	1.88	0.55
25:O:690:ARG:HG3	25:O:701:LEU:HD23	1.88	0.55
26:6:157:VAL:HG13	26:6:169:MET:CE	2.37	0.55
26:6:234:ILE:HB	26:6:263:VAL:CG1	2.36	0.55
27:2:419:LYS:HG2	27:2:430:LEU:H	1.71	0.55
29:7:584:ASN:O	29:7:587:LYS:HB3	2.06	0.55
1:A:260:ASP:O	1:A:263:THR:N	2.39	0.55
1:A:567:LYS:HB3	8:H:96:VAL:HG11	1.88	0.55
1:A:811:GLN:HG2	1:A:812:GLU:N	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1209:MET:N	1:A:1209:MET:SD	2.79	0.55
1:A:1444:MET:O	6:F:133:VAL:HG12	2.07	0.55
2:B:244:LEU:HD21	2:B:362:PRO:C	2.31	0.55
2:B:1077:THR:C	3:C:31:ASN:HD22	2.13	0.55
9:I:101:PHE:HB2	9:I:110:PHE:O	2.06	0.55
10:J:16:ASP:OD1	10:J:17:LYS:N	2.39	0.55
13:M:298:VAL:O	13:M:302:LEU:N	2.34	0.55
14:Q:26:ARG:O	14:Q:29:ARG:N	2.30	0.55
25:0:352:ILE:O	25:0:420:ILE:N	2.39	0.55
25:0:536:GLY:HA3	25:0:615:GLN:O	2.06	0.55
26:6:376:LEU:O	26:6:379:SER:OG	2.24	0.55
27:2:15:GLU:HA	27:2:22:GLN:NE2	2.21	0.55
29:7:303:ARG:HG3	29:7:321:GLU:O	2.06	0.55
1:A:226:GLU:HB2	1:A:230:ARG:HE	1.72	0.55
2:B:709:ASP:HB3	2:B:710:LEU:HG	1.89	0.55
3:C:96:SER:OG	3:C:159:ALA:O	2.18	0.55
3:C:254:LYS:O	3:C:257:SER:OG	2.08	0.55
5:E:61:GLN:HG3	5:E:105:PHE:CE1	2.40	0.55
7:G:92:VAL:HA	7:G:139:ILE:HG23	1.89	0.55
25:0:41:GLU:O	25:0:42:MET:HE2	2.06	0.55
25:0:53:LEU:HD13	25:0:86:LEU:HB2	1.89	0.55
25:0:120:VAL:O	25:0:129:VAL:HG22	2.06	0.55
25:0:263:GLY:HA2	25:0:266:ALA:HB3	1.88	0.55
26:6:141:LEU:HD12	26:6:148:MET:SD	2.47	0.55
26:6:199:ILE:HG23	26:6:202:GLN:HE21	1.71	0.55
27:2:142:LYS:O	27:2:146:ILE:HG22	2.07	0.55
29:7:428:CYS:SG	29:7:429:THR:N	2.79	0.55
1:A:412:ARG:NH2	2:B:1108:ARG:CZ	2.70	0.55
1:A:1074:GLU:C	1:A:1077:THR:H	2.15	0.55
2:B:345:LYS:O	2:B:349:ILE:HG22	2.07	0.55
4:D:153:ARG:HH21	4:D:184:ALA:HB2	1.72	0.55
11:K:103:THR:HA	11:K:106:GLU:HB3	1.89	0.55
13:M:295:ALA:HA	13:M:298:VAL:HB	1.89	0.55
23:1:195:PHE:CE1	23:1:199:VAL:HG21	2.42	0.55
25:0:330:HIS:HE1	30:3:110:LEU:O	1.90	0.55
27:2:54:GLU:CD	27:2:109:ARG:HH22	2.15	0.55
29:7:553:GLN:O	29:7:705:PHE:N	2.34	0.55
2:B:879:ARG:HA	2:B:885:MET:CE	2.36	0.55
2:B:1135:ARG:O	2:B:1139:ILE:HG13	2.07	0.55
9:I:103:CYS:O	9:I:107:SER:HA	2.06	0.55
13:M:103:ASP:O	13:M:107:THR:HG23	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:X:262:MET:HA	19:X:265:ASN:HB2	1.89	0.55
20:T:138:DA:H2''	20:T:139:DA:H8	1.72	0.55
25:0:21:GLN:O	25:0:25:MET:HG3	2.07	0.55
26:6:211:GLN:HB3	26:6:243:ASP:HA	1.89	0.55
27:2:11:THR:HG22	27:2:38:ILE:HG21	1.88	0.55
1:A:482:PHE:CD2	2:B:836:GLU:HB2	2.42	0.55
1:A:679:ILE:O	1:A:683:ILE:HG12	2.06	0.55
1:A:1260:LEU:HA	1:A:1263:ILE:HB	1.88	0.55
2:B:901:PRO:HD2	12:L:60:ARG:HA	1.89	0.55
5:E:98:ILE:HA	5:E:101:GLN:HB2	1.88	0.55
9:I:45:ARG:NH1	9:I:47:GLU:OE1	2.38	0.55
11:K:21:ILE:HD13	11:K:84:LYS:HE2	1.89	0.55
14:Q:123:SER:HB3	14:Q:361:TRP:CH2	2.37	0.55
25:0:312:LEU:HD11	25:0:448:PRO:HG3	1.89	0.55
26:6:131:ASP:O	26:6:136:MET:HG3	2.06	0.55
29:7:223:VAL:CA	29:7:337:VAL:HA	2.37	0.55
29:7:512:GLY:H	29:7:531:ILE:HG21	1.72	0.55
29:7:588:PHE:CE1	29:7:622:MET:HG2	2.37	0.55
30:3:30:VAL:HB	30:3:71:GLN:OE1	2.08	0.55
1:A:326:ARG:HG3	1:A:1406:VAL:HG11	1.88	0.54
1:A:472:LEU:O	1:A:475:THR:N	2.30	0.54
1:A:980:ASP:OD1	1:A:980:ASP:N	2.37	0.54
2:B:1187:ASN:OD1	2:B:1188:LYS:N	2.39	0.54
4:D:62:ALA:O	4:D:65:GLU:HB3	2.07	0.54
10:J:10:CYS:HB3	10:J:45:CYS:SG	2.46	0.54
13:M:170:SER:OG	13:M:198:VAL:HB	2.07	0.54
13:M:291:ILE:HG23	13:M:292:PRO:HD2	1.88	0.54
14:Q:120:LYS:HE3	14:Q:394:LYS:NZ	2.22	0.54
18:W:66:LEU:HA	18:W:94:ALA:HB2	1.89	0.54
22:O:166:VAL:HG11	22:O:234:LEU:HD13	1.87	0.54
24:4:225:GLN:OE1	24:4:269:SER:HA	2.07	0.54
26:6:139:LYS:NZ	26:6:144:ASN:HB3	2.22	0.54
29:7:341:TYR:CD2	29:7:380:ARG:HB2	2.43	0.54
30:3:39:CYS:O	30:3:43:VAL:HG12	2.07	0.54
1:A:390:GLN:NE2	1:A:394:ASN:OD1	2.40	0.54
3:C:250:THR:O	3:C:254:LYS:HG2	2.07	0.54
14:Q:138:ARG:O	14:Q:352:MET:HA	2.07	0.54
25:0:138:ASN:HB3	25:0:141:ALA:CB	2.37	0.54
25:0:493:LEU:HB3	25:0:495:MET:SD	2.46	0.54
25:0:508:SER:OG	25:0:542:PRO:HG2	2.07	0.54
25:0:538:VAL:CG2	25:0:620:VAL:HG12	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:6:416:UNK:O	26:6:418:UNK:N	2.41	0.54
27:2:346:LYS:NZ	27:2:347:ILE:O	2.35	0.54
29:7:434:ASN:OD1	29:7:450:SER:OG	2.25	0.54
1:A:511:ILE:O	1:A:519:PRO:HA	2.07	0.54
3:C:96:SER:OG	3:C:97:VAL:N	2.40	0.54
4:D:144:THR:O	4:D:148:LEU:HG	2.07	0.54
9:I:26:LEU:HD23	9:I:37:GLU:HA	1.89	0.54
10:J:43:ARG:HD2	10:J:46:CYS:SG	2.47	0.54
13:M:251:GLN:HG2	13:M:252:VAL:N	2.22	0.54
14:Q:120:LYS:HE3	14:Q:394:LYS:HZ3	1.71	0.54
14:Q:409:ALA:O	14:Q:413:MET:N	2.41	0.54
16:U:244:MET:SD	16:U:267:VAL:HG22	2.48	0.54
17:V:77:THR:HG22	17:V:114:VAL:HG13	1.89	0.54
20:T:150:DG:N2	21:N:17:DG:H1	2.05	0.54
22:O:99:PHE:CE2	22:O:101:ALA:HB3	2.43	0.54
25:0:625:ILE:HG13	25:0:658:ALA:HB1	1.88	0.54
30:3:42:CYS:SG	30:3:55:PRO:HD2	2.46	0.54
1:A:61:ILE:HA	1:A:74:MET:HE2	1.88	0.54
1:A:372:LYS:NZ	11:K:1:MET:HE3	2.22	0.54
1:A:1333:ILE:O	1:A:1337:GLU:HG3	2.06	0.54
2:B:1074:ASN:OD1	2:B:1076:HIS:N	2.40	0.54
3:C:101:LEU:HD21	3:C:103:ALA:HB2	1.89	0.54
4:D:56:ARG:HE	4:D:152:SER:CB	2.20	0.54
15:R:68:VAL:HG23	15:R:218:VAL:HA	1.88	0.54
25:0:74:ARG:HH12	25:0:664:GLN:NE2	2.05	0.54
25:0:351:VAL:HG21	25:0:633:ARG:HD2	1.90	0.54
26:6:309:PRO:HA	26:6:312:LYS:HE3	1.87	0.54
1:A:1427:ASN:O	1:A:1431:GLY:N	2.40	0.54
2:B:48:LEU:HD23	2:B:173:MET:HE2	1.90	0.54
6:F:80:ALA:N	6:F:144:GLU:OE2	2.38	0.54
7:G:154:VAL:O	7:G:155:SER:OG	2.22	0.54
13:M:170:SER:OG	13:M:202:GLU:OE2	2.12	0.54
18:W:42:ASP:OD1	19:X:203:LYS:NZ	2.32	0.54
19:X:251:ASN:HD21	19:X:253:LYS:HD3	1.73	0.54
20:T:116:DA:C2	21:N:50:DT:C2	2.95	0.54
20:T:149:DC:N4	20:T:150:DG:C6	2.76	0.54
21:N:5:DA:H2"	21:N:6:DA:H8	1.73	0.54
23:1:254:GLU:HA	23:1:257:LEU:HG	1.89	0.54
24:4:155:ALA:O	24:4:158:THR:OG1	2.23	0.54
25:0:76:MET:SD	25:0:76:MET:N	2.81	0.54
25:0:134:ARG:O	25:0:138:ASN:HB2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:0:442:ALA:H	25:0:472:MET:HE3	1.72	0.54
26:6:234:ILE:HB	26:6:263:VAL:HG12	1.88	0.54
29:7:372:LYS:HD3	29:7:535:LEU:O	2.07	0.54
29:7:502:VAL:O	29:7:502:VAL:HG12	2.07	0.54
29:7:582:ILE:HA	29:7:587:LYS:NZ	2.21	0.54
1:A:1287:TYR:CD2	1:A:1305:VAL:HG21	2.42	0.54
2:B:355:ILE:HG23	2:B:359:GLU:HB2	1.90	0.54
3:C:256:ALA:HA	3:C:259:LEU:HD13	1.90	0.54
4:D:140:ASP:O	4:D:144:THR:HG23	2.08	0.54
11:K:7:PHE:HA	11:K:10:PHE:CE1	2.42	0.54
21:N:10:DA:H2''	21:N:11:DA:C8	2.43	0.54
22:O:82:LEU:HD22	22:O:102:VAL:HG23	1.89	0.54
25:0:441:ASP:HB2	25:0:641:PHE:CZ	2.42	0.54
25:0:722:ARG:HB3	26:6:292:LEU:HD22	1.88	0.54
26:6:152:TYR:CE2	26:6:298:LYS:HB2	2.43	0.54
26:6:325:PRO:HB2	26:6:347:TYR:HB3	1.90	0.54
27:2:491:PHE:CD2	27:2:493:ILE:HG12	2.42	0.54
29:7:357:LYS:HG3	29:7:429:THR:CG2	2.38	0.54
30:3:14:PRO:HB3	30:3:55:PRO:O	2.06	0.54
1:A:1153:TYR:HD1	9:I:42:LEU:HA	1.72	0.54
2:B:545:ILE:HG13	2:B:633:VAL:HG22	1.90	0.54
2:B:762:ASN:ND2	2:B:984:HIS:ND1	2.56	0.54
3:C:116:LYS:HD3	3:C:139:GLY:O	2.08	0.54
19:X:207:CYS:O	19:X:211:LYS:HG2	2.08	0.54
24:4:120:ASN:OD1	24:4:121:VAL:N	2.41	0.54
25:0:217:LYS:HG2	25:0:310:PRO:HA	1.90	0.54
26:6:390:ALA:N	26:6:428:ARG:O	2.41	0.54
27:2:353:SER:HB2	27:2:356:GLN:HB3	1.89	0.54
29:7:417:VAL:HG21	29:7:456:THR:HB	1.89	0.54
29:7:670:LEU:HD21	29:7:672:GLN:HE21	1.71	0.54
1:A:856:THR:HB	1:A:865:GLN:HB2	1.89	0.54
2:B:847:ASP:HB3	3:C:167:HIS:CD2	2.43	0.54
5:E:23:VAL:HG22	5:E:28:TYR:HB2	1.90	0.54
8:H:22:LYS:O	8:H:44:VAL:N	2.34	0.54
13:M:17:ASN:HB3	13:M:19:ASN:OD1	2.08	0.54
13:M:308:THR:O	13:M:312:GLY:N	2.28	0.54
23:1:346:ASP:OD1	25:0:113:ASN:ND2	2.40	0.54
23:1:561:LEU:HD13	23:1:583:TYR:HB2	1.90	0.54
23:1:597:PHE:HZ	23:1:616:LEU:HB2	1.73	0.54
24:4:26:LEU:HB2	24:4:64:HIS:CE1	2.43	0.54
25:0:477:THR:OG1	25:0:480:GLN:OE1	2.19	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:2:18:PRO:HB2	27:2:20:GLN:HE22	1.73	0.54
1:A:348:SER:OG	2:B:1128:LEU:HD23	2.07	0.54
1:A:1139:GLU:HB2	1:A:1282:VAL:HG23	1.88	0.54
1:A:1141:THR:OG1	1:A:1274:ARG:N	2.40	0.54
2:B:483:LEU:HD12	2:B:494:HIS:ND1	2.22	0.54
2:B:554:ILE:O	2:B:558:LEU:HD12	2.08	0.54
7:G:129:SER:HB3	7:G:138:THR:HA	1.89	0.54
13:M:37:ARG:NE	13:M:40:GLU:OE2	2.40	0.54
22:O:139:TYR:O	22:O:143:ILE:HG12	2.08	0.54
25:0:337:ARG:HH21	25:0:369:ILE:HD11	1.73	0.54
27:2:17:ILE:HG13	27:2:22:GLN:HG3	1.90	0.54
29:7:225:LEU:N	29:7:309:ASP:OD2	2.40	0.54
29:7:446:PHE:HD2	29:7:447:GLN:HG2	1.73	0.54
29:7:497:MET:O	29:7:501:VAL:N	2.40	0.54
30:3:31:ASN:N	30:3:34:CYS:SG	2.80	0.54
1:A:26:GLU:O	1:A:30:ILE:HG12	2.08	0.54
1:A:252:PHE:O	1:A:256:GLN:N	2.39	0.54
2:B:241:ARG:HG3	2:B:253:THR:HG22	1.90	0.54
2:B:843:GLN:HB3	2:B:995:ARG:HA	1.90	0.54
2:B:1153:GLU:OE1	2:B:1153:GLU:N	2.41	0.54
3:C:66:ARG:HH21	3:C:144:ILE:HA	1.73	0.54
8:H:93:TYR:HA	8:H:145:ARG:HB3	1.89	0.54
10:J:20:SER:O	10:J:24:LEU:HG	2.08	0.54
14:Q:386:MET:SD	14:Q:386:MET:N	2.81	0.54
15:R:105:THR:HA	15:R:121:ASP:HA	1.90	0.54
16:U:246:CYS:SG	16:U:262:LEU:HB3	2.48	0.54
18:W:64:ASP:HA	19:X:268:LEU:HD12	1.90	0.54
20:T:116:DA:C2	21:N:50:DT:N3	2.75	0.54
23:1:260:PHE:CG	23:1:267:LYS:HD3	2.43	0.54
23:1:265:ILE:HG13	23:1:266:VAL:N	2.23	0.54
24:4:136:GLU:OE1	24:4:140:ILE:HG21	2.08	0.54
24:4:201:PHE:HB3	26:6:378:ARG:NH2	2.23	0.54
25:0:39:ILE:HG23	25:0:466:LEU:HD23	1.90	0.54
25:0:211:HIS:O	25:0:215:ASP:N	2.39	0.54
25:0:256:ALA:HA	25:0:259:ARG:HG3	1.90	0.54
25:0:383:LEU:O	25:0:387:THR:HG23	2.06	0.54
25:0:519:VAL:HG11	25:0:553:MET:SD	2.48	0.54
27:2:356:GLN:HE21	27:2:403:HIS:CE1	2.25	0.54
29:7:626:PHE:C	29:7:639:ILE:HD13	2.33	0.54
1:A:292:ALA:HA	1:A:295:LEU:HB3	1.90	0.53
1:A:372:LYS:HA	1:A:435:HIS:CD2	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:779:PHE:HE2	1:A:784:LEU:HA	1.72	0.53
1:A:993:LEU:HD11	1:A:1050:GLU:HG3	1.90	0.53
2:B:326:ASP:O	2:B:329:THR:OG1	2.26	0.53
2:B:629:ASP:OD1	2:B:630:ALA:N	2.41	0.53
3:C:100:THR:OG1	3:C:155:LEU:O	2.21	0.53
4:D:189:ASP:HA	4:D:192:LYS:HE3	1.89	0.53
13:M:148:ASP:O	13:M:152:GLU:N	2.36	0.53
26:6:121:GLY:H	26:6:307:PRO:HB3	1.73	0.53
26:6:440:CYS:O	26:6:444:ILE:N	2.25	0.53
27:2:365:HIS:HB3	27:2:385:ARG:HH22	1.73	0.53
29:7:365:TYR:HB3	29:7:544:SER:HA	1.90	0.53
29:7:478:THR:HG22	29:7:505:ILE:HA	1.90	0.53
1:A:316:GLN:NE2	1:A:317:LYS:H	2.06	0.53
2:B:758:PHE:HD2	2:B:761:HIS:CD2	2.26	0.53
2:B:788:ARG:O	2:B:789:MET:HE2	2.07	0.53
2:B:789:MET:HG3	2:B:953:LEU:HD21	1.90	0.53
3:C:233:GLU:OE1	10:J:12:LYS:HD3	2.07	0.53
4:D:29:LEU:HD22	7:G:82:PHE:CD2	2.43	0.53
29:7:430:LEU:HD21	29:7:435:CYS:SG	2.49	0.53
1:A:401:GLY:H	1:A:435:HIS:HD1	1.56	0.53
1:A:450:LEU:O	1:A:1074:GLU:OE2	2.27	0.53
1:A:497:THR:HG21	2:B:1149:GLU:OE1	2.08	0.53
1:A:828:ALA:O	1:A:831:THR:OG1	2.26	0.53
2:B:837:ASP:OD2	2:B:1020:ARG:NH2	2.41	0.53
3:C:185:LYS:HE3	3:C:213:PRO:HA	1.88	0.53
6:F:79:ARG:HH12	6:F:150:GLU:CD	2.16	0.53
15:R:78:ALA:O	15:R:82:ARG:HG2	2.08	0.53
15:R:97:ILE:HG22	15:R:104:ILE:HG23	1.91	0.53
23:1:230:PRO:HG3	23:1:389:LEU:HD21	1.89	0.53
25:0:351:VAL:HA	25:0:420:ILE:O	2.09	0.53
26:6:209:SER:OG	26:6:242:THR:O	2.13	0.53
27:2:25:LEU:HD21	27:2:226:PHE:HE2	1.74	0.53
1:A:110:CYS:SG	1:A:111:GLY:N	2.80	0.53
1:A:250:ILE:HG22	1:A:258:GLY:C	2.34	0.53
1:A:261:ASP:HB3	1:A:322:VAL:HG13	1.89	0.53
1:A:1219:THR:HG21	1:A:1271:ILE:HD11	1.91	0.53
2:B:798:TYR:CD2	10:J:4:PRO:HG3	2.38	0.53
2:B:805:THR:O	2:B:1044:ALA:N	2.39	0.53
11:K:19:LEU:HD22	11:K:35:PHE:CE1	2.43	0.53
15:R:62:GLU:OE1	15:R:63:ARG:NH2	2.41	0.53
18:W:96:ASP:HB3	19:X:274:LEU:HG	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:O:108:GLU:O	22:O:138:LYS:NZ	2.22	0.53
22:O:227:PHE:HA	22:O:230:ILE:HG22	1.90	0.53
25:O:571:VAL:HG23	25:O:599:LEU:HD11	1.90	0.53
27:2:379:THR:H	27:2:382:SER:HB2	1.73	0.53
29:7:303:ARG:NH1	29:7:501:VAL:O	2.42	0.53
29:7:585:PRO:O	29:7:589:GLN:HG3	2.08	0.53
1:A:42:ASP:HB2	1:A:48:ALA:N	2.23	0.53
1:A:317:LYS:HG2	13:M:94:THR:HG23	1.89	0.53
1:A:690:VAL:HG11	1:A:794:PRO:HD3	1.90	0.53
1:A:756:ILE:H	1:A:756:ILE:HD12	1.74	0.53
2:B:816:GLU:OE1	2:B:816:GLU:N	2.41	0.53
4:D:177:VAL:HA	4:D:180:LEU:HD12	1.90	0.53
5:E:79:TRP:HB2	5:E:105:PHE:CZ	2.43	0.53
7:G:18:PHE:HA	7:G:22:MET:CE	2.38	0.53
13:M:37:ARG:O	13:M:41:GLY:N	2.41	0.53
19:X:261:LYS:O	19:X:265:ASN:N	2.40	0.53
20:T:132:DC:H2"	20:T:133:DA:H8	1.72	0.53
25:O:224:ASN:ND2	25:O:228:LYS:HD3	2.24	0.53
26:6:174:MET:CG	26:6:208:PRO:HA	2.39	0.53
26:6:386:LEU:HD13	26:6:451:CYS:HB2	1.91	0.53
29:7:341:TYR:CE2	29:7:343:PHE:HB3	2.43	0.53
29:7:372:LYS:HB3	29:7:535:LEU:HB3	1.90	0.53
29:7:565:PHE:CZ	29:7:583:MET:SD	3.02	0.53
1:A:102:VAL:HG11	1:A:211:PHE:CE1	2.44	0.53
2:B:655:LYS:HA	2:B:658:ILE:HD12	1.90	0.53
2:B:756:ILE:HG12	2:B:770:GLN:HG2	1.91	0.53
2:B:840:ILE:O	2:B:1010:LEU:HA	2.08	0.53
2:B:896:ASP:OD2	12:L:29:TYR:OH	2.26	0.53
3:C:26:ASP:OD1	3:C:26:ASP:N	2.36	0.53
3:C:124:LEU:O	3:C:127:ARG:NH1	2.42	0.53
8:H:108:SER:OG	8:H:111:LEU:HB2	2.08	0.53
11:K:93:SER:O	11:K:96:ASN:HB3	2.09	0.53
13:M:27:CYS:HB3	13:M:29:VAL:HG22	1.90	0.53
24:4:273:ARG:HG3	26:6:373:SER:CB	2.33	0.53
25:O:132:LYS:O	25:O:136:MET:N	2.37	0.53
25:O:270:ARG:CZ	25:O:390:VAL:HA	2.38	0.53
26:6:266:LEU:O	26:6:268:ALA:N	2.41	0.53
29:7:606:ILE:N	29:7:669:CYS:O	2.36	0.53
30:3:30:VAL:HA	30:3:34:CYS:SG	2.48	0.53
1:A:1147:THR:HA	1:A:1197:LEU:HD23	1.91	0.53
13:M:45:CYS:CB	13:M:48:CYS:SG	2.94	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:Q:114:MET:HE2	15:R:136:THR:HB	1.90	0.53
16:U:285:TRP:HZ2	22:O:91:ASN:ND2	2.04	0.53
18:W:13:LEU:O	18:W:17:VAL:HG12	2.08	0.53
18:W:152:CYS:SG	18:W:154:GLU:HB2	2.48	0.53
24:4:297:SER:C	24:4:299:ILE:H	2.14	0.53
25:0:289:LEU:HD11	25:0:380:ARG:NH1	2.23	0.53
26:6:133:SER:HB2	26:6:206:GLY:O	2.09	0.53
29:7:225:LEU:H	29:7:309:ASP:CG	2.17	0.53
29:7:324:GLU:CD	29:7:503:SER:OG	2.52	0.53
29:7:341:TYR:HE2	29:7:343:PHE:HB3	1.73	0.53
29:7:614:ALA:HA	29:7:617:GLU:HB3	1.91	0.53
1:A:253:ASN:C	1:A:255:SER:H	2.17	0.53
1:A:278:THR:O	1:A:282:ASN:N	2.36	0.53
1:A:306:ASN:ND2	1:A:322:VAL:O	2.42	0.53
1:A:852:TYR:CD2	6:F:136:ARG:HD3	2.44	0.53
1:A:1235:LYS:HG3	1:A:1235:LYS:O	2.08	0.53
13:M:130:PHE:CD1	13:M:151:LYS:HG2	2.43	0.53
15:R:134:VAL:HB	15:R:215:VAL:HB	1.90	0.53
17:V:60:LEU:HA	17:V:86:THR:O	2.08	0.53
22:O:106:ILE:HG12	22:O:139:TYR:CZ	2.43	0.53
25:0:267:LEU:HA	25:0:270:ARG:HB3	1.91	0.53
27:2:10:VAL:HG21	27:2:201:TRP:CZ3	2.43	0.53
27:2:71:LYS:HZ3	27:2:500:GLN:HB3	1.73	0.53
27:2:482:LEU:H	27:2:493:ILE:HG22	1.74	0.53
28:5:17:LYS:HG3	28:5:40:LEU:HD21	1.91	0.53
1:A:167:CYS:O	1:A:169:ASN:N	2.42	0.53
1:A:788:SER:HB2	9:I:69:PRO:HD3	1.90	0.53
1:A:1193:LEU:HD21	1:A:1264:GLU:HB3	1.90	0.53
1:A:1290:LYS:NZ	1:A:1300:LYS:HE2	2.23	0.53
3:C:46:ILE:HD11	3:C:72:LEU:HD21	1.90	0.53
25:0:495:MET:HG3	25:0:705:ASP:OD1	2.09	0.53
30:3:65:LYS:O	30:3:67:LYS:N	2.40	0.53
1:A:674:PRO:O	1:A:677:ARG:N	2.42	0.53
2:B:340:ALA:C	2:B:348:ARG:HH21	2.17	0.53
2:B:604:ARG:HD2	2:B:611:PRO:HA	1.91	0.53
2:B:865:LYS:HG2	2:B:871:THR:HA	1.90	0.53
6:F:79:ARG:HD3	6:F:146:TRP:CE2	2.43	0.53
24:4:234:VAL:HG11	24:4:251:ALA:O	2.08	0.53
26:6:129:THR:OG1	26:6:234:ILE:HD13	2.09	0.53
26:6:161:PHE:CG	26:6:189:PRO:HG3	2.44	0.53
29:7:346:ASP:HA	29:7:508:HIS:HB3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:7:484:PHE:HZ	29:7:511:LEU:HD22	1.73	0.53
29:7:568:GLU:CD	29:7:580:LEU:HD13	2.34	0.53
30:3:47:PHE:HB3	30:3:68:PHE:CE2	2.44	0.53
1:A:335:ARG:NH2	2:B:1114:LEU:HD21	2.23	0.52
2:B:202:TYR:HB2	2:B:210:LYS:O	2.08	0.52
2:B:328:GLU:OE1	2:B:328:GLU:N	2.41	0.52
2:B:649:LYS:O	2:B:650:GLU:HG2	2.09	0.52
3:C:92:CYS:SG	3:C:94:LYS:HB2	2.49	0.52
7:G:86:VAL:HA	7:G:146:LYS:HA	1.91	0.52
15:R:74:PRO:HD3	15:R:224:VAL:CG1	2.39	0.52
15:R:306:LEU:O	15:R:310:TYR:N	2.33	0.52
18:W:97:ALA:HB1	19:X:268:LEU:HD22	1.91	0.52
20:T:131:DA:H61	21:N:35:DT:H3	1.55	0.52
25:0:159:HIS:HB2	25:0:194:PHE:CE2	2.44	0.52
25:0:586:TYR:CD1	25:0:598:LEU:HB2	2.44	0.52
26:6:208:PRO:O	26:6:241:THR:HA	2.08	0.52
28:5:17:LYS:HE3	28:5:40:LEU:HD21	1.91	0.52
29:7:418:MET:HB3	29:7:422:GLN:NE2	2.24	0.52
29:7:699:GLU:O	29:7:702:ASN:ND2	2.43	0.52
1:A:666:ILE:O	1:A:669:THR:OG1	2.26	0.52
1:A:774:ARG:NH2	1:A:797:LYS:HB2	2.24	0.52
1:A:1209:MET:CE	1:A:1236:LEU:HD22	2.38	0.52
2:B:801:LYS:NZ	10:J:53:HIS:O	2.42	0.52
6:F:107:VAL:HG13	6:F:124:GLU:OE2	2.09	0.52
8:H:15:VAL:HG11	8:H:49:VAL:HG21	1.91	0.52
26:6:122:ILE:HD12	26:6:379:SER:HB2	1.91	0.52
1:A:1037:LEU:HD22	1:A:1041:ALA:HB1	1.91	0.52
2:B:531:GLN:OE1	2:B:531:GLN:N	2.37	0.52
2:B:554:ILE:HD12	2:B:554:ILE:H	1.74	0.52
4:D:203:SER:OG	4:D:205:ASP:OD1	2.27	0.52
7:G:9:LEU:O	7:G:71:ASN:HA	2.09	0.52
14:Q:114:MET:CE	15:R:136:THR:HB	2.40	0.52
14:Q:351:VAL:HG22	14:Q:362:VAL:HG22	1.89	0.52
18:W:18:ARG:HB2	19:X:252:LEU:HD12	1.91	0.52
18:W:178:GLN:HB3	19:X:255:ILE:HD13	1.90	0.52
20:T:150:DG:N2	21:N:17:DG:C6	2.77	0.52
22:O:75:THR:O	22:O:153:THR:OG1	2.21	0.52
23:1:596:LEU:O	23:1:600:VAL:N	2.27	0.52
24:4:26:LEU:HD21	24:4:60:PHE:CE2	2.44	0.52
25:0:19:PRO:HD2	25:0:673:LYS:NZ	2.24	0.52
25:0:58:ALA:O	25:0:62:HIS:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:7:149:LEU:O	29:7:153:ALA:N	2.28	0.52
30:3:69:LYS:HB2	30:3:71:GLN:HE22	1.74	0.52
1:A:25:GLU:OE1	1:A:25:GLU:N	2.38	0.52
3:C:145:CYS:SG	3:C:146:LYS:N	2.82	0.52
8:H:4:THR:HG21	8:H:7:ASP:HB2	1.92	0.52
11:K:29:ASN:ND2	11:K:79:GLU:HA	2.22	0.52
18:W:132:THR:HG22	18:W:133:GLN:N	2.24	0.52
23:1:229:GLY:HA2	26:6:244:PRO:HA	1.91	0.52
25:0:342:LEU:O	25:0:346:MET:N	2.42	0.52
25:0:735:GLY:O	25:0:744:LEU:HD23	2.08	0.52
26:6:169:MET:C	26:6:185:VAL:HA	2.34	0.52
29:7:405:LYS:O	29:7:407:VAL:HG23	2.09	0.52
29:7:564:GLU:HG2	29:7:565:PHE:N	2.24	0.52
1:A:711:ARG:HE	9:I:97:MET:CE	2.21	0.52
1:A:1001:ARG:NH2	6:F:83:PRO:HD2	2.25	0.52
2:B:627:PHE:HB2	2:B:632:ARG:HH11	1.75	0.52
3:C:238:ILE:HG13	3:C:243:VAL:HG22	1.89	0.52
4:D:63:LEU:HB2	4:D:130:LEU:HD13	1.90	0.52
7:G:119:LEU:HD12	7:G:120:THR:N	2.25	0.52
15:R:92:LEU:HD23	15:R:109:ASN:ND2	2.25	0.52
23:1:197:GLU:HA	23:1:201:ASN:CG	2.35	0.52
23:1:309:UNK:O	23:1:313:UNK:N	2.42	0.52
24:4:86:LEU:O	24:4:128:GLU:HG3	2.09	0.52
25:0:259:ARG:HG2	25:0:262:ARG:HH22	1.75	0.52
25:0:332:VAL:O	25:0:336:LYS:N	2.41	0.52
25:0:563:VAL:HG22	25:0:569:ILE:HD11	1.90	0.52
26:6:298:LYS:NZ	26:6:302:ASN:HD21	2.08	0.52
27:2:108:LEU:O	27:2:112:LEU:HG	2.10	0.52
29:7:303:ARG:NH1	29:7:505:ILE:H	2.07	0.52
30:3:13:CYS:HB2	30:3:39:CYS:HB3	1.92	0.52
1:A:246:VAL:HG12	1:A:328:ARG:HH12	1.75	0.52
1:A:1430:LEU:HD22	2:B:1196:ILE:HG21	1.90	0.52
2:B:429:PHE:CE1	14:Q:332:LEU:HB2	2.44	0.52
7:G:80:LYS:HG3	7:G:82:PHE:CZ	2.45	0.52
9:I:33:SER:O	9:I:35:VAL:HG23	2.09	0.52
10:J:6:ARG:HH22	10:J:13:VAL:HG23	1.75	0.52
13:M:193:GLN:OE1	13:M:198:VAL:HG22	2.09	0.52
21:N:36:DC:H2'	21:N:37:DG:C8	2.45	0.52
25:0:537:MET:HG2	25:0:619:THR:O	2.09	0.52
26:6:145:ARG:O	26:6:149:ILE:HG12	2.09	0.52
26:6:153:ALA:O	26:6:157:VAL:HG23	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:6:179:ALA:HB3	26:6:216:MET:CE	2.39	0.52
29:7:476:PHE:CE1	29:7:480:ARG:HB2	2.44	0.52
29:7:633:GLN:HA	29:7:636:ARG:HB3	1.92	0.52
1:A:128:ILE:HB	1:A:134:ARG:CG	2.39	0.52
1:A:851:HIS:O	1:A:853:ASP:N	2.36	0.52
1:A:1100:ARG:NE	1:A:1351:GLU:OE2	2.40	0.52
1:A:1151:GLU:OE2	9:I:45:ARG:NH2	2.43	0.52
2:B:303:TYR:HE2	2:B:380:TYR:CD1	2.28	0.52
2:B:706:GLN:HB2	2:B:709:ASP:HB2	1.92	0.52
4:D:157:GLN:OE1	4:D:157:GLN:N	2.37	0.52
5:E:12:LEU:HD13	5:E:137:GLU:OE2	2.10	0.52
7:G:44:TYR:HD2	7:G:105:PRO:HG2	1.75	0.52
23:1:466:UNK:O	23:1:468:UNK:N	2.43	0.52
23:1:597:PHE:CZ	23:1:616:LEU:HB2	2.44	0.52
24:4:58:ILE:HD11	24:4:125:LEU:HD22	1.92	0.52
24:4:175:ARG:HE	24:4:256:PRO:HG3	1.75	0.52
24:4:200:ILE:HG12	24:4:227:THR:HG23	1.91	0.52
25:0:42:MET:O	25:0:461:GLY:HA2	2.09	0.52
25:0:60:GLN:OE1	25:0:69:ILE:HG13	2.10	0.52
25:0:171:LEU:HD11	25:0:195:ILE:HG21	1.90	0.52
25:0:326:ARG:O	25:0:380:ARG:NH2	2.42	0.52
25:0:440:LEU:HD22	25:0:638:ARG:HA	1.92	0.52
26:6:296:HIS:HA	26:6:299:GLU:HG2	1.91	0.52
26:6:324:PHE:N	26:6:350:PRO:HG3	2.24	0.52
27:2:63:ASP:HA	27:2:74:PHE:CE2	2.45	0.52
27:2:370:PHE:HD2	27:2:373:MET:HG3	1.73	0.52
29:7:181:TYR:O	29:7:185:SER:N	2.28	0.52
1:A:206:GLU:O	1:A:210:ILE:N	2.31	0.52
1:A:486:GLU:OE2	2:B:1102:LYS:HB3	2.09	0.52
1:A:779:PHE:CE2	1:A:785:PRO:HD3	2.44	0.52
1:A:855:THR:HG23	1:A:866:PHE:HA	1.92	0.52
4:D:188:ALA:C	4:D:192:LYS:HE2	2.35	0.52
8:H:44:VAL:O	8:H:45:GLU:C	2.53	0.52
8:H:90:ALA:HA	8:H:93:TYR:HB2	1.90	0.52
8:H:130:ARG:HB3	8:H:130:ARG:CZ	2.39	0.52
12:L:28:LYS:HG2	12:L:39:SER:CB	2.40	0.52
18:W:28:VAL:HG23	18:W:61:LEU:HD11	1.90	0.52
23:1:318:UNK:HA	23:1:321:PHE:HB3	1.90	0.52
25:0:422:PRO:HG2	25:0:423:TYR:CD1	2.39	0.52
26:6:246:ASP:O	26:6:250:THR:HG23	2.10	0.52
27:2:71:LYS:HZ1	27:2:500:GLN:HB3	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:7:595:ILE:CD1	29:7:622:MET:HE2	2.39	0.52
29:7:639:ILE:HG23	29:7:649:ILE:HG21	1.91	0.52
29:7:750:TYR:HA	29:7:755:GLU:CB	2.40	0.52
30:3:106:TYR:O	30:3:110:LEU:N	2.28	0.52
1:A:1076:ALA:HA	1:A:1079:MET:HE1	1.92	0.52
2:B:373:ARG:HG3	2:B:566:LEU:HD23	1.92	0.52
3:C:58:LEU:HD12	3:C:62:PHE:CD1	2.44	0.52
8:H:3:ASN:O	8:H:60:ALA:HA	2.09	0.52
8:H:5:LEU:HD22	8:H:134:ASN:HB3	1.90	0.52
10:J:36:LEU:HD22	10:J:41:LEU:HD12	1.91	0.52
17:V:68:THR:HA	22:O:90:ARG:O	2.10	0.52
24:4:198:ASN:HA	24:4:201:PHE:CD2	2.44	0.52
24:4:275:SER:HB2	24:4:280:GLY:C	2.34	0.52
25:0:11:LEU:HD23	25:0:93:ARG:HA	1.92	0.52
25:0:287:GLU:HA	25:0:290:VAL:HG12	1.92	0.52
26:6:278:LYS:HB2	26:6:285:GLU:HB2	1.91	0.52
26:6:352:CYS:N	26:6:366:CYS:SG	2.83	0.52
27:2:450:ARG:NH2	28:5:16:ILE:HD12	2.24	0.52
28:5:31:VAL:HG22	28:5:42:VAL:CG2	2.35	0.52
29:7:411:CYS:HA	29:7:488:ASP:HB2	1.91	0.52
29:7:583:MET:SD	29:7:583:MET:C	2.93	0.52
1:A:1152:ILE:CG1	9:I:44:TYR:HB3	2.40	0.52
3:C:6:PRO:HG2	11:K:101:LEU:HD13	1.91	0.52
3:C:47:ASP:O	12:L:69:ALA:HB3	2.10	0.52
9:I:24:ARG:NH1	9:I:37:GLU:HA	2.24	0.52
11:K:98:LEU:O	11:K:102:LYS:N	2.35	0.52
14:Q:378:VAL:HA	14:Q:384:PHE:HD1	1.75	0.52
24:4:24:SER:OG	24:4:64:HIS:CE1	2.63	0.52
25:0:138:ASN:HB3	25:0:141:ALA:H	1.74	0.52
25:0:325:ILE:HG12	25:0:334:PHE:HD2	1.74	0.52
25:0:659:MET:HA	25:0:662:ALA:HB3	1.91	0.52
25:0:690:ARG:HD2	25:0:706:LEU:HD21	1.92	0.52
25:0:745:ILE:O	25:0:749:ASN:HB2	2.10	0.52
26:6:224:VAL:O	26:6:230:ARG:NH2	2.39	0.52
27:2:218:LEU:O	27:2:222:LEU:N	2.22	0.52
27:2:356:GLN:HE22	27:2:360:LEU:HD11	1.75	0.52
27:2:455:GLU:HG2	27:2:456:GLY:H	1.75	0.52
28:5:57:LEU:O	28:5:61:ASN:N	2.43	0.52
29:7:366:GLN:NE2	29:7:391:GLY:O	2.43	0.52
29:7:406:SER:OG	29:7:481:GLU:O	2.20	0.52
29:7:606:ILE:O	29:7:671:ILE:N	2.36	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:13:CYS:HA	30:3:37:ARG:O	2.09	0.52
1:A:673:GLY:O	1:A:676:MET:HB2	2.09	0.51
2:B:68:THR:HG22	2:B:91:SER:HB3	1.92	0.51
2:B:106:ASP:OD1	2:B:108:VAL:HG12	2.10	0.51
2:B:992:ILE:HD11	11:K:67:PHE:HE1	1.74	0.51
4:D:53:SER:O	4:D:56:ARG:HB3	2.09	0.51
6:F:116:ASP:OD2	6:F:119:ARG:HG2	2.10	0.51
11:K:50:LEU:HD21	11:K:90:ALA:HB2	1.91	0.51
14:Q:336:ASP:OD1	14:Q:337:GLU:N	2.43	0.51
25:0:52:LEU:HD13	25:0:71:TYR:HE2	1.74	0.51
27:2:14:LEU:O	27:2:17:ILE:HG12	2.10	0.51
27:2:408:MET:SD	27:2:411:LEU:HD13	2.49	0.51
28:5:17:LYS:O	28:5:21:LEU:N	2.24	0.51
29:7:500:ARG:HA	29:7:503:SER:CB	2.40	0.51
29:7:555:ALA:HA	29:7:734:LYS:O	2.09	0.51
1:A:92:HIS:HD2	1:A:236:LEU:HD21	1.74	0.51
2:B:216:GLU:OE2	2:B:404:LYS:NZ	2.28	0.51
2:B:777:ALA:HA	2:B:1094:ARG:O	2.09	0.51
2:B:1037:LEU:HB3	2:B:1062:HIS:HD2	1.76	0.51
5:E:174:GLN:H	5:E:174:GLN:CD	2.19	0.51
8:H:30:SER:OG	8:H:32:THR:OG1	2.28	0.51
8:H:63:LEU:HD12	8:H:88:SER:HB2	1.92	0.51
10:J:12:LYS:HE3	10:J:41:LEU:HD23	1.93	0.51
18:W:16:VAL:HG23	18:W:20:PHE:CD2	2.45	0.51
19:X:270:GLN:HG3	19:X:271:PHE:H	1.75	0.51
23:1:255:LYS:O	23:1:259:ILE:N	2.40	0.51
24:4:65:LEU:CD2	24:4:121:VAL:HG21	2.41	0.51
25:0:42:MET:N	25:0:460:SER:O	2.44	0.51
25:0:384:LEU:O	25:0:388:LEU:HG	2.11	0.51
25:0:543:SER:HB3	25:0:545:LEU:HD23	1.91	0.51
29:7:304:GLU:HG2	29:7:506:ALA:HA	1.93	0.51
29:7:344:ARG:HH12	29:7:403:ILE:HA	1.75	0.51
29:7:384:ILE:HG23	29:7:536:TYR:CD2	2.46	0.51
1:A:280:GLU:CD	1:A:289:ILE:HD12	2.35	0.51
1:A:526:ASP:HA	2:B:1015:HIS:CE1	2.45	0.51
1:A:890:ASP:O	1:A:894:GLU:HG3	2.10	0.51
2:B:190:TYR:CZ	10:J:62:ARG:HD3	2.45	0.51
2:B:486:TYR:HB3	2:B:1096:ARG:HH22	1.76	0.51
2:B:982:SER:OG	2:B:983:ARG:N	2.42	0.51
11:K:36:GLU:O	11:K:38:GLU:OE1	2.27	0.51
14:Q:134:HIS:CD2	14:Q:135:LEU:H	2.27	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:V:70:GLY:O	17:V:77:THR:N	2.42	0.51
19:X:274:LEU:O	19:X:277:LYS:HG3	2.11	0.51
21:N:22:DT:O2	22:O:159:ASN:ND2	2.44	0.51
21:N:34:DG:C2'	21:N:35:DT:H71	2.41	0.51
26:6:254:LEU:HD21	26:6:261:VAL:HG21	1.93	0.51
29:7:408:ILE:HD12	29:7:410:LEU:HD11	1.92	0.51
29:7:456:THR:O	29:7:460:VAL:HG23	2.10	0.51
29:7:585:PRO:HG2	29:7:756:ARG:HA	1.91	0.51
1:A:534:LEU:HD13	1:A:656:TRP:CD2	2.46	0.51
2:B:303:TYR:HE2	2:B:380:TYR:HD1	1.59	0.51
3:C:43:THR:O	3:C:162:GLY:N	2.43	0.51
5:E:83:CYS:HB2	5:E:110:PHE:CZ	2.45	0.51
6:F:138:LEU:HD11	6:F:144:GLU:HG3	1.93	0.51
21:N:26:DA:H2''	21:N:27:DT:H5''	1.92	0.51
21:N:26:DA:H4'	21:N:27:DT:OP1	2.09	0.51
22:O:231:TYR:HA	22:O:234:LEU:HD12	1.91	0.51
25:0:471:ARG:NH2	25:0:648:ILE:HG13	2.25	0.51
26:6:266:LEU:HA	26:6:291:LEU:HD21	1.92	0.51
29:7:302:GLU:HB2	29:7:319:ALA:HB3	1.90	0.51
29:7:447:GLN:HA	29:7:476:PHE:CD1	2.45	0.51
29:7:573:THR:HA	29:7:577:ARG:HH22	1.74	0.51
29:7:581:TYR:HB2	29:7:710:SER:HB2	1.92	0.51
29:7:595:ILE:HG12	29:7:651:THR:OG1	2.09	0.51
1:A:718:VAL:O	1:A:721:PHE:N	2.43	0.51
1:A:757:ASN:O	1:A:761:MET:HG2	2.10	0.51
1:A:874:ASP:HB2	1:A:1058:VAL:HA	1.93	0.51
1:A:1134:ILE:HD11	1:A:1321:GLY:C	2.36	0.51
1:A:1215:ARG:HA	1:A:1218:GLN:HG2	1.92	0.51
2:B:104:GLU:OE2	2:B:110:HIS:NE2	2.39	0.51
18:W:148:LEU:HA	18:W:155:PRO:HA	1.93	0.51
21:N:38:DC:H2''	21:N:39:DG:O4'	2.11	0.51
23:1:346:ASP:HB3	25:0:76:MET:HE3	1.91	0.51
24:4:24:SER:HG	24:4:64:HIS:CE1	2.29	0.51
24:4:65:LEU:HD13	24:4:73:VAL:HG13	1.93	0.51
25:0:639:LEU:O	25:0:643:ARG:HG3	2.10	0.51
26:6:148:MET:HE3	26:6:152:TYR:CE1	2.45	0.51
26:6:211:GLN:HB3	26:6:244:PRO:HD2	1.92	0.51
27:2:382:SER:HA	27:2:385:ARG:HH11	1.75	0.51
29:7:588:PHE:HB2	29:7:618:TYR:CE1	2.46	0.51
1:A:271:LYS:NZ	13:M:93:SER:OG	2.44	0.51
1:A:629:LEU:O	1:A:632:VAL:N	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1059:HIS:CD2	6:F:87:LYS:NZ	2.78	0.51
2:B:294:ASP:HA	2:B:297:ILE:HD12	1.91	0.51
2:B:486:TYR:HB3	2:B:1096:ARG:NH2	2.26	0.51
2:B:616:ILE:HG13	2:B:697:GLU:HA	1.93	0.51
8:H:30:SER:HB3	8:H:33:GLN:O	2.10	0.51
9:I:42:LEU:HD23	9:I:43:VAL:C	2.36	0.51
9:I:90:GLN:C	9:I:92:ARG:H	2.18	0.51
11:K:63:VAL:HG12	11:K:71:PHE:HB3	1.93	0.51
14:Q:141:ARG:NH1	14:Q:346:GLU:HB3	2.26	0.51
20:T:141:DT:O2	21:N:25:DA:H2	1.93	0.51
21:N:21:DA:H2''	21:N:22:DT:O4'	2.10	0.51
23:1:339:LEU:HA	23:1:342:ASN:HB3	1.92	0.51
26:6:132:CYS:SG	26:6:202:GLN:NE2	2.84	0.51
26:6:429:CYS:SG	26:6:430:GLU:N	2.83	0.51
29:7:364:PRO:O	29:7:368:LYS:HG2	2.11	0.51
30:3:54:CYS:O	30:3:59:CYS:HB3	2.11	0.51
1:A:1031:VAL:O	1:A:1036:ARG:N	2.42	0.51
1:A:1140:HIS:ND1	1:A:1277:GLU:HA	2.26	0.51
2:B:428:ILE:CD1	2:B:448:ILE:HG12	2.41	0.51
2:B:894:ASP:OD2	12:L:58:LYS:NZ	2.30	0.51
3:C:111:THR:N	3:C:147:LEU:O	2.21	0.51
3:C:163:ILE:HG12	3:C:166:GLU:CD	2.36	0.51
4:D:52:LEU:HD12	4:D:152:SER:HB3	1.90	0.51
9:I:89:GLN:OE1	9:I:91:ARG:NE	2.43	0.51
10:J:14:VAL:C	10:J:16:ASP:H	2.18	0.51
11:K:30:ALA:HB2	11:K:76:GLN:HG3	1.93	0.51
12:L:28:LYS:HD3	12:L:37:LYS:HD3	1.93	0.51
12:L:52:GLY:O	12:L:54:ARG:HD2	2.11	0.51
13:M:30:TYR:CG	13:M:31:PRO:HD2	2.45	0.51
25:0:39:ILE:O	25:0:480:GLN:HA	2.10	0.51
27:2:286:ARG:C	27:2:286:ARG:HD3	2.36	0.51
29:7:364:PRO:HD2	29:7:548:HIS:N	2.25	0.51
30:3:15:ILE:HD12	30:3:42:CYS:HB2	1.92	0.51
30:3:27:LYS:H	30:3:40:GLU:HG2	1.76	0.51
30:3:38:ILE:HD12	30:3:54:CYS:HB2	1.92	0.51
2:B:714:GLU:HB3	2:B:733:HIS:HE1	1.76	0.51
2:B:842:ASN:N	2:B:1009:ASP:O	2.29	0.51
11:K:6:ARG:O	11:K:9:LEU:HB3	2.10	0.51
13:M:99:GLY:H	13:M:102:THR:HG21	1.76	0.51
13:M:241:ARG:HG2	13:M:245:HIS:HE1	1.76	0.51
15:R:92:LEU:HG	15:R:109:ASN:HB3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:W:122:TYR:H	18:W:131:TYR:C	2.19	0.51
19:X:258:GLU:O	19:X:262:MET:HG2	2.11	0.51
22:O:94:TYR:HB2	22:O:102:VAL:HG22	1.93	0.51
22:O:171:ARG:NH2	22:O:236:GLU:O	2.44	0.51
24:4:197:MET:SD	24:4:200:ILE:HD12	2.51	0.51
25:0:79:ILE:HD12	25:0:207:ILE:HG22	1.93	0.51
25:0:145:LEU:HD23	25:0:155:LEU:CD1	2.40	0.51
25:0:306:PHE:CZ	25:0:385:VAL:HG11	2.46	0.51
25:0:460:SER:HB2	25:0:463:ILE:HG13	1.91	0.51
27:2:218:LEU:HA	27:2:221:VAL:HB	1.92	0.51
29:7:367:GLU:O	29:7:371:SER:N	2.33	0.51
29:7:440:SER:HB2	29:7:467:SER:N	2.25	0.51
1:A:403:LYS:C	1:A:415:LEU:HD23	2.36	0.51
2:B:181:LEU:HD21	2:B:192:LEU:HD13	1.93	0.51
2:B:209:GLU:CD	2:B:788:ARG:HH22	2.18	0.51
2:B:490:SER:HB3	2:B:775:LYS:HA	1.93	0.51
2:B:1167:GLY:HA3	2:B:1216:LEU:H	1.74	0.51
3:C:45:ALA:HB3	3:C:170:TRP:NE1	2.26	0.51
6:F:87:LYS:HG3	6:F:88:TYR:CD1	2.46	0.51
8:H:9:ILE:HA	8:H:56:THR:HA	1.93	0.51
9:I:18:GLU:N	9:I:25:LEU:HD12	2.26	0.51
22:O:74:VAL:HG22	22:O:155:PHE:HA	1.93	0.51
22:O:85:VAL:HA	22:O:146:ILE:HD13	1.92	0.51
23:1:235:UNK:C	23:1:239:PRO:HD2	2.40	0.51
24:4:117:ARG:HA	24:4:120:ASN:ND2	2.26	0.51
25:0:80:GLU:HA	25:0:83:LEU:HB2	1.93	0.51
25:0:158:TYR:HB3	25:0:191:CYS:N	2.25	0.51
25:0:471:ARG:HH22	25:0:646:TYR:HB3	1.76	0.51
25:0:471:ARG:HH22	25:0:647:ARG:H	1.56	0.51
26:6:146:HIS:HB2	26:6:204:PRO:HG3	1.93	0.51
26:6:379:SER:HA	26:6:382:HIS:HB2	1.93	0.51
27:2:71:LYS:O	27:2:74:PHE:HB3	2.11	0.51
27:2:382:SER:HA	27:2:385:ARG:NH1	2.26	0.51
29:7:324:GLU:OE1	29:7:503:SER:OG	2.29	0.51
29:7:462:ASN:HB3	29:7:464:ARG:H	1.75	0.51
29:7:556:GLU:HG2	29:7:707:SER:HB3	1.91	0.51
29:7:627:ILE:HD13	29:7:636:ARG:HG3	1.92	0.51
30:3:30:VAL:HG13	30:3:35:TYR:HA	1.93	0.51
1:A:16:GLU:HB3	1:A:1418:LEU:HD11	1.93	0.51
1:A:92:HIS:CD2	1:A:236:LEU:HD21	2.46	0.51
1:A:1157:ASP:CG	1:A:1160:SER:H	2.17	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:106:ASP:OD1	2:B:107:GLY:N	2.44	0.51
