



## wwPDB EM Map/Model Validation Report ⓘ

Aug 8, 2016 – 02:51 PM EDT

PDB ID : 5GJQ  
EMDB ID: : EMD-9511  
Title : Structure of the human 26S proteasome bound to USP14-UbA1  
Authors : Huang, X.L.; Luan, B.; Wu, J.P.; Shi, Y.G.  
Deposited on : 2016-07-01  
Resolution : 4.50 Å(reported)

This is a wwPDB EM Map/Model Validation Report for a publicly released PDB/EMDB entry.  
For rigid body fitted models, validation errors reported here could stem from errors in the original structure(s) used in the fitting.  
We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)  
A user guide is available at  
<http://wwpdb.org/validation/2016/EMValidationReportHelp>

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MolProbity : 4.02b-467  
Mogul : 1.7.1 (RC1), CSD as537be (2016)  
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)  
Validation Pipeline (wwPDB-VP) : rb-20027939

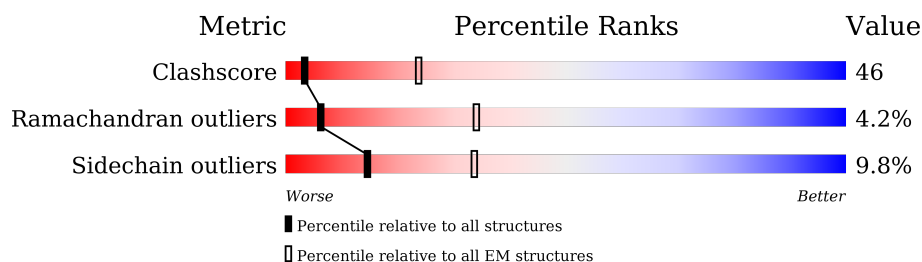
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 4.50 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.













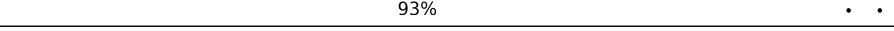
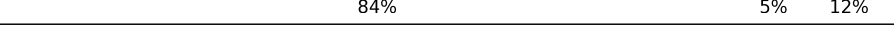







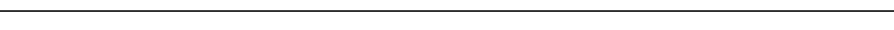

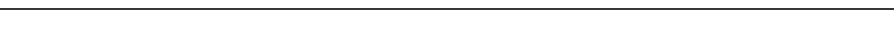
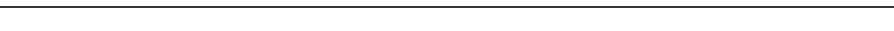


Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. 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  $\leq 5\%$

Mol	Chain	Length	Quality of chain
1	a	239	78% 6% 15%
1	o	239	75% 10% 15%
2	B	246	68% 29% ..
2	h	246	93% 6% .
3	b	277	76% . 21%
3	p	277	73% 6% . 21%
4	C	234	79% 18% .
4	i	234	87% 12% .
5	c	205	92% 8%

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Mol	Chain	Length	Quality of chain
5	q	205	 90% 10%
6	D	261	 76% 18% . .
6	j	261	 89% 7% .
7	d	201	 93% 5% ..
7	r	201	 89% 9% .
8	E	248	 76% 19% . .
8	k	248	 90% 8% .
9	e	263	 72% 5% 24%
9	s	263	 71% 6% 24%
10	F	241	 78% 18% . .
10	l	241	 93% . .
11	f	241	 84% 5% 12%
11	t	241	 83% 5% 12%
12	G	263	 70% 19% . 10%
12	m	263	 82% 9% 10%
13	g	264	 75% 7% 18%
13	u	264	 75% 7% 18%
14	H	433	 18% 53% 14% . 12%
15	I	440	 14% 51% 14% . 18%
16	J	406	 18% 51% 17% . 12%
17	K	418	 14% 54% 20% . 9%
18	L	389	 19% 59% 15% . .
19	M	439	 20% 49% 15% . 14%
20	N	953	 27% 55% . . 14%
21	X	255	 76% 18% . 5%

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Mol	Chain	Length	Quality of chain
21	n	255	
22	O	376	
23	P	456	
24	Q	422	
25	R	389	
26	S	534	
27	T	350	
28	U	324	
29	V	310	
30	W	377	
31	Y	70	
32	Z	908	
33	x	494	
34	y	76	

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
35	ADP	H	501	-	-	X	-
35	ADP	K	501	-	-	X	-

## 2 Entry composition

There are 35 unique types of molecules in this entry. The entry contains 98461 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 Proteasome subunit beta type-6.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	a	202	Total	C	N	O	S	0	0
			1509	945	258	294	12		
1	o	202	Total	C	N	O	S	0	0
			1509	945	258	294	12		

- Molecule 2 is a protein called Proteasome subunit alpha type-6.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	244	Total	C	N	O	S	0	0
			1845	1171	309	352	13		
2	h	244	Total	C	N	O	S	0	0
			1853	1177	311	352	13		

- Molecule 3 is a protein called Proteasome subunit beta type-7.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	b	220	Total	C	N	O	S	0	0
			1643	1033	280	318	12		
3	p	220	Total	C	N	O	S	0	0
			1643	1033	280	318	12		

- Molecule 4 is a protein called Proteasome subunit alpha type-2.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	C	233	Total	C	N	O	S	0	0
			1707	1081	287	334	5		
4	i	231	Total	C	N	O	S	0	0
			1744	1112	290	336	6		

- Molecule 5 is a protein called Proteasome subunit beta type-3.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	c	204	Total	C	N	O	S	0	0
			1585	1010	262	294	19		
5	q	204	Total	C	N	O	S	0	0
			1585	1010	262	294	19		

- Molecule 6 is a protein called Proteasome subunit alpha type-4.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	D	250	Total	C	N	O	S	0	0
			1912	1204	329	371	8		
6	j	250	Total	C	N	O	S	0	0
			1913	1203	330	372	8		

- Molecule 7 is a protein called Proteasome subunit beta type-2.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	d	199	Total	C	N	O	S	0	0
			1570	1006	265	290	9		
7	r	199	Total	C	N	O	S	0	0
			1570	1006	265	290	9		

- Molecule 8 is a protein called Proteasome subunit alpha type-7.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	E	243	Total	C	N	O	S	0	0
			1724	1068	312	339	5		
8	k	243	Total	C	N	O	S	0	0
			1691	1051	309	327	4		

- Molecule 9 is a protein called Proteasome subunit beta type-5.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	e	201	Total	C	N	O	S	0	0
			1548	974	273	292	9		
9	s	201	Total	C	N	O	S	0	0
			1551	977	273	292	9		

- Molecule 10 is a protein called Proteasome subunit alpha type-5.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	F	234	Total	C	N	O	S	0	0
			1766	1108	290	357	11		

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Mol	Chain	Residues	Atoms					AltConf	Trace
10	l	234	Total	C	N	O	S	0	0
			1726	1107	291	317	11		

- Molecule 11 is a protein called Proteasome subunit beta type-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	f	213	Total	C	N	O	S	0	0
			1641	1036	282	313	10		
11	t	213	Total	C	N	O	S	0	0
			1644	1039	282	313	10		

- Molecule 12 is a protein called Proteasome subunit alpha type-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	G	238	Total	C	N	O	S	0	0
			1850	1159	334	346	11		
12	m	238	Total	C	N	O	S	0	0
			1850	1159	334	346	11		

- Molecule 13 is a protein called Proteasome subunit beta type-4.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	g	216	Total	C	N	O	S	0	0
			1672	1055	286	319	12		
13	u	217	Total	C	N	O	S	0	0
			1678	1058	290	318	12		

- Molecule 14 is a protein called 26S protease regulatory subunit 7.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	H	380	Total	C	N	O	S	0	0
			2879	1809	513	539	18		

- Molecule 15 is a protein called 26S protease regulatory subunit 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	I	359	Total	C	N	O	S	0	0
			2720	1708	465	535	12		

- Molecule 16 is a protein called 26S protease regulatory subunit 8.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	J	358	Total	C	N	O	S	0	0
			2820	1780	506	518	16		

- Molecule 17 is a protein called 26S protease regulatory subunit 6B.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	K	380	Total	C	N	O	S	0	0
			3039	1923	524	579	13		

- Molecule 18 is a protein called 26S protease regulatory subunit 10B.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	L	375	Total	C	N	O	S	0	0
			2860	1796	512	536	16		

- Molecule 19 is a protein called 26S protease regulatory subunit 6A.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	M	376	Total	C	N	O	S	0	0
			2858	1802	496	545	15		

- Molecule 20 is a protein called 26S proteasome non-ATPase regulatory subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	N	823	Total	C	N	O	S	0	0
			5462	3499	933	1012	18		

- Molecule 21 is a protein called Proteasome subunit alpha type-3.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	n	243	Total	C	N	O	S	0	0
			1873	1189	317	356	11		
21	X	243	Total	C	N	O	S	0	0
			1873	1189	317	356	11		

- Molecule 22 is a protein called 26S proteasome non-ATPase regulatory subunit 13.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	O	372	Total	C	N	O	S	0	0
			2372	1518	405	438	11		

- Molecule 23 is a protein called 26S proteasome non-ATPase regulatory subunit 12.



Mol	Chain	Residues	Atoms					AltConf	Trace
23	P	413	Total	C	N	O	S	0	0
			2828	1819	489	514	6		

- Molecule 24 is a protein called 26S proteasome non-ATPase regulatory subunit 11.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	Q	421	Total	C	N	O	S	0	0
			2948	1864	509	567	8		

- Molecule 25 is a protein called 26S proteasome non-ATPase regulatory subunit 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	R	376	Total	C	N	O	S	0	0
			2767	1794	461	503	9		

- Molecule 26 is a protein called 26S proteasome non-ATPase regulatory subunit 3.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	S	395	Total	C	N	O	S	0	0
			2600	1662	463	472	3		

- Molecule 27 is a protein called 26S proteasome non-ATPase regulatory subunit 8.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	T	258	Total	C	N	O	S	0	0
			1702	1102	280	315	5		

- Molecule 28 is a protein called 26S proteasome non-ATPase regulatory subunit 7.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	U	283	Total	C	N	O	S	0	0
			2131	1370	369	388	4		

- Molecule 29 is a protein called 26S proteasome non-ATPase regulatory subunit 14.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	V	257	Total	C	N	O	S	0	0
			2011	1276	341	377	17		

- Molecule 30 is a protein called 26S proteasome non-ATPase regulatory subunit 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	W	193	Total	C	N	O	S	0	0
			1300	818	228	250	4		

- Molecule 31 is a protein called 26S proteasome complex subunit DSS1.

Mol	Chain	Residues	Atoms				AltConf	Trace
31	Y	59	Total	C	N	O	0	0
			308	184	60	64		

- Molecule 32 is a protein called 26S proteasome non-ATPase regulatory subunit 2.

Mol	Chain	Residues	Atoms				AltConf	Trace
32	Z	732	Total	C	N	O	0	0
			3608	2144	732	732		

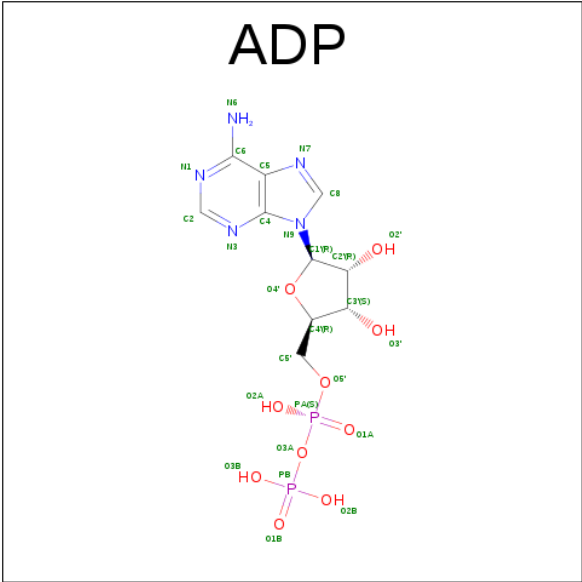
- Molecule 33 is a protein called Ubiquitin carboxyl-terminal hydrolase 14.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	x	355	Total	C	N	O	S	0	0
			2810	1782	470	538	20		

- Molecule 34 is a protein called Polyubiquitin-B.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	y	76	Total	C	N	O	S	0	0
			601	378	105	117	1		

- Molecule 35 is ADENOSINE-5'-DIPHOSPHATE (three-letter code: ADP) (formula:  $C_{10}H_{15}N_5O_{10}P_2$ ).

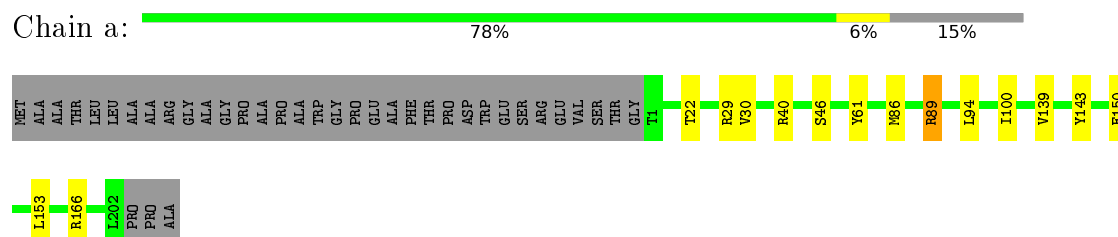


Mol	Chain	Residues	Atoms					AltConf
35	H	1	Total	C	N	O	P	0
			27	10	5	10	2	
35	I	1	Total	C	N	O	P	0
			27	10	5	10	2	
35	J	1	Total	C	N	O	P	0
			27	10	5	10	2	
35	K	1	Total	C	N	O	P	0
			27	10	5	10	2	
35	L	1	Total	C	N	O	P	0
			27	10	5	10	2	
35	M	1	Total	C	N	O	P	0
			27	10	5	10	2	

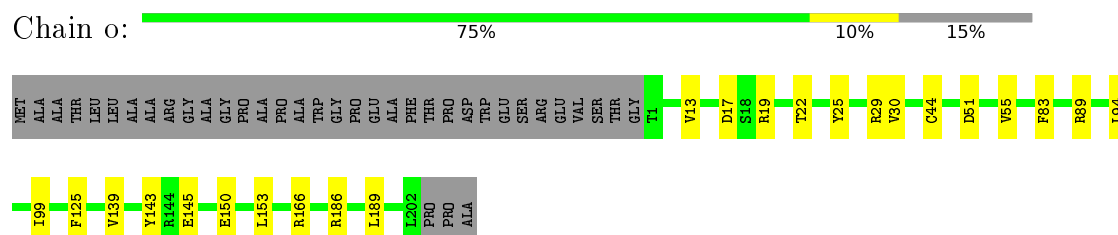
### 3 Residue-property plots [i](#)

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. 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. 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.

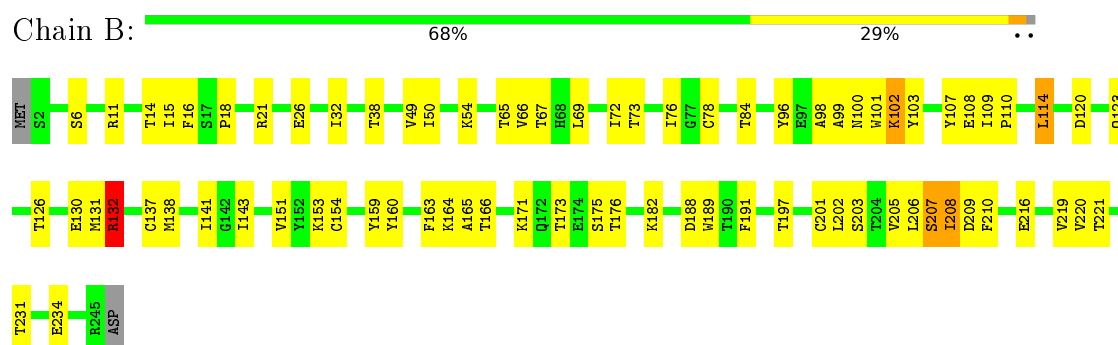
- Molecule 1: Proteasome subunit beta type-6



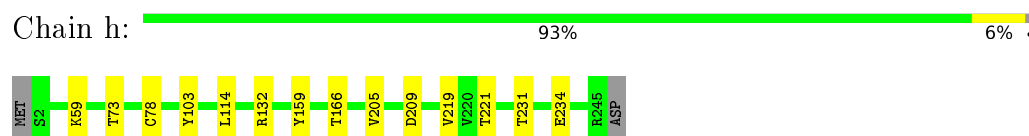
- Molecule 1: Proteasome subunit beta type-6




- Molecule 2: Proteasome subunit alpha type-6

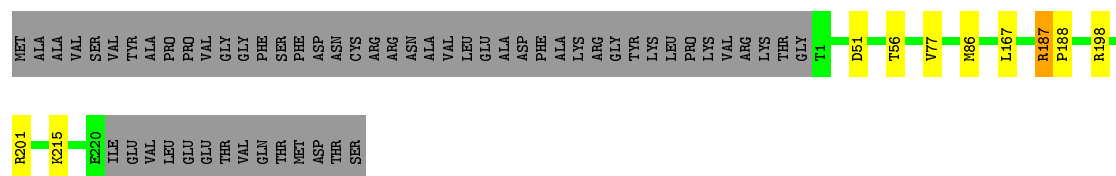


- Molecule 2: Proteasome subunit alpha type-6



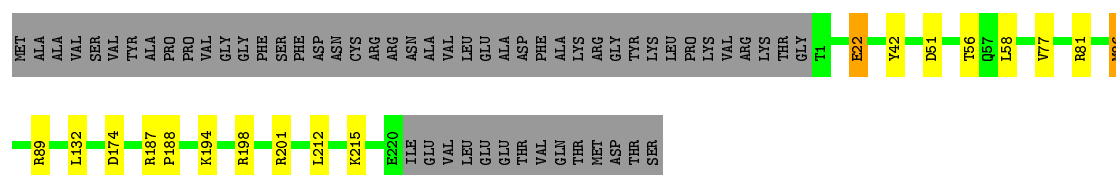
- Molecule 3: Proteasome subunit beta type-7

Chain b:  76% 21%




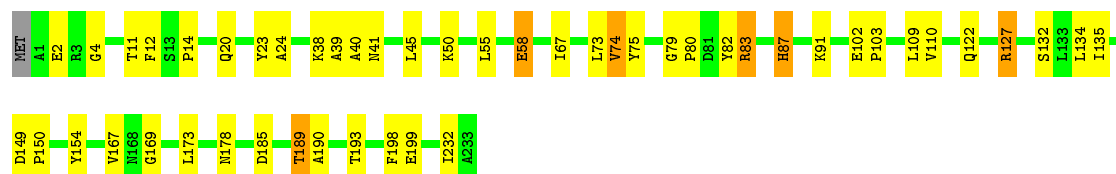
- Molecule 3: Proteasome subunit beta type-7

Chain p:  73% 6% 21%




- Molecule 4: Proteasome subunit alpha type-2

Chain C:  79% 18%



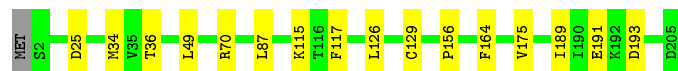
- Molecule 4: Proteasome subunit alpha type-2

Chain i:  87% 12%



- Molecule 5: Proteasome subunit beta type-3

Chain c:  92% 8%




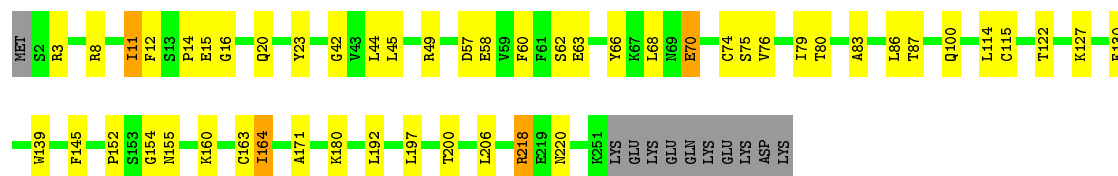
- Molecule 5: Proteasome subunit beta type-3

Chain q:  90% 10%



- Molecule 6: Proteasome subunit alpha type-4

Chain D:  76% 18% . .



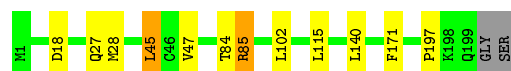
- Molecule 6: Proteasome subunit alpha type-4

Chain j:  89% 7% .




- Molecule 7: Proteasome subunit beta type-2

Chain d:  93% 5% ..




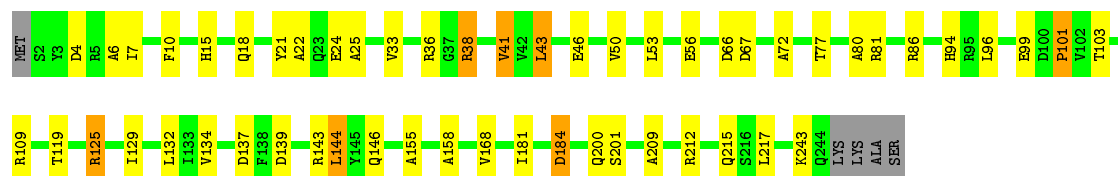
- Molecule 7: Proteasome subunit beta type-2

Chain r:  89% 9% .