2:B:241:ARG:NH2	2:B:251:ILE:HG23	2.26	0.51
2:B:871:THR:H	2:B:917:PRO:HG2	1.76	0.51
13:M:213:ILE:HG22	13:M:214:LEU:HD23	1.91	0.51
21:N:5:DA:H2"	21:N:6:DA:C8	2.46	0.51
22:O:169:PRO:HB2	22:O:239:LYS:HG2	1.93	0.51
25:O:155:LEU:HB2	25:O:157:GLU:OE2	2.11	0.51
29:7:582:ILE:O	29:7:587:LYS:HD2	2.11	0.51
29:7:689:ARG:O	29:7:692:ARG:NE	2.44	0.51
1:A:444:PHE:HD1	1:A:489:LEU:HD12	1.75	0.50
1:A:837:ILE:HD11	1:A:1102:LYS:HG2	1.93	0.50
1:A:1215:ARG:NH2	1:A:1273:LEU:O	2.45	0.50
2:B:365:THR:OG1	2:B:366:GLN:N	2.43	0.50
2:B:745:PRO:O	2:B:748:ILE:HG12	2.11	0.50
2:B:802:PRO:HD3	2:B:814:PHE:CE2	2.45	0.50
4:D:128:VAL:O	4:D:131:GLU:HB3	2.11	0.50
5:E:30:ILE:HG23	5:E:34:GLU:CD	2.36	0.50
7:G:57:GLN:OE1	7:G:57:GLN:N	2.40	0.50
8:H:98:TYR:HD2	8:H:141:TYR:CE1	2.27	0.50
8:H:101:ALA:HB2	8:H:116:TYR:CE1	2.46	0.50
9:I:7:CYS:HA	9:I:14:LEU:HD21	1.92	0.50
9:I:75:CYS:HB3	9:I:78:CYS:HB2	1.92	0.50
14:Q:373:TYR:HA	15:R:71:VAL:O	2.11	0.50
23:1:557:CYS:SG	23:1:585:HIS:NE2	2.58	0.50
25:O:348:VAL:HB	25:O:420:ILE:HG21	1.93	0.50
25:O:463:ILE:HG23	25:O:469:TYR:CE1	2.47	0.50
27:2:19:GLN:HG3	27:2:85:HIS:CD2	2.45	0.50
27:2:405:HIS:NE2	27:2:409:ARG:HA	2.26	0.50
27:2:485:ASP:OD1	27:2:485:ASP:N	2.44	0.50
1:A:121:LEU:HA	1:A:124:GLN:HB3	1.93	0.50
1:A:166:GLY:C	1:A:168:GLY:H	2.19	0.50
1:A:549:MET:HE3	1:A:656:TRP:HB2	1.93	0.50
1:A:837:ILE:HD11	1:A:1102:LYS:CG	2.41	0.50
2:B:190:TYR:HD1	10:J:63:TYR:CE1	2.29	0.50
2:B:561:TRP:HZ3	2:B:595:ARG:HH12	1.59	0.50
2:B:901:PRO:HD3	12:L:58:LYS:HB3	1.93	0.50
4:D:179:GLN:OE1	4:D:182:SER:OG	2.29	0.50
5:E:143:ASN:ND2	5:E:145:THR:OG1	2.45	0.50
5:E:196:VAL:O	5:E:211:TYR:HA	2.11	0.50
7:G:119:LEU:HB2	7:G:132:SER:HB3	1.93	0.50
7:G:149:GLY:O	7:G:160:ILE:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:78:SER:O	8:H:80:ARG:HG2	2.11	0.50
8:H:115:TYR:OH	8:H:124:ARG:NE	2.43	0.50
15:R:93:GLY:C	15:R:94:LYS:HD3	2.36	0.50
23:1:189:LYS:HA	23:1:192:MET:HE2	1.92	0.50
25:0:71:TYR:HB3	25:0:207:ILE:HD13	1.93	0.50
25:0:239:ASN:HD21	25:0:661:HIS:CE1	2.29	0.50
25:0:442:ALA:H	25:0:472:MET:CE	2.24	0.50
26:6:429:CYS:HB3	26:6:432:CYS:SG	2.51	0.50
27:2:52:PHE:HE1	27:2:109:ARG:HG3	1.76	0.50
27:2:86:LEU:C	27:2:86:LEU:HD12	2.36	0.50
29:7:178:TYR:O	29:7:182:ALA:N	2.39	0.50
29:7:471:GLN:O	29:7:475:ASP:N	2.27	0.50
1:A:500:GLU:OE1	2:B:1146:PHE:N	2.44	0.50
2:B:303:TYR:CE2	2:B:380:TYR:HD1	2.30	0.50
2:B:604:ARG:CA	2:B:609:ILE:HB	2.40	0.50
2:B:658:ILE:O	2:B:661:LEU:HB2	2.12	0.50
2:B:839:MET:O	2:B:991:GLY:N	2.44	0.50
3:C:75:MET:HE1	3:C:239:PRO:CD	2.41	0.50
3:C:192:TRP:CD1	3:C:193:TYR:H	2.30	0.50
6:F:91:ALA:O	6:F:95:GLY:N	2.41	0.50
7:G:153:GLN:N	7:G:156:SER:O	2.40	0.50
8:H:10:PHE:C	8:H:55:LEU:H	2.20	0.50
14:Q:30:ASN:O	14:Q:34:MET:N	2.22	0.50
15:R:121:ASP:OD1	15:R:225:MET:HB3	2.11	0.50
24:4:27:THR:HG23	24:4:74:ALA:HB3	1.93	0.50
27:2:10:VAL:HG21	27:2:201:TRP:CE3	2.46	0.50
27:2:82:LYS:HA	27:2:87:LEU:HD21	1.94	0.50
27:2:506:LYS:HD2	27:2:507:ARG:HH21	1.77	0.50
29:7:553:GLN:HB2	29:7:701:PHE:HB3	1.92	0.50
29:7:565:PHE:CE2	29:7:581:TYR:HA	2.45	0.50
29:7:566:TYR:O	29:7:570:LEU:HG	2.12	0.50
1:A:39:GLU:HB3	13:M:90:ASN:ND2	2.27	0.50
1:A:230:ARG:NH1	1:A:232:GLU:OE2	2.44	0.50
1:A:414:ASP:OD1	1:A:416:ARG:HG2	2.12	0.50
5:E:27:GLY:O	5:E:68:SER:OG	2.21	0.50
7:G:40:GLY:HA3	7:G:154:VAL:HA	1.93	0.50
13:M:164:LYS:NZ	20:T:138:DA:H5"	2.26	0.50
16:U:284:GLU:N	17:V:64:GLY:O	2.35	0.50
18:W:50:ASN:HB3	18:W:52:THR:HG22	1.93	0.50
24:4:201:PHE:HE1	26:6:374:THR:HB	1.76	0.50
25:0:28:ILE:O	25:0:32:LEU:HG	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:0:420:ILE:HG23	25:0:435:MET:CE	2.34	0.50
25:0:517:SER:HA	25:0:520:ARG:NH2	2.26	0.50
26:6:139:LYS:NZ	26:6:143:PRO:O	2.38	0.50
29:7:490:VAL:HB	29:7:519:ARG:HH22	1.77	0.50
1:A:18:GLN:HE22	1:A:1416:ALA:C	2.19	0.50
1:A:101:LYS:HE3	1:A:135:PHE:HE2	1.76	0.50
1:A:1173:HIS:CG	1:A:1227:ILE:HD12	2.46	0.50
3:C:184:ASN:O	3:C:187:LYS:NZ	2.36	0.50
4:D:206:GLU:HA	4:D:209:ARG:HG2	1.92	0.50
7:G:43:GLY:HA2	7:G:157:ILE:HD11	1.94	0.50
8:H:108:SER:HG	8:H:111:LEU:HB2	1.75	0.50
19:X:272:ALA:HA	19:X:275:PRO:HD2	1.94	0.50
25:0:472:MET:SD	25:0:642:MET:SD	3.10	0.50
26:6:174:MET:CE	26:6:209:SER:H	2.17	0.50
26:6:225:PRO:HD2	26:6:228:CYS:HB2	1.92	0.50
26:6:378:ARG:HA	26:6:381:HIS:NE2	2.26	0.50
29:7:613:TYR:CE2	29:7:762:GLU:HB3	2.46	0.50
1:A:33:ALA:HA	1:A:57:ARG:NH1	2.27	0.50
1:A:336:ILE:HD13	1:A:340:LEU:HD12	1.92	0.50
4:D:56:ARG:HG3	4:D:145:MET:SD	2.52	0.50
6:F:102:SER:OG	6:F:103:MET:SD	2.70	0.50
11:K:62:LYS:O	11:K:71:PHE:HB2	2.12	0.50
13:M:126:VAL:HA	13:M:154:TYR:OH	2.12	0.50
20:T:133:DA:C2	21:N:34:DG:C2	3.00	0.50
25:0:161:ASN:ND2	25:0:189:THR:HG23	2.27	0.50
25:0:725:ALA:HB1	26:6:290:ILE:CD1	2.37	0.50
26:6:275:GLU:O	26:6:279:ALA:N	2.37	0.50
28:5:7:GLY:HA3	28:5:41:LEU:HD11	1.93	0.50
29:7:264:PRO:O	29:7:268:VAL:N	2.42	0.50
1:A:376:TYR:CD1	1:A:377:PRO:HD2	2.47	0.50
1:A:412:ARG:HH22	2:B:1108:ARG:CZ	2.24	0.50
1:A:547:LEU:HD22	11:K:58:PHE:CD1	2.46	0.50
1:A:672:ASP:OD2	1:A:674:PRO:HB2	2.12	0.50
1:A:875:ALA:O	1:A:878:ILE:HG12	2.11	0.50
2:B:309:GLN:HA	2:B:312:GLU:HG2	1.93	0.50
2:B:365:THR:HG21	2:B:370:PHE:HB2	1.94	0.50
2:B:550:ASP:OD2	2:B:553:PRO:HD3	2.12	0.50
4:D:71:LYS:HA	4:D:74:GLN:HB3	1.94	0.50
8:H:21:ASN:HB2	8:H:22:LYS:HZ2	1.76	0.50
16:U:262:LEU:HB2	16:U:279:ALA:HB3	1.93	0.50
16:U:275:THR:HB	17:V:56:THR:HG22	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:V:73:ASP:H	22:O:83:LYS:NZ	2.10	0.50
23:1:593:LEU:HA	23:1:596:LEU:HD12	1.93	0.50
25:0:471:ARG:HH22	25:0:647:ARG:N	2.09	0.50
25:0:498:THR:O	25:0:505:ALA:HA	2.11	0.50
27:2:22:GLN:HE22	27:2:84:LEU:HA	1.77	0.50
27:2:486:ASP:O	27:2:489:LYS:NZ	2.35	0.50
28:5:23:ILE:CD1	28:5:54:LEU:HD13	2.42	0.50
29:7:226:VAL:H	29:7:235:GLU:C	2.20	0.50
29:7:365:TYR:CE1	29:7:548:HIS:CG	3.00	0.50
29:7:755:GLU:HA	29:7:758:GLU:HB2	1.93	0.50
1:A:91:PHE:CE1	1:A:204:THR:HG22	2.47	0.50
1:A:211:PHE:HA	1:A:214:ILE:HD11	1.93	0.50
1:A:408:ASP:H	1:A:430:TRP:NE1	2.09	0.50
1:A:471:ASN:O	1:A:474:VAL:HG12	2.12	0.50
2:B:46:GLN:HG2	2:B:47:GLN:N	2.26	0.50
2:B:96:TYR:HB2	2:B:129:PHE:HB2	1.92	0.50
2:B:103:ASN:ND2	13:M:141:GLU:HB2	2.27	0.50
14:Q:139:LEU:HD11	14:Q:350:TRP:HB3	1.93	0.50
20:T:132:DC:H2"	20:T:133:DA:C8	2.47	0.50
22:O:152:PHE:CE1	22:O:155:PHE:HB2	2.47	0.50
22:O:171:ARG:HH11	22:O:239:LYS:HA	1.76	0.50
23:1:379:ASN:HB3	23:1:383:GLU:OE2	2.12	0.50
25:0:11:LEU:HD22	25:0:93:ARG:HG3	1.94	0.50
25:0:139:GLY:HA2	25:0:142:LYS:HG2	1.94	0.50
26:6:251:ILE:HG12	26:6:276:LEU:HD13	1.92	0.50
28:5:11:GLN:OE1	28:5:39:HIS:NE2	2.44	0.50
2:B:223:VAL:HG12	2:B:384:ARG:HH21	1.77	0.50
2:B:343:ILE:O	2:B:348:ARG:NH1	2.44	0.50
4:D:158:GLU:O	4:D:162:ALA:N	2.33	0.50
7:G:23:LYS:HA	7:G:26:LEU:HD12	1.93	0.50
7:G:127:PRO:HB2	7:G:139:ILE:HD12	1.94	0.50
8:H:129:TYR:O	8:H:132:LEU:N	2.45	0.50
13:M:256:ALA:HA	13:M:285:ASN:ND2	2.27	0.50
17:V:69:TYR:CE2	22:O:91:ASN:HA	2.47	0.50
17:V:76:TRP:N	17:V:115:ALA:O	2.45	0.50
23:1:387:MET:C	23:1:389:LEU:H	2.20	0.50
24:4:235:TYR:O	24:4:266:ASN:N	2.45	0.50
25:0:217:LYS:HB3	25:0:308:GLU:HG3	1.94	0.50
25:0:440:LEU:HD13	25:0:641:PHE:HB2	1.94	0.50
26:6:174:MET:HG3	26:6:208:PRO:HA	1.93	0.50
29:7:269:LEU:O	29:7:305:GLU:HG3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:53:GLN:HA	30:3:63:LEU:H	1.77	0.50
1:A:50:ILE:HA	1:A:55:ASP:HB2	1.94	0.49
1:A:265:LYS:HZ1	1:A:303:TYR:N	2.10	0.49
1:A:533:LYS:HB2	1:A:656:TRP:HH2	1.77	0.49
1:A:658:LEU:HD22	1:A:659:HIS:CE1	2.47	0.49
2:B:861:ASP:O	2:B:963:PHE:HB2	2.12	0.49
13:M:131:ALA:HA	13:M:134:THR:HB	1.93	0.49
23:1:214:ILE:HD12	23:1:217:LEU:HD12	1.94	0.49
25:0:271:ILE:HD13	25:0:332:VAL:CG2	2.40	0.49
25:0:330:HIS:O	25:0:334:PHE:N	2.29	0.49
25:0:350:HIS:CA	25:0:422:PRO:HG3	2.42	0.49
25:0:469:TYR:HB2	25:0:470:PRO:HD3	1.94	0.49
25:0:639:LEU:HA	25:0:642:MET:HB2	1.94	0.49
26:6:143:PRO:CD	26:6:148:MET:HB2	2.42	0.49
27:2:369:ARG:HA	27:2:374:VAL:HA	1.92	0.49
29:7:115:SER:N	29:7:137:SER:O	2.39	0.49
1:A:72:GLU:HG3	1:A:73:GLY:N	2.27	0.49
1:A:91:PHE:HB2	1:A:297:GLN:NE2	2.27	0.49
1:A:1100:ARG:O	1:A:1103:GLU:HB2	2.12	0.49
2:B:25:ILE:HD11	2:B:651:LEU:HD12	1.95	0.49
2:B:99:LYS:HB3	2:B:180:TYR:HE1	1.77	0.49
4:D:29:LEU:HD22	7:G:82:PHE:CG	2.47	0.49
6:F:84:TYR:O	6:F:136:ARG:NH2	2.45	0.49
9:I:24:ARG:HD2	9:I:25:LEU:H	1.76	0.49
15:R:257:GLU:HB2	15:R:262:THR:HG23	1.93	0.49
19:X:207:CYS:O	19:X:211:LYS:N	2.45	0.49
23:1:265:ILE:HD13	23:1:318:UNK:CB	2.41	0.49
24:4:263:VAL:HG12	24:4:265:PRO:HD3	1.93	0.49
25:0:265:ASN:O	25:0:269:GLU:HG2	2.12	0.49
25:0:294:HIS:NE2	25:0:297:ASP:HB3	2.27	0.49
25:0:622:MET:HG2	25:0:681:LEU:HA	1.93	0.49
28:5:55:ASN:HA	28:5:58:LEU:HG	1.94	0.49
29:7:754:ARG:O	29:7:758:GLU:N	2.40	0.49
1:A:130:ASP:OD1	1:A:131:SER:N	2.45	0.49
1:A:214:ILE:HG22	1:A:218:ASP:CB	2.42	0.49
1:A:520:CYS:SG	1:A:521:MET:HG3	2.52	0.49
2:B:301:ILE:HG13	2:B:302:CYS:N	2.27	0.49
2:B:862:GLN:HB3	2:B:963:PHE:HB2	1.94	0.49
2:B:1163:CYS:HB3	2:B:1166:CYS:O	2.12	0.49
5:E:118:PRO:HA	5:E:121:MET:CE	2.42	0.49
10:J:43:ARG:O	10:J:47:ARG:HG2	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:87:LEU:HD13	13:M:130:PHE:CZ	2.46	0.49
13:M:87:LEU:O	13:M:155:LYS:HE3	2.12	0.49
13:M:130:PHE:CE1	13:M:154:TYR:HD2	2.29	0.49
13:M:150:ALA:CB	13:M:176:ILE:HA	2.42	0.49
13:M:286:ILE:HD11	13:M:291:ILE:HB	1.94	0.49
14:Q:386:MET:HG2	15:R:81:TRP:CZ3	2.47	0.49
18:W:14:LYS:NZ	18:W:33:LEU:HD12	2.27	0.49
23:1:173:LYS:O	23:1:177:ASN:N	2.45	0.49
23:1:230:PRO:CG	23:1:389:LEU:HD21	2.42	0.49
24:4:43:GLU:OE1	24:4:216:GLY:HA2	2.12	0.49
25:0:324:ASN:O	25:0:330:HIS:ND1	2.44	0.49
25:0:371:ARG:NH2	25:0:411:THR:O	2.45	0.49
25:0:504:VAL:HA	29:7:377:GLY:HA2	1.93	0.49
26:6:172:ILE:HG12	26:6:181:LEU:HA	1.93	0.49
27:2:347:ILE:HD11	27:2:364:VAL:HG21	1.95	0.49
27:2:419:LYS:HG2	27:2:430:LEU:N	2.27	0.49
29:7:328:LYS:HG3	29:7:331:GLN:OE1	2.11	0.49
29:7:604:LYS:HD3	29:7:694:LYS:HZ1	1.78	0.49
1:A:881:GLN:NE2	1:A:959:ASN:HA	2.26	0.49
1:A:892:ALA:HA	1:A:895:LYS:HB3	1.92	0.49
1:A:1104:ILE:HG22	1:A:1105:LEU:HD23	1.94	0.49
1:A:1134:ILE:HD13	1:A:1322:ILE:HG22	1.93	0.49
1:A:1155:ASP:OD2	1:A:1161:THR:HA	2.11	0.49
1:A:1224:LEU:HB3	1:A:1240:CYS:SG	2.52	0.49
3:C:52:GLU:HB3	3:C:154:LYS:O	2.13	0.49
4:D:68:ARG:O	4:D:72:ARG:N	2.44	0.49
5:E:121:MET:HA	5:E:124:VAL:HG23	1.95	0.49
7:G:46:LEU:HD11	7:G:79:PHE:HB2	1.94	0.49
11:K:31:VAL:N	11:K:75:ILE:O	2.44	0.49
13:M:198:VAL:C	13:M:200:THR:H	2.21	0.49
20:T:148:DA:N6	21:N:19:DA:H61	2.10	0.49
21:N:11:DA:C2'	21:N:12:DG:H8	2.25	0.49
24:4:51:ILE:HG13	24:4:52:LYS:N	2.25	0.49
25:0:730:PRO:HB2	25:0:732:ASP:OD1	2.11	0.49
29:7:346:ASP:HA	29:7:508:HIS:ND1	2.27	0.49
1:A:351:THR:CG2	2:B:1103:ILE:HG13	2.41	0.49
1:A:1118:VAL:HB	1:A:1306:LEU:HB2	1.94	0.49
1:A:1212:VAL:O	1:A:1215:ARG:HB3	2.12	0.49
2:B:1096:ARG:HG2	2:B:1096:ARG:HH11	1.78	0.49
3:C:98:VAL:O	3:C:121:VAL:HG22	2.13	0.49
3:C:248:ILE:O	3:C:251:LEU:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:42:ILE:HG12	8:H:43:ASN:N	2.27	0.49
8:H:118:PHE:CE1	8:H:123:MET:HB2	2.47	0.49
15:R:96:ARG:N	15:R:105:THR:O	2.45	0.49
18:W:94:ALA:O	18:W:98:ILE:HG12	2.12	0.49
20:T:148:DA:H2''	20:T:149:DC:C6	2.47	0.49
21:N:14:DC:H2''	21:N:15:DG:H8	1.72	0.49
24:4:222:THR:HG22	24:4:226:GLN:NE2	2.27	0.49
25:0:327:ARG:O	25:0:330:HIS:HB2	2.12	0.49
25:0:676:TYR:CG	25:0:724:MET:HG2	2.48	0.49
30:3:31:ASN:OD1	30:3:64:ARG:HB2	2.13	0.49
1:A:41:MET:HA	1:A:49:LYS:H	1.76	0.49
1:A:53:LEU:O	1:A:247:ARG:NH2	2.46	0.49
1:A:386:ASP:OD1	1:A:387:ARG:N	2.42	0.49
1:A:412:ARG:NH2	2:B:1108:ARG:NH1	2.55	0.49
1:A:525:GLN:O	1:A:528:LEU:N	2.45	0.49
1:A:737:LEU:HD22	1:A:741:ASN:ND2	2.27	0.49
1:A:878:ILE:CG2	1:A:955:PRO:HB2	2.43	0.49
1:A:924:LYS:HG2	1:A:925:LEU:HD23	1.95	0.49
1:A:968:GLN:HA	1:A:973:ILE:HG12	1.94	0.49
2:B:47:GLN:CB	2:B:173:MET:HE1	2.43	0.49
2:B:301:ILE:HG13	2:B:302:CYS:H	1.77	0.49
2:B:304:ASP:CG	2:B:306:ASN:H	2.21	0.49
5:E:171:LYS:H	5:E:174:GLN:HE22	1.60	0.49
9:I:27:PHE:O	9:I:36:GLU:N	2.45	0.49
10:J:48:ARG:HH21	10:J:49:MET:HG2	1.78	0.49
14:Q:139:LEU:HB2	14:Q:352:MET:HB3	1.94	0.49
14:Q:140:HIS:O	14:Q:351:VAL:N	2.41	0.49
15:R:98:ASN:ND2	15:R:103:LYS:O	2.45	0.49
21:N:11:DA:C2'	21:N:12:DG:C8	2.95	0.49
22:O:151:LYS:HG2	22:O:153:THR:HG23	1.92	0.49
23:1:501:UNK:HA	23:1:504:ILE:HD12	1.95	0.49
25:0:267:LEU:O	25:0:271:ILE:HG12	2.12	0.49
29:7:561:MET:HE1	29:7:565:PHE:HB2	1.95	0.49
1:A:698:GLN:C	1:A:700:ASN:H	2.19	0.49
1:A:776:ALA:O	1:A:783:THR:HG22	2.12	0.49
1:A:1435:PRO:HA	1:A:1439:GLY:O	2.13	0.49
2:B:365:THR:HG21	2:B:370:PHE:CD2	2.48	0.49
2:B:951:GLN:OE1	2:B:967:ARG:NH2	2.46	0.49
4:D:50:LEU:C	4:D:178:ALA:HB1	2.38	0.49
13:M:140:ALA:O	13:M:142:LEU:HD22	2.13	0.49
13:M:189:PHE:HE2	22:O:188:GLU:HB2	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:280:VAL:HG11	13:M:312:GLY:HA3	1.95	0.49
13:M:301:THR:O	15:R:270:MET:HE1	2.12	0.49
18:W:34:PHE:CE1	19:X:200:VAL:HG23	2.47	0.49
25:0:97:LEU:O	25:0:100:GLN:NE2	2.43	0.49
26:6:336:CYS:SG	26:6:339:HIS:N	2.85	0.49
27:2:66:VAL:HG11	27:2:71:LYS:HA	1.95	0.49
27:2:364:VAL:HA	27:2:382:SER:HB3	1.94	0.49
1:A:360:GLU:HB2	1:A:363:GLN:HG3	1.95	0.49
2:B:429:PHE:HE2	2:B:430:ARG:HH22	1.59	0.49
2:B:635:ARG:N	2:B:693:ILE:O	2.34	0.49
4:D:205:ASP:HA	4:D:208:GLU:HB2	1.94	0.49
6:F:75:PRO:HG2	6:F:78:GLN:HB2	1.95	0.49
13:M:119:MET:HE2	13:M:119:MET:N	2.27	0.49
13:M:138:ASP:O	13:M:141:GLU:N	2.34	0.49
13:M:316:LEU:HD13	13:M:319:HIS:HB2	1.93	0.49
16:U:282:GLU:HB2	17:V:63:LYS:HG2	1.93	0.49
18:W:46:LEU:HA	19:X:204:GLY:N	2.27	0.49
21:N:22:DT:H1'	22:O:159:ASN:CG	2.38	0.49
21:N:25:DA:C2	21:N:26:DA:C6	3.00	0.49
23:1:338:UNK:HA	25:0:580:SER:OG	2.13	0.49
23:1:378:MET:HA	23:1:381:LEU:HB3	1.95	0.49
24:4:209:PRO:HA	24:4:231:THR:O	2.13	0.49
24:4:226:GLN:O	24:4:230:ALA:N	2.45	0.49
25:0:234:PHE:HB3	25:0:237:ALA:HB2	1.94	0.49
25:0:238:HIS:ND1	25:0:462:THR:OG1	2.46	0.49
25:0:295:SER:HA	25:0:298:ILE:HG22	1.94	0.49
25:0:471:ARG:NH2	25:0:647:ARG:H	2.11	0.49
26:6:270:VAL:HG12	26:6:272:ILE:HG22	1.93	0.49
27:2:348:TYR:O	27:2:407:GLN:NE2	2.45	0.49
29:7:594:LEU:O	29:7:598:HIS:ND1	2.34	0.49
30:3:13:CYS:O	30:3:57:LYS:NZ	2.42	0.49
1:A:219:PHE:HA	1:A:222:LEU:HG	1.94	0.49
1:A:486:GLU:O	1:A:487:MET:HG3	2.12	0.49
1:A:872:GLY:O	1:A:873:MET:HE2	2.12	0.49
2:B:215:GLN:HE22	2:B:499:ASN:ND2	2.11	0.49
2:B:524:PRO:HD2	2:B:748:ILE:O	2.13	0.49
2:B:797:TYR:C	2:B:799:PRO:HD3	2.37	0.49
3:C:134:ILE:HG23	3:C:141:GLY:HA2	1.95	0.49
4:D:47:LEU:HD21	7:G:3:PHE:CD2	2.44	0.49
4:D:59:ILE:HD11	4:D:141:LEU:HD21	1.93	0.49
5:E:88:VAL:HB	5:E:116:ILE:HG12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:190:LEU:HA	5:E:194:GLU:OE1	2.12	0.49
7:G:26:LEU:HD13	7:G:56:ILE:HD11	1.94	0.49
7:G:97:HIS:O	7:G:111:THR:HA	2.13	0.49
11:K:12:LEU:HD11	11:K:16:GLU:O	2.13	0.49
12:L:39:SER:O	12:L:39:SER:OG	2.28	0.49
13:M:30:TYR:CD2	13:M:31:PRO:O	2.65	0.49
13:M:259:THR:HG22	13:M:323:LEU:HD11	1.95	0.49
20:T:138:DA:H1'	20:T:139:DA:H5'	1.95	0.49
25:0:2:LYS:HE3	25:0:9:PRO:HB3	1.95	0.49
25:0:41:GLU:C	25:0:42:MET:HE2	2.38	0.49
25:0:74:ARG:HG2	25:0:210:TYR:CE2	2.48	0.49
25:0:110:SER:OG	25:0:111:ARG:N	2.46	0.49
25:0:492:PHE:CB	25:0:679:MET:HE1	2.43	0.49
26:6:263:VAL:HG23	26:6:288:TYR:CD1	2.48	0.49
29:7:363:ARG:HB2	29:7:548:HIS:ND1	2.28	0.49
29:7:457:TYR:HB3	29:7:497:MET:HE3	1.94	0.49
1:A:451:HIS:HB2	1:A:454:SER:N	2.28	0.49
1:A:588:LEU:HD13	1:A:632:VAL:HG21	1.95	0.49
1:A:909:ASP:OD2	1:A:911:SER:OG	2.18	0.49
1:A:1115:SER:OG	1:A:1116:LEU:N	2.46	0.49
4:D:38:ILE:HG22	4:D:39:ASN:O	2.13	0.49
4:D:162:ALA:O	4:D:165:GLN:HB2	2.12	0.49
9:I:69:PRO:HG2	9:I:85:PHE:CZ	2.47	0.49
9:I:74:GLU:CA	9:I:81:ARG:HG2	2.43	0.49
13:M:123:ASP:CA	13:M:126:VAL:HB	2.41	0.49
13:M:202:GLU:HA	13:M:205:LYS:HD2	1.95	0.49
14:Q:372:SER:O	15:R:72:ARG:HA	2.12	0.49
14:Q:375:LEU:HA	15:R:70:LEU:HA	1.94	0.49
17:V:80:VAL:HG22	17:V:113:ILE:HD11	1.93	0.49
20:T:116:DA:C2	21:N:50:DT:O2	2.66	0.49
23:1:492:UNK:O	23:1:494:UNK:N	2.46	0.49
25:0:498:THR:OG1	25:0:684:ARG:HA	2.12	0.49
25:0:639:LEU:HD21	25:0:650:GLU:HA	1.94	0.49
27:2:257:GLY:O	27:2:272:THR:HG21	2.13	0.49
27:2:405:HIS:HA	27:2:408:MET:HB2	1.94	0.49
27:2:475:ALA:O	27:2:479:GLY:N	2.43	0.49
29:7:642:ASN:O	29:7:649:ILE:HB	2.13	0.49
1:A:666:ILE:HD12	2:B:1086:PHE:CE2	2.48	0.48
2:B:62:ILE:O	2:B:65:GLU:HG2	2.13	0.48
2:B:421:PHE:O	2:B:425:THR:HG23	2.13	0.48
2:B:518:HIS:HB3	2:B:522:VAL:HG22	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:835:GLN:HA	2:B:1013:ASN:ND2	2.24	0.48
3:C:101:LEU:HB3	3:C:155:LEU:CD2	2.43	0.48
8:H:98:TYR:CD2	8:H:141:TYR:HE1	2.29	0.48
10:J:46:CYS:C	10:J:48:ARG:N	2.70	0.48
11:K:35:PHE:O	11:K:70:ARG:HA	2.13	0.48
12:L:68:GLU:O	12:L:68:GLU:HG2	2.13	0.48
13:M:130:PHE:O	13:M:134:THR:N	2.27	0.48
13:M:243:CYS:HB2	13:M:248:LEU:HB2	1.94	0.48
22:O:114:LEU:O	22:O:121:MET:HA	2.13	0.48
24:4:290:SER:O	24:4:293:LEU:N	2.46	0.48
25:0:330:HIS:HB3	25:0:334:PHE:CE2	2.46	0.48
25:0:386:ARG:C	25:0:389:GLU:H	2.19	0.48
26:6:269:GLN:HA	26:6:288:TYR:HE2	1.77	0.48
27:2:397:ILE:O	27:2:401:GLU:HG2	2.13	0.48
29:7:269:LEU:HD11	29:7:508:HIS:CD2	2.47	0.48
29:7:626:PHE:HD2	29:7:628:TYR:HB3	1.78	0.48
29:7:717:TYR:O	29:7:721:LYS:HG2	2.13	0.48
30:3:31:ASN:C	30:3:33:GLU:N	2.70	0.48
1:A:17:VAL:HG23	1:A:1421:CYS:SG	2.53	0.48
1:A:24:PRO:HD2	1:A:233:TRP:CD1	2.47	0.48
1:A:31:SER:OG	1:A:83:HIS:N	2.47	0.48
2:B:277:LYS:HG3	2:B:338:GLY:HA2	1.95	0.48
2:B:443:ASN:OD1	2:B:444:MET:N	2.46	0.48
2:B:578:THR:HG23	2:B:622:LYS:C	2.37	0.48
2:B:906:SER:OG	2:B:907:GLY:N	2.45	0.48
2:B:1187:ASN:OD1	2:B:1189:ILE:N	2.26	0.48
3:C:179:GLU:HG2	3:C:180:TYR:N	2.28	0.48
4:D:163:VAL:O	4:D:167:LEU:HG	2.13	0.48
11:K:34:THR:OG1	11:K:72:LYS:HE3	2.13	0.48
21:N:48:DT:C4	21:N:49:DG:O6	2.66	0.48
24:4:85:TYR:HD2	24:4:88:PRO:HG2	1.77	0.48
25:0:118:PRO:O	25:0:122:LYS:N	2.42	0.48
25:0:162:LEU:HD22	25:0:194:PHE:CB	2.20	0.48
25:0:307:VAL:H	25:0:382:SER:CB	2.26	0.48
25:0:498:THR:HG23	25:0:684:ARG:HB3	1.94	0.48
26:6:145:ARG:NH1	26:6:237:GLY:O	2.47	0.48
26:6:217:ALA:O	26:6:221:LEU:HD13	2.13	0.48
26:6:326:THR:O	26:6:347:TYR:HA	2.14	0.48
29:7:383:ILE:CG1	29:7:528:ASN:HA	2.37	0.48
29:7:625:PRO:HB2	29:7:649:ILE:HG12	1.95	0.48
1:A:112:LYS:HD3	1:A:165:GLY:HA3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:356:ASP:OD1	1:A:358:ASN:N	2.42	0.48
1:A:566:ILE:O	8:H:96:VAL:HG13	2.14	0.48
1:A:972:HIS:O	1:A:974:ASP:N	2.46	0.48
2:B:99:LYS:HB3	2:B:180:TYR:CE1	2.48	0.48
2:B:110:HIS:ND1	2:B:111:ALA:O	2.45	0.48
2:B:953:LEU:O	2:B:964:VAL:HG23	2.14	0.48
2:B:1167:GLY:CA	2:B:1216:LEU:H	2.26	0.48
5:E:83:CYS:SG	5:E:88:VAL:HG22	2.53	0.48
7:G:110:VAL:HG13	7:G:161:GLY:O	2.13	0.48
16:U:249:ASP:OD1	17:V:118:SER:OG	2.19	0.48
21:N:8:DA:H2"	21:N:9:DA:C8	2.48	0.48
25:0:254:THR:N	25:0:346:MET:HE2	2.28	0.48
26:6:126:LEU:HB3	26:6:160:PHE:CZ	2.48	0.48
26:6:277:CYS:O	26:6:281:ASN:ND2	2.42	0.48
27:2:25:LEU:HA	27:2:219:VAL:HG13	1.94	0.48
27:2:419:LYS:HD2	27:2:422:LEU:HB2	1.95	0.48
29:7:348:ARG:HG3	29:7:508:HIS:CG	2.48	0.48
29:7:418:MET:HA	29:7:421:ARG:HH12	1.78	0.48
29:7:534:LYS:HD3	29:7:537:GLU:CD	2.38	0.48
1:A:666:ILE:HD12	1:A:666:ILE:H	1.78	0.48
1:A:925:LEU:O	1:A:928:LEU:N	2.46	0.48
1:A:1008:GLN:HB3	1:A:1012:ARG:NH1	2.28	0.48
1:A:1444:MET:HG2	7:G:59:GLY:O	2.14	0.48
2:B:51:PHE:HE2	2:B:172:ILE:HG23	1.78	0.48
2:B:70:ILE:HD13	14:Q:335:LEU:HD21	1.93	0.48
2:B:762:ASN:OD1	2:B:1022:THR:HA	2.14	0.48
2:B:827:ILE:HG22	2:B:1014:PRO:HG3	1.96	0.48
2:B:1139:ILE:O	2:B:1142:GLY:N	2.26	0.48
13:M:206:THR:HA	13:M:209:ILE:HG12	1.95	0.48
15:R:104:ILE:HB	15:R:122:LEU:HB3	1.94	0.48
22:O:69:ASN:O	22:O:161:VAL:N	2.36	0.48
25:0:159:HIS:O	25:0:162:LEU:HB3	2.13	0.48
26:6:128:LEU:O	26:6:171:ILE:HA	2.13	0.48
28:5:24:ASP:CG	28:5:31:VAL:HG23	2.37	0.48
28:5:42:VAL:HG11	28:5:47:VAL:HG22	1.95	0.48
29:7:329:ARG:HG3	29:7:330:CYS:N	2.28	0.48
1:A:1149:ALA:O	1:A:1195:LEU:HA	2.13	0.48
1:A:1420:ASP:N	1:A:1420:ASP:OD1	2.42	0.48
2:B:93:GLY:N	2:B:131:ASP:O	2.46	0.48
4:D:44:GLU:HG2	4:D:45:GLU:N	2.28	0.48
4:D:47:LEU:HD23	4:D:48:ILE:N	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:206:GLU:HG2	4:D:209:ARG:NH2	2.29	0.48
5:E:20:LYS:HB3	5:E:35:VAL:HG22	1.96	0.48
8:H:11:GLN:CA	8:H:54:SER:HA	2.38	0.48
13:M:272:LYS:CD	20:T:148:DA:H4'	2.41	0.48
21:N:17:DG:H2'	21:N:17:DG:N3	2.29	0.48
25:0:425:ILE:HA	25:0:428:ALA:HB2	1.95	0.48
25:0:498:THR:O	25:0:506:ILE:HG12	2.13	0.48
25:0:683:ASP:OD2	25:0:685:ARG:HB2	2.13	0.48
1:A:259:GLU:HB3	1:A:263:THR:OG1	2.13	0.48
1:A:452:LYS:O	2:B:1141:HIS:NE2	2.47	0.48
2:B:649:LYS:NZ	2:B:738:PHE:H	2.10	0.48
2:B:660:LYS:HB2	2:B:679:TYR:HD2	1.76	0.48
2:B:803:LEU:HA	2:B:803:LEU:HD23	1.56	0.48
4:D:53:SER:HA	4:D:152:SER:HB2	1.96	0.48
4:D:202:ILE:HG13	4:D:203:SER:N	2.27	0.48
9:I:29:CYS:HB3	9:I:32:CYS:SG	2.54	0.48
13:M:272:LYS:HD3	20:T:148:DA:C4'	2.41	0.48
15:R:93:GLY:O	15:R:94:LYS:HD3	2.14	0.48
24:4:296:LEU:HD11	24:4:305:CYS:HB2	1.95	0.48
25:0:68:LYS:HG3	25:0:225:GLU:O	2.14	0.48
25:0:71:TYR:HB3	25:0:207:ILE:CD1	2.44	0.48
25:0:161:ASN:HD22	25:0:189:THR:HG23	1.78	0.48
29:7:589:GLN:HB3	29:7:745:ILE:HD11	1.95	0.48
1:A:102:VAL:HG11	1:A:211:PHE:HE1	1.78	0.48
1:A:350:ARG:NE	1:A:486:GLU:OE1	2.46	0.48
1:A:399:HIS:O	1:A:435:HIS:ND1	2.46	0.48
1:A:407:ARG:HH12	1:A:413:ILE:HD11	1.77	0.48
1:A:411:ASP:OD1	13:M:50:LEU:HD13	2.14	0.48
1:A:1171:GLN:O	1:A:1174:PHE:N	2.47	0.48
1:A:1197:LEU:HB2	1:A:1236:LEU:HB2	1.96	0.48
2:B:112:LEU:HD11	2:B:116:GLU:HB3	1.96	0.48
2:B:545:ILE:C	2:B:634:TYR:HE1	2.22	0.48
2:B:894:ASP:HB2	2:B:896:ASP:OD1	2.14	0.48
8:H:22:LYS:HB3	8:H:43:ASN:OD1	2.13	0.48
15:R:69:TRP:CD1	15:R:219:CYS:HB3	2.48	0.48
18:W:97:ALA:HB1	19:X:268:LEU:HD13	1.95	0.48
20:T:133:DA:H61	21:N:33:DT:H3	1.59	0.48
22:O:81:ASP:OD1	22:O:84:THR:N	2.29	0.48
22:O:172:LEU:HD22	22:O:193:LEU:HB2	1.94	0.48
22:O:224:TYR:O	22:O:228:GLU:HG2	2.14	0.48
25:0:17:ILE:HG13	25:0:18:TYR:H	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:0:114:LEU:CD2	25:0:182:LEU:HD21	2.41	0.48
25:0:288:LYS:HB3	25:0:294:HIS:CD2	2.49	0.48
28:5:62:ILE:HA	29:7:570:LEU:CD2	2.44	0.48
1:A:375:THR:OG1	1:A:434:ARG:O	2.23	0.48
1:A:1126:ALA:C	1:A:1304:TRP:HD1	2.22	0.48
1:A:1221:LYS:HB3	1:A:1223:ASP:OD1	2.14	0.48
1:A:1397:LEU:HB2	1:A:1426:GLU:HG3	1.94	0.48
2:B:67:SER:HA	2:B:92:PHE:HD2	1.79	0.48
2:B:557:PHE:O	2:B:561:TRP:HD1	1.97	0.48
2:B:662:MET:O	2:B:666:TYR:N	2.45	0.48
4:D:119:ARG:HG2	4:D:155:ARG:NH2	2.29	0.48
7:G:25:TYR:HA	7:G:28:THR:HB	1.95	0.48
7:G:85:GLU:O	7:G:146:LYS:HA	2.14	0.48
7:G:99:PHE:O	7:G:109:PHE:HA	2.14	0.48
8:H:98:TYR:OH	8:H:139:ASN:ND2	2.46	0.48
8:H:128:ASN:HB2	8:H:131:ASN:OD1	2.13	0.48
13:M:289:PHE:HB3	13:M:291:ILE:CD1	2.43	0.48
14:Q:98:TYR:HA	15:R:97:ILE:O	2.14	0.48
16:U:253:ARG:HH22	22:O:105:ARG:NE	2.11	0.48
18:W:101:LYS:HA	19:X:266:VAL:HG11	1.96	0.48
23:1:184:LEU:HD23	23:1:210:TRP:CZ3	2.49	0.48
23:1:256:ILE:HB	23:1:260:PHE:CZ	2.48	0.48
23:1:270:TYR:O	23:1:274:VAL:HG23	2.14	0.48
24:4:180:THR:HG23	24:4:214:LYS:HG3	1.93	0.48
24:4:239:GLU:OE2	24:4:242:GLU:N	2.47	0.48
25:0:538:VAL:HG11	25:0:612:PHE:CE2	2.49	0.48
26:6:159:GLU:O	26:6:163:GLN:NE2	2.47	0.48
27:2:47:ILE:HD11	27:2:81:MET:SD	2.54	0.48
27:2:370:PHE:N	27:2:373:MET:O	2.38	0.48
29:7:512:GLY:N	29:7:531:ILE:HG21	2.29	0.48
29:7:554:CYS:N	29:7:732:ALA:O	2.47	0.48
29:7:600:ARG:HB3	29:7:601:ARG:NH2	2.29	0.48
30:3:10:LYS:HA	30:3:18:THR:HG22	1.94	0.48
1:A:62:ASP:C	1:A:64:ASN:H	2.22	0.48
1:A:250:ILE:O	1:A:258:GLY:N	2.46	0.48
1:A:326:ARG:HG3	1:A:1406:VAL:HG21	1.96	0.48
1:A:451:HIS:NE2	1:A:1074:GLU:OE1	2.47	0.48
1:A:881:GLN:NE2	1:A:957:PRO:O	2.46	0.48
1:A:1386:ARG:O	1:A:1390:ASN:HB2	2.13	0.48
2:B:232:SER:OG	2:B:233:PRO:HD2	2.14	0.48
2:B:512:ARG:NH1	2:B:533:CYS:O	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1130:PHE:CD2	2:B:1150:ARG:HG2	2.49	0.48
3:C:101:LEU:HB3	3:C:155:LEU:HD21	1.96	0.48
5:E:79:TRP:HB2	5:E:105:PHE:CE2	2.49	0.48
9:I:35:VAL:HG12	9:I:36:GLU:N	2.29	0.48
10:J:26:GLN:CD	10:J:26:GLN:H	2.22	0.48
11:K:94:ILE:HD13	11:K:97:LYS:HD2	1.96	0.48
13:M:87:LEU:HD23	13:M:155:LYS:HB2	1.95	0.48
13:M:312:GLY:O	13:M:316:LEU:HD23	2.14	0.48
14:Q:104:ARG:HA	15:R:92:LEU:HB3	1.95	0.48
14:Q:117:HIS:HB3	14:Q:391:LYS:HB2	1.96	0.48
18:W:180:GLN:HA	18:W:183:ILE:HG12	1.95	0.48
19:X:232:VAL:H	19:X:242:ARG:CB	2.27	0.48
24:4:271:ASP:HB2	26:6:372:LEU:HD12	1.95	0.48
25:0:254:THR:O	25:0:258:ARG:HG2	2.13	0.48
26:6:309:PRO:HB3	26:6:312:LYS:NZ	2.28	0.48
26:6:349:CYS:SG	26:6:350:PRO:HD2	2.54	0.48
27:2:370:PHE:CD2	27:2:373:MET:HG3	2.48	0.48
27:2:485:ASP:HB2	27:2:487:LYS:HG2	1.95	0.48
29:7:348:ARG:HD2	29:7:482:TRP:O	2.13	0.48
29:7:596:GLN:OE1	29:7:746:PRO:HD2	2.13	0.48
1:A:69:THR:O	1:A:71:GLN:NE2	2.47	0.48
1:A:619:LYS:C	1:A:621:THR:H	2.22	0.48
1:A:677:ARG:NH2	1:A:678:GLU:OE2	2.46	0.48
1:A:1217:LYS:O	1:A:1221:LYS:N	2.47	0.48
2:B:98:THR:OG1	2:B:101:MET:HE1	2.14	0.48
2:B:135:ARG:O	15:R:277:PHE:HE1	1.97	0.48
2:B:137:TYR:HB3	2:B:147:LEU:O	2.14	0.48
2:B:619:ILE:HD13	9:I:65:ASP:HA	1.95	0.48
2:B:868:MET:HE1	13:M:182:ARG:CG	2.42	0.48
2:B:890:TYR:O	2:B:892:LYS:N	2.46	0.48
5:E:108:GLY:O	5:E:132:ILE:HA	2.14	0.48
8:H:20:TYR:HB3	8:H:23:VAL:HB	1.95	0.48
15:R:69:TRP:NE1	15:R:220:HIS:HB3	2.29	0.48
16:U:248:TYR:HB3	17:V:115:ALA:CB	2.43	0.48
21:N:27:DT:H2'	21:N:28:DT:H71	1.96	0.48
23:1:339:LEU:H	25:0:580:SER:CB	2.26	0.48
23:1:350:ARG:NH1	25:0:401:ASP:OD1	2.47	0.48
25:0:473:LEU:HB2	25:0:475:PHE:CD1	2.49	0.48
25:0:638:ARG:O	25:0:642:MET:N	2.34	0.48
26:6:263:VAL:HG23	26:6:288:TYR:HD1	1.79	0.48
27:2:52:PHE:HA	27:2:109:ARG:NH2	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:2:419:LYS:CG	27:2:429:PRO:HA	2.44	0.48
29:7:343:PHE:HB3	29:7:380:ARG:HA	1.95	0.48
1:A:22:PHE:HB2	2:B:1211:ASN:OD1	2.14	0.47
1:A:106:VAL:HG22	1:A:113:LEU:HD23	1.95	0.47
1:A:312:PRO:HD3	13:M:106:PHE:HD2	1.79	0.47
1:A:811:GLN:OE1	2:B:705:MET:HE3	2.14	0.47
1:A:915:SER:HB2	1:A:918:GLU:OE2	2.14	0.47
1:A:987:VAL:O	1:A:991:LYS:HG2	2.13	0.47
1:A:1292:PRO:HA	1:A:1298:TYR:HA	1.96	0.47
9:I:77:LYS:HG2	9:I:108:HIS:NE2	2.28	0.47
10:J:2:ILE:HG13	10:J:2:ILE:O	2.13	0.47
10:J:13:VAL:HG22	10:J:16:ASP:CG	2.39	0.47
14:Q:134:HIS:ND1	14:Q:354:ASP:OD2	2.47	0.47
14:Q:369:ASN:OD1	15:R:72:ARG:NH2	2.47	0.47
19:X:219:GLU:O	19:X:223:GLN:HG2	2.14	0.47
20:T:156:DT:H2'	20:T:157:DT:H71	1.96	0.47
23:1:256:ILE:HA	23:1:259:ILE:HB	1.95	0.47
23:1:510:ASN:OD1	23:1:513:GLN:NE2	2.45	0.47
24:4:87:TYR:CZ	24:4:121:VAL:HG22	2.49	0.47
25:0:63:TYR:HB3	25:0:65:GLU:OE1	2.14	0.47
25:0:199:MET:HA	25:0:202:LEU:HD13	1.95	0.47
27:2:47:ILE:HD11	27:2:86:LEU:HD11	1.96	0.47
27:2:412:ALA:O	27:2:416:LEU:HG	2.14	0.47
28:5:17:LYS:HG3	28:5:40:LEU:HD11	1.96	0.47
29:7:365:TYR:CB	29:7:543:LEU:HB3	2.44	0.47
29:7:370:LEU:HD23	29:7:373:MET:SD	2.54	0.47
29:7:443:LYS:HE2	29:7:446:PHE:HE1	1.76	0.47
1:A:250:ILE:HD11	13:M:62:GLU:CB	2.42	0.47
1:A:325:ILE:O	1:A:328:ARG:HB2	2.14	0.47
1:A:472:LEU:O	1:A:474:VAL:N	2.47	0.47
2:B:40:GLU:OE1	2:B:681:TRP:HB3	2.14	0.47
2:B:474:SER:OG	2:B:475:SER:N	2.47	0.47
2:B:641:GLU:O	2:B:649:LYS:HA	2.14	0.47
7:G:28:THR:HG22	7:G:32:GLU:CD	2.39	0.47
8:H:23:VAL:HA	8:H:42:ILE:O	2.15	0.47
14:Q:134:HIS:HD2	14:Q:135:LEU:H	1.62	0.47
15:R:72:ARG:O	15:R:223:GLN:HG3	2.14	0.47
18:W:144:ARG:NH2	18:W:146:GLU:H	2.11	0.47
20:T:131:DA:N6	21:N:35:DT:N3	2.57	0.47
21:N:35:DT:H6	21:N:35:DT:H5''	1.79	0.47
23:1:195:PHE:CZ	23:1:199:VAL:HG21	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:0:71:TYR:OH	25:0:235:ASP:OD2	2.24	0.47
27:2:46:PHE:CE1	27:2:62:LEU:HG	2.49	0.47
29:7:421:ARG:HA	29:7:425:LEU:HD12	1.97	0.47
1:A:252:PHE:HB2	13:M:63:TRP:HB2	1.96	0.47
1:A:455:MET:HE2	2:B:1137:CYS:HB2	1.94	0.47
1:A:548:ASN:HD21	11:K:47:ARG:CZ	2.27	0.47
1:A:807:GLY:C	1:A:808:LEU:HD12	2.39	0.47
1:A:1375:MET:HG2	1:A:1382:THR:O	2.14	0.47
2:B:327:ARG:HE	2:B:331:LEU:HD11	1.80	0.47
2:B:376:PHE:O	2:B:380:TYR:N	2.46	0.47
2:B:840:ILE:O	2:B:1010:LEU:HD12	2.15	0.47
2:B:1138:MET:SD	2:B:1143:ALA:HB3	2.55	0.47
3:C:21:ILE:HG12	3:C:229:TYR:CE1	2.49	0.47
3:C:95:CYS:SG	3:C:96:SER:N	2.87	0.47
5:E:143:ASN:HD22	5:E:146:HIS:CE1	2.32	0.47
10:J:2:ILE:O	10:J:3:VAL:C	2.58	0.47
11:K:64:GLU:HG2	11:K:65:HIS:N	2.29	0.47
12:L:31:CYS:HB2	12:L:53:HIS:CD2	2.46	0.47
15:R:64:SER:C	15:R:216:GLY:HA2	2.39	0.47
17:V:60:LEU:HD22	17:V:85:VAL:HG12	1.96	0.47
18:W:47:LEU:HB3	18:W:49:ILE:HG12	1.96	0.47
18:W:100:TRP:CD1	19:X:269:PRO:HD3	2.49	0.47
20:T:147:DT:C3'	20:T:148:DA:H5''	2.45	0.47
23:1:204:LEU:HD23	23:1:209:PHE:HB2	1.94	0.47
23:1:321:PHE:CD1	23:1:324:LYS:HE2	2.50	0.47
25:0:138:ASN:O	25:0:142:LYS:HG2	2.14	0.47
29:7:364:PRO:HB2	29:7:546:LYS:HB3	1.96	0.47
29:7:478:THR:HG21	29:7:504:THR:HG22	1.97	0.47
29:7:603:ASP:OD1	29:7:696:ARG:NH1	2.48	0.47
30:3:51:PRO:HD3	30:3:65:LYS:HG3	1.96	0.47
1:A:34:LYS:HZ1	1:A:85:ASP:H	1.61	0.47
1:A:230:ARG:O	1:A:233:TRP:N	2.39	0.47
1:A:804:TYR:HD1	2:B:761:HIS:O	1.98	0.47
2:B:103:ASN:HD22	13:M:141:GLU:HB2	1.80	0.47
2:B:236:HIS:HB2	2:B:258:LEU:HD23	1.96	0.47
2:B:1096:ARG:O	2:B:1098:MET:N	2.41	0.47
3:C:208:GLU:OE1	3:C:208:GLU:N	2.46	0.47
4:D:206:GLU:HA	4:D:209:ARG:HE	1.79	0.47
5:E:13:TRP:HD1	5:E:42:PHE:CG	2.32	0.47
5:E:185:ALA:HA	5:E:190:LEU:HG	1.96	0.47
6:F:131:PRO:O	6:F:132:LEU:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:60:ALA:O	11:K:73:LEU:HD12	2.14	0.47
16:U:253:ARG:HD3	22:O:93:GLU:OE2	2.15	0.47
25:O:183:LYS:O	25:O:187:GLU:HG2	2.14	0.47
25:O:617:GLY:C	25:O:669:VAL:HG23	2.39	0.47
27:2:66:VAL:HG11	27:2:74:PHE:HB2	1.97	0.47
27:2:346:LYS:NZ	27:2:376:GLY:O	2.42	0.47
27:2:481:LEU:HD12	27:2:493:ILE:HG21	1.96	0.47
28:5:36:ASP:OD1	28:5:39:HIS:N	2.47	0.47
1:A:4:GLN:NE2	1:A:76:GLU:OE1	2.47	0.47
1:A:26:GLU:HA	1:A:29:ALA:HB3	1.96	0.47
1:A:230:ARG:HB3	1:A:232:GLU:OE1	2.15	0.47
1:A:871:ASP:OD1	1:A:1366:ARG:NH2	2.47	0.47
1:A:1443:VAL:H	7:G:60:ARG:CZ	2.27	0.47
2:B:238:ALA:HB2	2:B:385:LEU:HD13	1.96	0.47