- Molecule 8: Proteasome subunit alpha type-7

Chain E:  76% 19% . .



- Molecule 8: Proteasome subunit alpha type-7

Chain k:  90% 8% .



- Molecule 9: Proteasome subunit beta type-5

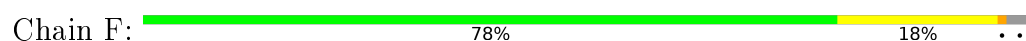
Chain e:  72% 5% 24%



- Molecule 9: Proteasome subunit beta type-5



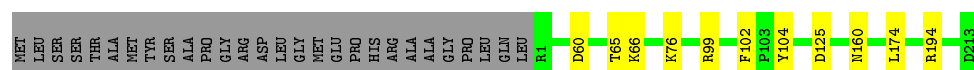
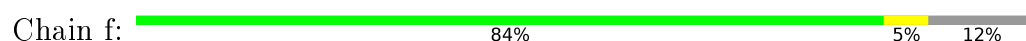
- Molecule 10: Proteasome subunit alpha type-5



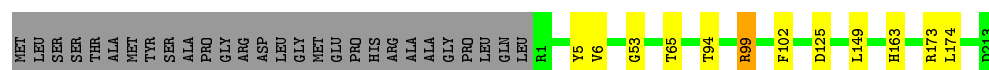
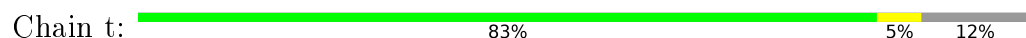
- Molecule 10: Proteasome subunit alpha type-5



- Molecule 11: Proteasome subunit beta type-1

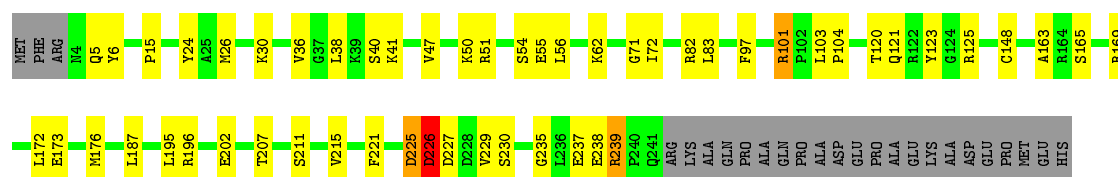


- Molecule 11: Proteasome subunit beta type-1

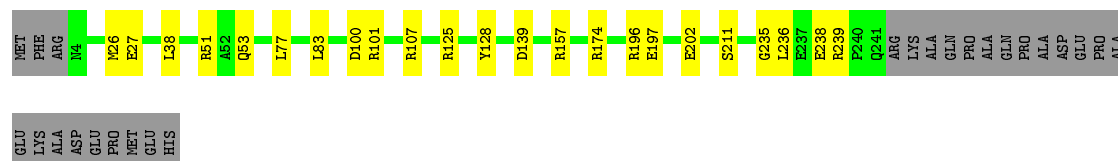
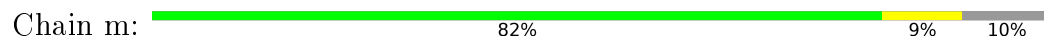


- Molecule 12: Proteasome subunit alpha type-1

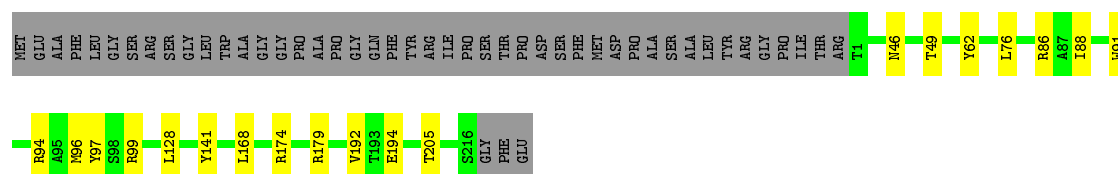




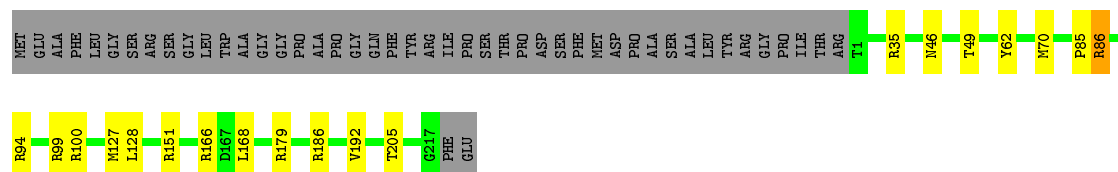
- Molecule 12: Proteasome subunit alpha type-1



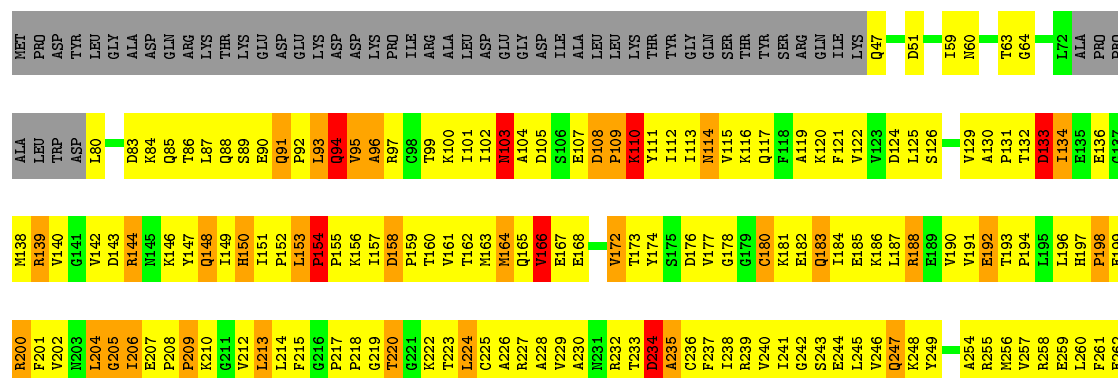
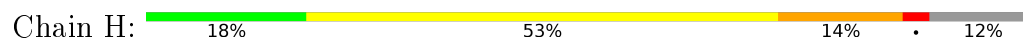
- Molecule 13: Proteasome subunit beta type-4



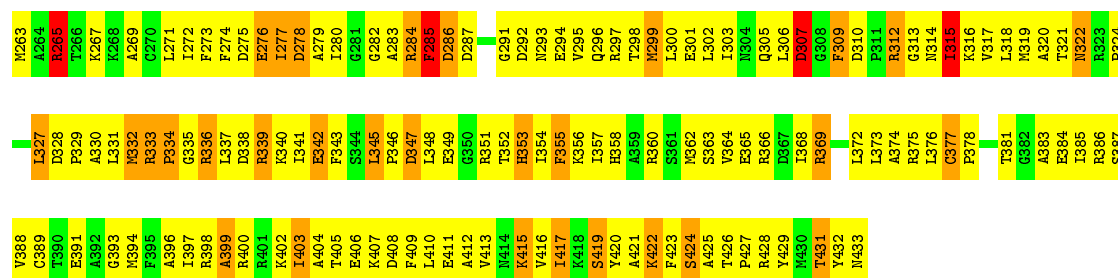
- Molecule 13: Proteasome subunit beta type-4



- Molecule 14: 26S protease regulatory subunit 7

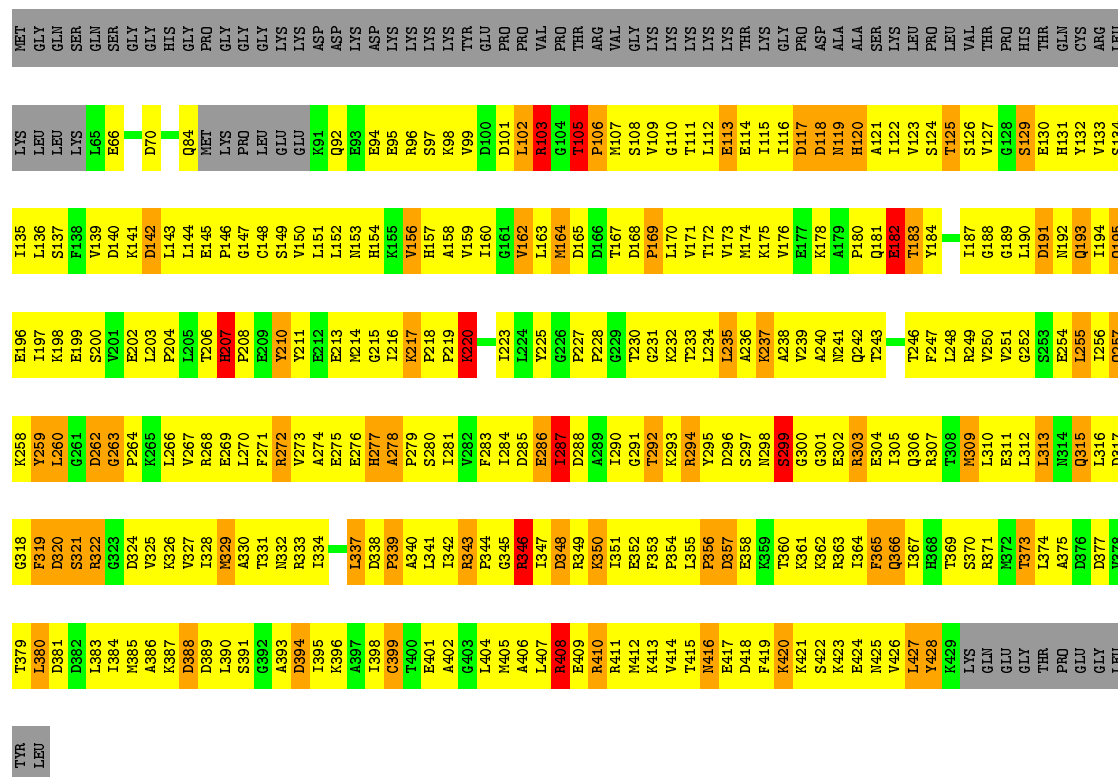






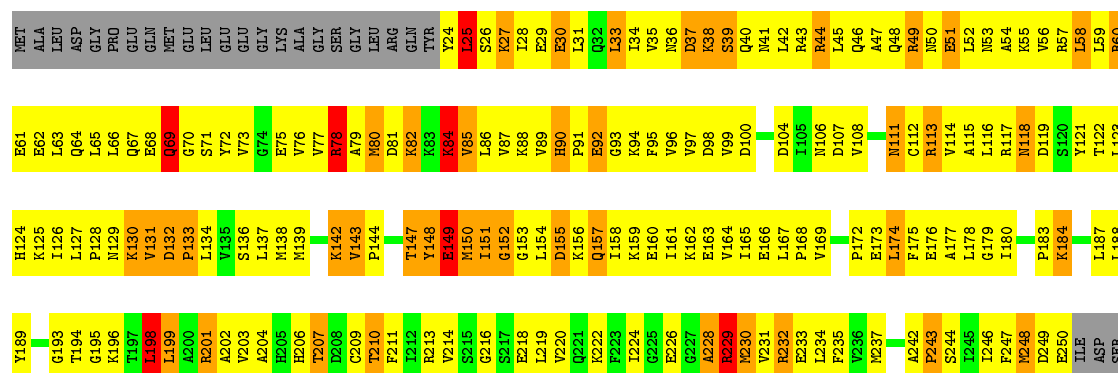
• Molecule 15: 26S protease regulatory subunit 4

Chain I: 14% 51% 14% 18%

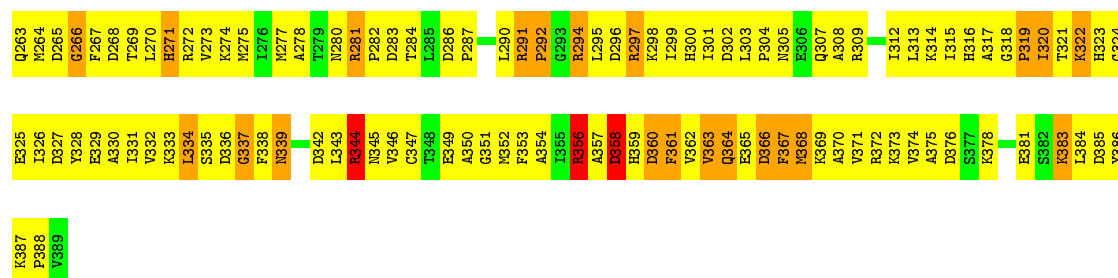


• Molecule 16: 26S protease regulatory subunit 8

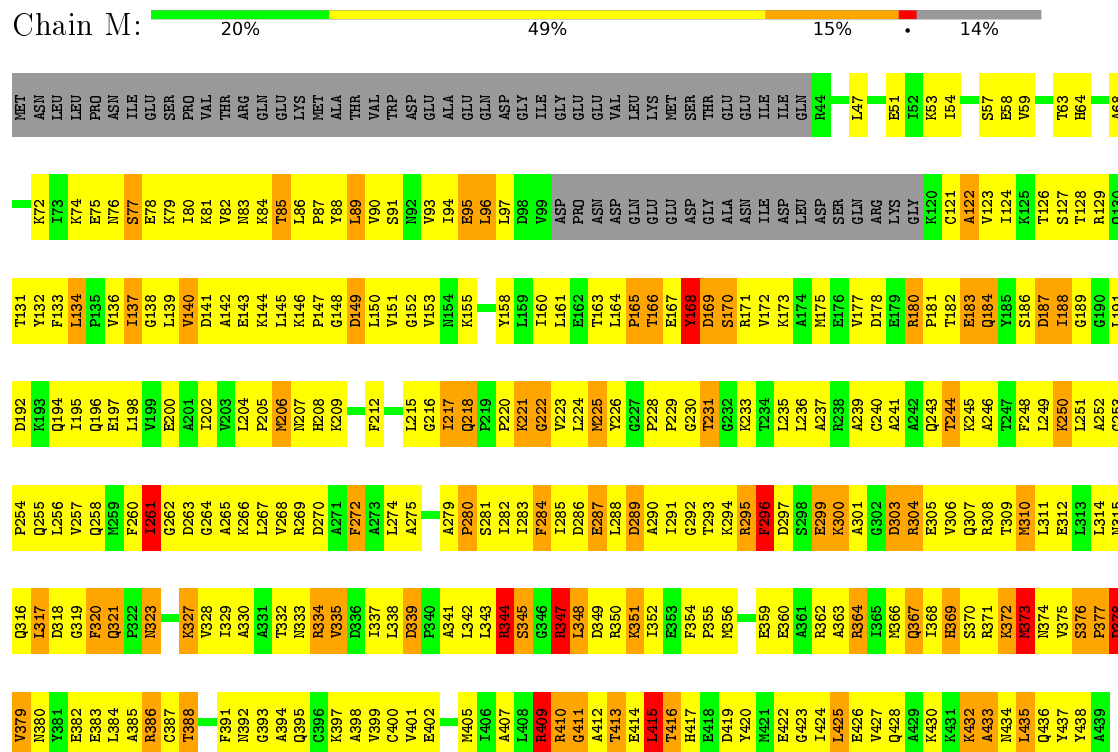
Chain J: 18% 51% 17% 12%



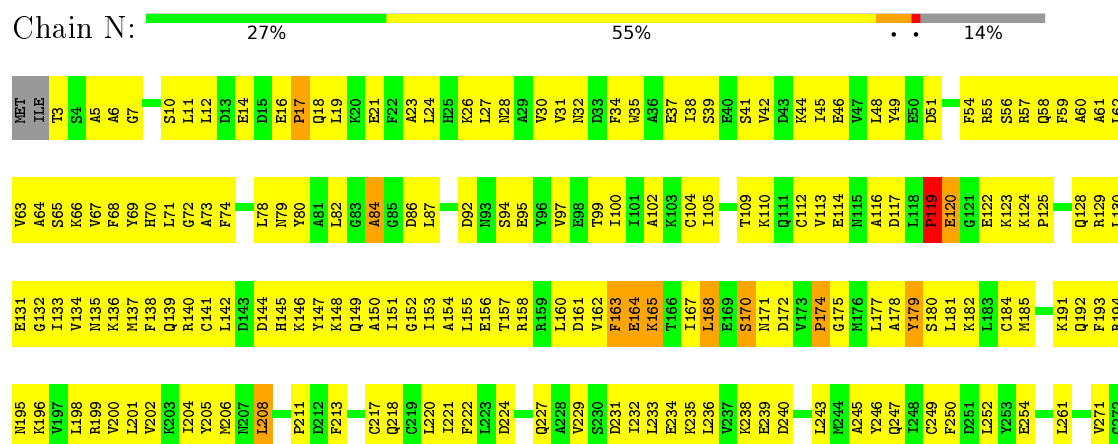


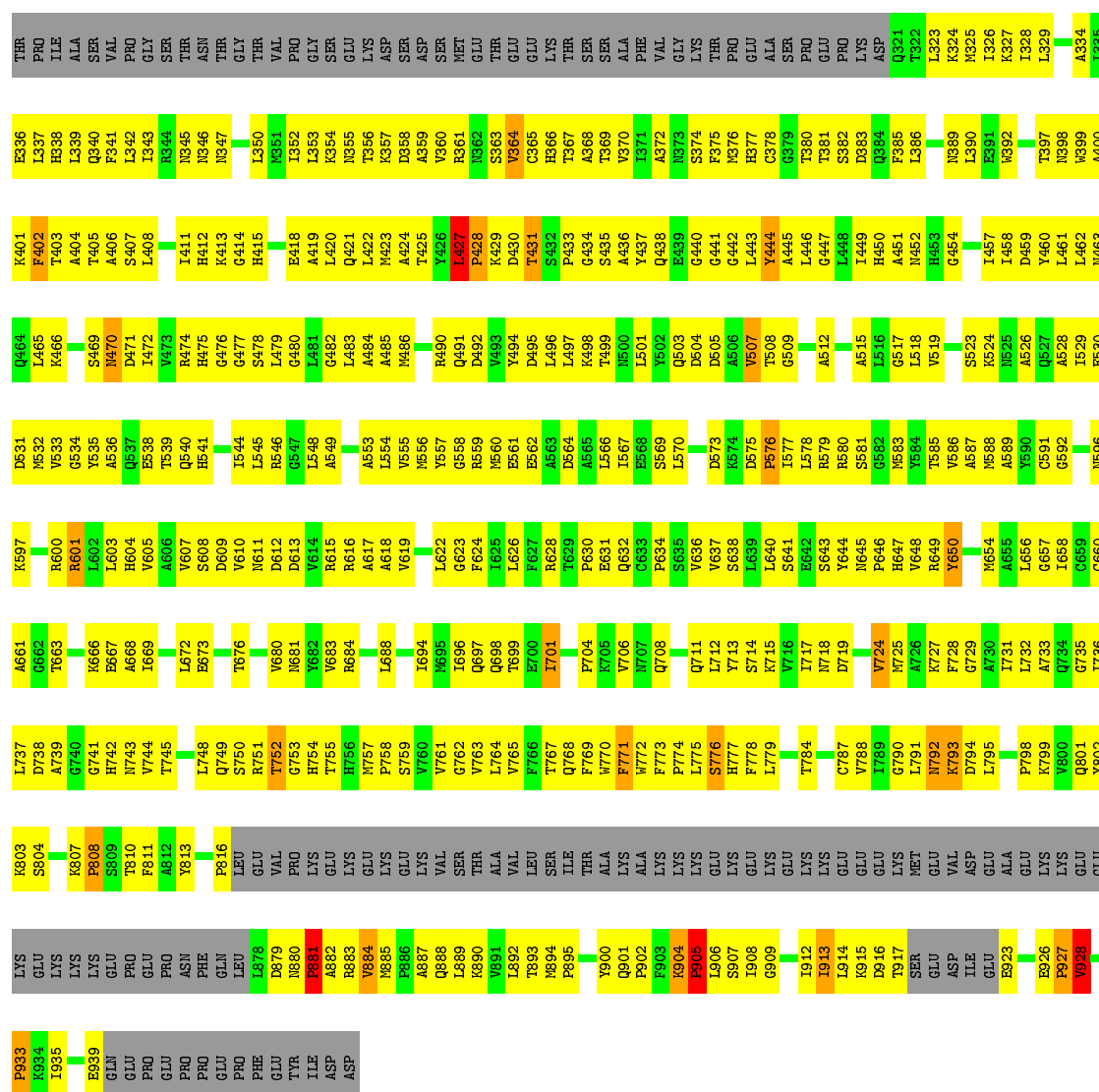


• Molecule 19: 26S protease regulatory subunit 6A



• Molecule 20: 26S proteasome non-ATPase regulatory subunit 1





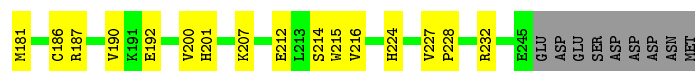
- Molecule 21: Proteasome subunit alpha type-3