2:B:519:TRP:C	2:B:519:TRP:CD1	2.92	0.47
5:E:82:PHE:HA	5:E:111:VAL:O	2.15	0.47
9:I:85:PHE:CB	9:I:101:PHE:CD1	2.98	0.47
9:I:103:CYS:HB2	9:I:108:HIS:HB3	1.97	0.47
13:M:241:ARG:HA	13:M:244:SER:HB3	1.95	0.47
14:Q:101:PHE:N	15:R:95:ILE:O	2.48	0.47
14:Q:142:LYS:HB2	14:Q:351:VAL:HG21	1.96	0.47
15:R:106:LEU:HD22	15:R:108:LEU:HD23	1.96	0.47
24:4:137:LYS:HG3	24:4:139:GLN:HG3	1.96	0.47
26:6:131:ASP:HA	26:6:174:MET:HB3	1.96	0.47
26:6:361:THR:O	26:6:370:LEU:HB2	2.13	0.47
29:7:384:ILE:HG22	29:7:386:LEU:HG	1.96	0.47
29:7:552:VAL:HG22	29:7:703:ALA:HB3	1.96	0.47
29:7:581:TYR:HB3	29:7:713:THR:HG21	1.95	0.47
29:7:750:TYR:HA	29:7:755:GLU:HB2	1.97	0.47
1:A:197:PRO:O	1:A:199:LEU:HD13	2.15	0.47
1:A:354:SER:O	1:A:469:ARG:HD3	2.15	0.47
2:B:176:SER:O	2:B:179:CYS:N	2.45	0.47
2:B:486:TYR:HD2	2:B:775:LYS:O	1.97	0.47
2:B:658:ILE:HA	2:B:661:LEU:HD12	1.96	0.47
2:B:1077:THR:OG1	2:B:1079:LYS:HB2	2.15	0.47
5:E:39:LEU:O	5:E:43:LYS:HG3	2.14	0.47
7:G:111:THR:HG22	7:G:113:HIS:H	1.79	0.47
8:H:116:TYR:HB2	8:H:123:MET:HB3	1.95	0.47
9:I:111:THR:OG1	9:I:112:SER:N	2.46	0.47
11:K:41:THR:O	11:K:45:LEU:HD23	2.15	0.47
11:K:82:ASP:OD1	11:K:84:LYS:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:Q:375:LEU:HG	15:R:70:LEU:HD13	1.96	0.47
23:1:386:ILE:O	23:1:389:LEU:HB2	2.15	0.47
25:0:141:ALA:O	25:0:153:VAL:HG11	2.14	0.47
25:0:242:ASN:OD1	25:0:660:ARG:NH2	2.46	0.47
25:0:495:MET:HE1	25:0:678:VAL:HG13	1.96	0.47
27:2:8:HIS:HB2	27:2:205:LEU:CD1	2.44	0.47
29:7:411:CYS:HB3	29:7:417:VAL:HG22	1.97	0.47
30:3:8:GLU:HA	30:3:73:PHE:CE1	2.50	0.47
1:A:148:CYS:N	1:A:169:ASN:O	2.48	0.47
1:A:356:ASP:HB2	1:A:469:ARG:CD	2.43	0.47
1:A:377:PRO:HA	1:A:432:VAL:O	2.15	0.47
2:B:868:MET:HB2	2:B:868:MET:HE3	1.57	0.47
2:B:1149:GLU:HA	2:B:1153:GLU:OE1	2.13	0.47
3:C:75:MET:HE1	3:C:239:PRO:HD3	1.96	0.47
3:C:114:TYR:HA	3:C:142:VAL:O	2.14	0.47
4:D:205:ASP:HA	4:D:208:GLU:OE1	2.15	0.47
5:E:124:VAL:O	5:E:126:SER:N	2.48	0.47
8:H:15:VAL:HG21	8:H:49:VAL:HB	1.96	0.47
13:M:44:VAL:HA	13:M:51:VAL:HA	1.96	0.47
13:M:60:ARG:C	13:M:62:GLU:H	2.21	0.47
14:Q:139:LEU:H	15:R:59:LEU:CB	2.28	0.47
15:R:134:VAL:O	15:R:215:VAL:N	2.46	0.47
18:W:98:ILE:O	18:W:102:VAL:HG23	2.15	0.47
18:W:135:GLU:H	18:W:135:GLU:CD	2.22	0.47
20:T:150:DG:N2	21:N:17:DG:N1	2.63	0.47
21:N:12:DG:N2	21:N:13:DG:N3	2.62	0.47
22:O:93:GLU:HB2	22:O:103:ILE:HB	1.97	0.47
23:1:264:PRO:HG2	23:1:321:PHE:CZ	2.50	0.47
24:4:75:VAL:HG12	24:4:86:LEU:HB2	1.97	0.47
24:4:189:GLU:O	24:4:192:GLN:NE2	2.48	0.47
24:4:235:TYR:H	24:4:265:PRO:HA	1.79	0.47
25:0:4:TYR:HE2	25:0:9:PRO:HG3	1.79	0.47
25:0:90:MET:O	25:0:94:THR:HG23	2.14	0.47
25:0:136:MET:O	25:0:154:GLU:O	2.32	0.47
25:0:192:PRO:HA	25:0:195:ILE:HD12	1.97	0.47
25:0:450:PHE:CD2	25:0:475:PHE:HB3	2.50	0.47
25:0:510:PHE:CG	25:0:511:GLU:N	2.83	0.47
25:0:643:ARG:HG2	25:0:648:ILE:O	2.15	0.47
25:0:703:ASP:HA	25:0:706:LEU:HD23	1.97	0.47
26:6:142:ARG:NH1	26:6:294:GLU:OE2	2.47	0.47
26:6:173:ILE:HD12	26:6:175:ARG:HD2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:6:295:THR:HA	26:6:298:LYS:HB3	1.96	0.47
27:2:19:GLN:H	27:2:19:GLN:CD	2.22	0.47
27:2:100:LEU:HD13	27:2:105:LYS:CA	2.45	0.47
29:7:343:PHE:HB2	29:7:379:ALA:O	2.15	0.47
29:7:348:ARG:NE	29:7:508:HIS:CD2	2.81	0.47
29:7:634:GLN:O	29:7:638:ASN:N	2.32	0.47
29:7:668:THR:HA	29:7:702:ASN:O	2.14	0.47
30:3:33:GLU:O	30:3:61:LYS:CE	2.62	0.47
1:A:206:GLU:HG3	1:A:207:ILE:H	1.80	0.47
1:A:230:ARG:HB2	1:A:233:TRP:CE3	2.50	0.47
1:A:533:LYS:HB2	1:A:656:TRP:CH2	2.49	0.47
2:B:215:GLN:NE2	2:B:499:ASN:HB3	2.30	0.47
2:B:348:ARG:O	2:B:351:TYR:HB3	2.15	0.47
2:B:596:LEU:O	2:B:600:LEU:HG	2.15	0.47
5:E:41:ASP:O	5:E:45:LYS:HG2	2.15	0.47
5:E:72:PHE:HB2	5:E:75:MET:CG	2.42	0.47
7:G:40:GLY:N	7:G:155:SER:H	2.13	0.47
7:G:115:MET:HE1	7:G:163:ILE:CD1	2.44	0.47
8:H:17:PRO:HB3	8:H:24:CYS:SG	2.55	0.47
8:H:95:TYR:O	8:H:143:LEU:HA	2.15	0.47
11:K:83:PRO:HA	11:K:86:ALA:HB3	1.96	0.47
18:W:98:ILE:HG23	19:X:263:TRP:HH2	1.79	0.47
18:W:116:ASN:CB	18:W:164:LYS:HB2	2.45	0.47
21:N:3:DA:H2''	21:N:4:DA:H8	1.80	0.47
21:N:40:DA:H2''	21:N:41:DA:C8	2.49	0.47
23:1:199:VAL:HG22	23:1:204:LEU:O	2.14	0.47
23:1:378:MET:HE2	25:0:564:TRP:CE2	2.49	0.47
24:4:38:THR:O	24:4:42:GLU:N	2.44	0.47
24:4:218:SER:HA	24:4:237:HIS:HE2	1.79	0.47
27:2:481:LEU:HA	27:2:493:ILE:HG21	1.96	0.47
28:5:17:LYS:NZ	28:5:37:ASP:HA	2.30	0.47
29:7:502:VAL:HG22	29:7:510:LYS:HE2	1.97	0.47
29:7:589:GLN:HE22	29:7:751:ALA:HA	1.79	0.47
1:A:1002:GLY:H	1:A:1007:ILE:HG21	1.80	0.47
1:A:1202:MET:O	1:A:1206:ASP:HA	2.15	0.47
2:B:304:ASP:OD1	2:B:306:ASN:N	2.46	0.47
2:B:1187:ASN:ND2	2:B:1190:ASP:HB3	2.29	0.47
3:C:192:TRP:CG	3:C:193:TYR:N	2.83	0.47
4:D:126:ILE:O	4:D:129:LEU:N	2.48	0.47
5:E:101:GLN:CD	5:E:127:ILE:HG21	2.39	0.47
7:G:34:VAL:HG13	7:G:45:ILE:HG21	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:33:GLY:O	10:J:37:SER:OG	2.17	0.47
19:X:131:ALA:O	19:X:135:ILE:N	2.37	0.47
23:1:181:GLN:HB3	23:1:210:TRP:CE2	2.50	0.47
23:1:561:LEU:HD22	23:1:583:TYR:HA	1.97	0.47
25:0:259:ARG:HB2	25:0:398:ALA:HB2	1.96	0.47
25:0:278:ASP:OD1	25:0:280:GLN:NE2	2.48	0.47
27:2:35:ILE:HD11	27:2:104:PHE:CD1	2.50	0.47
27:2:359:VAL:HA	27:2:362:LEU:HG	1.97	0.47
27:2:464:THR:HG23	27:2:467:GLU:H	1.79	0.47
29:7:370:LEU:HB3	29:7:374:PHE:CE2	2.49	0.47
29:7:467:SER:O	29:7:470:SER:N	2.46	0.47
29:7:636:ARG:HH11	29:7:662:ILE:HG21	1.79	0.47
29:7:694:LYS:HE2	29:7:696:ARG:HB2	1.97	0.47
30:3:30:VAL:HG13	30:3:35:TYR:CA	2.44	0.47
30:3:49:LEU:HD11	30:3:52:ALA:CB	2.45	0.47
1:A:40:THR:O	1:A:49:LYS:HB3	2.15	0.47
1:A:98:LYS:O	1:A:102:VAL:HG23	2.15	0.47
1:A:757:ASN:HD22	2:B:1021:MET:CE	2.28	0.47
2:B:172:ILE:HG22	2:B:173:MET:O	2.15	0.47
2:B:806:THR:O	2:B:809:MET:N	2.41	0.47
4:D:25:ALA:HB2	7:G:84:GLY:HA3	1.97	0.47
7:G:4:ILE:HG13	7:G:77:VAL:HG12	1.97	0.47
8:H:118:PHE:O	8:H:121:LEU:N	2.45	0.47
14:Q:110:ASP:OD1	14:Q:110:ASP:N	2.48	0.47
14:Q:336:ASP:OD1	14:Q:340:LYS:HB3	2.15	0.47
15:R:98:ASN:H	15:R:104:ILE:HA	1.80	0.47
28:5:33:GLU:HB2	28:5:41:LEU:HB3	1.96	0.47
29:7:642:ASN:CB	29:7:649:ILE:HD13	2.44	0.47
30:3:31:ASN:ND2	30:3:32:PRO:HD2	2.30	0.47
30:3:37:ARG:HD3	30:3:73:PHE:CE1	2.50	0.47
1:A:1226:VAL:HG22	1:A:1240:CYS:HB2	1.97	0.46
1:A:1432:GLN:N	1:A:1432:GLN:OE1	2.48	0.46
2:B:241:ARG:NH2	2:B:251:ILE:HD12	2.30	0.46
2:B:617:ARG:HG3	2:B:619:ILE:HG13	1.97	0.46
2:B:776:GLN:O	2:B:1096:ARG:NH1	2.47	0.46
2:B:879:ARG:HA	2:B:885:MET:SD	2.55	0.46
3:C:113:VAL:HB	3:C:145:CYS:H	1.79	0.46
11:K:103:THR:HA	11:K:106:GLU:CB	2.45	0.46
13:M:201:LYS:HD2	21:N:18:DT:H5'	1.97	0.46
14:Q:100:GLU:OE1	15:R:96:ARG:HG2	2.14	0.46
18:W:30:ASP:O	18:W:34:PHE:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:1:593:LEU:HD22	23:1:620:LEU:HD12	1.97	0.46
24:4:133:PHE:HA	24:4:136:GLU:HG2	1.97	0.46
25:0:68:LYS:HB2	25:0:230:SER:OG	2.15	0.46
26:6:146:HIS:ND1	26:6:204:PRO:HD3	2.30	0.46
27:2:419:LYS:HG3	27:2:429:PRO:HA	1.96	0.46
29:7:346:ASP:HA	29:7:508:HIS:CB	2.45	0.46
1:A:253:ASN:O	1:A:255:SER:N	2.48	0.46
1:A:605:MET:HE1	1:A:616:VAL:C	2.40	0.46
1:A:689:LYS:HB3	1:A:721:PHE:CD2	2.50	0.46
1:A:1151:GLU:HG2	9:I:45:ARG:NE	2.30	0.46
2:B:429:PHE:CZ	14:Q:332:LEU:HB2	2.51	0.46
2:B:807:ARG:H	2:B:1045:SER:HG	1.57	0.46
2:B:996:ARG:O	2:B:999:MET:N	2.48	0.46
2:B:1207:LEU:O	2:B:1211:ASN:N	2.47	0.46
3:C:136:ASP:OD1	3:C:137:LYS:N	2.48	0.46
5:E:46:TYR:HD1	5:E:57:MET:SD	2.38	0.46
5:E:147:HIS:CE1	5:E:149:LEU:HG	2.51	0.46
6:F:76:LYS:HG3	6:F:79:ARG:NH2	2.31	0.46
6:F:97:ARG:CZ	6:F:101:ILE:HD11	2.46	0.46
7:G:48:VAL:HA	7:G:76:ALA:HA	1.96	0.46
7:G:151:ILE:N	7:G:158:HIS:O	2.47	0.46
13:M:61:SER:HA	13:M:64:ARG:HG2	1.97	0.46
14:Q:141:ARG:O	15:R:207:THR:OG1	2.20	0.46
14:Q:371:ASP:OD1	14:Q:371:ASP:N	2.46	0.46
15:R:66:ARG:HB3	15:R:216:GLY:HA3	1.98	0.46
26:6:211:GLN:HG2	26:6:245:GLY:H	1.80	0.46
27:2:133:ASP:C	27:2:286:ARG:HH22	2.22	0.46
27:2:176:VAL:O	27:2:180:GLY:N	2.48	0.46
27:2:260:PHE:CA	27:2:272:THR:HB	2.45	0.46
29:7:328:LYS:HA	29:7:331:GLN:OE1	2.15	0.46
29:7:589:GLN:NE2	29:7:751:ALA:HA	2.30	0.46
1:A:306:ASN:HD21	1:A:322:VAL:H	1.64	0.46
1:A:451:HIS:HB3	1:A:453:MET:HG2	1.98	0.46
2:B:258:LEU:HB2	2:B:385:LEU:HD21	1.96	0.46
2:B:662:MET:HB3	2:B:666:TYR:CE2	2.51	0.46
2:B:879:ARG:NH2	2:B:886:LYS:O	2.48	0.46
3:C:73:GLN:O	3:C:130:GLY:N	2.35	0.46
5:E:43:LYS:O	5:E:47:CYS:HB2	2.16	0.46
11:K:79:GLU:H	11:K:79:GLU:CD	2.24	0.46
13:M:135:MET:O	13:M:138:ASP:HB2	2.16	0.46
13:M:151:LYS:O	13:M:154:TYR:HB3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:R:67:GLN:HB3	15:R:219:CYS:CB	2.43	0.46
15:R:99:LYS:HA	15:R:102:SER:HA	1.98	0.46
20:T:135:DT:H2''	20:T:136:DG:C8	2.50	0.46
22:O:165:ASP:HB2	22:O:211:LYS:HD3	1.96	0.46
25:O:1:MET:HE2	25:O:3:PHE:CD2	2.49	0.46
25:O:112:LYS:HA	25:O:129:VAL:HG11	1.97	0.46
26:6:124:ARG:HB2	26:6:167:SER:HB3	1.96	0.46
26:6:308:LEU:HG	26:6:308:LEU:O	2.15	0.46
27:2:354:PRO:HA	27:2:357:ILE:HG12	1.96	0.46
1:A:34:LYS:HD3	1:A:83:HIS:CE1	2.51	0.46
1:A:407:ARG:HG2	1:A:430:TRP:CZ2	2.50	0.46
1:A:779:PHE:HB3	2:B:699:GLU:OE1	2.15	0.46
2:B:186:GLU:O	2:B:189:LEU:HB2	2.15	0.46
2:B:293:PRO:O	2:B:297:ILE:HG13	2.16	0.46
2:B:497:ARG:HG2	2:B:538:ASN:OD1	2.15	0.46
2:B:884:ARG:NH1	2:B:925:LEU:HD22	2.29	0.46
2:B:1219:ASP:N	2:B:1219:ASP:OD1	2.44	0.46
4:D:71:LYS:O	4:D:75:LYS:HG3	2.16	0.46
8:H:130:ARG:HB3	8:H:130:ARG:NH2	2.30	0.46
14:Q:118:LEU:HD12	15:R:133:TYR:O	2.15	0.46
22:O:61:SER:HB2	22:O:231:TYR:CD2	2.51	0.46
23:1:300:UNK:O	23:1:302:UNK:N	2.47	0.46
23:1:346:ASP:CB	25:O:76:MET:HE3	2.46	0.46
25:O:499:LYS:HB3	25:O:503:GLN:HA	1.98	0.46
25:O:502:ASP:OD1	25:O:502:ASP:N	2.48	0.46
25:O:515:ASP:N	25:O:515:ASP:OD1	2.46	0.46
26:6:149:ILE:CD1	26:6:297:LEU:HD11	2.46	0.46
26:6:169:MET:HG3	26:6:192:HIS:CD2	2.51	0.46
26:6:211:GLN:OE1	26:6:250:THR:HG21	2.16	0.46
26:6:263:VAL:CG2	26:6:288:TYR:HD1	2.28	0.46
27:2:222:LEU:HD12	27:2:226:PHE:CZ	2.51	0.46
29:7:392:LYS:NZ	29:7:513:LEU:O	2.41	0.46
1:A:56:PRO:HB2	1:A:68:GLN:HE21	1.78	0.46
1:A:827:THR:O	1:A:831:THR:HG23	2.15	0.46
1:A:1106:ASN:O	1:A:1107:VAL:C	2.59	0.46
1:A:1135:ARG:HA	1:A:1282:VAL:HG11	1.97	0.46
1:A:1279:ILE:HD12	1:A:1308:THR:HG21	1.96	0.46
1:A:1390:ASN:O	1:A:1399:ARG:HD2	2.16	0.46
2:B:40:GLU:HG2	2:B:681:TRP:HD1	1.80	0.46
2:B:545:ILE:HG23	2:B:632:ARG:O	2.15	0.46
2:B:639:ILE:HD11	2:B:691:GLU:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:757:PRO:HG3	2:B:1028:GLU:OE1	2.15	0.46
2:B:832:GLY:O	2:B:835:GLN:NE2	2.30	0.46
3:C:113:VAL:HG12	3:C:144:ILE:HD12	1.97	0.46
3:C:148:ARG:HG2	3:C:151:GLN:OE1	2.16	0.46
8:H:30:SER:HB2	8:H:36:CYS:HB3	1.97	0.46
13:M:123:ASP:HA	13:M:126:VAL:CB	2.39	0.46
13:M:153:ALA:HA	13:M:156:LEU:HG	1.97	0.46
13:M:309:ILE:O	13:M:313:TYR:HB3	2.15	0.46
18:W:14:LYS:HZ3	18:W:33:LEU:HD12	1.81	0.46
18:W:98:ILE:HD12	19:X:263:TRP:HZ2	1.79	0.46
23:1:264:PRO:O	23:1:268:LYS:HG2	2.15	0.46
24:4:33:ALA:O	24:4:36:LEU:N	2.47	0.46
25:0:503:GLN:HB2	29:7:375:GLY:O	2.15	0.46
25:0:592:ASN:OD1	25:0:593:GLY:N	2.39	0.46
25:0:629:TYR:CZ	25:0:636:LYS:HE2	2.50	0.46
29:7:497:MET:C	29:7:500:ARG:H	2.23	0.46
30:3:31:ASN:ND2	30:3:64:ARG:HB3	2.31	0.46
2:B:47:GLN:HB3	2:B:173:MET:CE	2.43	0.46
2:B:87:LYS:HB3	2:B:137:TYR:HB2	1.98	0.46
3:C:255:VAL:HB	11:K:95:ILE:HD11	1.98	0.46
9:I:74:GLU:HA	9:I:81:ARG:HG2	1.97	0.46
12:L:53:HIS:CG	12:L:54:ARG:H	2.34	0.46
13:M:123:ASP:O	13:M:127:GLN:HG2	2.16	0.46
13:M:237:THR:O	13:M:240:PRO:HD2	2.15	0.46
14:Q:103:LEU:HA	14:Q:384:PHE:O	2.16	0.46
18:W:134:LEU:O	18:W:137:VAL:HG12	2.16	0.46
23:1:185:LEU:O	23:1:192:MET:HB3	2.16	0.46
24:4:212:VAL:HG13	24:4:235:TYR:CD1	2.50	0.46
25:0:413:GLU:O	25:0:414:GLU:HG3	2.15	0.46
25:0:419:ILE:HG23	25:0:436:ARG:HB3	1.97	0.46
28:5:23:ILE:HG12	28:5:57:LEU:CD2	2.38	0.46
29:7:303:ARG:CZ	29:7:506:ALA:H	2.28	0.46
29:7:633:GLN:O	29:7:637:MET:HG2	2.16	0.46
30:3:13:CYS:H	30:3:17:LYS:HA	1.80	0.46
1:A:338:GLY:HA2	2:B:1129:ARG:HH22	1.79	0.46
1:A:781:ASP:HB3	1:A:789:LYS:HB3	1.97	0.46
1:A:993:LEU:CD1	1:A:1050:GLU:HG3	2.44	0.46
1:A:1297:GLU:OE2	1:A:1297:GLU:N	2.48	0.46
6:F:146:TRP:HE3	6:F:150:GLU:HG3	1.81	0.46
7:G:90:THR:HA	7:G:141:SER:O	2.16	0.46
7:G:163:ILE:HD13	7:G:169:GLY:HA2	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:115:TYR:CE1	8:H:124:ARG:HG3	2.50	0.46
11:K:36:GLU:HB3	11:K:37:LYS:HZ2	1.81	0.46
11:K:90:ALA:O	11:K:93:SER:HB3	2.16	0.46
13:M:37:ARG:HB3	13:M:40:GLU:OE2	2.14	0.46
13:M:205:LYS:O	13:M:209:ILE:HG12	2.16	0.46
19:X:277:LYS:O	19:X:280:ASP:HB2	2.16	0.46
23:1:191:LEU:HA	23:1:194:VAL:HG22	1.98	0.46
23:1:337:ILE:HG21	25:0:584:GLU:HB3	1.97	0.46
25:0:41:GLU:O	25:0:43:PRO:HD3	2.16	0.46
25:0:395:ASP:N	25:0:395:ASP:OD1	2.49	0.46
25:0:722:ARG:O	26:6:292:LEU:HD21	2.16	0.46
26:6:343:VAL:C	26:6:345:GLY:H	2.24	0.46
27:2:18:PRO:HB2	27:2:20:GLN:NE2	2.31	0.46
29:7:132:LEU:O	29:7:202:LYS:N	2.34	0.46
29:7:225:LEU:N	29:7:309:ASP:HB2	2.29	0.46
29:7:304:GLU:H	29:7:506:ALA:HA	1.80	0.46
29:7:403:ILE:HD13	29:7:484:PHE:HB2	1.98	0.46
29:7:583:MET:HE3	29:7:760:LEU:CA	2.45	0.46
1:A:336:ILE:HG21	1:A:1401:SER:HA	1.97	0.46
1:A:380:VAL:HB	1:A:428:TYR:HA	1.96	0.46
1:A:711:ARG:NH1	9:I:93:LYS:O	2.49	0.46
1:A:778:GLY:HA3	2:B:516:ASN:OD1	2.16	0.46
1:A:1076:ALA:HA	1:A:1079:MET:CE	2.46	0.46
2:B:60:GLN:CD	2:B:95:ILE:HG22	2.41	0.46
2:B:89:GLU:OE2	2:B:135:ARG:HD2	2.14	0.46
2:B:209:GLU:CD	2:B:485:ARG:HE	2.24	0.46
2:B:217:ARG:HD3	2:B:407:ASP:OD2	2.16	0.46
4:D:35:LEU:HG	4:D:46:GLU:HG3	1.98	0.46
4:D:39:ASN:OD1	4:D:42:GLY:N	2.49	0.46
6:F:134:ILE:HG23	6:F:146:TRP:HB2	1.97	0.46
9:I:83:ASN:N	9:I:83:ASN:OD1	2.46	0.46
12:L:28:LYS:O	12:L:59:ALA:HB3	2.16	0.46
13:M:129:ALA:HB3	13:M:154:TYR:CZ	2.50	0.46
14:Q:108:LYS:N	14:Q:108:LYS:HD2	2.31	0.46
20:T:138:DA:H2"	20:T:139:DA:C8	2.51	0.46
22:O:205:LEU:O	22:O:212:ILE:HA	2.16	0.46
24:4:312:PHE:CD1	26:6:319:LEU:HD11	2.51	0.46
25:0:42:MET:HE1	25:0:483:TYR:CD2	2.51	0.46
25:0:136:MET:HG2	25:0:156:CYS:N	2.31	0.46
26:6:138:GLU:OE2	26:6:145:ARG:NE	2.48	0.46
26:6:351:ASN:HB3	26:6:366:CYS:SG	2.55	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:2:450:ARG:O	27:2:450:ARG:HG2	2.16	0.46
29:7:327:LYS:O	29:7:331:GLN:HB2	2.16	0.46
29:7:632:PRO:O	29:7:636:ARG:N	2.29	0.46
1:A:66:LYS:HZ2	1:A:72:GLU:HB3	1.80	0.46
1:A:250:ILE:N	1:A:258:GLY:O	2.48	0.46
1:A:1155:ASP:OD1	1:A:1162:VAL:HG13	2.16	0.46
2:B:149:TYR:CZ	2:B:150:GLU:O	2.69	0.46
2:B:1106:ARG:HH12	2:B:1119:VAL:N	2.14	0.46
3:C:11:ARG:HH11	3:C:21:ILE:HD11	1.81	0.46
4:D:67:ARG:CA	4:D:133:THR:HG21	2.45	0.46
5:E:97:VAL:O	5:E:101:GLN:HG2	2.16	0.46
7:G:118:ASP:OD1	7:G:118:ASP:N	2.47	0.46
11:K:94:ILE:O	11:K:97:LYS:N	2.48	0.46
13:M:113:ALA:HB1	13:M:116:LYS:HE3	1.98	0.46
13:M:159:ASP:OD1	13:M:160:GLU:N	2.49	0.46
13:M:202:GLU:O	13:M:206:THR:OG1	2.13	0.46
14:Q:374:VAL:HG11	14:Q:386:MET:HB3	1.97	0.46
18:W:109:LEU:HG	18:W:172:LEU:HG	1.98	0.46
21:N:11:DA:H8	21:N:11:DA:OP2	1.98	0.46
22:O:70:ILE:HG23	22:O:157:ILE:HG23	1.98	0.46
22:O:197:MET:HE1	22:O:226:ALA:HA	1.97	0.46
23:1:236:UNK:HA	23:1:239:PRO:HG2	1.98	0.46
24:4:279:THR:HG21	24:4:281:ARG:NE	2.31	0.46
25:0:17:ILE:HG21	25:0:745:ILE:CG2	2.46	0.46
25:0:324:ASN:HB3	25:0:330:HIS:ND1	2.30	0.46
25:0:505:ALA:H	29:7:377:GLY:HA2	1.81	0.46
25:0:622:MET:SD	25:0:681:LEU:HG	2.56	0.46
25:0:734:GLU:O	25:0:738:VAL:N	2.44	0.46
26:6:291:LEU:HB3	26:6:300:LEU:HD12	1.98	0.46
27:2:20:GLN:O	27:2:24:ARG:N	2.23	0.46
27:2:251:GLN:O	27:2:255:ASP:N	2.44	0.46
29:7:348:ARG:CG	29:7:508:HIS:CG	2.99	0.46
29:7:626:PHE:CD2	29:7:628:TYR:HB3	2.51	0.46
29:7:660:THR:HB	29:7:661:SER:HB3	1.98	0.46
29:7:675:SER:HB3	29:7:715:GLU:OE1	2.16	0.46
1:A:125:ALA:O	1:A:134:ARG:HG2	2.16	0.46
1:A:348:SER:O	1:A:374:LEU:HD21	2.16	0.46
1:A:872:GLY:O	1:A:1058:VAL:HG12	2.16	0.46
1:A:1199:ARG:NH1	1:A:1234:GLU:HA	2.31	0.46
2:B:116:GLU:O	2:B:120:ARG:HG3	2.15	0.46
2:B:681:TRP:CH2	2:B:690:VAL:HG21	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:73:GLN:OE1	3:C:75:MET:HG2	2.14	0.46
7:G:64:THR:C	7:G:66:GLY:H	2.24	0.46
8:H:62:SER:OG	8:H:63:LEU:N	2.49	0.46
11:K:65:HIS:HE1	11:K:67:PHE:CE2	2.33	0.46
12:L:61:THR:HG21	12:L:63:ARG:HG2	1.97	0.46
15:R:121:ASP:OD1	15:R:225:MET:HE3	2.16	0.46
15:R:259:VAL:O	15:R:263:MET:HB2	2.16	0.46
18:W:122:TYR:HB2	18:W:131:TYR:HB2	1.98	0.46
23:1:204:LEU:HD21	23:1:560:PHE:CZ	2.51	0.46
25:0:41:GLU:HB3	25:0:482:SER:OG	2.16	0.46
25:0:133:CYS:HA	25:0:136:MET:HB3	1.98	0.46
25:0:267:LEU:HD11	25:0:399:LEU:HD13	1.98	0.46
25:0:747:HIS:O	25:0:751:ARG:NH1	2.49	0.46
26:6:137:LEU:HD21	26:6:204:PRO:HD2	1.98	0.46
27:2:87:LEU:HA	27:2:101:ASN:H	1.80	0.46
29:7:364:PRO:HD2	29:7:548:HIS:HA	1.97	0.46
30:3:54:CYS:SG	30:3:63:LEU:HD13	2.56	0.46
30:3:109:TYR:O	30:3:113:VAL:N	2.49	0.46
1:A:353:ILE:HD13	1:A:487:MET:SD	2.56	0.45
1:A:357:PRO:HB3	1:A:654:ASN:ND2	2.31	0.45
1:A:404:TYR:HB2	1:A:433:GLU:HB2	1.98	0.45
1:A:1148:ILE:N	1:A:1196:GLU:O	2.23	0.45
1:A:1213:GLY:O	1:A:1217:LYS:N	2.28	0.45
1:A:1284:MET:O	1:A:1285:MET:HB2	2.15	0.45
1:A:1376:THR:HG22	1:A:1381:LEU:HD23	1.97	0.45
2:B:86:ARG:HG3	2:B:138:GLU:CD	2.41	0.45
3:C:21:ILE:HA	3:C:228:PHE:O	2.16	0.45
4:D:29:LEU:HB3	7:G:82:PHE:CZ	2.51	0.45
4:D:138:ASN:O	4:D:141:LEU:N	2.49	0.45
6:F:109:VAL:HG21	6:F:127:GLU:OE1	2.16	0.45
7:G:22:MET:HA	7:G:25:TYR:HD2	1.81	0.45
7:G:30:LEU:HD12	7:G:34:VAL:HG21	1.97	0.45
8:H:57:VAL:HG13	8:H:144:ILE:CD1	2.46	0.45
11:K:13:GLY:HA3	11:K:16:GLU:OE1	2.16	0.45
15:R:63:ARG:HB2	15:R:215:VAL:O	2.17	0.45
18:W:115:LYS:HE3	18:W:116:ASN:OD1	2.15	0.45
18:W:123:MET:C	18:W:131:TYR:HD2	2.24	0.45
18:W:164:LYS:O	18:W:168:LYS:HG2	2.16	0.45
22:O:65:PRO:HA	22:O:164:CYS:HB3	1.98	0.45
22:O:171:ARG:NH1	22:O:239:LYS:HA	2.32	0.45
23:1:340:ASP:OD2	25:0:124:ARG:NH1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:0:17:ILE:HG13	25:0:18:TYR:N	2.31	0.45
25:0:643:ARG:NH1	25:0:650:GLU:HG3	2.25	0.45
27:2:361:SER:CB	27:2:366:LEU:HD23	2.45	0.45
1:A:63:ARG:H	1:A:74:MET:HE3	1.79	0.45
1:A:497:THR:HG22	2:B:1146:PHE:HA	1.97	0.45
1:A:526:ASP:OD1	1:A:526:ASP:N	2.48	0.45
2:B:832:GLY:C	2:B:835:GLN:HE21	2.17	0.45
2:B:867:GLY:C	2:B:869:SER:N	2.75	0.45
2:B:1175:LEU:C	2:B:1178:ASN:H	2.24	0.45
5:E:183:PRO:O	5:E:186:LEU:N	2.50	0.45
6:F:135:ARG:HG3	6:F:143:PHE:HB2	1.97	0.45
9:I:46:HIS:CE1	9:I:48:LEU:HD23	2.50	0.45
10:J:1:MET:O	10:J:55:ASP:HA	2.16	0.45
13:M:157:CYS:C	13:M:159:ASP:H	2.24	0.45
15:R:240:ARG:O	15:R:244:VAL:N	2.47	0.45
24:4:201:PHE:CZ	26:6:377:ALA:HB3	2.51	0.45
29:7:386:LEU:N	29:7:514:THR:O	2.49	0.45
1:A:34:LYS:HE2	1:A:84:ILE:HA	1.98	0.45
1:A:698:GLN:O	9:I:98:VAL:HG12	2.16	0.45
1:A:714:PHE:O	1:A:718:VAL:HG23	2.17	0.45
1:A:1159:ARG:CZ	1:A:1187:GLN:HG2	2.46	0.45
1:A:1191:TRP:HZ3	9:I:43:VAL:HG21	1.80	0.45
1:A:1397:LEU:HD12	1:A:1419:ASP:OD2	2.16	0.45
3:C:57:VAL:HG23	3:C:58:LEU:HD22	1.97	0.45
3:C:166:GLU:O	3:C:167:HIS:HB2	2.15	0.45
3:C:220:ASP:OD1	3:C:223:ALA:N	2.49	0.45
7:G:114:LEU:O	7:G:162:SER:OG	2.19	0.45
11:K:7:PHE:C	11:K:11:LEU:H	2.15	0.45
11:K:45:LEU:O	11:K:48:ALA:N	2.50	0.45
11:K:98:LEU:O	11:K:101:LEU:N	2.49	0.45
13:M:121:LYS:C	13:M:123:ASP:N	2.72	0.45
24:4:234:VAL:HG23	24:4:264:LYS:C	2.42	0.45
25:0:116:LEU:HD12	25:0:190:LEU:O	2.16	0.45
25:0:313:PRO:O	25:0:314:GLN:HG2	2.17	0.45
25:0:624:GLY:HA2	25:0:683:ASP:HB2	1.99	0.45
29:7:307:ASP:OD1	29:7:341:TYR:HD1	1.99	0.45
29:7:368:LYS:HG3	29:7:543:LEU:HG	1.98	0.45
29:7:414:SER:HB3	29:7:456:THR:HG21	1.98	0.45
29:7:750:TYR:HD2	29:7:759:LEU:HB2	1.78	0.45
30:3:53:GLN:HA	30:3:62:ILE:HA	1.98	0.45
1:A:369:SER:O	1:A:372:LYS:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:572:TRP:HB3	1:A:577:ILE:HD11	1.99	0.45
1:A:639:PRO:O	1:A:642:CYS:N	2.50	0.45
1:A:694:THR:O	1:A:698:GLN:HG3	2.17	0.45
1:A:787:PHE:HE2	1:A:796:SER:HA	1.80	0.45
1:A:1193:LEU:O	1:A:1239:ARG:HA	2.17	0.45
2:B:885:MET:HE3	2:B:885:MET:HB2	1.74	0.45
4:D:54:GLU:HB2	4:D:160:VAL:HG11	1.98	0.45
5:E:99:HIS:O	5:E:103:LYS:HG2	2.15	0.45
10:J:22:LEU:O	10:J:23:ASN:C	2.59	0.45
11:K:36:GLU:HB3	11:K:37:LYS:NZ	2.31	0.45
13:M:137:CYS:O	13:M:142:LEU:N	2.49	0.45
16:U:286:VAL:O	22:O:107:ARG:NE	2.49	0.45
17:V:66:LEU:HD21	17:V:69:TYR:HB3	1.98	0.45
18:W:44:LYS:NZ	18:W:49:ILE:O	2.46	0.45
22:O:104:MET:CE	22:O:115:ILE:HD11	2.39	0.45
23:1:503:VAL:O	23:1:507:ILE:HG12	2.16	0.45
24:4:175:ARG:NH1	24:4:253:PHE:HA	2.31	0.45
25:0:1:MET:HE2	25:0:3:PHE:HD2	1.80	0.45
25:0:133:CYS:SG	25:0:137:THR:OG1	2.74	0.45
26:6:310:VAL:HG23	26:6:311:ASN:H	1.81	0.45
27:2:253:MET:C	27:2:259:VAL:H	2.22	0.45
27:2:367:LYS:HB2	27:2:375:LEU:HB3	1.98	0.45
27:2:503:ASP:HA	27:2:506:LYS:HG2	1.97	0.45
29:7:561:MET:CE	29:7:566:TYR:HB2	2.37	0.45
29:7:672:GLN:NE2	29:7:705:PHE:HE1	2.14	0.45
1:A:116:ASP:OD2	1:A:164:ARG:NH1	2.46	0.45
1:A:230:ARG:HD2	1:A:232:GLU:OE1	2.16	0.45
1:A:244:PRO:O	1:A:247:ARG:N	2.48	0.45
1:A:899:VAL:O	1:A:929:LEU:HD13	2.17	0.45
1:A:1355:VAL:O	1:A:1358:SER:OG	2.33	0.45
2:B:112:LEU:HA	2:B:112:LEU:HD12	1.72	0.45
2:B:444:MET:HE3	2:B:448:ILE:HG13	1.98	0.45
2:B:755:ILE:O	2:B:983:ARG:NH1	2.49	0.45
3:C:25:VAL:H	3:C:226:ASP:HB2	1.80	0.45
3:C:45:ALA:HB3	3:C:170:TRP:HE1	1.82	0.45
4:D:69:ALA:HA	4:D:72:ARG:HB3	1.98	0.45
4:D:141:LEU:O	4:D:144:THR:OG1	2.21	0.45
5:E:145:THR:HG21	5:E:187:TYR:CE2	2.51	0.45
8:H:25:ARG:HD3	8:H:25:ARG:HA	1.73	0.45
11:K:38:GLU:OE1	11:K:38:GLU:N	2.50	0.45
13:M:252:VAL:HB	13:M:289:PHE:CE2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:281:SER:C	13:M:285:ASN:HD22	2.20	0.45
14:Q:386:MET:CE	15:R:92:LEU:HA	2.43	0.45
20:T:117:DC:C4	20:T:118:DA:N6	2.84	0.45
20:T:140:DT:C6	20:T:141:DT:H72	2.50	0.45
21:N:12:DG:C2	21:N:13:DG:C2	3.04	0.45
21:N:39:DG:N2	21:N:40:DA:N3	2.65	0.45
22:O:162:GLY:O	22:O:214:LEU:N	2.37	0.45
22:O:230:ILE:O	22:O:234:LEU:HG	2.17	0.45
24:4:196:ILE:O	24:4:200:ILE:HG13	2.17	0.45
25:0:31:THR:HG21	25:0:38:SER:HB2	1.98	0.45
25:0:117:HIS:HA	25:0:158:TYR:CE2	2.52	0.45
25:0:139:GLY:N	25:0:303:GLU:HB2	2.20	0.45
25:0:145:LEU:HD22	25:0:153:VAL:O	2.17	0.45
25:0:177:SER:O	25:0:180:LYS:N	2.49	0.45
25:0:185:CYS:SG	25:0:192:PRO:HB3	2.56	0.45
25:0:237:ALA:N	25:0:460:SER:OG	2.45	0.45
26:6:424:UNK:O	26:6:426:ARG:N	2.48	0.45
29:7:419:GLN:O	29:7:423:GLN:HG2	2.17	0.45
1:A:252:PHE:CB	13:M:63:TRP:HB2	2.46	0.45
1:A:636:GLU:OE2	1:A:962:ARG:HD2	2.17	0.45
1:A:803:SER:O	1:A:805:LEU:N	2.49	0.45
1:A:1001:ARG:CZ	6:F:83:PRO:HD2	2.47	0.45
1:A:1194:ARG:HG3	1:A:1239:ARG:HD2	1.99	0.45
1:A:1286:LYS:O	1:A:1287:TYR:HD1	1.98	0.45
1:A:1446:ASP:HB2	6:F:133:VAL:HB	1.99	0.45
2:B:487:THR:O	2:B:488:TYR:C	2.60	0.45
3:C:200:GLU:N	3:C:200:GLU:OE1	2.50	0.45
17:V:82:ASN:HA	17:V:109:ASP:HA	1.98	0.45
19:X:277:LYS:HD2	19:X:278:LEU:N	2.32	0.45
23:1:370:UNK:C	23:1:372:VAL:H	2.30	0.45
25:0:510:PHE:O	25:0:511:GLU:HG3	2.15	0.45
26:6:291:LEU:O	26:6:292:LEU:HD23	2.16	0.45
27:2:236:ALA:O	27:2:241:ALA:N	2.29	0.45
27:2:347:ILE:CD1	27:2:364:VAL:HG21	2.47	0.45
1:A:100:LYS:HD3	1:A:176:LYS:HB2	1.98	0.45
1:A:394:ASN:HD22	1:A:398:GLU:CD	2.24	0.45
1:A:407:ARG:HG2	1:A:430:TRP:CE2	2.52	0.45
1:A:449:SER:O	1:A:449:SER:OG	2.31	0.45
1:A:546:VAL:HG21	1:A:572:TRP:CE3	2.52	0.45
1:A:637:LYS:HB3	1:A:641:VAL:HG21	1.99	0.45
1:A:809:THR:HG22	2:B:728:ARG:HD3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:510:LYS:HD3	2:B:510:LYS:HA	1.70	0.45
2:B:911:ILE:HD11	2:B:941:LEU:HB2	1.98	0.45
2:B:1167:GLY:HA3	2:B:1216:LEU:N	2.32	0.45
3:C:11:ARG:NE	3:C:19:ASP:OD2	2.44	0.45
4:D:50:LEU:HB2	4:D:55:ALA:HB2	1.98	0.45
5:E:109:ILE:HG23	5:E:133:GLU:HB2	1.99	0.45
5:E:192:ARG:HD3	5:E:215:MET:OXT	2.17	0.45
12:L:51:CYS:C	12:L:53:HIS:H	2.23	0.45
13:M:239:ILE:HD12	13:M:282:ILE:HD11	1.98	0.45
14:Q:141:ARG:HB3	14:Q:348:TYR:HB3	1.98	0.45
23:1:224:UNK:O	23:1:226:GLN:N	2.48	0.45
23:1:256:ILE:HG21	23:1:284:TRP:CZ2	2.51	0.45
25:0:139:GLY:O	25:0:143:ARG:HG3	2.16	0.45
25:0:263:GLY:HA3	25:0:399:LEU:HD11	1.99	0.45
25:0:297:ASP:O	25:0:386:ARG:NH1	2.45	0.45
25:0:304:GLU:HB3	25:0:386:ARG:HD3	1.99	0.45
25:0:598:LEU:HD23	25:0:612:PHE:HZ	1.82	0.45
26:6:152:TYR:HE2	26:6:298:LYS:HB2	1.81	0.45
26:6:349:CYS:SG	26:6:363:CYS:CB	2.94	0.45
29:7:365:TYR:HB3	29:7:544:SER:N	2.31	0.45
29:7:598:HIS:O	29:7:603:ASP:N	2.41	0.45
29:7:757:ARG:O	29:7:761:GLN:HG2	2.17	0.45
30:3:44:ASP:HA	30:3:47:PHE:CE2	2.51	0.45
1:A:598:LEU:HD11	8:H:124:ARG:HD2	1.98	0.45
1:A:1135:ARG:HG3	1:A:1284:MET:HE2	1.99	0.45
1:A:1412:ALA:O	1:A:1416:ALA:N	2.50	0.45
2:B:797:TYR:CB	2:B:798:TYR:HD1	2.29	0.45
2:B:995:ARG:CD	3:C:165:LYS:HG3	2.47	0.45
2:B:1129:ARG:O	2:B:1131:GLY:N	2.49	0.45
2:B:1212:ILE:O	2:B:1214:PRO:HD3	2.17	0.45
3:C:34:ARG:O	3:C:37:MET:HB2	2.17	0.45
4:D:124:GLU:HA	4:D:127:ASP:HB2	1.99	0.45
4:D:147:TYR:CD2	4:D:148:LEU:HD23	2.52	0.45
4:D:206:GLU:O	4:D:209:ARG:HG2	2.17	0.45
5:E:78:LEU:HD21	5:E:109:ILE:HD12	1.97	0.45
5:E:96:PHE:O	5:E:100:ILE:HG13	2.17	0.45
7:G:48:VAL:HG13	7:G:76:ALA:HB2	1.98	0.45
9:I:74:GLU:CB	9:I:81:ARG:HG2	2.47	0.45
11:K:50:LEU:HA	11:K:50:LEU:HD23	1.62	0.45
14:Q:104:ARG:NH1	14:Q:105:ALA:HB3	2.31	0.45
14:Q:343:ARG:NH1	14:Q:393:TYR:OH	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:Q:349:PRO:HB2	14:Q:362:VAL:CG1	2.47	0.45
17:V:71:PHE:HA	17:V:75:VAL:O	2.17	0.45
25:0:24:TYR:CD2	25:0:42:MET:SD	3.10	0.45
25:0:259:ARG:HB2	25:0:398:ALA:CB	2.47	0.45
25:0:421:GLU:HB2	25:0:434:ILE:HG13	1.98	0.45
25:0:752:LYS:O	25:0:752:LYS:HG2	2.17	0.45
27:2:71:LYS:HD2	27:2:71:LYS:C	2.42	0.45
27:2:417:GLU:CD	27:2:430:LEU:HD12	2.41	0.45
29:7:306:GLU:HG3	29:7:342:ASP:OD1	2.17	0.45
29:7:307:ASP:HB3	29:7:339:GLU:OE1	2.16	0.45
29:7:345:ASN:O	29:7:508:HIS:CG	2.70	0.45
30:3:47:PHE:HD2	30:3:68:PHE:CE2	2.34	0.45
1:A:407:ARG:CB	1:A:411:ASP:HB3	2.47	0.45
1:A:711:ARG:NE	9:I:97:MET:HE1	2.31	0.45
1:A:1134:ILE:O	1:A:1135:ARG:C	2.60	0.45
1:A:1225:PHE:O	1:A:1240:CYS:HA	2.17	0.45
2:B:117:ALA:HA	2:B:122:LEU:HB2	1.98	0.45
2:B:494:HIS:HD2	2:B:497:ARG:HD2	1.82	0.45
2:B:1155:SER:OG	2:B:1156:ASP:N	2.50	0.45
3:C:49:VAL:HG22	3:C:157:CYS:SG	2.57	0.45
7:G:62:LEU:HD21	7:G:69:GLU:HG2	1.98	0.45
13:M:180:CYS:SG	13:M:187:ARG:HG2	2.57	0.45
15:R:74:PRO:HG2	15:R:76:PHE:CE1	2.51	0.45
18:W:101:LYS:O	18:W:105:VAL:HG13	2.17	0.45
25:0:312:LEU:O	25:0:314:GLN:N	2.48	0.45
27:2:405:HIS:O	27:2:408:MET:N	2.50	0.45
28:5:36:ASP:OD1	28:5:39:HIS:ND1	2.47	0.45
29:7:404:LYS:O	29:7:405:LYS:HD3	2.17	0.45
29:7:754:ARG:O	29:7:758:GLU:HG2	2.17	0.45
29:7:759:LEU:HD12	29:7:762:GLU:HB2	1.98	0.45
1:A:22:PHE:CE1	2:B:1213:THR:HG22	2.52	0.45
1:A:53:LEU:HD21	1:A:266:LEU:HB2	1.99	0.45
1:A:61:ILE:H	1:A:65:LEU:HD22	1.82	0.45
1:A:598:LEU:HD21	8:H:124:ARG:HB2	1.98	0.45
1:A:784:LEU:HA	1:A:784:LEU:HD23	1.77	0.45
1:A:956:LEU:HD23	1:A:956:LEU:HA	1.76	0.45
1:A:973:ILE:O	1:A:975:HIS:ND1	2.50	0.45
1:A:1267:MET:HE3	1:A:1267:MET:HB3	1.83	0.45
2:B:26:THR:HA	2:B:708:GLU:OE1	2.17	0.45
2:B:253:THR:O	2:B:253:THR:OG1	2.29	0.45
2:B:757:PRO:HD3	2:B:983:ARG:NH1	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1037:LEU:HD13	2:B:1062:HIS:HB3	1.99	0.45
6:F:138:LEU:HB3	6:F:139:PRO:HD2	1.98	0.45
10:J:53:HIS:CG	10:J:54:VAL:N	2.84	0.45
11:K:37:LYS:HA	11:K:69:ALA:HB3	1.98	0.45
14:Q:139:LEU:HA	14:Q:351:VAL:O	2.17	0.45
15:R:123:GLU:HG3	15:R:223:GLN:O	2.16	0.45
18:W:5:ILE:HG21	18:W:194:ILE:HD12	1.99	0.45
23:1:195:PHE:O	23:1:199:VAL:N	2.50	0.45
25:0:67:ARG:O	25:0:68:LYS:HE2	2.17	0.45
25:0:91:ASP:O	25:0:94:THR:OG1	2.30	0.45
25:0:413:GLU:C	25:0:414:GLU:HG3	2.42	0.45
26:6:159:GLU:HB3	26:6:305:VAL:HG21	1.99	0.45
27:2:30:ALA:HB2	27:2:120:SER:CA	2.47	0.45
29:7:345:ASN:O	29:7:508:HIS:ND1	2.50	0.45
29:7:474:MET:HE1	29:7:477:LEU:HD22	1.97	0.45
30:3:50:GLY:HA2	30:3:65:LYS:CG	2.47	0.45
1:A:34:LYS:HD3	1:A:34:LYS:HA	1.74	0.44
1:A:99:ILE:HG13	1:A:234:MET:HE2	1.99	0.44
1:A:344:ARG:O	2:B:1118:PRO:HD2	2.17	0.44
1:A:360:GLU:O	1:A:363:GLN:N	2.36	0.44
1:A:898:ARG:HD3	1:A:933:TYR:CE2	2.52	0.44
1:A:915:SER:C	1:A:919:ILE:HG12	2.43	0.44
1:A:1017:LEU:HD12	1:A:1020:CYS:HB2	1.99	0.44
2:B:273:LEU:HD12	2:B:273:LEU:H	1.82	0.44
2:B:373:ARG:CG	2:B:566:LEU:HD23	2.47	0.44
2:B:485:ARG:HA	2:B:491:THR:OG1	2.16	0.44
2:B:485:ARG:NH1	2:B:782:LEU:HD11	2.32	0.44
2:B:620:ARG:HH11	9:I:89:GLN:HE22	1.65	0.44
2:B:1151:LEU:HD23	2:B:1151:LEU:HA	1.66	0.44
2:B:1167:GLY:O	2:B:1215:ARG:HA	2.17	0.44
4:D:118:THR:OG1	4:D:119:ARG:N	2.50	0.44
7:G:146:LYS:O	7:G:161:GLY:HA3	2.18	0.44
8:H:78:SER:O	8:H:80:ARG:NH2	2.48	0.44
9:I:27:PHE:HD2	9:I:37:GLU:O	2.00	0.44
13:M:275:ILE:HG12	22:O:188:GLU:CD	2.42	0.44
15:R:99:LYS:NZ	15:R:104:ILE:HD11	2.32	0.44
18:W:98:ILE:HG23	19:X:263:TRP:CH2	2.52	0.44
23:1:238:UNK:CB	23:1:296:LEU:HD21	2.47	0.44
24:4:263:VAL:C	24:4:265:PRO:HD3	2.42	0.44
25:0:37:ASN:ND2	25:0:475:PHE:HD2	2.02	0.44
25:0:327:ARG:HB3	25:0:330:HIS:CG	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:6:120:ARG:HB3	26:6:307:PRO:CB	2.46	0.44
27:2:51:VAL:HG21	27:2:108:LEU:HD23	1.98	0.44
27:2:257:GLY:C	27:2:274:LEU:HD12	2.42	0.44
27:2:353:SER:HB2	27:2:356:GLN:CB	2.47	0.44
27:2:405:HIS:O	27:2:409:ARG:N	2.49	0.44
28:5:16:ILE:HD13	28:5:19:LEU:HD12	1.98	0.44
29:7:365:TYR:CE1	29:7:548:HIS:CE1	3.05	0.44
29:7:670:LEU:HD12	29:7:671:ILE:N	2.31	0.44
29:7:679:SER:OG	29:7:681:ARG:HG2	2.16	0.44
1:A:666:ILE:HD12	2:B:1086:PHE:HE2	1.82	0.44
1:A:711:ARG:NH2	9:I:95:THR:HB	2.32	0.44
1:A:1105:LEU:O	1:A:1107:VAL:N	2.51	0.44
1:A:1325:THR:O	5:E:148:GLU:HG3	2.17	0.44
2:B:72:GLU:O	14:Q:330:ARG:HA	2.17	0.44
2:B:136:THR:O	2:B:150:GLU:HA	2.17	0.44
2:B:714:GLU:HB3	2:B:733:HIS:CE1	2.52	0.44
2:B:1130:PHE:CE2	2:B:1150:ARG:HG2	2.53	0.44
5:E:200:ARG:NH2	5:E:208:TYR:CD2	2.86	0.44
7:G:1:MET:HB2	7:G:3:PHE:HE1	1.82	0.44
8:H:26:ILE:O	8:H:39:THR:HA	2.17	0.44
13:M:27:CYS:HB3	13:M:29:VAL:HG13	1.99	0.44
13:M:325:ASP:HB3	13:M:326:PRO:HD3	2.00	0.44
22:O:211:LYS:O	22:O:212:ILE:HD13	2.17	0.44
25:0:603:ARG:HH22	25:0:658:ALA:HA	1.82	0.44
29:7:583:MET:HE1	29:7:756:ARG:O	2.17	0.44
29:7:592:GLN:OE1	29:7:747:ASN:HB3	2.17	0.44
29:7:677:TYR:HE2	29:7:686:ARG:HB2	1.83	0.44
30:3:37:ARG:HB2	30:3:56:TYR:CE1	2.51	0.44