Chain n: 89% 5% 5%

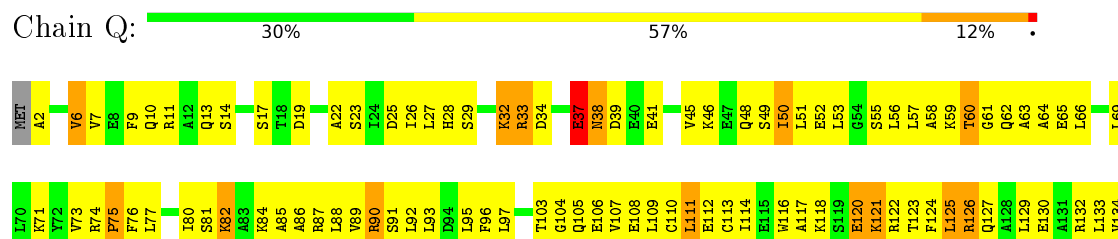


- Molecule 21: Proteasome subunit alpha type-3

Chain X: 76% 18% 5%



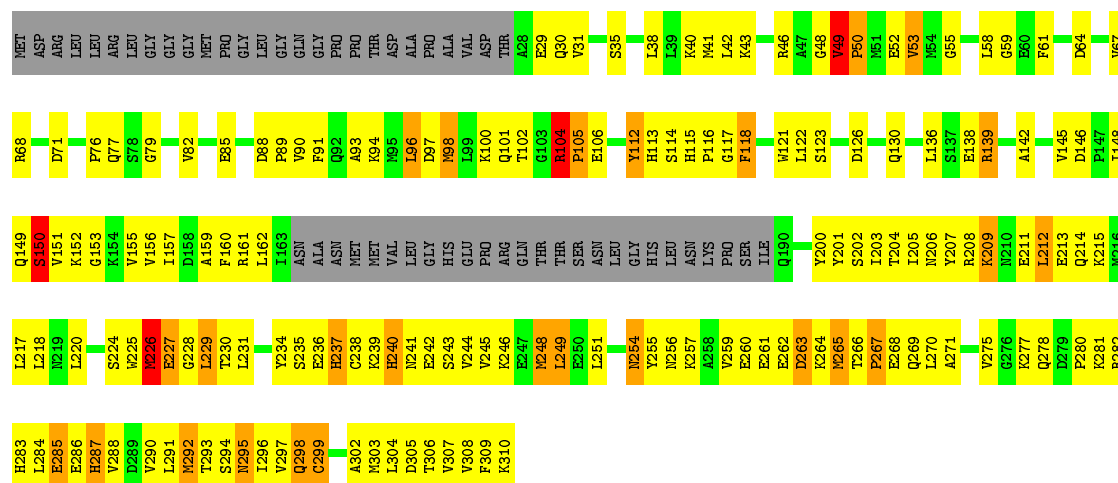
- Molecule 22: 26S proteasome non-ATPase regulatory subunit 13





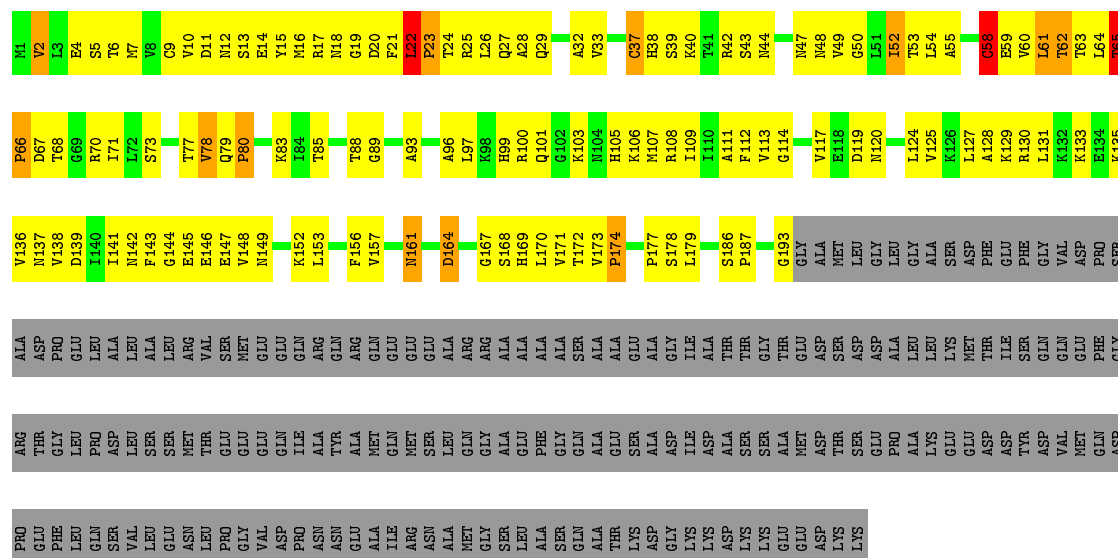


Chain V:  30% 43% 8% • 17%



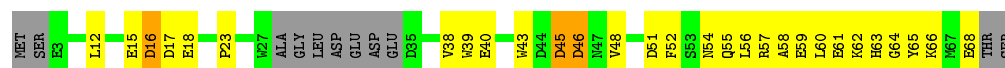
- Molecule 30: 26S proteasome non-ATPase regulatory subunit 4

Chain W:  18% 29% .. 49%



- Molecule 31: 26S proteasome complex subunit DSS1

Chain Y:  43% 37% . 16%



- Molecule 32: 26S proteasome non-ATPase regulatory subunit 2

Chain Z:  50% 27% • 19%







Chain y:  93% 7%



## 4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of particles used	141293	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	Not provided	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	Not provided	Depositor
Minimum defocus (nm)	Not provided	Depositor
Maximum defocus (nm)	Not provided	Depositor
Magnification	Not provided	Depositor
Image detector	Not provided	Depositor

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: GLZ, ADP

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z  > 2$	RMSZ	$\# Z  > 2$
1	a	1.10	3/1535 (0.2%)	1.10	6/2078 (0.3%)
1	o	1.13	4/1535 (0.3%)	1.18	13/2078 (0.6%)
10	F	0.76	0/1794	0.84	0/2430
10	l	0.95	1/1753 (0.1%)	1.01	4/2346 (0.2%)
11	f	1.03	1/1671 (0.1%)	1.05	2/2253 (0.1%)
11	t	1.08	2/1674 (0.1%)	1.14	4/2257 (0.2%)
12	G	0.77	0/1885	0.88	3/2552 (0.1%)
12	m	0.95	1/1885 (0.1%)	1.01	4/2552 (0.2%)
13	g	1.01	3/1705 (0.2%)	1.06	7/2312 (0.3%)
13	u	1.04	1/1711 (0.1%)	1.10	9/2319 (0.4%)
14	H	0.82	1/2925 (0.0%)	1.09	8/3952 (0.2%)
15	I	0.80	1/2756 (0.0%)	1.01	8/3727 (0.2%)
16	J	0.77	0/2857	0.95	4/3844 (0.1%)
17	K	0.81	1/3089 (0.0%)	0.99	7/4168 (0.2%)
18	L	0.79	4/2904 (0.1%)	1.09	12/3924 (0.3%)
19	M	0.75	0/2896	0.91	3/3912 (0.1%)
2	B	0.83	1/1878 (0.1%)	0.88	2/2549 (0.1%)
2	h	1.01	0/1886	1.00	2/2557 (0.1%)
20	N	0.41	1/5520 (0.0%)	0.60	1/7446 (0.0%)
21	X	0.83	0/1908	0.87	1/2575 (0.0%)
21	n	0.93	2/1908 (0.1%)	0.98	4/2575 (0.2%)
22	O	0.56	0/2387	0.74	3/3211 (0.1%)
23	P	0.54	0/2857	0.72	4/3855 (0.1%)
24	Q	0.62	1/2981 (0.0%)	0.76	4/4045 (0.1%)
25	R	0.65	1/2817 (0.0%)	0.80	6/3811 (0.2%)
26	S	0.57	0/2623	0.70	2/3545 (0.1%)
27	T	0.56	0/1716	0.68	3/2310 (0.1%)
28	U	0.58	0/2167	0.75	2/2936 (0.1%)
29	V	0.60	0/2047	0.83	4/2763 (0.1%)
3	b	0.98	0/1670	1.06	2/2265 (0.1%)
3	p	1.06	2/1670 (0.1%)	1.15	8/2265 (0.4%)
30	W	0.52	0/1312	0.76	3/1769 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >2	RMSZ	# Z  >2
31	Y	0.58	0/307	0.84	1/424 (0.2%)
32	Z	0.32	0/3603	0.53	1/5005 (0.0%)
33	x	0.67	0/2860	0.90	2/3852 (0.1%)
34	y	0.60	0/603	0.75	0/811
4	C	0.82	0/1742	0.89	4/2372 (0.2%)
4	i	1.11	5/1780 (0.3%)	1.10	7/2417 (0.3%)
5	c	1.08	2/1614 (0.1%)	1.11	6/2177 (0.3%)
5	q	1.21	5/1614 (0.3%)	1.19	4/2177 (0.2%)
6	D	0.81	2/1942 (0.1%)	0.89	1/2628 (0.0%)
6	j	0.99	1/1943 (0.1%)	1.04	7/2629 (0.3%)
7	d	0.99	0/1603	1.09	6/2174 (0.3%)
7	r	1.12	2/1603 (0.1%)	1.17	10/2174 (0.5%)
8	E	0.78	0/1748	0.88	5/2386 (0.2%)
8	k	0.95	2/1716 (0.1%)	1.04	5/2347 (0.2%)
9	e	1.08	2/1579 (0.1%)	1.11	7/2134 (0.3%)
9	s	1.13	4/1582 (0.3%)	1.10	6/2138 (0.3%)
All	All	0.83	56/99761 (0.1%)	0.94	217/135026 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
14	H	0	1
15	I	0	4
16	J	0	1
17	K	0	1
18	L	0	4
19	M	0	2
20	N	0	3
22	O	0	2
23	P	0	2
24	Q	0	6
25	R	0	5
27	T	0	1
28	U	0	1
29	V	0	3
3	b	0	2
30	W	0	7
31	Y	0	2
32	Z	0	7

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Mol	Chain	#Chirality outliers	#Planarity outliers
34	y	0	2
4	i	0	1
6	j	0	1
7	r	0	1
All	All	0	59