1:A:33:ALA:HA	1:A:57:ARG:CZ	2.47	0.44
1:A:60:SER:HB2	1:A:65:LEU:HB3	2.00	0.44
1:A:369:SER:OG	1:A:370:ILE:N	2.50	0.44
1:A:804:TYR:OH	2:B:763:GLN:HG3	2.17	0.44
1:A:1029:ARG:NH1	1:A:1033:GLN:OE1	2.45	0.44
1:A:1257:ASP:OD1	1:A:1258:HIS:N	2.49	0.44
2:B:91:SER:OG	2:B:133:LYS:HB2	2.17	0.44
2:B:257:LYS:O	2:B:269:ILE:HG23	2.18	0.44
2:B:259:TYR:HE2	2:B:270:LYS:HD2	1.81	0.44
2:B:613:VAL:HG12	2:B:615:MET:SD	2.58	0.44
3:C:162:GLY:HA3	3:C:170:TRP:CZ3	2.53	0.44
11:K:7:PHE:HB2	11:K:11:LEU:HB2	1.98	0.44
13:M:137:CYS:SG	13:M:147:LYS:HB2	2.58	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:N:38:DC:C2'	21:N:39:DG:C8	2.87	0.44
23:1:215:PRO:O	23:1:219:UNK:N	2.50	0.44
23:1:492:UNK:O	23:1:495:UNK:N	2.50	0.44
24:4:163:ILE:HA	24:4:166:GLU:HG3	1.99	0.44
25:0:208:TYR:CD2	25:0:212:TYR:HB2	2.52	0.44
25:0:290:VAL:HA	25:0:321:ILE:CG2	2.47	0.44
25:0:625:ILE:CG1	25:0:658:ALA:HB1	2.47	0.44
27:2:368:ALA:N	27:2:375:LEU:HB3	2.28	0.44
29:7:417:VAL:HG13	29:7:454:VAL:CG2	2.46	0.44
29:7:430:LEU:HD11	29:7:435:CYS:SG	2.57	0.44
1:A:28:ARG:HH21	1:A:238:CYS:HB2	1.82	0.44
1:A:424:ILE:HG22	1:A:425:GLN:N	2.33	0.44
1:A:883:LEU:O	1:A:886:ILE:HG22	2.16	0.44
1:A:1155:ASP:HA	1:A:1162:VAL:CG1	2.48	0.44
1:A:1156:PRO:HA	1:A:1190:PRO:HB3	1.99	0.44
1:A:1283:VAL:HG12	1:A:1284:MET:O	2.18	0.44
1:A:1386:ARG:HG2	1:A:1403:GLU:CG	2.37	0.44
1:A:1386:ARG:CD	1:A:1403:GLU:HG2	2.47	0.44
2:B:324:ILE:HG21	2:B:330:ALA:HB2	1.98	0.44
2:B:649:LYS:HZ3	2:B:738:PHE:HB2	1.82	0.44
2:B:684:LEU:HD23	2:B:689:LEU:HD12	1.98	0.44
2:B:1110:PRO:O	2:B:1119:VAL:HG13	2.17	0.44
4:D:168:LYS:HE2	4:D:168:LYS:HA	2.00	0.44
7:G:163:ILE:HA	7:G:168:LEU:HD13	2.00	0.44
8:H:11:GLN:O	8:H:28:ALA:HA	2.18	0.44
9:I:45:ARG:HH11	9:I:47:GLU:HB2	1.83	0.44
9:I:74:GLU:O	9:I:76:PRO:HD3	2.17	0.44
13:M:167:SER:C	13:M:169:GLU:H	2.24	0.44
20:T:147:DT:O2	21:N:19:DA:H2	2.00	0.44
23:1:185:LEU:HD11	23:1:195:PHE:HB3	1.99	0.44
23:1:339:LEU:O	23:1:343:ILE:HG12	2.17	0.44
24:4:188:ASP:O	24:4:190:ILE:HG23	2.17	0.44
24:4:239:GLU:OE1	24:4:240:SER:N	2.49	0.44
25:0:90:MET:HE2	25:0:101:GLU:HG2	1.99	0.44
25:0:167:VAL:HA	25:0:198:ARG:NE	2.33	0.44
26:6:136:MET:HB3	26:6:146:HIS:CB	2.45	0.44
27:2:350:TYR:HA	27:2:372:ASN:HB2	2.00	0.44
30:3:30:VAL:HG23	30:3:37:ARG:HH12	1.82	0.44
1:A:147:VAL:HG23	1:A:147:VAL:O	2.17	0.44
1:A:569:LYS:NZ	3:C:221:TYR:O	2.51	0.44
1:A:578:LEU:HA	1:A:578:LEU:HD12	1.67	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1152:ILE:HG22	1:A:1193:LEU:HD13	1.98	0.44
2:B:108:VAL:HG23	13:M:244:SER:OG	2.17	0.44
2:B:887:HIS:H	2:B:887:HIS:CD2	2.34	0.44
2:B:996:ARG:HH21	3:C:38:ILE:HG12	1.81	0.44
2:B:1030:LEU:HD11	2:B:1059:LEU:HD22	2.00	0.44
5:E:180:ARG:NH2	5:E:191:LYS:HA	2.32	0.44
13:M:144:LYS:HD3	13:M:144:LYS:HA	1.80	0.44
13:M:171:ILE:HG22	13:M:206:THR:HG21	1.99	0.44
16:U:247:LEU:HD13	17:V:116:CYS:HB3	1.99	0.44
18:W:35:HIS:ND1	18:W:38:LEU:HD13	2.31	0.44
18:W:174:ARG:HH21	19:X:256:ASP:CG	2.26	0.44
21:N:22:DT:H1'	22:O:159:ASN:ND2	2.33	0.44
22:O:137:ARG:HG2	22:O:152:PHE:CD2	2.51	0.44
23:1:253:ARG:HG2	23:1:257:LEU:HD23	2.00	0.44
25:0:529:PHE:O	25:0:533:THR:HG22	2.18	0.44
25:0:740:SER:OG	25:0:744:LEU:HD22	2.17	0.44
26:6:325:PRO:HB3	26:6:370:LEU:HD13	1.99	0.44
26:6:370:LEU:HA	26:6:370:LEU:HD23	1.78	0.44
27:2:457:SER:HB3	28:5:6:LYS:HG2	1.99	0.44
29:7:221:GLY:O	29:7:338:LEU:HB2	2.17	0.44
29:7:351:ASP:HB3	29:7:404:LYS:HZ2	1.82	0.44
29:7:352:LEU:HD23	29:7:452:LEU:HD23	2.00	0.44
29:7:370:LEU:HB3	29:7:374:PHE:CD2	2.53	0.44
29:7:384:ILE:HA	29:7:536:TYR:HB3	2.00	0.44
30:3:49:LEU:HD11	30:3:52:ALA:HB2	2.00	0.44
1:A:253:ASN:C	1:A:255:SER:N	2.75	0.44
1:A:326:ARG:NE	1:A:1406:VAL:HG21	2.31	0.44
1:A:757:ASN:ND2	2:B:1019:SER:HA	2.33	0.44
1:A:944:ARG:NH2	1:A:1296:GLY:O	2.46	0.44
2:B:634:TYR:HE2	2:B:692:TYR:CD1	2.36	0.44
2:B:994:TYR:HB2	2:B:999:MET:SD	2.57	0.44
3:C:180:TYR:O	3:C:181:ASP:C	2.60	0.44
5:E:15:ALA:O	5:E:19:VAL:HG23	2.18	0.44
6:F:140:ASP:OD1	6:F:140:ASP:C	2.61	0.44
8:H:35:GLN:HA	8:H:37:LYS:HZ3	1.82	0.44
13:M:172:MET:HA	13:M:172:MET:HE3	2.00	0.44
13:M:320:ARG:HA	13:M:323:LEU:HB3	2.00	0.44
15:R:98:ASN:HB2	15:R:103:LYS:O	2.17	0.44
18:W:124:CYS:O	18:W:128:LEU:HA	2.17	0.44
22:O:105:ARG:HG2	22:O:112:THR:HA	1.99	0.44
24:4:153:MET:HE1	24:4:199:CYS:CB	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:0:327:ARG:CG	25:0:330:HIS:H	2.27	0.44
25:0:448:PRO:HA	25:0:451:GLU:HB3	1.99	0.44
25:0:573:THR:O	25:0:579:THR:OG1	2.36	0.44
27:2:102:PRO:O	27:2:106:ILE:HG22	2.17	0.44
29:7:498:PHE:CA	29:7:501:VAL:HG22	2.38	0.44
29:7:504:THR:HB	29:7:505:ILE:HD12	2.00	0.44
29:7:562:THR:HB	29:7:756:ARG:NH1	2.32	0.44
29:7:613:TYR:HB3	29:7:766:LYS:HG3	2.00	0.44
29:7:699:GLU:HG3	29:7:701:PHE:H	1.81	0.44
30:3:46:ILE:CD1	30:3:54:CYS:HA	2.48	0.44
1:A:35:ILE:HG21	1:A:53:LEU:HD12	1.99	0.44
1:A:316:GLN:HE21	1:A:317:LYS:H	1.64	0.44
1:A:362:ASP:O	1:A:459:ARG:N	2.47	0.44
1:A:1157:ASP:OD2	1:A:1160:SER:OG	2.33	0.44
1:A:1452:LYS:HD2	6:F:129:LYS:NZ	2.33	0.44
2:B:785:TYR:CD1	2:B:785:TYR:C	2.96	0.44
2:B:891:ASP:OD1	2:B:891:ASP:N	2.50	0.44
2:B:1010:LEU:HD23	2:B:1092:TYR:CE2	2.53	0.44
8:H:22:LYS:HE2	8:H:22:LYS:HB2	1.79	0.44
8:H:35:GLN:HE21	8:H:128:ASN:ND2	2.15	0.44
8:H:58:THR:O	8:H:143:LEU:N	2.44	0.44
15:R:73:LEU:HD23	15:R:77:LEU:HD22	1.99	0.44
18:W:174:ARG:HB3	19:X:259:PHE:HZ	1.83	0.44
19:X:218:ASP:OD1	19:X:218:ASP:N	2.51	0.44
21:N:33:DT:H2''	21:N:34:DG:C8	2.52	0.44
23:1:343:ILE:HD13	25:0:576:ALA:CB	2.48	0.44
24:4:202:SER:HA	24:4:205:LYS:HB3	1.99	0.44
24:4:221:SER:O	24:4:225:GLN:N	2.32	0.44
25:0:39:ILE:HG22	25:0:480:GLN:HG2	1.98	0.44
25:0:216:PRO:HA	25:0:219:ALA:HB3	1.99	0.44
25:0:330:HIS:NE2	30:3:115:ASP:N	2.65	0.44
27:2:7:LYS:NZ	27:2:9:SER:HA	2.33	0.44
27:2:405:HIS:CE1	27:2:409:ARG:HA	2.52	0.44
29:7:585:PRO:HG3	29:7:759:LEU:HD23	1.99	0.44
29:7:592:GLN:NE2	29:7:746:PRO:HG2	2.33	0.44
29:7:670:LEU:HD23	29:7:691:LEU:HG	2.00	0.44
1:A:590:ARG:NH2	1:A:621:THR:HG1	2.14	0.44
1:A:599:SER:OG	1:A:602:ASP:HA	2.18	0.44
1:A:902:LEU:HD21	1:A:923:LEU:HD21	2.00	0.44
1:A:1445:ILE:HA	6:F:132:LEU:HD12	2.00	0.44
2:B:313:MET:CE	2:B:390:LEU:HD21	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:313:MET:HB2	2:B:313:MET:HE2	1.72	0.44
2:B:935:ARG:HH11	2:B:935:ARG:HD3	1.61	0.44
3:C:48:SER:OG	3:C:158:VAL:HB	2.18	0.44
3:C:204:SER:OG	3:C:207:CYS:N	2.50	0.44
8:H:63:LEU:CD2	8:H:141:TYR:CE2	2.96	0.44
11:K:18:LYS:HD2	11:K:36:GLU:O	2.18	0.44
15:R:104:ILE:HG21	15:R:122:LEU:HD13	2.00	0.44
18:W:99:LYS:HE3	19:X:278:LEU:HD22	1.99	0.44
18:W:160:ASP:OD2	18:W:161:SER:N	2.47	0.44
21:N:29:DT:H2''	21:N:30:DC:H6	1.83	0.44
23:1:255:LYS:HA	23:1:255:LYS:HD3	1.73	0.44
23:1:278:PHE:HB3	23:1:279:LYS:H	1.70	0.44
24:4:253:PHE:CG	24:4:253:PHE:O	2.71	0.44
25:0:148:ASP:O	25:0:150:GLU:HG2	2.18	0.44
25:0:185:CYS:HB3	25:0:190:LEU:O	2.18	0.44
25:0:322:PRO:CB	25:0:325:ILE:HB	2.44	0.44
25:0:538:VAL:HG11	25:0:612:PHE:CZ	2.52	0.44
25:0:642:MET:HE3	25:0:642:MET:HB3	1.91	0.44
27:2:24:ARG:NH1	27:2:219:VAL:HG11	2.33	0.44
27:2:36:TYR:HE1	27:2:44:LYS:HA	1.83	0.44
27:2:71:LYS:O	27:2:75:GLN:OE1	2.36	0.44
27:2:201:TRP:CZ3	27:2:278:LEU:HD21	2.52	0.44
27:2:454:TYR:N	28:5:9:LEU:O	2.49	0.44
29:7:594:LEU:HB3	29:7:598:HIS:CE1	2.53	0.44
30:3:51:PRO:O	30:3:62:ILE:HD12	2.18	0.44
1:A:279:LEU:HG	1:A:289:ILE:HD13	2.00	0.44
1:A:335:ARG:HE	2:B:1202:LEU:CD2	2.28	0.44
1:A:446:ARG:HB2	1:A:487:MET:SD	2.57	0.44
1:A:567:LYS:HA	1:A:568:PRO:HA	1.55	0.44
1:A:809:THR:O	1:A:810:PRO:C	2.61	0.44
1:A:1265:ASN:O	1:A:1269:GLU:HG3	2.17	0.44
2:B:287:ARG:CD	2:B:292:ILE:HA	2.41	0.44
2:B:739:THR:C	2:B:740:HIS:ND1	2.75	0.44
3:C:181:ASP:OD1	3:C:186:LEU:N	2.51	0.44
4:D:120:GLU:O	4:D:123:LEU:HB3	2.17	0.44
5:E:79:TRP:HD1	5:E:96:PHE:HE1	1.66	0.44
10:J:13:VAL:HG13	10:J:17:LYS:HE2	2.00	0.44
14:Q:102:PRO:C	14:Q:383:SER:HG	2.25	0.44
21:N:3:DA:H2''	21:N:4:DA:C8	2.53	0.44
25:0:283:GLN:O	25:0:286:TYR:N	2.50	0.44
25:0:495:MET:O	25:0:681:LEU:N	2.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:0:745:ILE:HA	25:0:749:ASN:OD1	2.18	0.44
26:6:132:CYS:HA	26:6:204:PRO:HB3	1.99	0.44
26:6:246:ASP:HB3	26:6:249:GLN:HB3	2.00	0.44
27:2:503:ASP:OD1	27:2:507:ARG:NH1	2.51	0.44
29:7:305:GLU:HG2	29:7:323:VAL:HG11	2.00	0.44
29:7:324:GLU:HG3	29:7:325:VAL:N	2.32	0.44
29:7:438:PHE:O	29:7:459:MET:HG3	2.18	0.44
29:7:577:ARG:NH1	29:7:714:GLN:HB2	2.32	0.44
1:A:36:ARG:N	1:A:51:GLY:O	2.37	0.43
1:A:224:PHE:CE2	1:A:231:PRO:HG3	2.53	0.43
1:A:524:VAL:HG13	1:A:524:VAL:O	2.17	0.43
1:A:752:LYS:HD2	1:A:752:LYS:HA	1.91	0.43
1:A:838:GLN:CG	1:A:1073:GLY:HA3	2.48	0.43
1:A:854:ASN:O	1:A:867:ILE:HA	2.17	0.43
1:A:1163:ILE:HD12	1:A:1163:ILE:H	1.82	0.43
2:B:1152:MET:HE1	2:B:1197:PRO:HD3	1.99	0.43
3:C:203:GLN:HB3	3:C:207:CYS:SG	2.58	0.43
4:D:63:LEU:CB	4:D:130:LEU:HD13	2.47	0.43
13:M:293:ILE:O	13:M:294:THR:C	2.60	0.43
16:U:285:TRP:CZ2	22:O:91:ASN:ND2	2.84	0.43
17:V:84:GLN:OE1	17:V:84:GLN:N	2.51	0.43
18:W:102:VAL:HG22	18:W:179:ILE:HD11	2.00	0.43
18:W:191:ASP:OD1	18:W:192:SER:N	2.51	0.43
23:1:337:ILE:CD1	25:0:587:ARG:HD2	2.48	0.43
24:4:84:LYS:HD3	24:4:131:LYS:NZ	2.32	0.43
24:4:122:ASP:O	24:4:126:VAL:HG23	2.18	0.43
25:0:112:LYS:HE3	25:0:121:SER:O	2.18	0.43
25:0:642:MET:HE2	25:0:653:PHE:CD2	2.53	0.43
29:7:385:VAL:HG22	29:7:536:TYR:O	2.18	0.43
29:7:496:ALA:HA	29:7:499:ARG:HB2	2.00	0.43
29:7:592:GLN:HE22	29:7:747:ASN:HB3	1.83	0.43
29:7:597:TYR:O	29:7:601:ARG:HG2	2.18	0.43
29:7:660:THR:HA	29:7:661:SER:HA	1.74	0.43
29:7:715:GLU:O	29:7:719:SER:N	2.38	0.43
1:A:21:LEU:HD21	1:A:95:PHE:CZ	2.53	0.43
1:A:206:GLU:O	1:A:209:ASN:N	2.51	0.43
1:A:573:SER:OG	8:H:119:GLY:O	2.26	0.43
1:A:1336:MET:O	1:A:1340:GLY:N	2.49	0.43
2:B:797:TYR:HE1	2:B:854:LEU:HG	1.83	0.43
2:B:1094:ARG:HG2	2:B:1095:LEU:H	1.83	0.43
9:I:12:ASN:HB2	9:I:29:CYS:SG	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:16:PRO:HA	9:I:26:LEU:O	2.18	0.43
10:J:12:LYS:HZ3	10:J:41:LEU:HA	1.84	0.43
13:M:96:ILE:HG22	13:M:97:GLY:N	2.33	0.43
18:W:112:ASP:O	18:W:168:LYS:HG3	2.18	0.43
20:T:136:DG:C6	20:T:137:DA:C6	3.06	0.43
20:T:139:DA:H2'	20:T:140:DT:H71	1.99	0.43
21:N:23:DA:H8	21:N:23:DA:O5'	2.01	0.43
24:4:271:ASP:CG	24:4:273:ARG:HH11	2.26	0.43
25:0:2:LYS:CE	25:0:9:PRO:HB3	2.47	0.43
25:0:496:ILE:O	25:0:708:LEU:N	2.51	0.43
25:0:557:MET:HE3	25:0:559:ILE:HB	2.00	0.43
26:6:378:ARG:HA	26:6:381:HIS:CD2	2.53	0.43
27:2:22:GLN:NE2	27:2:84:LEU:HA	2.34	0.43
27:2:419:LYS:HD2	27:2:419:LYS:HA	1.78	0.43
30:3:13:CYS:SG	30:3:39:CYS:N	2.89	0.43
1:A:375:THR:OG1	1:A:376:TYR:N	2.52	0.43
1:A:720:ARG:O	1:A:724:GLU:HG3	2.17	0.43
1:A:857:ARG:HB3	1:A:863:VAL:HA	2.01	0.43
1:A:1317:MET:HE2	1:A:1317:MET:HB3	1.70	0.43
2:B:286:PHE:HE2	2:B:300:HIS:HB2	1.83	0.43
2:B:322:PHE:HD1	2:B:325:GLN:NE2	2.16	0.43
2:B:541:LEU:HD23	2:B:541:LEU:HA	1.77	0.43
2:B:578:THR:HA	2:B:622:LYS:O	2.19	0.43
2:B:586:TRP:C	2:B:586:TRP:CD1	2.93	0.43
2:B:684:LEU:HD23	2:B:689:LEU:CD1	2.48	0.43
2:B:875:GLU:O	2:B:877:PRO:HD3	2.18	0.43
3:C:199:LYS:HB3	3:C:200:GLU:OE1	2.18	0.43
4:D:179:GLN:O	4:D:183:LEU:HG	2.18	0.43
6:F:97:ARG:HD2	6:F:100:GLN:NE2	2.33	0.43
7:G:119:LEU:HD11	7:G:130:TYR:C	2.44	0.43
8:H:22:LYS:O	8:H:44:VAL:HG22	2.18	0.43
9:I:75:CYS:HB3	9:I:80:SER:H	1.83	0.43
9:I:103:CYS:HB3	9:I:108:HIS:N	2.33	0.43
13:M:142:LEU:HD12	13:M:146:VAL:HG21	2.00	0.43
18:W:102:VAL:HA	18:W:105:VAL:HG22	2.00	0.43
22:O:71:VAL:HB	22:O:159:ASN:HB3	2.00	0.43
25:0:38:SER:O	25:0:40:LEU:HG	2.18	0.43
25:0:286:TYR:O	25:0:289:LEU:HB2	2.18	0.43
25:0:306:PHE:CE1	25:0:385:VAL:HG11	2.53	0.43
25:0:361:GLN:O	25:0:365:GLN:N	2.51	0.43
25:0:510:PHE:CE2	25:0:511:GLU:HB2	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:0:519:VAL:HG13	25:0:554:TRP:HE1	1.83	0.43
26:6:271:ALA:O	26:6:274:LYS:HB2	2.18	0.43
27:2:35:ILE:HD11	27:2:104:PHE:CE1	2.53	0.43
27:2:483:TRP:CD2	28:5:39:HIS:CE1	3.06	0.43
28:5:32:LEU:H	28:5:42:VAL:HA	1.83	0.43
29:7:573:THR:HA	29:7:577:ARG:NH2	2.33	0.43
1:A:101:LYS:HB3	1:A:135:PHE:HZ	1.84	0.43
1:A:203:SER:HB3	1:A:206:GLU:HG2	2.00	0.43
1:A:552:TRP:NE1	1:A:655:PHE:CD2	2.86	0.43
2:B:283:VAL:HG21	2:B:318:VAL:HA	2.00	0.43
2:B:416:LEU:HD21	2:B:460:ALA:CB	2.47	0.43
2:B:1106:ARG:CZ	2:B:1118:PRO:HB3	2.48	0.43
2:B:1106:ARG:HE	2:B:1109:GLY:HA3	1.82	0.43
4:D:26:THR:OG1	4:D:28:GLN:HG3	2.18	0.43
5:E:83:CYS:HB2	5:E:110:PHE:CE1	2.54	0.43
7:G:18:PHE:HA	7:G:22:MET:HE3	1.99	0.43
7:G:60:ARG:HB3	7:G:69:GLU:OE2	2.18	0.43
8:H:7:ASP:OD1	8:H:56:THR:HG22	2.18	0.43
9:I:4:PHE:CD2	9:I:13:MET:HG2	2.54	0.43
14:Q:379:GLU:HG3	14:Q:381:ASP:H	1.83	0.43
20:T:144:DA:H8	20:T:144:DA:O5'	2.02	0.43
23:1:189:LYS:HE3	23:1:189:LYS:HB3	1.86	0.43
23:1:561:LEU:HD11	23:1:630:TYR:HB2	2.00	0.43
23:1:600:VAL:HG11	23:1:612:CYS:CB	2.48	0.43
24:4:175:ARG:HH12	24:4:253:PHE:HA	1.83	0.43
24:4:273:ARG:O	24:4:282:VAL:HG13	2.18	0.43
25:0:212:TYR:HA	25:0:218:ILE:HG13	2.00	0.43
25:0:360:LEU:HD21	25:0:371:ARG:HB2	2.00	0.43
25:0:613:ASP:H	25:0:616:TYR:HB2	1.83	0.43
25:0:744:LEU:HG	25:0:748:GLN:OE1	2.18	0.43
26:6:296:HIS:HA	26:6:299:GLU:OE2	2.19	0.43
29:7:439:THR:HG1	29:7:442:ASN:CG	2.16	0.43
1:A:477:PRO:C	1:A:479:ASN:H	2.24	0.43
1:A:879:GLU:OE2	1:A:962:ARG:NH2	2.51	0.43
1:A:1278:ASN:O	1:A:1310:GLY:HA3	2.19	0.43
1:A:1341:ILE:HD12	1:A:1341:ILE:HA	1.86	0.43
2:B:390:LEU:HA	2:B:390:LEU:HD23	1.82	0.43
2:B:1000:PRO:O	2:B:1008:PRO:HD2	2.19	0.43
2:B:1001:PHE:CE1	2:B:1073:TYR:HB2	2.54	0.43
3:C:115:SER:O	3:C:118:LEU:N	2.52	0.43
7:G:10:ASN:HA	7:G:70:PHE:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:24:ARG:HD2	9:I:25:LEU:O	2.17	0.43
11:K:38:GLU:N	11:K:69:ALA:O	2.46	0.43
25:0:497:ILE:CD1	25:0:713:ALA:HB2	2.44	0.43
27:2:10:VAL:HG12	27:2:205:LEU:HD11	2.01	0.43
29:7:437:VAL:HA	29:7:454:VAL:O	2.19	0.43
1:A:16:GLU:CD	2:B:1220:ARG:HA	2.44	0.43
1:A:43:GLU:O	1:A:45:GLN:NE2	2.39	0.43
1:A:838:GLN:HG3	1:A:1073:GLY:HA3	1.99	0.43
1:A:1003:LYS:HB3	1:A:1003:LYS:HE2	1.65	0.43
2:B:181:LEU:HD23	2:B:181:LEU:HA	1.79	0.43
2:B:910:VAL:HA	2:B:940:PRO:HA	2.01	0.43
2:B:936:ASP:OD1	2:B:938:SER:N	2.49	0.43
4:D:40:HIS:O	7:G:73:LYS:NZ	2.29	0.43
4:D:123:LEU:HD22	4:D:149:THR:OG1	2.18	0.43
4:D:191:ALA:HB3	4:D:207:LEU:HD21	2.00	0.43
7:G:11:ILE:HD12	7:G:72:VAL:HG21	2.00	0.43
7:G:115:MET:O	7:G:164:LYS:NZ	2.52	0.43
8:H:40:LEU:HD13	8:H:123:MET:HG3	2.00	0.43
13:M:118:VAL:C	13:M:119:MET:HE2	2.44	0.43
13:M:269:ILE:HD11	13:M:272:LYS:NZ	2.33	0.43
14:Q:125:LYS:HB2	14:Q:125:LYS:HE3	1.80	0.43
18:W:174:ARG:O	18:W:178:GLN:HG2	2.18	0.43
22:O:73:THR:HG22	22:O:122:VAL:HG22	2.00	0.43
25:0:56:THR:HG21	25:0:233:ILE:HD11	2.00	0.43
25:0:327:ARG:HB3	25:0:330:HIS:CD2	2.53	0.43
25:0:544:TYR:OH	25:0:574:PRO:HD3	2.17	0.43
25:0:620:VAL:N	25:0:678:VAL:O	2.51	0.43
26:6:141:LEU:HD12	26:6:294:GLU:HG3	2.00	0.43
26:6:402:ASP:HA	26:6:408:SER:O	2.19	0.43
27:2:137:GLU:H	27:2:286:ARG:NH2	2.14	0.43
28:5:21:LEU:HA	28:5:24:ASP:HB3	2.00	0.43
29:7:362:ILE:HD11	29:7:367:GLU:HB3	2.01	0.43
29:7:567:GLN:O	29:7:571:ARG:HG2	2.19	0.43
29:7:591:CYS:SG	29:7:595:ILE:HD11	2.59	0.43
1:A:31:SER:CB	1:A:83:HIS:HB3	2.49	0.43
1:A:209:ASN:HA	1:A:212:LYS:HG3	2.00	0.43
1:A:498:ARG:H	1:A:498:ARG:HG3	1.68	0.43
1:A:566:ILE:O	1:A:567:LYS:C	2.61	0.43
1:A:741:ASN:OD1	1:A:743:VAL:HG12	2.18	0.43
1:A:804:TYR:HE1	2:B:763:GLN:HA	1.83	0.43
1:A:1155:ASP:HA	1:A:1162:VAL:HG13	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1158:PRO:HB2	1:A:1159:ARG:HH11	1.84	0.43
1:A:1161:THR:HG23	1:A:1192:LEU:HD21	2.01	0.43
2:B:701:ILE:HD11	2:B:703:ILE:HD11	2.01	0.43
2:B:1167:GLY:O	2:B:1216:LEU:N	2.51	0.43
2:B:1187:ASN:HD21	2:B:1190:ASP:N	2.17	0.43
4:D:29:LEU:HB3	7:G:82:PHE:CE1	2.54	0.43
4:D:174:PRO:HA	4:D:177:VAL:HG22	2.01	0.43
5:E:93:MET:SD	5:E:97:VAL:HG13	2.59	0.43
5:E:169:ARG:O	5:E:170:LEU:HD23	2.19	0.43
8:H:81:PRO:HA	8:H:82:PRO:HD3	1.90	0.43
12:L:53:HIS:CG	12:L:54:ARG:N	2.87	0.43
13:M:258:TYR:HA	13:M:261:LYS:HB3	2.01	0.43
17:V:80:VAL:HG22	17:V:113:ILE:CD1	2.49	0.43
18:W:65:ARG:NH2	19:X:270:GLN:O	2.43	0.43
20:T:147:DT:H2'	20:T:148:DA:H5''	2.01	0.43
20:T:159:DT:H2'	20:T:160:DT:H72	2.00	0.43
23:1:295:LYS:HB2	23:1:295:LYS:HE2	1.81	0.43
24:4:131:LYS:HE3	24:4:131:LYS:HB3	1.89	0.43
24:4:297:SER:C	24:4:299:ILE:N	2.77	0.43
25:0:621:LEU:HG	25:0:680:VAL:CG1	2.48	0.43
27:2:68:SER:OG	27:2:69:ASN:N	2.51	0.43
27:2:454:TYR:HB2	28:5:9:LEU:HD23	2.00	0.43
29:7:250:VAL:C	29:7:326:VAL:HG22	2.43	0.43
29:7:561:MET:HE1	29:7:566:TYR:N	2.34	0.43
29:7:677:TYR:CE2	29:7:686:ARG:HB2	2.53	0.43
1:A:251:SER:HA	1:A:257:ARG:HA	2.01	0.43
1:A:527:THR:O	1:A:531:ILE:N	2.46	0.43
1:A:1210:GLY:HA2	1:A:1228:TRP:CZ2	2.53	0.43
1:A:1259:MET:HE2	1:A:1262:LYS:HZ3	1.84	0.43
2:B:1037:LEU:HA	2:B:1037:LEU:HD23	1.76	0.43
2:B:1128:LEU:HD13	2:B:1128:LEU:HA	1.76	0.43
3:C:41:ILE:CB	3:C:172:PRO:HG3	2.46	0.43
5:E:79:TRP:CD1	5:E:96:PHE:HE1	2.36	0.43
5:E:124:VAL:HG13	5:E:132:ILE:HB	2.00	0.43
7:G:44:TYR:CD2	7:G:105:PRO:HG2	2.52	0.43
7:G:125:SER:OG	7:G:129:SER:N	2.45	0.43
8:H:35:GLN:OE1	8:H:35:GLN:N	2.49	0.43
9:I:26:LEU:HB3	9:I:35:VAL:CG1	2.49	0.43
10:J:12:LYS:CE	10:J:41:LEU:HD23	2.49	0.43
13:M:249:PRO:O	13:M:252:VAL:HG12	2.18	0.43
13:M:261:LYS:HA	13:M:264:LYS:HE3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:Q:119:LEU:HD11	14:Q:121:PHE:CE1	2.53	0.43
15:R:95:ILE:HA	15:R:106:LEU:HA	2.01	0.43
18:W:38:LEU:HD23	18:W:43:LEU:HD12	2.01	0.43
18:W:109:LEU:HD21	18:W:171:LYS:C	2.43	0.43
18:W:164:LYS:HA	18:W:167:GLU:CD	2.44	0.43
20:T:136:DG:C2	21:N:31:DA:C2	3.07	0.43
21:N:25:DA:H2''	21:N:26:DA:C8	2.54	0.43
21:N:27:DT:C2'	21:N:28:DT:H71	2.48	0.43
24:4:131:LYS:O	24:4:134:GLU:HG3	2.19	0.43
25:0:496:ILE:HD13	25:0:681:LEU:HB2	2.01	0.43
27:2:249:MET:O	27:2:253:MET:N	2.31	0.43
29:7:754:ARG:O	29:7:757:ARG:HB3	2.19	0.43
1:A:35:ILE:HB	1:A:84:ILE:HD11	2.01	0.43
1:A:256:GLN:HB3	13:M:63:TRP:CD2	2.54	0.43
1:A:338:GLY:HA2	2:B:1129:ARG:NH2	2.33	0.43
1:A:857:ARG:HH22	5:E:170:LEU:HD21	1.84	0.43
1:A:903:ASN:CG	1:A:904:THR:N	2.75	0.43
1:A:922:ASP:C	1:A:923:LEU:HD22	2.43	0.43
2:B:566:LEU:O	2:B:567:GLU:C	2.62	0.43
2:B:1116:ARG:CZ	2:B:1198:TYR:CE1	3.02	0.43
3:C:32:SER:CB	11:K:45:LEU:HD21	2.48	0.43
3:C:186:LEU:HD23	3:C:186:LEU:HA	1.67	0.43
6:F:77:ASP:N	6:F:77:ASP:OD1	2.50	0.43
7:G:84:GLY:HA2	7:G:146:LYS:HE2	2.01	0.43
8:H:94:ASP:CG	8:H:145:ARG:HA	2.43	0.43
8:H:112:ILE:HG12	8:H:113:ALA:N	2.34	0.43
12:L:51:CYS:SG	12:L:53:HIS:HB2	2.59	0.43
13:M:87:LEU:HD21	13:M:152:GLU:HA	2.01	0.43
13:M:157:CYS:SG	13:M:210:MET:HE1	2.59	0.43
13:M:169:GLU:O	13:M:172:MET:N	2.52	0.43
14:Q:343:ARG:HD2	14:Q:343:ARG:HA	1.56	0.43
15:R:68:VAL:HG21	15:R:134:VAL:HG21	2.01	0.43
18:W:122:TYR:CD1	18:W:158:GLU:HA	2.54	0.43
22:O:67:LEU:HA	22:O:162:GLY:HA2	2.00	0.43
22:O:74:VAL:HG21	22:O:136:SER:HB3	2.00	0.43
23:1:337:ILE:HD12	25:0:587:ARG:HD2	2.00	0.43
25:0:11:LEU:CD2	25:0:97:LEU:HG	2.45	0.43
25:0:109:THR:HG23	25:0:110:SER:N	2.34	0.43
25:0:116:LEU:HD13	25:0:186:GLU:HA	1.99	0.43
25:0:123:GLU:OE1	25:0:129:VAL:HG23	2.18	0.43
25:0:260:ALA:O	25:0:399:LEU:HD21	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:0:492:PHE:HD2	25:0:494:PRO:HD3	1.83	0.43
26:6:349:CYS:HB2	26:6:363:CYS:SG	2.59	0.43
27:2:220:ASP:O	27:2:224:PHE:N	2.39	0.43
27:2:454:TYR:HB2	28:5:9:LEU:HB3	2.01	0.43
29:7:133:TRP:CA	29:7:203:VAL:H	2.32	0.43
29:7:370:LEU:HA	29:7:373:MET:CG	2.44	0.43
29:7:446:PHE:CD2	29:7:472:LYS:HG3	2.53	0.43
29:7:461:ALA:HB3	29:7:497:MET:HB2	2.01	0.43
29:7:462:ASN:OD1	29:7:464:ARG:HG3	2.19	0.43
29:7:477:LEU:CG	29:7:505:ILE:HG12	2.49	0.43
1:A:555:ASP:OD2	1:A:648:ASN:ND2	2.52	0.43
1:A:662:PHE:HD2	2:B:829:CYS:SG	2.40	0.43
1:A:1121:GLU:OE2	1:A:1321:GLY:HA2	2.19	0.43
1:A:1146:VAL:HG23	1:A:1201:ALA:CB	2.49	0.43
1:A:1408:ILE:HD13	1:A:1408:ILE:HA	1.90	0.43
2:B:451:LYS:CG	13:M:138:ASP:HB3	2.49	0.43
2:B:644:GLU:OE1	2:B:646:LEU:HD12	2.19	0.43
3:C:73:GLN:HG3	3:C:128:ASN:O	2.19	0.43
4:D:168:LYS:HE3	4:D:177:VAL:HG21	2.01	0.43
5:E:35:VAL:HG12	5:E:36:GLU:HG3	2.01	0.43
6:F:133:VAL:HG23	6:F:147:SER:HA	2.01	0.43
7:G:44:TYR:CD2	7:G:79:PHE:HD2	2.37	0.43
10:J:43:ARG:HD3	10:J:45:CYS:SG	2.58	0.43
11:K:58:PHE:HE2	11:K:74:ARG:HG2	1.84	0.43
11:K:59:ALA:HA	11:K:74:ARG:O	2.19	0.43
13:M:60:ARG:C	13:M:62:GLU:N	2.75	0.43
13:M:63:TRP:O	13:M:65:THR:N	2.52	0.43
13:M:121:LYS:C	13:M:123:ASP:H	2.27	0.43
13:M:166:LYS:NZ	20:T:139:DA:OP1	2.38	0.43
13:M:314:LYS:HD3	13:M:314:LYS:HA	1.66	0.43
14:Q:362:VAL:HB	14:Q:398:ARG:NH1	2.21	0.43
21:N:27:DT:H1'	21:N:28:DT:H5'	2.00	0.43
22:O:197:MET:HE3	22:O:197:MET:HB2	1.85	0.43
25:0:612:PHE:HB3	25:0:617:GLY:HA3	2.01	0.43
25:0:638:ARG:NH2	25:0:653:PHE:HZ	2.17	0.43
26:6:270:VAL:O	26:6:274:LYS:HG2	2.19	0.43
27:2:372:ASN:OD1	27:2:373:MET:HG2	2.19	0.43
29:7:582:ILE:HG23	29:7:673:ILE:HG21	2.01	0.43
29:7:636:ARG:NH1	29:7:662:ILE:HG21	2.33	0.43
29:7:759:LEU:HA	29:7:762:GLU:HB2	2.01	0.43
1:A:253:ASN:HD22	2:B:935:ARG:NH1	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:280:GLU:HA	1:A:280:GLU:OE1	2.19	0.42
1:A:360:GLU:O	1:A:362:ASP:N	2.52	0.42
1:A:536:LEU:HA	1:A:536:LEU:HD23	1.85	0.42
1:A:1438:THR:HG22	6:F:88:TYR:HB3	2.00	0.42
2:B:70:ILE:HG23	14:Q:335:LEU:HD11	2.00	0.42
2:B:190:TYR:CD1	10:J:63:TYR:CE1	3.07	0.42
2:B:492:LEU:HD23	2:B:492:LEU:HA	1.72	0.42
2:B:689:LEU:HA	2:B:689:LEU:HD23	1.78	0.42
4:D:193:THR:HG21	7:G:167:TYR:HD2	1.84	0.42
4:D:204:ASP:HA	4:D:207:LEU:HB3	2.01	0.42
4:D:214:LEU:O	4:D:218:GLU:HG2	2.19	0.42
5:E:85:GLU:CD	5:E:92:THR:HG21	2.44	0.42
9:I:98:VAL:CG1	9:I:113:ASP:HB2	2.48	0.42
14:Q:123:SER:C	14:Q:125:LYS:N	2.75	0.42
14:Q:361:TRP:CZ2	14:Q:397:ALA:HB2	2.53	0.42
14:Q:386:MET:HE2	14:Q:386:MET:HB2	1.87	0.42
15:R:223:GLN:HG2	15:R:224:VAL:N	2.26	0.42
21:N:21:DA:H5"	22:O:203:VAL:CG1	2.41	0.42
22:O:91:ASN:ND2	22:O:105:ARG:O	2.52	0.42
23:1:561:LEU:HD23	23:1:626:ALA:HB1	2.00	0.42
24:4:25:LEU:HD12	24:4:72:LYS:C	2.44	0.42
24:4:175:ARG:HH11	24:4:256:PRO:HG3	1.84	0.42
24:4:199:CYS:HA	24:4:202:SER:OG	2.19	0.42
25:0:169:ASP:CG	25:0:170:TYR:H	2.27	0.42
25:0:495:MET:HE1	25:0:678:VAL:HG11	2.01	0.42
26:6:161:PHE:CD2	26:6:189:PRO:HG3	2.53	0.42
26:6:173:ILE:CG2	26:6:199:ILE:HD13	2.49	0.42
27:2:137:GLU:N	27:2:286:ARG:NH2	2.66	0.42
29:7:351:ASP:HB3	29:7:404:LYS:HG3	2.00	0.42
29:7:399:ALA:O	29:7:403:ILE:HG23	2.19	0.42
29:7:597:TYR:HA	29:7:600:ARG:HE	1.84	0.42
30:3:47:PHE:CD1	30:3:66:ASN:ND2	2.87	0.42
30:3:75:ASP:O	30:3:77:GLU:N	2.52	0.42
1:A:19:PHE:HD2	1:A:1412:ALA:HB1	1.83	0.42
1:A:250:ILE:O	1:A:257:ARG:HA	2.19	0.42
1:A:442:VAL:O	1:A:457:ALA:HA	2.19	0.42
1:A:594:GLY:HA3	1:A:601:LYS:NZ	2.31	0.42
1:A:767:GLN:HG3	1:A:768:GLN:O	2.19	0.42
1:A:1191:TRP:HD1	1:A:1256:GLU:OE2	2.01	0.42
2:B:510:LYS:HG2	2:B:513:GLN:NE2	2.33	0.42
4:D:45:GLU:CD	4:D:48:ILE:HD11	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:194:LEU:HD13	7:G:144:ARG:HH11	1.84	0.42
4:D:205:ASP:OD1	4:D:205:ASP:N	2.52	0.42
6:F:135:ARG:HH21	6:F:145:ASP:CG	2.26	0.42
9:I:44:TYR:CG	9:I:45:ARG:N	2.88	0.42
14:Q:116:THR:O	14:Q:390:ASP:HB3	2.19	0.42
22:O:104:MET:HB3	22:O:113:ALA:HB3	2.01	0.42
25:0:2:LYS:HA	25:0:10:VAL:O	2.19	0.42
25:0:100:GLN:OE1	25:0:100:GLN:N	2.51	0.42
25:0:155:LEU:O	25:0:157:GLU:HG2	2.19	0.42
25:0:170:TYR:HD2	25:0:171:LEU:O	2.01	0.42
25:0:201:SER:HA	25:0:225:GLU:OE1	2.19	0.42
25:0:498:THR:HB	25:0:707:ASN:HA	2.00	0.42
25:0:731:LYS:HE2	25:0:731:LYS:HB2	1.88	0.42
26:6:242:THR:O	26:6:244:PRO:HD3	2.19	0.42
26:6:262:LYS:CA	26:6:287:PHE:HB3	2.46	0.42
26:6:352:CYS:SG	26:6:354:SER:N	2.92	0.42
29:7:320:ASN:OD1	29:7:506:ALA:HB3	2.19	0.42
29:7:361:GLN:O	29:7:394:LEU:HD23	2.19	0.42
29:7:421:ARG:HD2	29:7:432:PRO:HB3	2.00	0.42
29:7:472:LYS:HA	29:7:475:ASP:HB2	2.01	0.42
29:7:588:PHE:CE2	29:7:621:LYS:HB3	2.54	0.42
29:7:595:ILE:HA	29:7:605:ILE:CD1	2.48	0.42
29:7:647:ASP:O	29:7:650:ASN:ND2	2.53	0.42
30:3:27:LYS:H	30:3:40:GLU:CG	2.31	0.42
1:A:364:VAL:HG12	1:A:459:ARG:O	2.19	0.42
1:A:474:VAL:HG22	1:A:474:VAL:O	2.19	0.42
1:A:630:ILE:HG23	1:A:642:CYS:SG	2.59	0.42
1:A:711:ARG:O	1:A:714:PHE:HB3	2.20	0.42
1:A:754:SER:N	1:A:757:ASN:OD1	2.53	0.42
1:A:785:PRO:C	1:A:787:PHE:H	2.26	0.42
1:A:1193:LEU:CD2	1:A:1264:GLU:HB3	2.50	0.42
1:A:1319:VAL:HG12	1:A:1320:PRO:O	2.19	0.42
2:B:212:LEU:HD23	2:B:212:LEU:HA	1.79	0.42
2:B:314:LEU:HA	2:B:314:LEU:HD23	1.76	0.42
2:B:409:ALA:O	2:B:413:LEU:HD23	2.18	0.42
2:B:426:LYS:O	2:B:430:ARG:HG2	2.19	0.42
2:B:1077:THR:C	3:C:31:ASN:ND2	2.78	0.42
4:D:63:LEU:HD23	4:D:63:LEU:HA	1.78	0.42
6:F:116:ASP:HB3	6:F:119:ARG:HB2	2.02	0.42
7:G:15:PRO:HA	7:G:18:PHE:CZ	2.54	0.42
7:G:122:ASN:HB2	7:G:131:GLN:OE1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:271:GLY:O	13:M:272:LYS:C	2.62	0.42
13:M:283:TYR:HE1	13:M:293:ILE:O	2.02	0.42
18:W:131:TYR:OH	18:W:149:CYS:SG	2.70	0.42
23:1:339:LEU:HD22	25:0:579:THR:HG22	2.01	0.42
24:4:28:VAL:O	24:4:75:VAL:HA	2.20	0.42
24:4:213:VAL:HA	24:4:236:LEU:O	2.19	0.42
25:0:57:ILE:HG23	25:0:61:MET:HE2	2.02	0.42
25:0:156:CYS:C	25:0:158:TYR:N	2.77	0.42
25:0:473:LEU:HB2	25:0:475:PHE:CE1	2.54	0.42
25:0:565:LYS:HE3	25:0:565:LYS:HB2	1.49	0.42
25:0:642:MET:HE2	25:0:653:PHE:HE2	1.79	0.42
25:0:746:LYS:O	25:0:750:SER:HB3	2.20	0.42
26:6:124:ARG:HA	26:6:229:THR:OG1	2.18	0.42
26:6:260:ARG:HB3	26:6:281:ASN:OD1	2.20	0.42
26:6:438:VAL:O	26:6:442:VAL:N	2.27	0.42
27:2:259:VAL:C	27:2:261:GLN:H	2.27	0.42
27:2:365:HIS:HD1	27:2:367:LYS:HG3	1.83	0.42
27:2:427:LYS:O	27:2:429:PRO:HD3	2.19	0.42
29:7:307:ASP:OD2	29:7:532:GLY:N	2.52	0.42
29:7:595:ILE:HG23	29:7:651:THR:OG1	2.18	0.42
29:7:622:MET:HE3	29:7:622:MET:HB3	1.81	0.42
29:7:635:GLU:HG3	29:7:639:ILE:HD11	2.01	0.42
1:A:62:ASP:CG	1:A:62:ASP:O	2.62	0.42
1:A:140:THR:O	1:A:143:LYS:HG2	2.20	0.42
1:A:343:LYS:HE2	1:A:343:LYS:HB3	1.78	0.42
1:A:350:ARG:HH21	1:A:486:GLU:HB2	1.84	0.42
1:A:525:GLN:HG3	1:A:526:ASP:N	2.27	0.42
2:B:40:GLU:HG2	2:B:681:TRP:CD1	2.54	0.42
2:B:59:LEU:HD12	2:B:59:LEU:HA	1.91	0.42
2:B:286:PHE:CE2	2:B:297:ILE:HG23	2.53	0.42
2:B:334:ILE:H	2:B:334:ILE:HG13	1.64	0.42
2:B:649:LYS:NZ	2:B:736:THR:C	2.70	0.42
2:B:651:LEU:HD23	2:B:651:LEU:HA	1.75	0.42
2:B:844:SER:O	2:B:845:SER:C	2.61	0.42
3:C:10:ILE:H	3:C:10:ILE:HG13	1.69	0.42
3:C:115:SER:C	3:C:117:ASP:N	2.77	0.42
3:C:252:GLN:HG3	11:K:95:ILE:HG23	2.01	0.42
4:D:145:MET:HA	4:D:148:LEU:HG	2.02	0.42
5:E:74:ASP:N	5:E:74:ASP:OD1	2.50	0.42
6:F:90:ARG:O	6:F:94:LEU:HB2	2.20	0.42
7:G:80:LYS:HE2	7:G:82:PHE:CE1	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:58:PHE:CE2	11:K:74:ARG:HD3	2.55	0.42
11:K:65:HIS:O	11:K:67:PHE:N	2.52	0.42
18:W:23:GLY:O	18:W:26:VAL:HG12	2.19	0.42
22:O:120:LYS:HD3	22:O:120:LYS:HA	1.74	0.42
22:O:176:ALA:HA	22:O:183:SER:CB	2.50	0.42
25:0:43:PRO:HB3	25:0:696:TRP:CG	2.55	0.42
25:0:158:TYR:HB2	25:0:191:CYS:HB3	2.00	0.42
25:0:161:ASN:OD1	25:0:190:LEU:HA	2.19	0.42
25:0:250:LEU:HD22	25:0:404:THR:HG22	2.01	0.42
25:0:535:ASP:OD1	25:0:535:ASP:N	2.50	0.42
26:6:176:ASN:OD1	26:6:205:LYS:HG3	2.20	0.42
26:6:225:PRO:HB2	26:6:227:HIS:CD2	2.54	0.42
26:6:310:VAL:HG23	26:6:311:ASN:N	2.34	0.42
26:6:352:CYS:HB2	26:6:365:CYS:CB	2.49	0.42
30:3:31:ASN:O	30:3:33:GLU:N	2.52	0.42
1:A:451:HIS:HB3	1:A:453:MET:H	1.84	0.42
2:B:103:ASN:O	2:B:103:ASN:OD1	2.38	0.42
2:B:423:LYS:HD3	2:B:423:LYS:HA	1.64	0.42
2:B:445:LYS:H	2:B:445:LYS:HG3	1.56	0.42
2:B:821:GLN:HE22	2:B:851:PHE:H	1.68	0.42
4:D:168:LYS:C	4:D:170:THR:H	2.26	0.42
5:E:147:HIS:HE1	5:E:149:LEU:HG	1.84	0.42
8:H:100:THR:HA	8:H:139:ASN:HA	2.00	0.42
8:H:102:TYR:CE1	8:H:115:TYR:HB3	2.55	0.42
13:M:126:VAL:HG22	13:M:158:HIS:CE1	2.55	0.42
14:Q:122:GLN:CG	14:Q:394:LYS:HD2	2.33	0.42
22:O:186:GLU:OE1	22:O:186:GLU:N	2.52	0.42
25:0:27:ASP:HA	25:0:30:LYS:HB3	2.02	0.42
25:0:53:LEU:HD12	25:0:85:GLU:OE2	2.19	0.42
25:0:69:ILE:HB	25:0:205:ILE:HG13	2.01	0.42
25:0:133:CYS:HB2	33:0:801:SF4:S4	2.59	0.42
25:0:263:GLY:C	25:0:399:LEU:HD11	2.44	0.42
26:6:148:MET:O	26:6:152:TYR:HD1	2.03	0.42
27:2:35:ILE:HG13	27:2:36:TYR:N	2.33	0.42
27:2:95:THR:HG23	27:2:97:MET:HE3	2.02	0.42
29:7:365:TYR:HB3	29:7:544:SER:CA	2.48	0.42
29:7:365:TYR:HE1	29:7:548:HIS:CD2	2.37	0.42
29:7:497:MET:SD	29:7:497:MET:C	3.03	0.42
29:7:554:CYS:HB2	29:7:733:PHE:HD1	1.84	0.42
30:3:38:ILE:HB	30:3:43:VAL:HB	2.00	0.42
1:A:60:SER:HB3	1:A:67:CYS:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:250:ILE:HD12	1:A:250:ILE:HA	1.81	0.42
1:A:569:LYS:HD2	3:C:221:TYR:HB2	2.02	0.42
1:A:851:HIS:C	1:A:853:ASP:H	2.25	0.42
1:A:1112:LYS:HE2	1:A:1112:LYS:HB3	1.82	0.42
1:A:1146:VAL:HG23	1:A:1201:ALA:HB3	2.02	0.42
2:B:24:PRO:O	2:B:655:LYS:HE3	2.20	0.42
2:B:44:VAL:O	2:B:45:SER:C	2.62	0.42
2:B:244:LEU:HD23	2:B:244:LEU:HA	1.65	0.42
2:B:371:GLU:H	2:B:371:GLU:HG3	1.56	0.42
2:B:851:PHE:CG	2:B:980:PHE:HE2	2.37	0.42
2:B:1146:PHE:O	2:B:1149:GLU:N	2.52	0.42
3:C:52:GLU:HB3	3:C:154:LYS:C	2.45	0.42
7:G:82:PHE:O	7:G:147:ILE:HG21	2.20	0.42
7:G:144:ARG:O	7:G:163:ILE:HG22	2.20	0.42
11:K:7:PHE:HD1	11:K:11:LEU:HD22	1.83	0.42
12:L:65:VAL:HG13	12:L:67:PHE:CE1	2.49	0.42
13:M:180:CYS:C	13:M:182:ARG:N	2.78	0.42
14:Q:97:GLU:OE1	14:Q:99:ASN:ND2	2.52	0.42
14:Q:378:VAL:HG22	14:Q:384:PHE:HE1	1.85	0.42
20:T:116:DA:H2	21:N:50:DT:O2	2.03	0.42
23:1:491:UNK:O	23:1:493:UNK:N	2.53	0.42
25:0:512:ILE:HB	25:0:513:ARG:NH1	2.35	0.42
25:0:527:VAL:O	25:0:531:LYS:HG3	2.19	0.42
27:2:360:LEU:O	27:2:364:VAL:HG12	2.19	0.42
27:2:455:GLU:CG	27:2:456:GLY:N	2.83	0.42
29:7:355:ASP:CG	29:7:357:LYS:HE3	2.45	0.42
1:A:317:LYS:HG2	13:M:94:THR:HA	2.02	0.42
1:A:499:ALA:O	1:A:503:GLN:HG2	2.20	0.42
1:A:540:PHE:HB3	1:A:571:LEU:HD11	2.01	0.42
1:A:1199:ARG:HH11	1:A:1234:GLU:HA	1.83	0.42
1:A:1293:SER:OG	1:A:1295:THR:OG1	2.15	0.42
1:A:1353:TYR:HB2	1:A:1368:MET:HE1	2.00	0.42
1:A:1397:LEU:HB3	1:A:1429:ILE:HD12	2.02	0.42
1:A:1433:MET:HE2	2:B:1145:SER:CB	2.49	0.42
2:B:844:SER:OG	2:B:996:ARG:HB2	2.18	0.42
2:B:1119:VAL:O	2:B:1126:GLY:HA2	2.19	0.42
2:B:1134:GLU:OE1	2:B:1134:GLU:N	2.35	0.42
3:C:14:SER:HB3	3:C:17:ASN:N	2.33	0.42
3:C:115:SER:HB3	3:C:142:VAL:HG12	2.01	0.42
3:C:251:LEU:HD12	3:C:251:LEU:HA	1.82	0.42
13:M:268:GLU:O	13:M:270:ALA:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:R:74:PRO:CD	15:R:224:VAL:HG11	2.49	0.42
15:R:97:ILE:O	15:R:97:ILE:HG13	2.20	0.42
15:R:126:LYS:HD2	15:R:129:VAL:HG12	2.00	0.42
25:0:76:MET:HG2	25:0:109:THR:OG1	2.19	0.42
25:0:259:ARG:HH12	25:0:397:THR:HG1	1.60	0.42
25:0:267:LEU:CD1	25:0:399:LEU:HD13	2.50	0.42
25:0:515:ASP:O	25:0:517:SER:N	2.53	0.42
25:0:656:PHE:O	25:0:660:ARG:N	2.53	0.42
27:2:73:GLN:O	27:2:77:ALA:N	2.45	0.42
29:7:496:ALA:O	29:7:500:ARG:N	2.52	0.42
29:7:579:LEU:O	29:7:763:VAL:HG11	2.19	0.42
29:7:681:ARG:HG3	29:7:682:GLN:N	2.34	0.42
30:3:67:LYS:HE2	30:3:67:LYS:HB3	1.75	0.42
1:A:444:PHE:CD1	1:A:489:LEU:HD12	2.53	0.42
1:A:846:GLU:OE1	1:A:1425:SER:OG	2.38	0.42
1:A:1062:GLU:O	1:A:1064:VAL:N	2.45	0.42
1:A:1199:ARG:HA	1:A:1236:LEU:HD11	2.02	0.42
2:B:301:ILE:HA	2:B:379:GLY:O	2.20	0.42
2:B:634:TYR:CE2	2:B:692:TYR:CD1	3.07	0.42
2:B:706:GLN:O	2:B:709:ASP:HB3	2.19	0.42
2:B:1106:ARG:HH11	2:B:1127:GLY:N	2.17	0.42
3:C:76:ASP:OD2	3:C:128:ASN:N	2.53	0.42
7:G:114:LEU:HD23	7:G:162:SER:HB2	2.00	0.42
10:J:6:ARG:NH1	10:J:6:ARG:HB3	2.35	0.42
11:K:38:GLU:N	11:K:69:ALA:HB1	2.34	0.42
13:M:195:LEU:CD2	13:M:196:ILE:HG13	2.49	0.42
13:M:294:THR:O	13:M:297:LYS:N	2.53	0.42
13:M:308:THR:HA	13:M:311:SER:OG	2.19	0.42
14:Q:101:PHE:HB3	14:Q:384:PHE:CE2	2.55	0.42
14:Q:129:PRO:HB2	14:Q:131:THR:OG1	2.19	0.42
18:W:57:LEU:O	18:W:61:LEU:HG	2.19	0.42
23:1:236:UNK:C	23:1:238:UNK:N	2.82	0.42
23:1:236:UNK:O	23:1:240:UNK:N	2.53	0.42
25:0:104:ARG:HD2	25:0:170:TYR:CD2	2.55	0.42
25:0:191:CYS:SG	25:0:191:CYS:O	2.78	0.42
25:0:346:MET:SD	25:0:435:MET:HG2	2.60	0.42
26:6:381:HIS:HB2	26:6:449:HIS:CD2	2.54	0.42
26:6:448:LEU:HD12	26:6:448:LEU:O	2.19	0.42
29:7:351:ASP:HB3	29:7:404:LYS:NZ	2.35	0.42
29:7:353:ASP:OD2	29:7:434:ASN:ND2	2.45	0.42
29:7:564:GLU:OE2	29:7:756:ARG:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:30:VAL:CG1	30:3:35:TYR:HA	2.49	0.42
1:A:23:SER:HB2	1:A:25:GLU:OE1	2.19	0.42
1:A:31:SER:HB2	1:A:83:HIS:HB3	2.02	0.42
1:A:386:ASP:OD1	1:A:386:ASP:N	2.52	0.42
1:A:535:THR:O	1:A:575:LYS:NZ	2.34	0.42
1:A:857:ARG:NH2	5:E:170:LEU:HD21	2.35	0.42
1:A:890:ASP:O	1:A:893:PHE:HB3	2.19	0.42
1:A:936:LEU:HD21	1:A:1023:ARG:HB3	2.01	0.42
1:A:1225:PHE:CZ	1:A:1227:ILE:HD11	2.55	0.42
1:A:1317:MET:O	1:A:1322:ILE:HD11	2.20	0.42
2:B:273:LEU:HD12	2:B:273:LEU:N	2.34	0.42
2:B:762:ASN:ND2	2:B:1024:ALA:HB3	2.35	0.42
2:B:906:SER:N	2:B:909:ASP:OD2	2.51	0.42
2:B:918:ILE:HG12	2:B:934:LYS:HA	2.02	0.42
4:D:140:ASP:O	4:D:143:ASN:HB2	2.19	0.42
4:D:192:LYS:HD3	4:D:204:ASP:CG	2.45	0.42
7:G:81:PRO:HG2	7:G:106:MET:HE1	2.02	0.42
7:G:101:VAL:O	7:G:107:LYS:HA	2.20	0.42
7:G:112:LYS:NZ	7:G:119:LEU:O	2.27	0.42
8:H:45:GLU:CB	8:H:46:LEU:HD12	2.43	0.42
13:M:40:GLU:OE1	13:M:40:GLU:N	2.52	0.42
14:Q:133:PHE:CD2	14:Q:352:MET:HE1	2.55	0.42
18:W:14:LYS:HA	18:W:17:VAL:HG12	2.00	0.42
18:W:115:LYS:HG2	18:W:116:ASN:ND2	2.35	0.42
21:N:10:DA:H2''	21:N:11:DA:H8	1.83	0.42
22:O:197:MET:HE1	22:O:226:ALA:HB1	2.00	0.42
22:O:207:PHE:HD2	22:O:211:LYS:O	2.03	0.42
24:4:90:SER:HB3	26:6:407:GLN:OE1	2.20	0.42
24:4:177:LEU:HD12	24:4:177:LEU:HA	1.88	0.42
25:0:341:TYR:CE1	25:0:366:LEU:HD12	2.55	0.42
29:7:421:ARG:HA	29:7:425:LEU:HB2	2.01	0.42
29:7:436:ALA:HB2	29:7:445:MET:SD	2.60	0.42
29:7:464:ARG:HA	29:7:466:ARG:CD	2.49	0.42
29:7:554:CYS:O	29:7:734:LYS:N	2.51	0.42
29:7:561:MET:CE	29:7:565:PHE:HB2	2.49	0.42
30:3:14:PRO:HD3	30:3:56:TYR:HD1	1.84	0.42
1:A:164:ARG:HD2	1:A:165:GLY:H	1.85	0.42
1:A:230:ARG:HB2	1:A:233:TRP:CE2	2.54	0.42
1:A:419:LYS:HD3	1:A:419:LYS:HA	1.85	0.42
2:B:426:LYS:O	2:B:429:PHE:HB3	2.19	0.42
2:B:1180:PHE:CD2	2:B:1191:ILE:HG21	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:21:ILE:HG12	3:C:229:TYR:CD1	2.55	0.42
5:E:180:ARG:NH2	5:E:192:ARG:H	2.18	0.42
7:G:121:PHE:CZ	7:G:123:ALA:HA	2.55	0.42
10:J:3:VAL:O	10:J:4:PRO:C	2.63	0.42
10:J:7:CYS:CB	10:J:10:CYS:SG	3.05	0.42
10:J:29:GLU:HG3	10:J:29:GLU:O	2.20	0.42
13:M:132:LYS:O	13:M:136:LEU:HG	2.20	0.42
13:M:163:LEU:H	13:M:163:LEU:HG	1.71	0.42
13:M:189:PHE:HE1	13:M:207:LEU:CD2	2.31	0.42
15:R:108:LEU:HB2	15:R:118:HIS:O	2.20	0.42
18:W:95:ILE:HG13	18:W:96:ASP:N	2.35	0.42
18:W:101:LYS:HD2	19:X:268:LEU:HD21	2.02	0.42
19:X:259:PHE:HA	19:X:262:MET:CG	2.50	0.42
22:O:168:PHE:CD1	22:O:238:ARG:HB2	2.55	0.42
25:0:139:GLY:HA3	25:0:302:GLN:HE21	1.85	0.42
25:0:572:GLU:HG3	25:0:600:SER:CB	2.49	0.42
26:6:129:THR:HG22	26:6:172:ILE:HB	2.02	0.42
26:6:146:HIS:CD2	26:6:204:PRO:HB3	2.54	0.42
27:2:423:ASP:O	27:2:427:LYS:HA	2.20	0.42
30:3:12:MET:HA	30:3:37:ARG:HB3	2.02	0.42
1:A:331:GLY:O	1:A:334:GLY:N	2.38	0.41
1:A:579:SER:OG	1:A:612:ILE:N	2.38	0.41
1:A:779:PHE:HE2	1:A:784:LEU:HD23	1.85	0.41
1:A:899:VAL:HB	1:A:929:LEU:HD22	2.02	0.41
1:A:939:ASP:CG	1:A:1023:ARG:HH12	2.28	0.41
1:A:986:ILE:HD11	1:A:1032:LEU:CD2	2.50	0.41
1:A:1114:PRO:O	1:A:1311:VAL:HG23	2.20	0.41
2:B:34:ILE:HG23	2:B:38:PHE:HE2	1.85	0.41
3:C:101:LEU:HD21	3:C:103:ALA:CB	2.50	0.41
6:F:81:THR:OG1	6:F:144:GLU:OE1	2.33	0.41
8:H:25:ARG:NE	8:H:41:ASP:OD1	2.52	0.41
8:H:89:LEU:HG	8:H:90:ALA:H	1.85	0.41
11:K:57:LEU:HD12	11:K:77:THR:O	2.20	0.41
13:M:316:LEU:O	13:M:320:ARG:N	2.53	0.41
18:W:47:LEU:HD12	18:W:54:LEU:HD12	2.01	0.41
20:T:143:DT:H2''	20:T:144:DA:H5'	2.02	0.41
25:0:161:ASN:OD1	25:0:162:LEU:N	2.53	0.41
25:0:199:MET:HE2	25:0:199:MET:HB2	1.87	0.41
26:6:174:MET:SD	26:6:179:ALA:HB2	2.60	0.41
26:6:225:PRO:HB2	26:6:227:HIS:HD2	1.83	0.41
28:5:42:VAL:HG12	28:5:43:ASN:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:7:303:ARG:HD2	29:7:502:VAL:C	2.45	0.41
29:7:581:TYR:OH	29:7:715:GLU:HG3	2.20	0.41
29:7:611:ASN:OD1	29:7:615:LEU:HB2	2.20	0.41
30:3:33:GLU:HB3	30:3:61:LYS:NZ	2.34	0.41
30:3:43:VAL:HA	30:3:63:LEU:CD2	2.50	0.41
1:A:101:LYS:HB3	1:A:135:PHE:CZ	2.55	0.41
1:A:407:ARG:NE	1:A:411:ASP:OD2	2.46	0.41
1:A:619:LYS:O	1:A:621:THR:N	2.53	0.41
1:A:718:VAL:O	1:A:721:PHE:HB2	2.20	0.41
1:A:1126:ALA:HA	1:A:1304:TRP:CD1	2.55	0.41
2:B:87:LYS:O	2:B:137:TYR:N	2.54	0.41
2:B:597:MET:HE1	2:B:615:MET:HB3	2.01	0.41
2:B:627:PHE:O	2:B:632:ARG:NH1	2.54	0.41
2:B:660:LYS:HA	2:B:663:ALA:HB3	2.02	0.41
2:B:739:THR:O	2:B:740:HIS:ND1	2.53	0.41
2:B:758:PHE:C	2:B:760:ASP:H	2.26	0.41
2:B:802:PRO:HG2	2:B:805:THR:HG22	2.03	0.41
2:B:876:LYS:NZ	2:B:891:ASP:HA	2.35	0.41
2:B:997:GLU:HG2	3:C:35:ARG:HH21	1.85	0.41
3:C:99:LEU:O	3:C:157:CYS:N	2.53	0.41
4:D:136:GLY:C	4:D:138:ASN:H	2.28	0.41
7:G:65:ASP:O	7:G:67:SER:N	2.53	0.41
8:H:98:TYR:CE2	8:H:141:TYR:HE1	2.38	0.41
8:H:128:ASN:HD22	8:H:130:ARG:NH1	2.02	0.41
8:H:142:LEU:C	8:H:143:LEU:HD12	2.45	0.41
9:I:7:CYS:N	9:I:12:ASN:O	2.49	0.41
11:K:101:LEU:O	11:K:105:PHE:N	2.53	0.41
14:Q:116:THR:O	14:Q:117:HIS:ND1	2.53	0.41
20:T:135:DT:H2''	20:T:136:DG:H8	1.85	0.41
22:O:106:ILE:HG13	22:O:109:PRO:O	2.20	0.41
22:O:144:GLN:HG3	22:O:150:ALA:HB3	2.02	0.41
24:4:255:ASP:O	24:4:256:PRO:C	2.63	0.41
25:0:28:ILE:O	25:0:32:LEU:N	2.53	0.41
25:0:193:TYR:HB3	33:0:801:SF4:S2	2.60	0.41
25:0:241:ASP:OD1	25:0:241:ASP:N	2.53	0.41
25:0:572:GLU:OE1	25:0:579:THR:HG23	2.20	0.41
26:6:120:ARG:HG3	26:6:383:LEU:HA	2.01	0.41
26:6:157:VAL:CG1	26:6:169:MET:HE1	2.47	0.41
26:6:405:SER:CB	26:6:444:ILE:HD11	2.49	0.41
27:2:86:LEU:HD13	27:2:104:PHE:HD2	1.85	0.41
29:7:321:GLU:O	29:7:503:SER:C	2.63	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:7:494:PRO:O	29:7:497:MET:HG3	2.20	0.41
29:7:640:LEU:HD23	29:7:640:LEU:HA	1.92	0.41
29:7:739:LEU:HB2	29:7:742:MET:HB2	2.01	0.41
1:A:728:LYS:HA	1:A:728:LYS:HD2	1.64	0.41
1:A:820:GLY:HA3	2:B:764:SER:OG	2.20	0.41
1:A:1120:LEU:HD21	1:A:1131:ALA:HA	2.02	0.41
1:A:1306:LEU:HD23	1:A:1306:LEU:HA	1.74	0.41
2:B:758:PHE:C	2:B:760:ASP:N	2.77	0.41
2:B:834:ASN:CB	2:B:1013:ASN:HB2	2.45	0.41
2:B:1072:MET:HE2	2:B:1072:MET:HB3	1.80	0.41
3:C:120:ILE:HG21	3:C:124:LEU:HD21	2.01	0.41
3:C:197:SER:O	3:C:201:TRP:HB2	2.20	0.41
5:E:101:GLN:OE1	5:E:127:ILE:HG21	2.20	0.41
6:F:135:ARG:CZ	6:F:143:PHE:CE2	3.03	0.41
7:G:25:TYR:HA	7:G:28:THR:CB	2.51	0.41
7:G:47:CYS:O	7:G:77:VAL:HG22	2.19	0.41
9:I:7:CYS:O	9:I:11:ASN:HA	2.20	0.41
9:I:101:PHE:HD2	9:I:110:PHE:CE2	2.37	0.41
10:J:12:LYS:NZ	10:J:41:LEU:HA	2.35	0.41
10:J:36:LEU:HA	10:J:39:LEU:HD12	2.01	0.41
13:M:91:ASN:O	13:M:92:LEU:HD23	2.20	0.41
23:1:371:UNK:O	23:1:375:LEU:HG	2.20	0.41
23:1:583:TYR:CG	23:1:630:TYR:CD2	3.09	0.41
24:4:58:ILE:CD1	24:4:125:LEU:HD22	2.50	0.41
24:4:62:ASN:HB3	24:4:118:PHE:CG	2.55	0.41
24:4:192:GLN:OE1	24:4:192:GLN:N	2.53	0.41
25:0:5:ILE:HD11	25:0:10:VAL:HG21	2.01	0.41
25:0:496:ILE:HD11	25:0:701:LEU:HD21	2.01	0.41
25:0:603:ARG:NH2	25:0:658:ALA:HA	2.35	0.41
26:6:221:LEU:HB3	26:6:230:ARG:CG	2.50	0.41
26:6:377:ALA:HA	26:6:380:TYR:CD2	2.54	0.41
27:2:81:MET:HG3	27:2:87:LEU:CD2	2.41	0.41
29:7:303:ARG:HB2	29:7:323:VAL:CG2	2.39	0.41
30:3:63:LEU:CG	30:3:68:PHE:HE1	2.24	0.41
1:A:535:THR:HG21	1:A:617:VAL:HB	2.02	0.41
1:A:569:LYS:HA	1:A:570:PRO:HD2	1.93	0.41
1:A:967:ALA:HB2	1:A:1044:TRP:CZ3	2.56	0.41
1:A:1193:LEU:HD12	1:A:1194:ARG:N	2.34	0.41
2:B:44:VAL:O	2:B:47:GLN:HB2	2.21	0.41
2:B:170:LEU:HD12	2:B:171:PRO:HD2	2.01	0.41
2:B:200:GLY:O	2:B:202:TYR:HD1	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:236:HIS:NE2	2:B:389:ALA:HA	2.35	0.41
2:B:343:ILE:HA	2:B:348:ARG:HH22	1.85	0.41
2:B:703:ILE:HG22	2:B:704:ALA:N	2.36	0.41
2:B:1170:THR:OG1	2:B:1182:CYS:SG	2.78	0.41
3:C:210:GLU:OE1	3:C:229:TYR:OH	2.23	0.41
3:C:228:PHE:HB3	3:C:230:MET:SD	2.59	0.41
5:E:88:VAL:HB	5:E:116:ILE:HA	2.01	0.41
5:E:116:ILE:CG2	5:E:120:ALA:HB3	2.50	0.41
5:E:156:LEU:HD13	5:E:195:VAL:O	2.19	0.41
7:G:51:TYR:O	7:G:54:ILE:HG13	2.20	0.41
8:H:11:GLN:HA	8:H:53:ASP:O	2.20	0.41
10:J:14:VAL:C	10:J:16:ASP:N	2.76	0.41
12:L:33:GLU:HB2	12:L:53:HIS:CG	2.56	0.41
14:Q:365:TYR:HE1	14:Q:391:LYS:HB3	1.84	0.41
22:O:69:ASN:OD1	22:O:124:THR:OG1	2.37	0.41
22:O:214:LEU:HD23	22:O:226:ALA:HB3	2.02	0.41
24:4:79:TYR:HB2	24:4:82:GLY:N	2.34	0.41
25:0:120:VAL:HG11	33:0:801:SF4:S4	2.60	0.41
25:0:191:CYS:SG	25:0:194:PHE:HD2	2.44	0.41
25:0:348:VAL:HG11	25:0:352:ILE:HG22	2.01	0.41
25:0:581:LEU:HD12	25:0:581:LEU:HA	1.82	0.41
28:5:62:ILE:C	28:5:64:ASN:H	2.29	0.41
29:7:369:SER:HA	29:7:372:LYS:HD2	2.03	0.41
29:7:584:ASN:O	29:7:618:TYR:OH	2.38	0.41
29:7:598:HIS:NE2	29:7:669:CYS:SG	2.93	0.41
29:7:599:GLU:CG	29:7:650:ASN:HB2	2.49	0.41
30:3:36:HIS:HB3	30:3:38:ILE:HD11	2.03	0.41
1:A:34:LYS:CE	1:A:84:ILE:HA	2.50	0.41
1:A:93:VAL:O	1:A:95:PHE:N	2.54	0.41
1:A:145:LYS:HE2	1:A:147:VAL:O	2.21	0.41
1:A:525:GLN:HG2	2:B:835:GLN:HB3	2.03	0.41
2:B:20:ASP:CG	2:B:21:GLU:N	2.78	0.41
2:B:260:GLY:HA3	2:B:267:ARG:HD2	2.01	0.41
2:B:348:ARG:CZ	2:B:348:ARG:HB2	2.50	0.41
2:B:406:LEU:HD23	2:B:406:LEU:HA	1.79	0.41
2:B:806:THR:O	2:B:808:ALA:N	2.54	0.41
2:B:912:ILE:O	2:B:938:SER:HB2	2.20	0.41
2:B:961:LEU:HD11	13:M:145:ILE:HD11	2.02	0.41
4:D:130:LEU:HD23	4:D:130:LEU:HA	1.88	0.41
5:E:3:GLN:N	5:E:6:GLU:HB2	2.36	0.41
5:E:10:SER:HA	5:E:13:TRP:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:79:ARG:HG3	6:F:144:GLU:CD	2.45	0.41
15:R:255:LEU:HA	15:R:255:LEU:HD23	1.73	0.41
16:U:251:VAL:HA	16:U:259:LYS:O	2.21	0.41
18:W:12:LEU:HB2	18:W:185:SER:CB	2.50	0.41
18:W:174:ARG:HB3	19:X:259:PHE:CZ	2.55	0.41
21:N:30:DC:C4	21:N:31:DA:N6	2.89	0.41
22:O:205:LEU:HB3	22:O:207:PHE:CE2	2.56	0.41
24:4:235:TYR:HB3	24:4:266:ASN:H	1.85	0.41
24:4:276:CYS:HB2	24:4:283:VAL:CG1	2.51	0.41
25:0:620:VAL:HG22	25:0:679:MET:HA	2.02	0.41
25:0:643:ARG:NH1	25:0:650:GLU:H	2.18	0.41
26:6:263:VAL:HG21	26:6:273:CYS:HB3	2.02	0.41
27:2:8:HIS:CB	27:2:205:LEU:HD13	2.50	0.41
27:2:28:SER:O	27:2:31:THR:N	2.54	0.41
27:2:59:LEU:O	27:2:63:ASP:N	2.43	0.41
29:7:464:ARG:HA	29:7:466:ARG:HG3	2.01	0.41
29:7:583:MET:HE3	29:7:759:LEU:C	2.44	0.41
29:7:624:LYS:O	29:7:626:PHE:HD1	2.03	0.41
30:3:33:GLU:HB3	30:3:61:LYS:HZ1	1.84	0.41
1:A:66:LYS:NZ	13:M:20:ILE:HG12	2.35	0.41
1:A:380:VAL:HG12	1:A:428:TYR:HD1	1.85	0.41
1:A:563:PRO:HD2	8:H:79:TRP:CD1	2.55	0.41
1:A:666:ILE:O	1:A:669:THR:N	2.41	0.41
1:A:981:LEU:HD21	1:A:1039:LYS:CA	2.47	0.41
1:A:1382:THR:HG22	1:A:1383:SER:O	2.21	0.41
2:B:215:GLN:OE1	2:B:479:VAL:HG22	2.20	0.41
2:B:287:ARG:H	2:B:287:ARG:HG2	1.68	0.41
2:B:634:TYR:HA	2:B:694:ASP:HA	2.03	0.41
2:B:976:ILE:O	2:B:990:ILE:HB	2.20	0.41
3:C:165:LYS:C	11:K:6:ARG:NH2	2.78	0.41
4:D:39:ASN:HA	7:G:6:ASP:OD2	2.21	0.41
4:D:154:PHE:CD2	4:D:160:VAL:HG22	2.51	0.41
7:G:26:LEU:HD13	7:G:56:ILE:CD1	2.49	0.41
8:H:100:THR:HG23	8:H:139:ASN:HB3	2.02	0.41
11:K:7:PHE:HA	11:K:10:PHE:CZ	2.55	0.41
13:M:57:VAL:HG12	13:M:58:ASP:O	2.21	0.41
13:M:120:ASP:OD1	13:M:121:LYS:N	2.54	0.41
14:Q:109:GLU:HA	14:Q:112:GLU:OE1	2.21	0.41
18:W:31:ALA:HA	18:W:34:PHE:CD2	2.56	0.41
18:W:134:LEU:HA	18:W:137:VAL:HG12	2.03	0.41
24:4:65:LEU:HG	24:4:117:ARG:CZ	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:0:314:GLN:HA	25:0:317:LEU:HD13	2.02	0.41
25:0:356:PRO:HG2	25:0:413:GLU:HA	2.01	0.41
25:0:492:PHE:CD2	25:0:494:PRO:HD3	2.56	0.41
25:0:713:ALA:O	25:0:717:THR:HG22	2.20	0.41
26:6:134:GLU:HG3	26:6:135:ALA:N	2.35	0.41
29:7:348:ARG:NH1	29:7:506:ALA:O	2.53	0.41
29:7:578:MET:HA	29:7:581:TYR:CZ	2.56	0.41
29:7:659:ASP:HA	29:7:660:THR:HA	1.57	0.41
29:7:715:GLU:HG2	29:7:718:TYR:CD2	2.55	0.41
1:A:149:GLU:HB2	1:A:164:ARG:HH21	1.85	0.41
1:A:214:ILE:HG22	1:A:218:ASP:HB2	2.02	0.41
1:A:328:ARG:HD3	1:A:335:ARG:NH2	2.35	0.41
1:A:943:LEU:HD21	1:A:1017:LEU:HD13	2.03	0.41
1:A:1121:GLU:CD	1:A:1321:GLY:HA2	2.46	0.41
2:B:825:VAL:HA	2:B:1010:LEU:O	2.20	0.41
2:B:839:MET:HE3	2:B:988:GLY:HA3	2.03	0.41
2:B:1179:GLN:C	2:B:1180:PHE:CD1	2.99	0.41
3:C:18:VAL:HB	3:C:240:VAL:HG21	2.03	0.41
3:C:22:LEU:HB3	3:C:228:PHE:HB2	2.01	0.41
7:G:23:LYS:HE2	7:G:23:LYS:HB2	1.76	0.41
11:K:37:LYS:C	11:K:38:GLU:OE1	2.63	0.41
12:L:33:GLU:HB3	12:L:51:CYS:SG	2.60	0.41
14:Q:386:MET:HG2	15:R:81:TRP:CH2	2.56	0.41
18:W:122:TYR:N	18:W:131:TYR:O	2.53	0.41
19:X:193:LEU:O	19:X:197:ARG:HD3	2.20	0.41
20:T:150:DG:H2''	20:T:151:DC:O5'	2.19	0.41
23:1:625:LEU:O	23:1:629:LYS:N	2.38	0.41
24:4:201:PHE:CE2	26:6:377:ALA:HB3	2.55	0.41
24:4:258:LEU:HB3	24:4:260:PRO:CD	2.47	0.41
25:0:310:PRO:CB	25:0:404:THR:HG23	2.51	0.41
25:0:497:ILE:O	25:0:506:ILE:HD11	2.21	0.41
25:0:538:VAL:O	25:0:620:VAL:HA	2.21	0.41
25:0:669:VAL:HG13	25:0:670:LEU:HD12	2.02	0.41
25:0:683:ASP:HB3	25:0:686:PHE:CZ	2.56	0.41
27:2:356:GLN:HG2	27:2:403:HIS:HE1	1.85	0.41
28:5:23:ILE:O	28:5:26:LYS:HB2	2.20	0.41
29:7:302:GLU:C	29:7:322:SER:H	2.29	0.41
29:7:393:THR:HG22	29:7:397:ILE:HG12	2.03	0.41
1:A:947:PHE:HE1	5:E:203:GLU:HB2	1.84	0.41
1:A:982:THR:O	1:A:985:ASP:HB2	2.20	0.41
2:B:122:LEU:HA	2:B:122:LEU:HD23	1.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:579:ARG:HG2	2:B:586:TRP:CZ2	2.55	0.41
2:B:821:GLN:NE2	2:B:851:PHE:H	2.19	0.41
2:B:826:ALA:O	2:B:1011:ILE:HG23	2.21	0.41
4:D:32:GLU:HB3	7:G:42:PHE:CE1	2.56	0.41
4:D:32:GLU:HB3	7:G:42:PHE:HE1	1.85	0.41
5:E:127:ILE:N	5:E:128:PRO:HD3	2.35	0.41
5:E:155:ARG:C	5:E:156:LEU:HD12	2.46	0.41
8:H:65:LEU:HD21	8:H:89:LEU:HD13	2.02	0.41
9:I:59:VAL:HG23	9:I:62:ILE:N	2.36	0.41
11:K:109:TRP:C	11:K:111:LEU:N	2.77	0.41
13:M:211:LYS:O	13:M:215:ARG:HG2	2.20	0.41
13:M:310:LYS:O	13:M:314:LYS:HB2	2.20	0.41
16:U:278:LYS:HB2	17:V:59:LYS:NZ	2.35	0.41
18:W:96:ASP:OD2	19:X:275:PRO:HG3	2.20	0.41
19:X:221:ILE:HA	19:X:229:LYS:CB	2.50	0.41
20:T:131:DA:N6	21:N:35:DT:C4	2.62	0.41
20:T:133:DA:C4	21:N:34:DG:N2	2.88	0.41
20:T:150:DG:C4	20:T:151:DC:C5	3.08	0.41
21:N:20:DT:H6	21:N:20:DT:H2'	1.66	0.41
25:0:259:ARG:HA	25:0:262:ARG:CZ	2.51	0.41
25:0:341:TYR:HE1	25:0:366:LEU:HD12	1.85	0.41
25:0:421:GLU:HB2	25:0:434:ILE:CG1	2.50	0.41
26:6:169:MET:O	26:6:185:VAL:HA	2.21	0.41
27:2:142:LYS:HA	27:2:142:LYS:HD3	1.83	0.41
27:2:367:LYS:N	27:2:375:LEU:O	2.49	0.41
29:7:344:ARG:HE	29:7:378:ARG:HB3	1.84	0.41
29:7:372:LYS:HZ1	29:7:542:GLU:CD	2.28	0.41
29:7:578:MET:HE1	29:7:675:SER:H	1.85	0.41
1:A:117:GLU:O	1:A:123:ARG:NH1	2.53	0.41
1:A:401:GLY:O	1:A:435:HIS:ND1	2.54	0.41
1:A:450:LEU:C	1:A:1074:GLU:OE2	2.64	0.41
1:A:504:LEU:HD23	1:A:504:LEU:HA	1.82	0.41
1:A:541:ILE:HG22	1:A:546:VAL:HG23	2.03	0.41
1:A:564:ALA:O	1:A:565:ILE:HG13	2.20	0.41
1:A:568:PRO:CG	8:H:46:LEU:HD23	2.44	0.41
1:A:619:LYS:C	1:A:621:THR:N	2.77	0.41
1:A:724:GLU:O	1:A:728:LYS:N	2.44	0.41
1:A:779:PHE:CE1	2:B:517:THR:HG22	2.55	0.41
1:A:780:VAL:O	1:A:782:ARG:HG2	2.21	0.41
1:A:868:TYR:CD2	1:A:1058:VAL:HG21	2.56	0.41
1:A:896:ARG:CD	1:A:1030:ARG:HD3	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1054:LEU:HA	1:A:1054:LEU:HD23	1.83	0.41
1:A:1141:THR:HG1	1:A:1274:ARG:H	1.66	0.41
1:A:1199:ARG:HD2	1:A:1199:ARG:HA	1.86	0.41
1:A:1215:ARG:HD3	1:A:1271:ILE:HG23	2.02	0.41
1:A:1290:LYS:HA	1:A:1299:VAL:O	2.21	0.41
1:A:1314:SER:O	1:A:1318:THR:HG23	2.20	0.41
1:A:1376:THR:CG2	1:A:1381:LEU:HD23	2.51	0.41
2:B:40:GLU:HB2	2:B:681:TRP:HB3	2.01	0.41
2:B:65:GLU:HG3	2:B:66:ASP:N	2.35	0.41
2:B:344:LYS:HB3	2:B:346:GLU:HG3	2.03	0.41
2:B:416:LEU:HD12	2:B:416:LEU:HA	1.80	0.41
2:B:570:VAL:HG12	2:B:573:GLN:OE1	2.20	0.41
2:B:681:TRP:HA	2:B:684:LEU:HD12	2.03	0.41
2:B:831:SER:C	2:B:833:TYR:H	2.29	0.41
2:B:1001:PHE:CE2	3:C:34:ARG:NH1	2.89	0.41
3:C:84:ARG:H	3:C:84:ARG:HG2	1.63	0.41
3:C:169:LYS:HE3	3:C:170:TRP:CE2	2.56	0.41
3:C:230:MET:SD	3:C:230:MET:N	2.94	0.41
4:D:38:ILE:HG23	4:D:43:GLU:N	2.36	0.41
4:D:69:ALA:C	4:D:72:ARG:H	2.29	0.41
4:D:166:LEU:HD21	4:D:210:ILE:HG23	2.03	0.41
5:E:19:VAL:O	5:E:20:LYS:C	2.64	0.41
6:F:98:ALA:O	6:F:101:ILE:HB	2.21	0.41
6:F:111:LEU:HB2	6:F:123:LYS:NZ	2.34	0.41
6:F:116:ASP:O	6:F:120:ILE:HG13	2.20	0.41
7:G:52:ASP:OD1	7:G:53:ASN:N	2.54	0.41
7:G:87:VAL:HG12	7:G:88:ASP:O	2.20	0.41
8:H:8:ASP:O	8:H:56:THR:HA	2.20	0.41
8:H:40:LEU:HD12	8:H:122:LEU:O	2.20	0.41
8:H:58:THR:C	8:H:59:ILE:HD13	2.46	0.41
9:I:5:ARG:CB	9:I:14:LEU:HD12	2.51	0.41
9:I:17:ARG:HA	9:I:17:ARG:HD2	1.81	0.41
9:I:101:PHE:O	9:I:109:ILE:HD12	2.21	0.41
10:J:33:GLY:HA2	10:J:47:ARG:NH2	2.36	0.41
11:K:14:GLU:O	11:K:14:GLU:HG2	2.21	0.41
13:M:99:GLY:O	13:M:102:THR:HG22	2.21	0.41
13:M:166:LYS:HA	13:M:166:LYS:HD3	1.70	0.41
13:M:272:LYS:HZ3	20:T:148:DA:P	2.44	0.41
15:R:95:ILE:HG12	15:R:106:LEU:HD12	2.03	0.41
15:R:97:ILE:HD12	15:R:99:LYS:HD3	2.03	0.41
18:W:115:LYS:HE2	18:W:115:LYS:HB3	1.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:N:35:DT:C2	21:N:36:DC:C5	3.09	0.41
24:4:24:SER:O	24:4:64:HIS:CE1	2.73	0.41
24:4:64:HIS:CE1	24:4:71:ASN:ND2	2.89	0.41
25:0:221:ARG:HD3	25:0:221:ARG:H	1.86	0.41
25:0:241:ASP:CG	25:0:660:ARG:HH12	2.29	0.41
25:0:324:ASN:HB3	25:0:334:PHE:HZ	1.84	0.41
25:0:343:LYS:HG2	25:0:347:LYS:HZ2	1.86	0.41
25:0:349:LEU:HD23	25:0:349:LEU:H	1.86	0.41
25:0:495:MET:HB2	25:0:495:MET:HE2	1.96	0.41
25:0:499:LYS:HB2	25:0:709:SER:HA	2.03	0.41
25:0:555:GLN:OE1	25:0:560:LEU:HD23	2.21	0.41
26:6:163:GLN:HB2	26:6:305:VAL:CG1	2.51	0.41
27:2:26:TYR:HE1	27:2:35:ILE:HG21	1.85	0.41
27:2:87:LEU:HD23	27:2:87:LEU:H	1.85	0.41
29:7:102:ALA:CA	29:7:331:GLN:HE21	2.33	0.41
29:7:308:ASP:O	29:7:340:GLU:HG2	2.20	0.41
29:7:413:SER:O	29:7:417:VAL:HG23	2.20	0.41
29:7:677:TYR:HE2	29:7:686:ARG:CB	2.34	0.41
29:7:688:GLY:O	29:7:692:ARG:NH2	2.41	0.41
1:A:332:LYS:HG3	1:A:337:ARG:NH2	2.35	0.41
1:A:372:LYS:HE2	1:A:372:LYS:HB3	1.84	0.41
1:A:476:SER:N	1:A:477:PRO:HD2	2.36	0.41
1:A:807:GLY:N	2:B:761:HIS:CE1	2.88	0.41
1:A:1006:ILE:HD13	1:A:1006:ILE:HA	1.87	0.41
1:A:1100:ARG:NH2	1:A:1351:GLU:OE2	2.53	0.41
2:B:281:PRO:HD2	2:B:284:ILE:HD12	2.02	0.41
2:B:908:GLU:OE2	2:B:943:SER:HB3	2.21	0.41
3:C:69:LEU:HD12	10:J:5:VAL:CG2	2.51	0.41
7:G:22:MET:HG3	7:G:23:LYS:N	2.36	0.41
7:G:119:LEU:CD1	7:G:130:TYR:HB3	2.36	0.41
7:G:122:ASN:O	7:G:125:SER:OG	2.36	0.41
9:I:103:CYS:HB3	9:I:108:HIS:H	1.85	0.41
11:K:58:PHE:HE2	11:K:74:ARG:HD3	1.86	0.41
14:Q:399:ASN:OD1	14:Q:402:ALA:HA	2.21	0.41
15:R:95:ILE:HG12	15:R:106:LEU:CD1	2.51	0.41
16:U:263:LYS:HG2	16:U:264:ASP:CG	2.46	0.41
19:X:269:PRO:CG	19:X:274:LEU:HD13	2.51	0.41
20:T:152:DG:H2''	20:T:153:DC:C6	2.56	0.41
21:N:30:DC:C2	21:N:31:DA:C5	3.09	0.41
23:1:256:ILE:HG21	23:1:284:TRP:HZ2	1.84	0.41
23:1:378:MET:HE3	23:1:381:LEU:HD22	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:4:263:VAL:O	24:4:265:PRO:HD3	2.21	0.41
25:0:1:MET:CG	25:0:12:PHE:HB3	2.51	0.41
25:0:1:MET:HG3	25:0:12:PHE:HB3	2.03	0.41
25:0:69:ILE:HG23	25:0:231:ILE:HG23	2.02	0.41
25:0:83:LEU:HD23	25:0:83:LEU:HA	1.89	0.41
25:0:140:GLN:CG	25:0:143:ARG:HH21	2.34	0.41
25:0:346:MET:HE3	25:0:433:PRO:C	2.45	0.41
29:7:150:ALA:O	29:7:154:GLN:N	2.47	0.41
30:3:37:ARG:NE	30:3:37:ARG:HA	2.35	0.41
1:A:90:VAL:O	1:A:236:LEU:N	2.53	0.40
1:A:596:THR:O	1:A:599:SER:N	2.54	0.40
1:A:782:ARG:HD2	1:A:787:PHE:O	2.21	0.40
1:A:956:LEU:HD22	1:A:957:PRO:HD2	2.03	0.40
1:A:1133:LEU:HD23	1:A:1133:LEU:HA	1.86	0.40
1:A:1442:ASP:O	6:F:134:ILE:HD12	2.21	0.40
2:B:214:ALA:HB3	2:B:498:THR:HA	2.03	0.40
2:B:230:ALA:C	2:B:232:SER:H	2.29	0.40
2:B:244:LEU:HD21	2:B:362:PRO:O	2.21	0.40
2:B:313:MET:CE	2:B:390:LEU:HD11	2.51	0.40
2:B:335:GLY:O	2:B:348:ARG:HD3	2.21	0.40
2:B:363:HIS:CD2	2:B:364:ILE:H	2.39	0.40
2:B:661:LEU:HD23	2:B:661:LEU:HA	1.89	0.40
2:B:789:MET:HE1	2:B:951:GLN:OE1	2.21	0.40
2:B:881:ASN:HA	2:B:931:TYR:CD1	2.55	0.40
2:B:886:LYS:HE2	2:B:940:PRO:HD3	2.04	0.40
2:B:899:ILE:HD11	2:B:911:ILE:HA	2.02	0.40
2:B:1183:LYS:C	2:B:1185:CYS:H	2.29	0.40
3:C:93:ASP:OD1	3:C:122:SER:HB3	2.20	0.40
3:C:230:MET:HE2	3:C:230:MET:HB2	2.00	0.40
4:D:188:ALA:HB2	4:D:208:GLU:OE2	2.21	0.40
5:E:122:LYS:HE2	5:E:122:LYS:HB2	1.89	0.40
6:F:100:GLN:C	6:F:102:SER:N	2.79	0.40
7:G:45:ILE:HD12	7:G:45:ILE:H	1.85	0.40
9:I:84:VAL:HG23	9:I:104:LEU:HD21	2.03	0.40
12:L:51:CYS:O	12:L:51:CYS:SG	2.79	0.40
13:M:254:THR:O	13:M:257:GLU:HB3	2.21	0.40
19:X:271:PHE:O	19:X:273:GLU:N	2.54	0.40
23:1:389:LEU:O	26:6:246:ASP:HB2	2.21	0.40
24:4:197:MET:CE	26:6:374:THR:HG22	2.51	0.40
25:0:307:VAL:H	25:0:382:SER:HB2	1.86	0.40
25:0:553:MET:O	25:0:556:THR:HB	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:7:384:ILE:O	29:7:513:LEU:HA	2.21	0.40
29:7:445:MET:HG2	29:7:445:MET:O	2.21	0.40
29:7:639:ILE:O	29:7:643:PHE:N	2.55	0.40
1:A:53:LEU:HD12	1:A:53:LEU:HA	1.84	0.40
1:A:372:LYS:HE3	1:A:397:ASN:O	2.22	0.40
1:A:524:VAL:O	1:A:525:GLN:HB2	2.22	0.40
1:A:547:LEU:HA	1:A:547:LEU:HD23	1.87	0.40
1:A:811:GLN:HG2	1:A:812:GLU:H	1.85	0.40
1:A:1336:MET:HE2	1:A:1336:MET:HB3	1.90	0.40
2:B:457:LEU:O	2:B:458:LYS:C	2.64	0.40
2:B:915:THR:HA	2:B:935:ARG:O	2.21	0.40
3:C:99:LEU:HD11	3:C:120:ILE:HG12	2.04	0.40
3:C:118:LEU:HA	3:C:118:LEU:HD23	1.85	0.40
5:E:24:LYS:NZ	5:E:32:GLN:OE1	2.52	0.40
5:E:110:PHE:CD1	5:E:111:VAL:N	2.89	0.40
8:H:143:LEU:C	8:H:144:ILE:HD13	2.45	0.40
9:I:2:THR:OG1	9:I:3:THR:HG23	2.21	0.40
13:M:150:ALA:HB1	13:M:176:ILE:HG12	2.03	0.40
15:R:106:LEU:HD23	15:R:107:LEU:C	2.47	0.40
15:R:259:VAL:HA	15:R:262:THR:OG1	2.21	0.40
19:X:277:LYS:HD2	19:X:277:LYS:C	2.46	0.40
20:T:128:DG:H2"	20:T:129:DC:C5	2.56	0.40
23:1:212:THR:HG22	23:1:213:ARG:HH11	1.86	0.40
24:4:134:GLU:C	24:4:136:GLU:H	2.28	0.40
24:4:209:PRO:HB3	24:4:232:ASN:O	2.22	0.40
25:0:55:LEU:O	25:0:59:TYR:N	2.41	0.40
25:0:69:ILE:HG12	25:0:231:ILE:CG2	2.52	0.40
27:2:25:LEU:HA	27:2:25:LEU:HD12	1.76	0.40
27:2:339:LEU:O	27:2:408:MET:HE3	2.20	0.40
27:2:409:ARG:O	27:2:413:GLU:HG2	2.21	0.40
27:2:419:LYS:HE2	27:2:426:CYS:HB3	2.03	0.40
29:7:354:ILE:HG12	29:7:452:LEU:HD21	2.03	0.40
29:7:383:ILE:HD11	29:7:531:ILE:HD12	2.03	0.40
1:A:42:ASP:HB2	1:A:48:ALA:H	1.86	0.40
1:A:312:PRO:HD3	13:M:106:PHE:CD2	2.56	0.40
1:A:512:VAL:HA	1:A:519:PRO:HA	2.03	0.40
1:A:658:LEU:HD23	1:A:658:LEU:C	2.47	0.40
1:A:802:ASN:ND2	2:B:728:ARG:HB2	2.37	0.40
2:B:88:TYR:CE2	15:R:278:LEU:HD21	2.56	0.40
2:B:653:VAL:C	2:B:654:ARG:HD2	2.47	0.40
7:G:35:GLU:C	7:G:37:SER:H	2.30	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:15:VAL:HG11	8:H:49:VAL:CG2	2.52	0.40
8:H:60:ALA:O	8:H:62:SER:N	2.54	0.40
12:L:26:THR:HA	12:L:41:SER:HA	2.02	0.40
12:L:29:TYR:CB	12:L:56:LEU:HD12	2.51	0.40
13:M:87:LEU:HB3	13:M:130:PHE:CZ	2.56	0.40
15:R:129:VAL:HG23	15:R:218:VAL:O	2.22	0.40
15:R:275:SER:O	15:R:279:LYS:HE2	2.20	0.40
22:O:65:PRO:HD2	22:O:224:TYR:CD1	2.54	0.40
23:1:178:LEU:HD13	23:1:181:GLN:OE1	2.22	0.40
23:1:210:TRP:HB3	23:1:217:LEU:HD11	2.04	0.40
24:4:262:ILE:HG22	24:4:263:VAL:O	2.21	0.40
25:0:24:TYR:OH	25:0:459:THR:OG1	2.16	0.40
25:0:176:PHE:CD1	25:0:181:LEU:HA	2.56	0.40
25:0:283:GLN:O	25:0:287:GLU:OE1	2.39	0.40
25:0:322:PRO:CA	25:0:376:PHE:HD2	2.34	0.40
25:0:569:ILE:C	25:0:570:LEU:HD12	2.46	0.40
26:6:293:ASP:HB3	26:6:296:HIS:HB2	2.03	0.40
27:2:43:ALA:O	27:2:47:ILE:HG12	2.20	0.40
27:2:87:LEU:HD12	27:2:98:ILE:HG23	2.03	0.40
27:2:473:LYS:NZ	27:2:477:ASP:OD1	2.54	0.40
29:7:368:LYS:NZ	29:7:542:GLU:HG2	2.36	0.40
29:7:368:LYS:HD3	29:7:543:LEU:HA	2.02	0.40
29:7:484:PHE:CZ	29:7:511:LEU:HB2	2.57	0.40
29:7:568:GLU:OE1	29:7:571:ARG:HD3	2.20	0.40
30:3:37:ARG:HB2	30:3:56:TYR:CZ	2.56	0.40
1:A:130:ASP:CG	1:A:132:LYS:H	2.29	0.40
1:A:250:ILE:HG22	1:A:258:GLY:O	2.21	0.40
1:A:359:LEU:HD23	1:A:359:LEU:HA	1.66	0.40
1:A:596:THR:C	1:A:598:LEU:N	2.79	0.40
1:A:767:GLN:NE2	1:A:798:GLY:O	2.54	0.40
1:A:1025:ARG:HA	1:A:1025:ARG:HD3	1.60	0.40
1:A:1215:ARG:O	1:A:1219:THR:N	2.39	0.40
2:B:190:TYR:HD1	10:J:63:TYR:CD1	2.40	0.40
2:B:642:ASP:HA	2:B:649:LYS:HA	2.03	0.40
2:B:946:ASN:N	2:B:946:ASN:OD1	2.54	0.40
2:B:1101:ASP:O	2:B:1122:ARG:NE	2.54	0.40
2:B:1187:ASN:HD21	2:B:1190:ASP:CA	2.35	0.40
3:C:5:GLY:O	3:C:24:ASN:ND2	2.54	0.40
3:C:148:ARG:N	3:C:151:GLN:OE1	2.38	0.40
11:K:102:LYS:HE2	11:K:102:LYS:HB3	1.84	0.40
12:L:28:LYS:HG2	12:L:39:SER:HB2	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:30:ILE:HD11	12:L:35:SER:HA	2.03	0.40
13:M:313:TYR:HA	13:M:316:LEU:HB2	2.03	0.40
14:Q:126:LYS:O	15:R:130:GLU:HB3	2.22	0.40
15:R:72:ARG:HG2	15:R:73:LEU:N	2.37	0.40
15:R:105:THR:HG22	15:R:121:ASP:CB	2.51	0.40
18:W:52:THR:HG23	18:W:53:GLU:HG3	2.03	0.40
23:1:185:LEU:HA	23:1:185:LEU:HD12	1.80	0.40
23:1:253:ARG:HA	23:1:256:ILE:HG12	2.02	0.40
23:1:547:LEU:O	23:1:551:ARG:N	2.39	0.40
24:4:65:LEU:HD12	24:4:71:ASN:O	2.20	0.40
24:4:262:ILE:HD12	24:4:262:ILE:H	1.86	0.40
24:4:271:ASP:CB	26:6:372:LEU:HD12	2.50	0.40
25:0:1:MET:HG2	25:0:14:TYR:O	2.21	0.40
25:0:27:ASP:OD2	25:0:481:LYS:HG2	2.21	0.40
25:0:311:VAL:CG1	25:0:317:LEU:HD11	2.50	0.40
25:0:497:ILE:HA	25:0:708:LEU:O	2.21	0.40
25:0:506:ILE:HG21	25:0:525:MET:HE1	2.02	0.40
26:6:224:VAL:HA	26:6:225:PRO:HD3	1.89	0.40
26:6:360:PRO:O	26:6:369:MET:HE3	2.22	0.40
27:2:277:MET:CE	27:2:284:THR:HG22	2.51	0.40
27:2:451:VAL:CG1	28:5:51:LYS:HE2	2.47	0.40
28:5:31:VAL:HA	28:5:42:VAL:HA	2.04	0.40
29:7:344:ARG:HA	29:7:344:ARG:HD3	1.75	0.40
29:7:369:SER:OG	29:7:384:ILE:HD13	2.22	0.40
29:7:419:GLN:HA	29:7:422:GLN:OE1	2.22	0.40
29:7:424:PHE:CD1	29:7:428:CYS:HB2	2.56	0.40
1:A:17:VAL:HA	2:B:1215:ARG:O	2.21	0.40
1:A:66:LYS:NZ	1:A:72:GLU:HB3	2.37	0.40
1:A:446:ARG:HD2	1:A:480:ALA:HB2	2.03	0.40
1:A:672:ASP:OD1	1:A:674:PRO:HD2	2.22	0.40
1:A:1017:LEU:O	1:A:1020:CYS:N	2.54	0.40
1:A:1193:LEU:HD12	1:A:1194:ARG:H	1.87	0.40
1:A:1223:ASP:OD1	1:A:1224:LEU:HG	2.21	0.40
1:A:1237:ILE:O	1:A:1239:ARG:NH1	2.55	0.40
1:A:1396:ALA:HA	1:A:1399:ARG:NH2	2.37	0.40
2:B:86:ARG:N	2:B:86:ARG:HD2	2.37	0.40
2:B:189:LEU:HD23	2:B:189:LEU:HA	1.89	0.40
2:B:376:PHE:O	2:B:379:GLY:N	2.55	0.40
3:C:18:VAL:HB	3:C:240:VAL:CG2	2.52	0.40
5:E:26:ARG:HH21	5:E:189:GLY:N	2.19	0.40
8:H:79:TRP:O	8:H:80:ARG:NH2	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:13:MET:HE3	9:I:15:TYR:CE1	2.57	0.40
13:M:164:LYS:CE	20:T:138:DA:H5"	2.52	0.40
13:M:180:CYS:O	13:M:183:ALA:N	2.54	0.40
13:M:284:LEU:O	13:M:288:LEU:N	2.54	0.40
14:Q:337:GLU:OE2	14:Q:340:LYS:N	2.54	0.40
19:X:271:PHE:CG	19:X:272:ALA:N	2.88	0.40
19:X:272:ALA:C	19:X:275:PRO:HD2	2.47	0.40
22:O:197:MET:HE1	22:O:226:ALA:CA	2.52	0.40
24:4:119:ARG:NH1	24:4:123:GLU:OE1	2.54	0.40
25:0:270:ARG:NH2	25:0:390:VAL:HA	2.37	0.40
25:0:422:PRO:C	25:0:433:PRO:HA	2.46	0.40
25:0:504:VAL:HA	29:7:377:GLY:CA	2.52	0.40
26:6:225:PRO:HD2	26:6:228:CYS:SG	2.62	0.40
29:7:365:TYR:CE1	29:7:548:HIS:ND1	2.90	0.40
29:7:383:ILE:HD13	29:7:383:ILE:HA	1.96	0.40
29:7:436:ALA:HB3	29:7:449:GLU:OE1	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	1386/1733 (80%)	1192 (86%)	189 (14%)	5 (0%)	30	59
2	B	1136/1224 (93%)	987 (87%)	146 (13%)	3 (0%)	36	65
3	C	260/318 (82%)	214 (82%)	46 (18%)	0	100	100
4	D	153/221 (69%)	135 (88%)	18 (12%)	0	100	100
5	E	211/215 (98%)	193 (92%)	18 (8%)	0	100	100
6	F	81/155 (52%)	69 (85%)	12 (15%)	0	100	100
7	G	169/171 (99%)	152 (90%)	17 (10%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	H	132/146 (90%)	106 (80%)	24 (18%)	2 (2%)	8	30
9	I	114/122 (93%)	94 (82%)	20 (18%)	0	100	100
10	J	63/70 (90%)	44 (70%)	19 (30%)	0	100	100
11	K	110/120 (92%)	95 (86%)	15 (14%)	0	100	100
12	L	43/70 (61%)	33 (77%)	7 (16%)	3 (7%)	1	6
13	M	273/345 (79%)	221 (81%)	52 (19%)	0	100	100
14	Q	140/735 (19%)	120 (86%)	20 (14%)	0	100	100
15	R	176/400 (44%)	163 (93%)	13 (7%)	0	100	100
16	U	44/286 (15%)	38 (86%)	6 (14%)	0	100	100
17	V	45/122 (37%)	44 (98%)	1 (2%)	0	100	100
18	W	189/482 (39%)	182 (96%)	7 (4%)	0	100	100
19	X	152/328 (46%)	136 (90%)	16 (10%)	0	100	100
22	O	178/240 (74%)	167 (94%)	11 (6%)	0	100	100
23	1	256/542 (47%)	234 (91%)	19 (7%)	3 (1%)	10	35
24	4	279/338 (82%)	222 (80%)	57 (20%)	0	100	100
25	0	752/778 (97%)	670 (89%)	82 (11%)	0	100	100
26	6	336/461 (73%)	298 (89%)	36 (11%)	2 (1%)	21	50
27	2	456/513 (89%)	390 (86%)	66 (14%)	0	100	100
28	5	64/72 (89%)	58 (91%)	6 (9%)	0	100	100
29	7	630/843 (75%)	539 (86%)	90 (14%)	1 (0%)	43	71
30	3	136/321 (42%)	105 (77%)	31 (23%)	0	100	100
All	All	7964/11371 (70%)	6901 (87%)	1044 (13%)	19 (0%)	44	71