All (56) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	q	155	GLU	CD-OE2	13.15	1.40	1.25
18	L	116	ASP	N-CA	-10.28	1.25	1.46
4	i	22	GLU	CG-CD	8.89	1.65	1.51
3	p	81	ARG	CZ-NH2	8.66	1.44	1.33
5	c	164	PHE	CG-CD1	-8.04	1.26	1.38
6	D	70	GLU	CG-CD	7.97	1.64	1.51
1	a	61	TYR	CB-CG	7.67	1.63	1.51
14	H	133	ASP	CB-CG	7.06	1.66	1.51
13	u	62	TYR	CB-CG	-6.95	1.41	1.51
18	L	115	VAL	CA-CB	-6.94	1.40	1.54
6	j	70	GLU	CG-CD	6.86	1.62	1.51
24	Q	163	LYS	N-CA	-6.79	1.32	1.46
9	s	177	TYR	CE2-CZ	6.56	1.47	1.38
1	o	44	CYS	CB-SG	-6.38	1.71	1.82
15	I	142	ASP	CB-CG	6.30	1.65	1.51
11	f	104	TYR	CE1-CZ	-6.15	1.30	1.38
8	k	67	ASP	CB-CG	6.15	1.64	1.51
1	a	61	TYR	CG-CD1	6.05	1.47	1.39
4	i	127	ARG	CZ-NH1	5.98	1.40	1.33
13	g	62	TYR	CE1-CZ	5.96	1.46	1.38
5	q	155	GLU	CG-CD	5.88	1.60	1.51
6	D	70	GLU	CB-CG	5.83	1.63	1.52
1	a	143	TYR	CG-CD2	5.81	1.46	1.39
12	m	128	TYR	CG-CD2	-5.80	1.31	1.39
9	e	134	TYR	CG-CD2	-5.78	1.31	1.39
1	o	13	VAL	C-O	-5.77	1.12	1.23
5	c	129	CYS	CB-SG	5.75	1.92	1.82
1	o	143	TYR	CG-CD2	5.65	1.46	1.39
9	s	161	TYR	CE1-CZ	5.65	1.45	1.38
9	e	55	TRP	CB-CG	-5.63	1.40	1.50
10	l	217	LEU	N-CA	-5.63	1.35	1.46
7	r	147	TYR	CG-CD1	-5.61	1.31	1.39
8	k	153	TYR	CG-CD2	-5.59	1.31	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	t	53	GLY	CA-C	5.51	1.60	1.51
2	B	159	TYR	CE1-CZ	5.49	1.45	1.38
5	q	28	PHE	C-O	5.45	1.33	1.23
11	t	5	TYR	CG-CD1	-5.45	1.32	1.39
21	n	149	TYR	CE1-CZ	5.42	1.45	1.38
17	K	235	PHE	CG-CD1	5.39	1.46	1.38
5	q	136	PHE	CB-CG	-5.39	1.42	1.51
7	r	56	PHE	CB-CG	-5.38	1.42	1.51
1	o	83	PHE	CG-CD1	-5.33	1.30	1.38
21	n	140	TYR	CE1-CZ	5.24	1.45	1.38
4	i	144	TYR	CE2-CZ	5.23	1.45	1.38
9	s	125	THR	CB-CG2	5.22	1.69	1.52
9	s	177	TYR	CG-CD1	5.20	1.46	1.39
18	L	114	GLU	CD-OE2	-5.20	1.20	1.25
13	g	97	TYR	CE1-CZ	5.20	1.45	1.38
3	p	42	TYR	CE1-CZ	5.15	1.45	1.38
13	g	91	TRP	CB-CG	-5.14	1.41	1.50
5	q	43	PHE	CG-CD2	-5.12	1.31	1.38
4	i	144	TYR	CG-CD1	5.06	1.45	1.39
4	i	146	PHE	CG-CD1	5.03	1.46	1.38
18	L	115	VAL	N-CA	5.02	1.56	1.46
20	N	428	PRO	N-CD	5.01	1.54	1.47
25	R	33	GLY	C-O	5.01	1.31	1.23