All (19) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	465	TYR
2	B	364	ILE
8	H	110	ASP
26	6	411	PRO
29	7	349	ASN
1	A	464	PRO
2	B	363	HIS
12	L	37	LYS
23	1	230	PRO

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Mol	Chain	Res	Type
26	6	425	SER
12	L	52	GLY
1	A	525	GLN
2	B	1046	PRO
8	H	61	SER
23	1	225	SER
1	A	1402	PHE
1	A	253	ASN
23	1	239	PRO
12	L	46	VAL

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	1221/1520 (80%)	1221 (100%)	0	100	100
2	B	1000/1061 (94%)	1000 (100%)	0	100	100
3	C	230/274 (84%)	230 (100%)	0	100	100
4	D	139/200 (70%)	139 (100%)	0	100	100
5	E	195/197 (99%)	195 (100%)	0	100	100
6	F	73/137 (53%)	73 (100%)	0	100	100
7	G	152/152 (100%)	152 (100%)	0	100	100
8	H	119/128 (93%)	119 (100%)	0	100	100
9	I	110/116 (95%)	110 (100%)	0	100	100
10	J	60/65 (92%)	60 (100%)	0	100	100
11	K	97/102 (95%)	97 (100%)	0	100	100
12	L	40/57 (70%)	34 (85%)	6 (15%)	3	11
13	M	245/299 (82%)	245 (100%)	0	100	100
14	Q	109/641 (17%)	109 (100%)	0	100	100
15	R	107/363 (30%)	107 (100%)	0	100	100
16	U	42/260 (16%)	42 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
17	V	46/108 (43%)	46 (100%)	0	100	100
18	W	155/429 (36%)	155 (100%)	0	100	100
19	X	62/295 (21%)	62 (100%)	0	100	100
22	O	152/205 (74%)	152 (100%)	0	100	100
23	1	169/395 (43%)	169 (100%)	0	100	100
24	4	198/298 (66%)	198 (100%)	0	100	100
25	0	686/707 (97%)	686 (100%)	0	100	100
26	6	247/406 (61%)	247 (100%)	0	100	100
27	2	258/468 (55%)	258 (100%)	0	100	100
28	5	53/66 (80%)	53 (100%)	0	100	100
29	7	414/737 (56%)	414 (100%)	0	100	100
30	3	53/303 (18%)	53 (100%)	0	100	100
All	All	6432/9989 (64%)	6426 (100%)	6 (0%)	87	89

All (6) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
12	L	30	ILE
12	L	33	GLU
12	L	34	CYS
12	L	35	SER
12	L	38	LEU
12	L	40	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (82) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	18	GLN
1	A	253	ASN
1	A	299	HIS
1	A	306	ASN
1	A	316	GLN
1	A	451	HIS
1	A	471	ASN
1	A	548	ASN
1	A	576	GLN
1	A	650	GLN

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Mol	Chain	Res	Type
1	A	659	HIS
1	A	717	ASN
1	A	994	GLN
1	A	996	ASN
1	A	1059	HIS
1	A	1171	GLN
1	A	1187	GLN
1	A	1222	ASN
1	A	1427	ASN
2	B	103	ASN
2	B	215	GLN
2	B	499	ASN
2	B	513	GLN
2	B	538	ASN
2	B	592	ASN
2	B	821	GLN
2	B	887	HIS
2	B	932	HIS
2	B	1062	HIS
2	B	1205	GLN
3	C	167	HIS
4	D	143	ASN
4	D	216	ASN
5	E	104	ASN
5	E	143	ASN
8	H	21	ASN
8	H	128	ASN
9	I	83	ASN
9	I	90	GLN
11	K	29	ASN
11	K	65	HIS
13	M	90	ASN
13	M	245	HIS
13	M	300	GLN
15	R	65	ASN
15	R	67	GLN
22	O	68	GLN
22	O	91	ASN
23	1	196	GLN
23	1	258	ASN
23	1	379	ASN
24	4	64	HIS