All (217) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	L	115	VAL	CA-C-N	-22.22	68.32	117.20
14	H	336	ARG	NE-CZ-NH1	-21.51	109.54	120.30
18	L	115	VAL	C-N-CA	-18.03	76.64	121.70
14	H	336	ARG	NE-CZ-NH2	16.39	128.50	120.30
17	K	200	ARG	NE-CZ-NH1	14.57	127.59	120.30
17	K	200	ARG	NE-CZ-NH2	-13.07	113.76	120.30
23	P	420	ASP	C-N-CD	-11.98	94.25	120.60
22	O	62	ASN	O-C-N	-11.76	103.88	122.70
29	V	139	ARG	NE-CZ-NH2	-11.62	114.49	120.30
18	L	115	VAL	O-C-N	10.84	140.04	122.70
21	n	129	ARG	NE-CZ-NH2	-10.64	114.98	120.30
19	M	168	TYR	CB-CA-C	-10.51	89.39	110.40
7	d	28	MET	CG-SD-CE	-9.65	84.76	100.20
29	V	139	ARG	NE-CZ-NH1	9.30	124.95	120.30
9	e	59	LEU	CB-CG-CD2	9.21	126.66	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	g	179	ARG	NE-CZ-NH1	9.04	124.82	120.30
5	q	70	ARG	NE-CZ-NH2	-9.01	115.80	120.30
4	i	127	ARG	NE-CZ-NH2	-8.89	115.86	120.30
6	j	128	ARG	NE-CZ-NH2	-8.88	115.86	120.30
15	I	142	ASP	CB-CG-OD1	8.57	126.02	118.30
5	c	70	ARG	NE-CZ-NH2	-8.56	116.02	120.30
8	k	125	ARG	NE-CZ-NH2	-8.17	116.21	120.30
12	m	100	ASP	CB-CG-OD1	-8.14	110.97	118.30
13	u	179	ARG	NE-CZ-NH1	8.01	124.30	120.30
13	u	86	ARG	NE-CZ-NH2	-7.99	116.30	120.30
10	l	135	ARG	NE-CZ-NH1	7.99	124.29	120.30
1	o	166	ARG	NE-CZ-NH1	7.96	124.28	120.30
15	I	408	ARG	NE-CZ-NH1	7.95	124.27	120.30
9	s	42	LEU	CB-CG-CD2	7.84	124.34	111.00
2	B	132	ARG	NE-CZ-NH2	-7.84	116.38	120.30
14	H	315	ILE	N-CA-C	-7.78	90.00	111.00
30	W	52	ILE	CB-CA-C	-7.69	96.21	111.60
17	K	40	LEU	CB-CG-CD1	7.59	123.91	111.00
8	k	153	TYR	CB-CG-CD1	7.57	125.54	121.00
7	r	140	LEU	CB-CG-CD2	7.52	123.78	111.00
7	r	85	ARG	NE-CZ-NH2	-7.45	116.57	120.30
3	p	89	ARG	NE-CZ-NH1	7.43	124.01	120.30
14	H	339	ARG	NE-CZ-NH2	-7.41	116.59	120.30
7	r	44	LEU	CB-CG-CD1	-7.29	98.61	111.00
3	p	86	MET	CB-CG-SD	7.28	134.25	112.40
24	Q	391	PRO	N-CA-CB	7.08	111.80	103.30
24	Q	75	PRO	N-CA-CB	7.08	111.79	103.30
21	n	232	ARG	NE-CZ-NH1	7.06	123.83	120.30
25	R	33	GLY	N-CA-C	-7.02	95.56	113.10
1	o	189	LEU	CB-CG-CD1	-7.00	99.10	111.00
6	D	70	GLU	OE1-CD-OE2	-6.98	114.92	123.30
6	j	49	ARG	NE-CZ-NH1	-6.92	116.84	120.30
22	O	285	PRO	N-CA-CB	6.91	111.59	103.30
1	a	89	ARG	NE-CZ-NH1	6.91	123.75	120.30
25	R	129	ASP	CB-CG-OD1	6.88	124.49	118.30
1	a	94	LEU	CB-CG-CD2	6.87	122.69	111.00
3	p	51	ASP	CB-CG-OD1	6.85	124.47	118.30
7	r	104	LEU	CB-CG-CD1	-6.83	99.39	111.00
15	I	394	ASP	CB-CG-OD2	6.83	124.44	118.30
13	u	166	ARG	NE-CZ-NH2	-6.81	116.90	120.30
9	s	54	PHE	CB-CG-CD2	-6.80	116.04	120.80
15	I	325	VAL	N-CA-C	-6.72	92.85	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	U	14	LEU	CB-CG-CD2	6.72	122.43	111.00
3	p	81	ARG	NE-CZ-NH1	-6.72	116.94	120.30
18	L	251	ARG	NE-CZ-NH1	-6.71	116.94	120.30
14	H	265	ARG	NE-CZ-NH1	6.67	123.64	120.30
21	n	85	ARG	NE-CZ-NH2	-6.63	116.99	120.30
13	u	151	ARG	NE-CZ-NH2	-6.62	116.99	120.30
3	b	167	LEU	CB-CG-CD1	6.55	122.13	111.00
1	a	29	ARG	NE-CZ-NH2	-6.50	117.05	120.30
32	Z	201	GLU	N-CA-CB	-6.50	98.89	110.60
15	I	102	LEU	CB-CG-CD1	-6.50	99.95	111.00
15	I	165	ASP	CB-CG-OD1	6.34	124.01	118.30
18	L	148	VAL	CB-CA-C	6.33	123.42	111.40
19	M	169	ASP	N-CA-C	6.33	128.08	111.00
13	u	151	ARG	NE-CZ-NH1	6.33	123.46	120.30
27	T	121	LEU	CB-CG-CD2	-6.23	100.40	111.00
9	s	180	ARG	NE-CZ-NH2	6.23	123.41	120.30
4	i	112	ARG	NE-CZ-NH1	6.21	123.41	120.30
18	L	294	ARG	NE-CZ-NH1	6.21	123.40	120.30
5	c	70	ARG	NE-CZ-NH1	6.17	123.39	120.30
21	n	129	ARG	NE-CZ-NH1	6.15	123.38	120.30
11	t	173	ARG	NE-CZ-NH2	-6.13	117.24	120.30
7	d	140	LEU	CB-CG-CD2	6.12	121.41	111.00
8	k	86	ARG	NE-CZ-NH2	-6.11	117.24	120.30
9	s	107	ARG	NE-CZ-NH1	6.10	123.35	120.30
18	L	356	ARG	NE-CZ-NH1	6.08	123.34	120.30
4	i	55	LEU	CB-CG-CD2	-6.08	100.67	111.00
22	O	259	PRO	N-CA-CB	6.07	110.59	103.30
3	p	58	LEU	CB-CG-CD1	-6.05	100.71	111.00
14	H	91	GLN	C-N-CD	6.05	141.10	128.40
4	i	88	ARG	NE-CZ-NH1	6.03	123.32	120.30
8	k	66	ASP	CB-CG-OD2	6.03	123.73	118.30
4	C	127	ARG	NE-CZ-NH2	-6.02	117.29	120.30
20	N	427	LEU	C-N-CD	6.02	141.04	128.40
1	o	186	ARG	NE-CZ-NH2	-5.98	117.31	120.30
11	f	60	ASP	CB-CG-OD2	-5.97	112.92	118.30
15	I	263	GLY	C-N-CD	-5.97	107.46	120.60
15	I	346	ARG	NE-CZ-NH1	5.97	123.28	120.30
16	J	374	ARG	NE-CZ-NH1	5.97	123.28	120.30
25	R	179	ARG	NE-CZ-NH1	5.94	123.27	120.30
6	j	8	ARG	NE-CZ-NH2	-5.93	117.34	120.30
9	e	158	ARG	NE-CZ-NH2	-5.92	117.34	120.30
18	L	236	ASP	CB-CG-OD2	5.90	123.61	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	u	86	ARG	NE-CZ-NH1	5.89	123.24	120.30
7	d	85	ARG	NE-CZ-NH2	-5.88	117.36	120.30
7	r	52	ASP	CB-CG-OD2	-5.87	113.01	118.30
7	d	115	LEU	CB-CG-CD1	-5.85	101.05	111.00
8	k	153	TYR	CB-CG-CD2	-5.82	117.51	121.00
29	V	249	LEU	CB-CG-CD1	-5.82	101.11	111.00
7	r	104	LEU	CB-CG-CD2	5.81	120.87	111.00
1	o	29	ARG	NE-CZ-NH2	-5.80	117.40	120.30
8	E	144	LEU	CB-CG-CD2	5.79	120.84	111.00
3	b	51	ASP	CB-CG-OD1	5.78	123.50	118.30
1	a	40	ARG	NE-CZ-NH1	5.77	123.19	120.30
16	J	311	ILE	N-CA-C	-5.77	95.41	111.00
8	E	125	ARG	NE-CZ-NH2	-5.77	117.41	120.30
1	o	44	CYS	CA-CB-SG	-5.77	103.61	114.00
28	U	81	MET	CG-SD-CE	5.74	109.38	100.20
1	a	100	ILE	CG1-CB-CG2	-5.73	98.79	111.40
16	J	325	ARG	NE-CZ-NH2	-5.73	117.43	120.30
33	x	102	LEU	N-CA-C	5.71	126.43	111.00
4	i	9	LEU	CB-CG-CD2	-5.71	101.30	111.00
1	o	25	TYR	CB-CG-CD1	-5.71	117.58	121.00
17	K	245	ARG	NE-CZ-NH2	-5.69	117.45	120.30
10	l	135	ARG	NE-CZ-NH2	-5.68	117.46	120.30
23	P	79	GLU	N-CA-CB	-5.67	100.39	110.60
9	s	101	ILE	CG1-CB-CG2	-5.67	98.92	111.40
5	c	164	PHE	CB-CG-CD2	5.66	124.76	120.80
1	o	55	VAL	CG1-CB-CG2	-5.63	101.89	110.90
8	E	86	ARG	NE-CZ-NH2	-5.63	117.49	120.30
5	c	25	ASP	CB-CG-OD2	-5.62	113.24	118.30
30	W	65	THR	N-CA-C	5.62	126.18	111.00
18	L	297	ARG	NE-CZ-NH2	-5.62	117.49	120.30
1	o	51	ASP	CB-CG-OD2	-5.61	113.25	118.30
9	e	158	ARG	NE-CZ-NH1	5.61	123.11	120.30
12	m	128	TYR	CB-CG-CD1	5.60	124.36	121.00
3	p	174	ASP	CB-CG-OD1	5.60	123.34	118.30
26	S	91	PRO	N-CA-CB	5.59	110.01	103.30
18	L	297	ARG	NE-CZ-NH1	5.58	123.09	120.30
6	j	8	ARG	NE-CZ-NH1	5.58	123.09	120.30
12	m	125	ARG	NE-CZ-NH1	5.57	123.08	120.30
7	r	181	ARG	NE-CZ-NH1	5.54	123.07	120.30
1	a	166	ARG	NE-CZ-NH1	5.53	123.07	120.30
17	K	54	LEU	CB-CG-CD1	5.51	120.37	111.00
2	h	103	TYR	CB-CG-CD2	-5.51	117.69	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	C	91	LYS	CD-CE-NZ	5.50	124.34	111.70
13	g	174	ARG	NE-CZ-NH1	5.49	123.04	120.30
29	V	104	ARG	NE-CZ-NH1	5.48	123.04	120.30
9	e	14	VAL	CG1-CB-CG2	-5.47	102.15	110.90
3	p	22	GLU	CA-CB-CG	5.47	125.43	113.40
1	o	166	ARG	CD-NE-CZ	5.46	131.24	123.60
6	j	44	LEU	CA-CB-CG	5.45	127.84	115.30
10	l	48	LEU	CB-CG-CD1	-5.45	101.74	111.00
24	Q	33	ARG	N-CA-C	5.45	125.70	111.00
7	d	28	MET	CB-CG-SD	5.43	128.68	112.40
25	R	31	HIS	N-CA-C	-5.42	96.36	111.00
25	R	96	GLY	N-CA-C	-5.41	99.57	113.10
10	l	33	LEU	CB-CG-CD1	5.40	120.19	111.00
9	e	107	ARG	CG-CD-NE	5.39	123.13	111.80
13	g	174	ARG	NE-CZ-NH2	-5.39	117.61	120.30
2	B	159	TYR	CB-CA-C	-5.39	99.62	110.40
12	G	101	ARG	NE-CZ-NH1	5.38	122.99	120.30
9	e	86	MET	CG-SD-CE	5.37	108.78	100.20
1	o	94	LEU	CB-CG-CD2	5.37	120.12	111.00
27	T	252	PRO	N-CA-CB	5.36	109.74	103.30
1	o	99	ILE	CG1-CB-CG2	-5.36	99.61	111.40
4	C	83	ARG	NE-CZ-NH2	5.35	122.98	120.30
30	W	58	CYS	CA-CB-SG	-5.34	104.39	114.00
17	K	116	LEU	CB-CG-CD2	-5.34	101.93	111.00
13	u	127	MET	CG-SD-CE	-5.32	91.68	100.20
13	g	76	LEU	CB-CG-CD2	5.32	120.04	111.00
6	j	124	PHE	CB-CG-CD1	-5.32	117.08	120.80
4	i	22	GLU	OE1-CD-OE2	-5.32	116.92	123.30
11	f	194	ARG	NE-CZ-NH2	-5.31	117.64	120.30
13	g	128	LEU	CB-CG-CD1	5.31	120.02	111.00
33	x	103	PRO	N-CA-C	5.30	125.87	112.10
13	g	96	MET	CG-SD-CE	-5.29	91.73	100.20
7	d	45	LEU	CA-CB-CG	5.28	127.45	115.30
23	P	448	LYS	CD-CE-NZ	5.28	123.85	111.70
7	r	90	ASP	CB-CG-OD1	5.27	123.05	118.30
8	E	109	ARG	NE-CZ-NH1	5.27	122.93	120.30
2	h	219	VAL	CG1-CB-CG2	5.26	119.32	110.90
31	Y	23	PRO	N-CA-CB	5.25	109.60	103.30
11	t	99	ARG	NE-CZ-NH2	-5.25	117.68	120.30
8	E	96	LEU	CA-CB-CG	5.23	127.33	115.30
12	G	82	ARG	NE-CZ-NH2	-5.23	117.69	120.30
14	H	336	ARG	CG-CD-NE	5.19	122.70	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	J	198	LEU	CB-CG-CD2	5.19	119.83	111.00
27	T	173	CYS	CA-CB-SG	-5.19	104.67	114.00
19	M	347	ARG	NE-CZ-NH1	5.18	122.89	120.30
18	L	344	ARG	NE-CZ-NH1	5.17	122.89	120.30
5	q	69	PHE	CB-CG-CD2	-5.15	117.20	120.80
11	t	94	THR	CA-CB-CG2	-5.15	105.20	112.40
7	r	124	LEU	CB-CG-CD1	-5.14	102.26	111.00
5	q	12	MET	CB-CG-SD	-5.14	96.99	112.40
9	s	26	ILE	CG1-CB-CG2	-5.14	100.10	111.40
7	r	43	LEU	CB-CG-CD2	5.11	119.69	111.00
23	P	436	MET	CG-SD-CE	5.11	108.37	100.20
13	g	88	ILE	CG1-CB-CG2	-5.10	100.18	111.40
14	H	224	LEU	CB-CG-CD1	-5.10	102.33	111.00
18	L	291	ARG	NE-CZ-NH1	5.09	122.85	120.30
4	C	83	ARG	NE-CZ-NH1	-5.09	117.76	120.30
26	S	240	LEU	CB-CG-CD1	-5.09	102.35	111.00
4	i	145	LEU	CB-CG-CD2	5.08	119.64	111.00
21	X	85	ARG	NE-CZ-NH1	5.07	122.84	120.30
5	c	164	PHE	CB-CG-CD1	-5.07	117.25	120.80
6	j	128	ARG	NE-CZ-NH1	5.07	122.83	120.30
11	t	149	LEU	CB-CG-CD2	5.06	119.60	111.00
24	Q	203	PRO	CA-N-CD	-5.05	104.42	111.50
13	u	128	LEU	CB-CG-CD2	-5.05	102.41	111.00
13	u	35	ARG	NE-CZ-NH2	-5.05	117.78	120.30
3	p	212	LEU	CB-CG-CD1	-5.05	102.42	111.00
5	c	87	LEU	CB-CG-CD1	5.04	119.56	111.00
5	q	58	THR	CA-CB-CG2	-5.03	105.35	112.40
17	K	215	LEU	CB-CG-CD1	-5.03	102.45	111.00
9	e	73	ARG	NE-CZ-NH1	5.03	122.81	120.30
1	o	125	PHE	CB-CG-CD2	-5.03	117.28	120.80
12	m	107	ARG	NE-CZ-NH2	-5.02	117.79	120.30
12	G	51	ARG	NE-CZ-NH1	5.02	122.81	120.30
1	o	19	ARG	NE-CZ-NH2	-5.01	117.80	120.30
25	R	34	ASP	N-CA-C	-5.01	97.48	111.00

There are no chirality outliers.