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Mol	Chain	Res	Type
24	4	161	ASN
25	0	60	GLN
25	0	140	GLN
25	0	152	ASN
25	0	159	HIS
25	0	224	ASN
25	0	664	GLN
25	0	699	GLN
25	0	726	GLN
26	6	163	GLN
26	6	202	GLN
26	6	212	ASN
26	6	227	HIS
26	6	249	GLN
26	6	302	ASN
27	2	356	GLN
27	2	389	ASN
27	2	395	GLN
27	2	403	HIS
27	2	500	GLN
29	7	345	ASN
29	7	347	HIS
29	7	366	GLN
29	7	589	GLN
29	7	646	ASN
29	7	648	GLN
29	7	650	ASN
29	7	672	GLN
29	7	729	GLN
30	3	31	ASN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 19 ligands modelled in this entry, 18 are monoatomic - leaving 1 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	$\# Z > 2$
33	SF4	0	801	25	0,12,12	-	-	-		

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
33	SF4	0	801	25	-	-	0/6/5/5

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
33	0	801	SF4	3	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
23	1	3

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	1	393:UNK	C	465:UNK	N	84.96
1	1	519:UNK	C	537:GLU	N	11.53
1	1	355:UNK	C	368:UNK	N	10.44

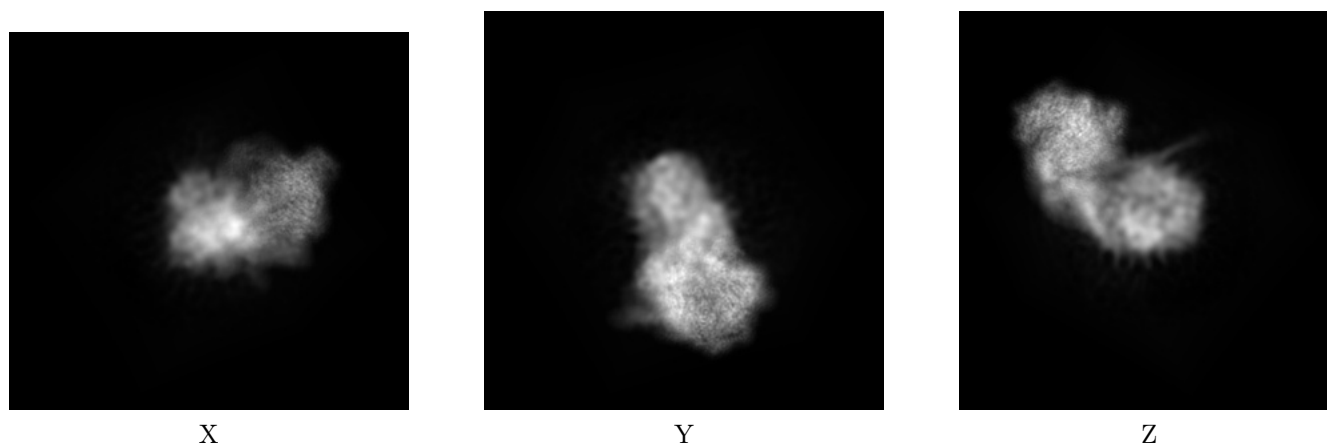
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-23906. These allow visual inspection of the internal detail of the map and identification of artifacts.

No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

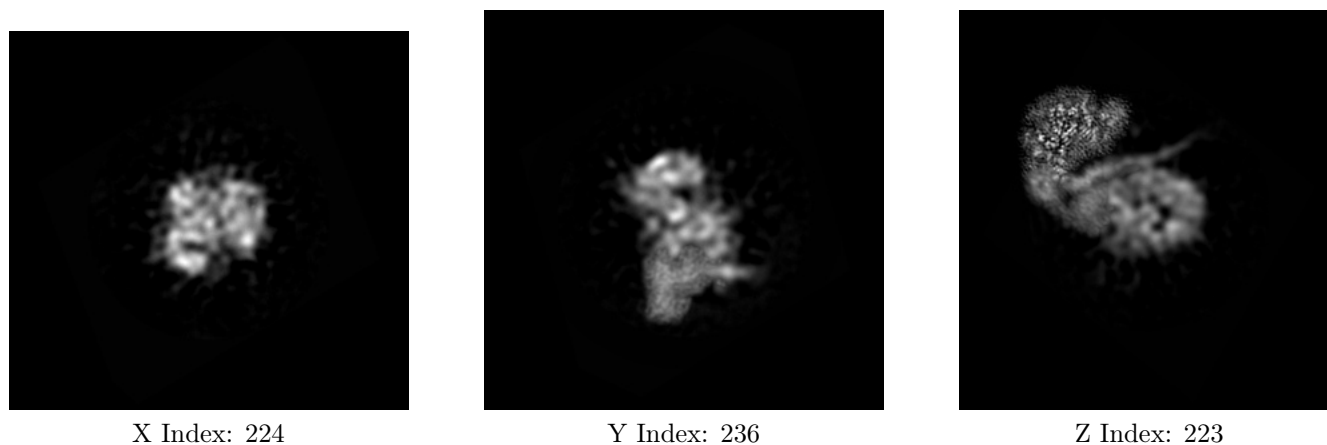
6.1.1 Primary map



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

6.2 Central slices [i](#)

6.2.1 Primary map



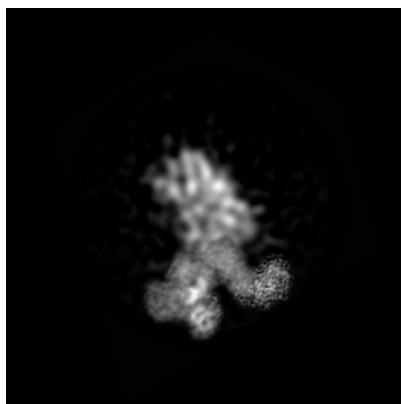
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

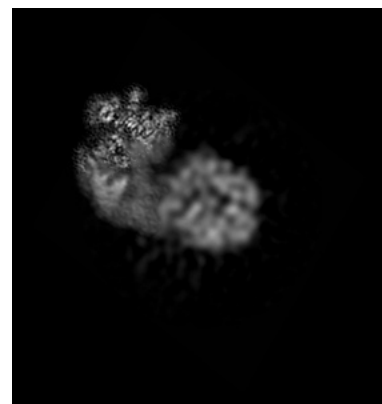
6.3.1 Primary map



X Index: 152



Y Index: 263

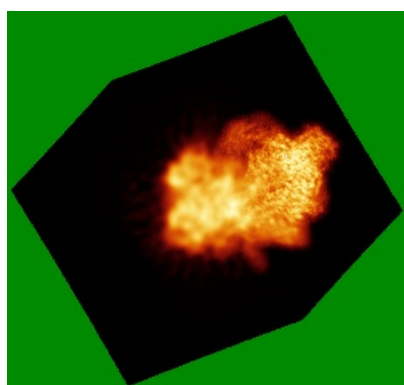


Z Index: 210

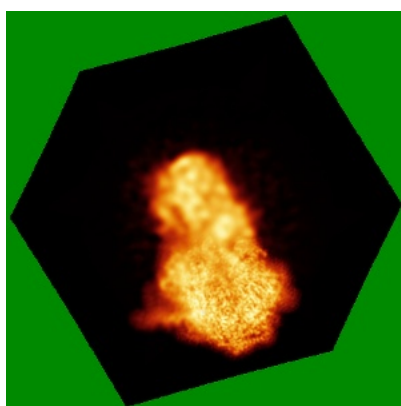
The images above show the largest variance slices of the map in three orthogonal directions.

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

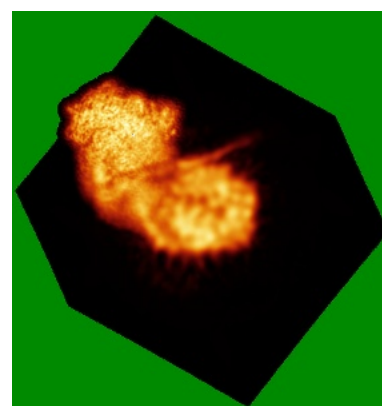
6.4.1 Primary map



X



Y

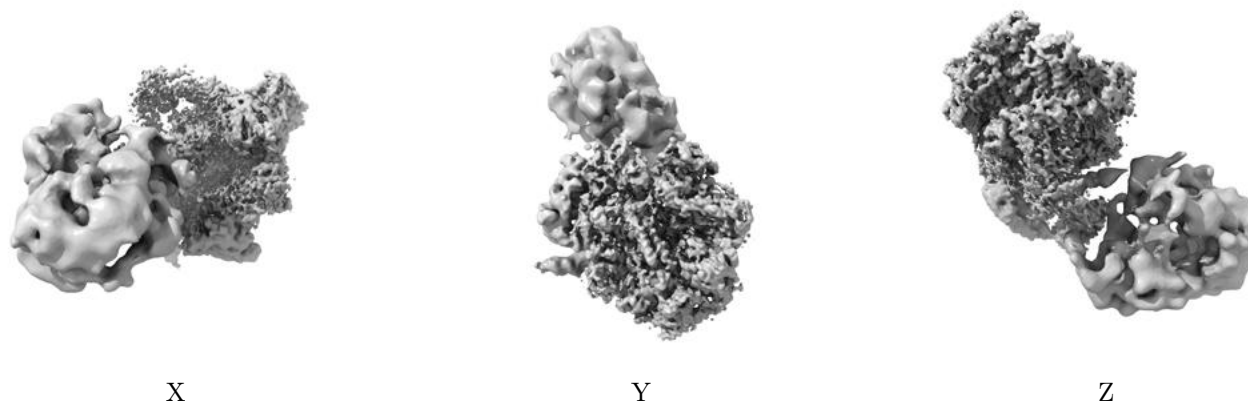


Z

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



The images above show the 3D surface view of the map at the recommended contour level 0.018. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

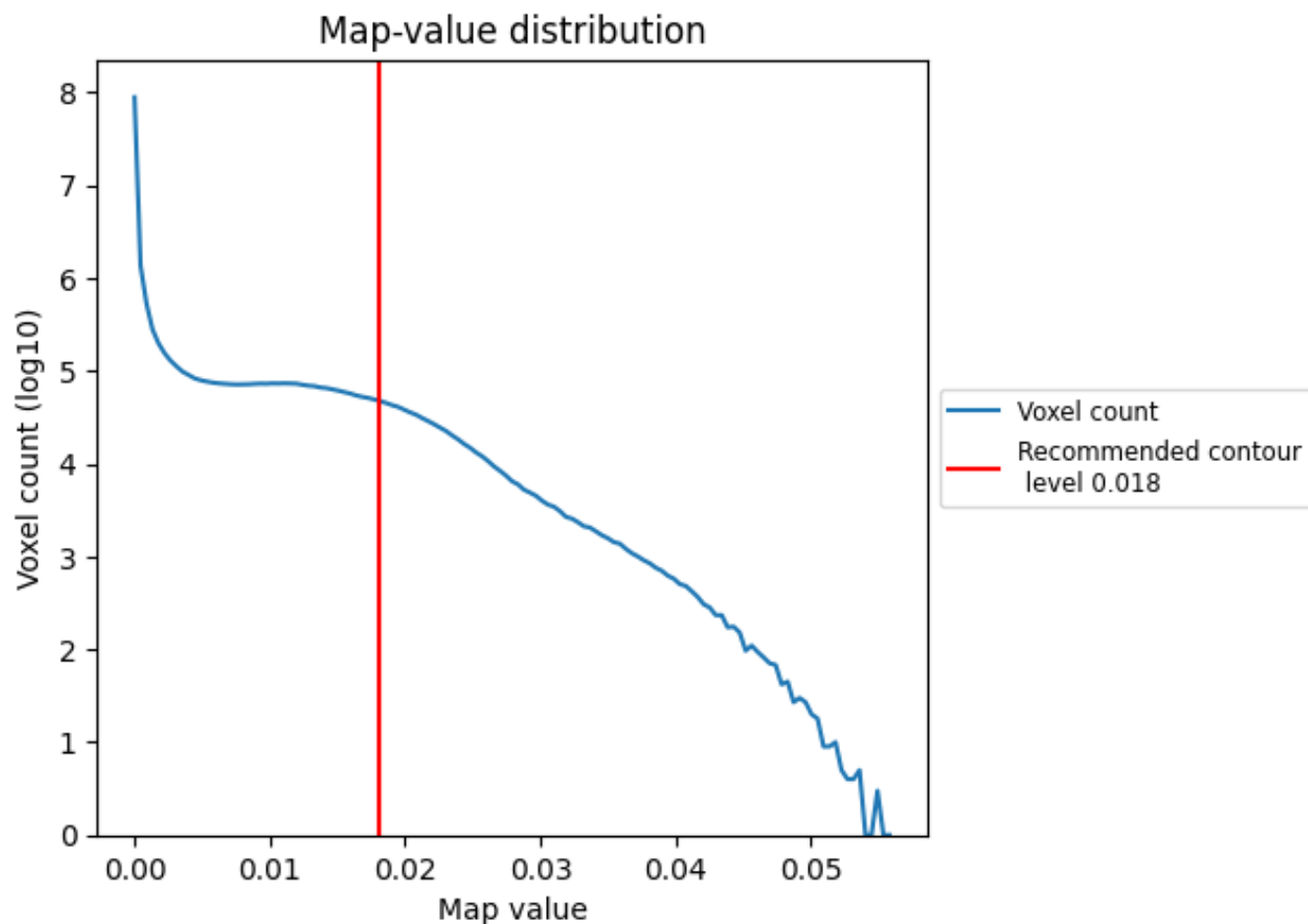
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

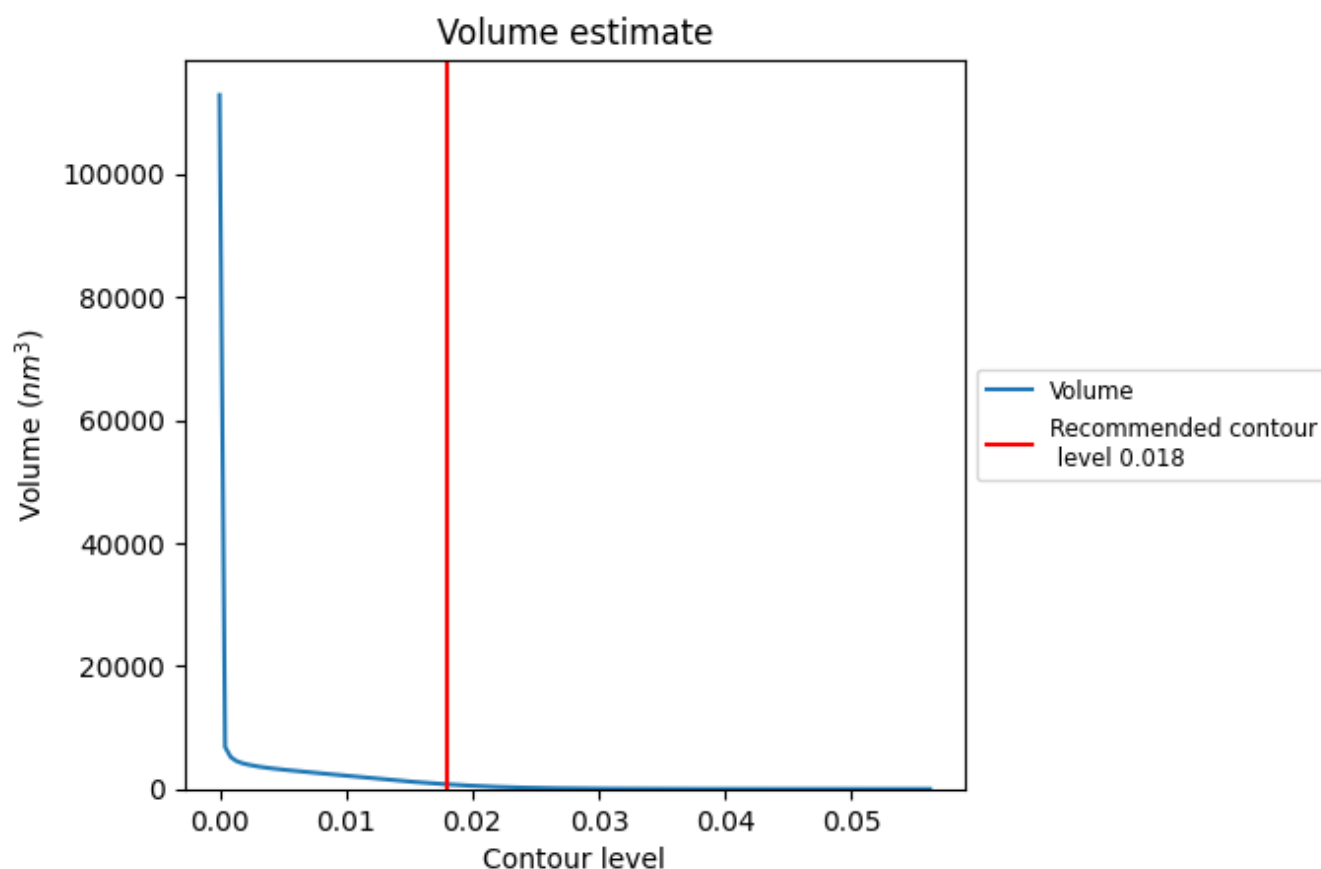
This section contains the results of statistical analysis of the map.

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 762 nm^3 ; this corresponds to an approximate mass of 688 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.

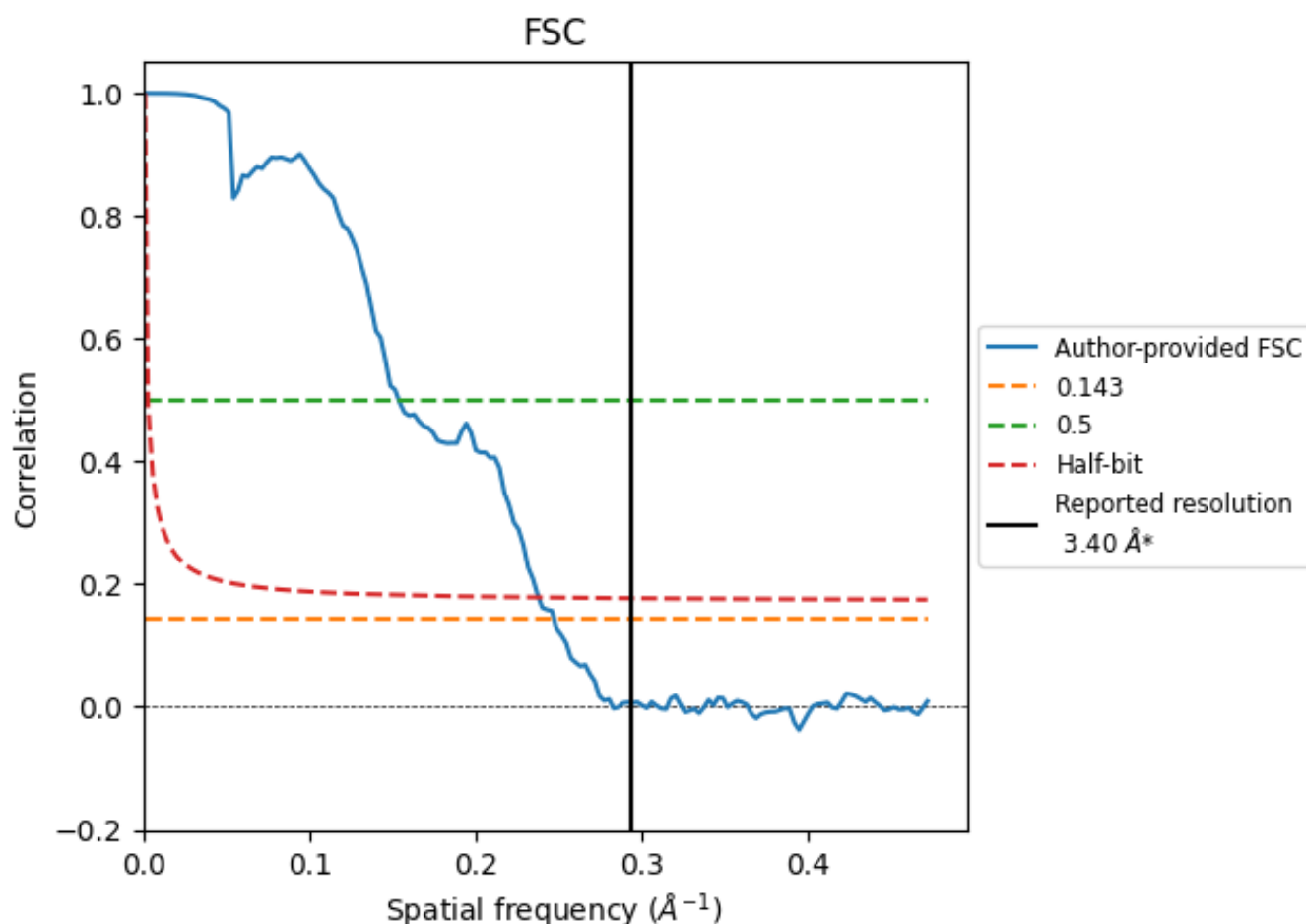
7.3 Rotationally averaged power spectrum [i](#)

This section was not generated. The rotationally averaged power spectrum is only generated for cubic maps.

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 0.294 Å⁻¹

8.2 Resolution estimates [i](#)

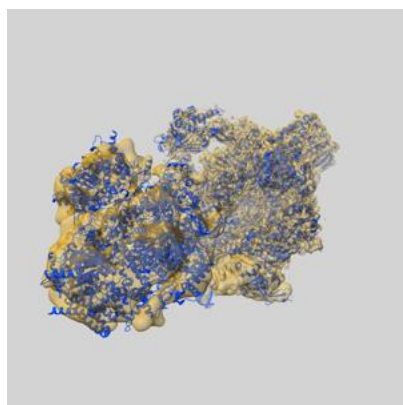
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.40	-	-
Author-provided FSC curve	4.05	6.50	4.20
Unmasked-calculated*	-	-	-

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from author-provided FSC intersecting FSC 0.143 CUT-OFF 4.05 differs from the reported value 3.4 by more than 10 %

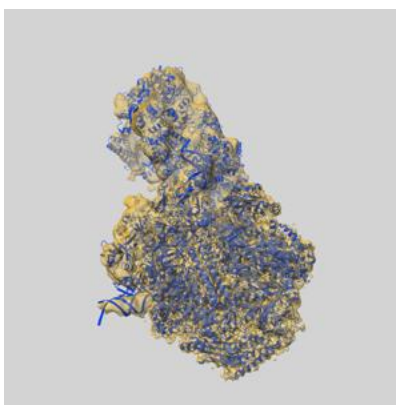
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-23906 and PDB model 7ML2. Per-residue inclusion information can be found in [section 3](#) on [page 11](#).

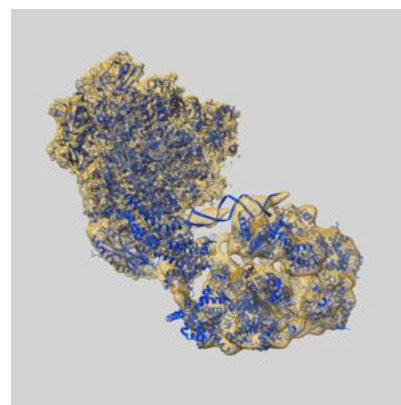
9.1 Map-model overlay [i](#)



X



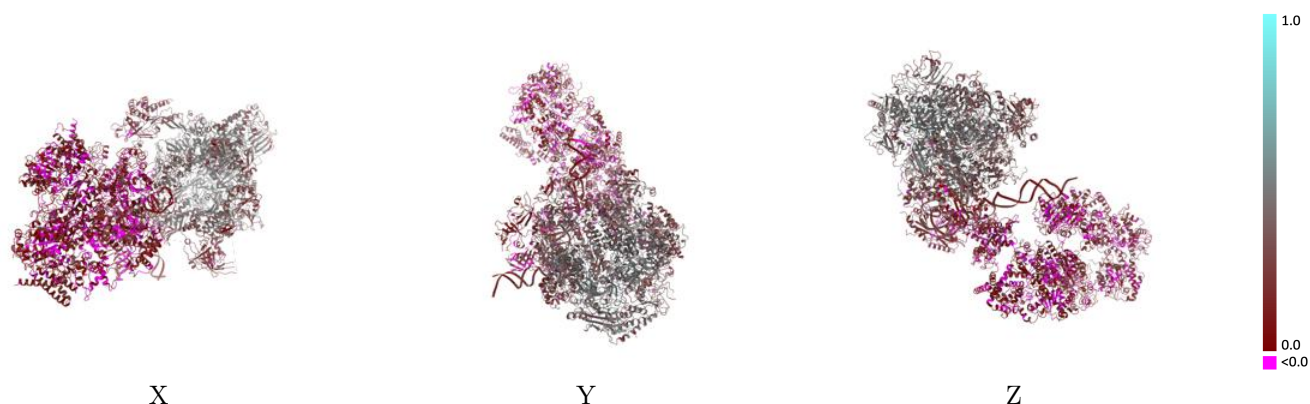
Y



Z

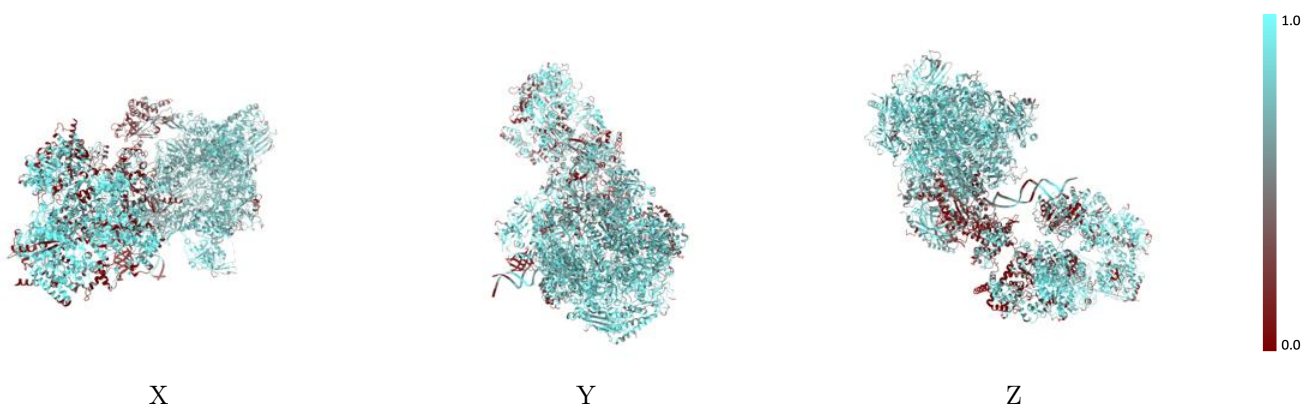
The images above show the 3D surface view of the map at the recommended contour level 0.018 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



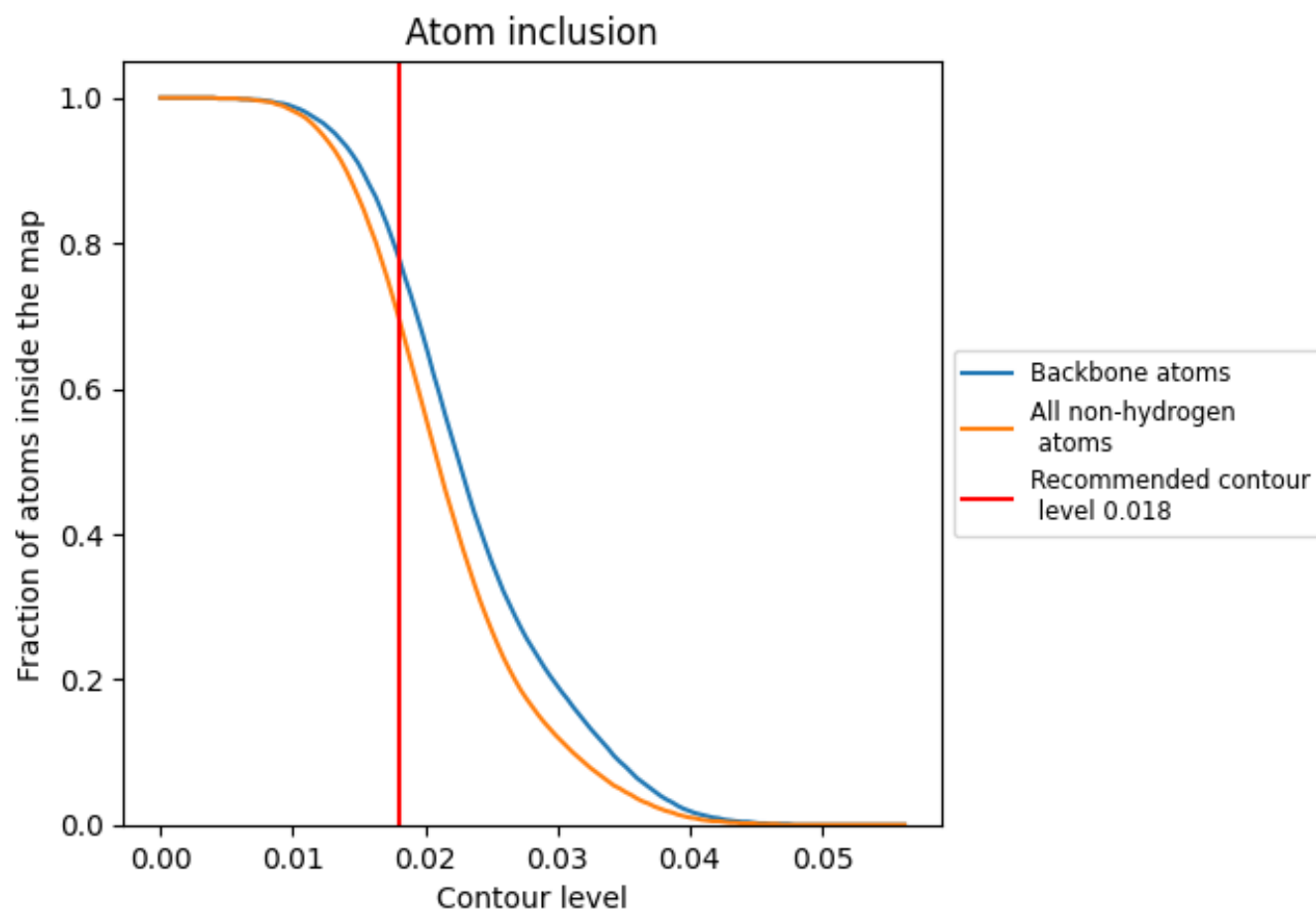
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.018).

9.4 Atom inclusion [i](#)



At the recommended contour level, 78% of all backbone atoms, 70% 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 (0.018) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.6980	 0.2410
0	 0.6760	 0.0760
1	 0.6300	 0.0700
2	 0.6610	 0.0730
3	 0.3780	 0.0870
4	 0.8350	 0.0840
5	 0.6360	 0.0880
6	 0.8020	 0.0860
7	 0.5850	 0.0670
A	 0.7980	 0.4070
B	 0.8270	 0.4220
C	 0.8410	 0.4250
D	 0.2470	 0.2040
E	 0.7770	 0.3820
F	 0.7930	 0.3810
G	 0.4360	 0.2550
H	 0.7370	 0.3440
I	 0.6100	 0.2690
J	 0.8380	 0.4100
K	 0.7150	 0.3710
L	 0.6970	 0.2880
M	 0.5480	 0.2340
N	 0.6980	 0.1450
O	 0.7610	 0.1580
Q	 0.8080	 0.2110
R	 0.6770	 0.1820
T	 0.7070	 0.1650
U	 0.0290	 0.0510
V	 0.1140	 0.0470
W	 0.4040	 0.0900
X	 0.5360	 0.0920