All (59) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
14	H	154	PRO	Peptide
15	I	105	THR	Peptide
15	I	137	SER	Peptide

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Mol	Chain	Res	Type	Group
15	I	299	SER	Mainchain,Peptide
16	J	242	ALA	Peptide
17	K	149	SER	Peptide
18	L	115	VAL	Mainchain
18	L	226	GLN	Mainchain,Peptide
18	L	244	SER	Peptide
19	M	279	ALA	Mainchain,Peptide
20	N	208	LEU	Peptide
20	N	724	VAL	Peptide
20	N	807	LYS	Peptide
22	O	285	PRO	Peptide
22	O	62	ASN	Mainchain
23	P	78	LYS	Mainchain,Peptide
24	Q	162	ASP	Peptide
24	Q	202	CYS	Mainchain,Peptide
24	Q	32	LYS	Mainchain,Peptide
24	Q	37	GLU	Peptide
25	R	14	ASN	Peptide
25	R	30	GLU	Peptide
25	R	32	ARG	Peptide
25	R	33	GLY	Peptide
25	R	95	LEU	Peptide
27	T	318	PHE	Peptide
28	U	239	ASP	Peptide
29	V	112	TYR	Peptide
29	V	49	VAL	Mainchain,Peptide
30	W	103	LYS	Peptide
30	W	145	GLU	Peptide
30	W	146	GLU	Peptide
30	W	161	ASN	Peptide
30	W	2	VAL	Peptide
30	W	22	LEU	Mainchain,Peptide
31	Y	16	ASP	Peptide
31	Y	43	TRP	Peptide
32	Z	147	SER	Peptide
32	Z	200	ALA	Mainchain,Peptide
32	Z	260	SER	Mainchain,Peptide
32	Z	355	ASN	Peptide
32	Z	837	LEU	Peptide
3	b	187	ARG	Mainchain,Peptide
4	i	230	ALA	Peptide
6	j	56	LEU	Peptide

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Mol	Chain	Res	Type	Group
7	r	196	PHE	Peptide
34	y	75	GLY	Mainchain,Peptide

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

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	a	1509	0	1473	0	0
1	o	1509	0	1473	0	0
2	B	1845	0	1805	84	0
2	h	1853	0	1827	0	0
3	b	1643	0	1644	0	0
3	p	1643	0	1644	0	0
4	C	1707	0	1591	50	0
4	i	1744	0	1693	0	0
5	c	1585	0	1598	0	0
5	q	1585	0	1598	0	0
6	D	1912	0	1851	46	0
6	j	1913	0	1848	0	0
7	d	1570	0	1547	0	0
7	r	1570	0	1547	0	0
8	E	1724	0	1525	41	0
8	k	1691	0	1468	0	0
9	e	1548	0	1499	0	0
9	s	1551	0	1508	0	0
10	F	1766	0	1714	32	0
10	l	1726	0	1722	0	0
11	f	1641	0	1618	0	0
11	t	1644	0	1627	0	0
12	G	1850	0	1822	51	0
12	m	1850	0	1822	0	0
13	g	1672	0	1630	0	0
13	u	1678	0	1640	0	0
14	H	2879	0	2812	649	0
15	I	2720	0	2685	780	0
16	J	2820	0	2927	735	0
17	K	3039	0	3072	927	0
18	L	2860	0	2827	739	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	M	2858	0	2852	607	0
20	N	5462	0	4587	714	0
21	X	1873	0	1832	47	0
21	n	1873	0	1832	0	0
22	O	2372	0	1859	173	0
23	P	2828	0	2378	332	0
24	Q	2948	0	2659	493	0
25	R	2767	0	2471	427	0
26	S	2600	0	2160	278	0
27	T	1702	0	1373	183	0
28	U	2131	0	2038	351	0
29	V	2011	0	1980	292	0
30	W	1300	0	1134	204	0
31	Y	308	0	140	17	0
32	Z	3608	0	1688	206	0
33	x	2810	0	2763	0	0
34	y	601	0	630	0	0
35	H	27	0	12	9	0
35	I	27	0	12	6	0
35	J	27	0	12	8	0
35	K	27	0	12	20	0
35	L	27	0	12	5	0
35	M	27	0	12	4	0
All	All	98461	0	91505	7657	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 46.

All (7657) 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)
28:U:23:PHE:CE2	28:U:126:VAL:HG11	1.18	1.67
20:N:35:TRP:CH2	26:S:273:LYS:HE2	1.19	1.67
17:K:41:TYR:CE2	20:N:155:LEU:HD23	1.21	1.63
14:H:111:TYR:CE2	14:H:125:LEU:CD2	1.77	1.62
14:H:111:TYR:CE2	14:H:125:LEU:HD22	1.31	1.60
16:J:137:LEU:CD1	16:J:220:VAL:HG13	1.28	1.60
25:R:263:LEU:HB2	25:R:271:PHE:CE2	1.33	1.60
14:H:161:VAL:HG12	14:H:263:MET:SD	1.39	1.59
30:W:169:HIS:CD2	30:W:187:PRO:HG2	1.35	1.59
15:I:365:PHE:CE1	15:I:395:ILE:HG23	1.32	1.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:L:238:ILE:HD11	18:L:257:LEU:CA	1.23	1.56
24:Q:271:VAL:HG11	24:Q:288:LYS:CE	1.21	1.56
32:Z:667:GLY:HA2	32:Z:671:ALA:CB	1.19	1.56
15:I:230:THR:CG2	15:I:353:PHE:HB3	1.36	1.56
28:U:70:LEU:HD21	28:U:111:LEU:CD2	1.35	1.56
17:K:207:PRO:CG	17:K:335:LEU:HD21	1.26	1.55
32:Z:667:GLY:CA	32:Z:671:ALA:HB3	1.34	1.55
20:N:616:ARG:CZ	20:N:650:TYR:HD2	1.15	1.55
17:K:41:TYR:CE2	20:N:155:LEU:CD2	1.89	1.54
20:N:35:TRP:HH2	26:S:273:LYS:CE	1.06	1.53
16:J:151:ILE:HD11	16:J:198:LEU:CD2	1.36	1.53
30:W:169:HIS:CG	30:W:187:PRO:HG2	1.40	1.52
17:K:41:TYR:CZ	20:N:155:LEU:HD23	1.40	1.51
24:Q:271:VAL:CG1	24:Q:288:LYS:HE3	1.40	1.51
14:H:111:TYR:HE2	14:H:125:LEU:CD2	0.87	1.51
15:I:424:GLU:HA	15:I:428:TYR:CD2	1.42	1.51
17:K:115:ILE:HD11	17:K:121:ARG:CZ	1.42	1.48
17:K:207:PRO:CB	17:K:335:LEU:HD21	1.42	1.48
28:U:22:HIS:CD2	28:U:35:VAL:CG1	1.95	1.47
25:R:263:LEU:CB	25:R:271:PHE:HE2	1.26	1.47
17:K:207:PRO:HG2	17:K:335:LEU:CD2	1.43	1.46
18:L:338:PHE:HD1	18:L:378:LYS:NZ	1.13	1.46
17:K:293:LEU:HD22	17:K:326:ARG:NH1	1.21	1.46
24:Q:334:ASN:ND2	24:Q:354:ILE:CD1	1.78	1.46
16:J:183:PRO:CB	16:J:312:ASP:OD2	1.63	1.46
30:W:60:VAL:HG11	30:W:63:THR:CG2	1.43	1.46
16:J:28:ILE:CD1	26:S:240:LEU:O	1.63	1.45
32:Z:671:ALA:O	32:Z:675:PHE:CB	1.64	1.45
17:K:63:ASP:CG	20:N:607:VAL:HG11	1.30	1.45
18:L:303:LEU:CD2	18:L:339:ASN:ND2	1.79	1.45
14:H:161:VAL:CG1	14:H:263:MET:SD	2.03	1.44
18:L:338:PHE:CZ	18:L:375:ALA:HB2	1.51	1.43
20:N:616:ARG:CZ	20:N:650:TYR:CD2	2.00	1.43
17:K:133:HIS:ND1	17:K:136:SER:HB2	1.13	1.41
17:K:115:ILE:HD11	17:K:121:ARG:NH1	1.33	1.41
19:M:212:PHE:CD1	19:M:217:ILE:HD11	1.54	1.41
16:J:189:TYR:CZ	16:J:316:GLU:HG2	1.56	1.41
19:M:399:VAL:CA	19:M:427:VAL:HG21	1.50	1.41
28:U:224:HIS:O	28:U:228:TYR:CD1	1.72	1.40
18:L:145:LEU:HG	18:L:149:ILE:CD1	1.50	1.39
15:I:287:ILE:CD1	15:I:331:THR:HB	1.53	1.39

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:106:THR:HA	17:K:245:ARG:NH2	1.36	1.38
18:L:338:PHE:CD1	18:L:378:LYS:NZ	1.92	1.37
17:K:115:ILE:CD1	17:K:121:ARG:NH1	1.88	1.37
30:W:169:HIS:NE2	30:W:187:PRO:HD2	1.37	1.37
15:I:118:ASP:OD1	15:I:120:HIS:CD2	1.75	1.36
15:I:365:PHE:CE1	15:I:395:ILE:CG2	2.07	1.36
32:Z:318:THR:O	32:Z:322:SER:CB	1.74	1.36
15:I:365:PHE:CD1	15:I:395:ILE:CG2	2.08	1.36
19:M:294:LYS:HA	19:M:339:ASP:OD1	1.18	1.36
16:J:86:LEU:HD23	16:J:96:VAL:CG2	1.56	1.35
25:R:183:TYR:CE1	25:R:213:LEU:HD11	1.61	1.35
26:S:448:GLU:O	26:S:461:LYS:CG	1.72	1.35
28:U:215:VAL:HA	28:U:220:LEU:CB	1.55	1.34
16:J:137:LEU:CD1	16:J:224:ILE:HD11	1.56	1.34
17:K:106:THR:CA	17:K:245:ARG:HH22	1.36	1.34
14:H:425:ALA:CB	15:I:339:PRO:HB3	1.56	1.34
26:S:228:ARG:HH21	26:S:257:ASN:CG	1.26	1.34
25:R:185:GLY:C	25:R:201:PHE:CZ	2.00	1.34
17:K:345:PHE:CD2	17:K:360:LEU:HG	1.63	1.33
25:R:120:ALA:HB1	25:R:124:PHE:CE1	1.63	1.33
28:U:224:HIS:O	28:U:228:TYR:HD1	0.98	1.33
25:R:186:LEU:N	25:R:201:PHE:HZ	1.22	1.33
30:W:169:HIS:NE2	30:W:187:PRO:CD	1.90	1.33
27:T:120:LYS:O	27:T:124:LEU:CB	1.76	1.33
28:U:94:TRP:CE3	28:U:121:LEU:HD13	1.61	1.33
20:N:70:HIS:O	26:S:273:LYS:HD2	1.21	1.33
18:L:69:PHE:CE2	18:L:83:CYS:SG	2.21	1.33
16:J:279:GLN:O	16:J:284:GLU:HB3	1.19	1.32
25:R:186:LEU:N	25:R:201:PHE:CZ	1.95	1.32
17:K:403:TYR:O	17:K:407:ILE:HD13	1.25	1.32
30:W:108:ARG:NH2	30:W:193:GLY:O	1.59	1.32
27:T:345:GLN:O	27:T:349:ILE:HG13	1.19	1.32
18:L:238:ILE:CD1	18:L:257:LEU:HA	1.57	1.31
14:H:299:MET:HE3	14:H:328:ASP:CB	1.59	1.31
15:I:230:THR:HG21	15:I:353:PHE:O	1.27	1.31
28:U:23:PHE:CE2	28:U:126:VAL:CG1	2.13	1.31
18:L:69:PHE:HE2	18:L:83:CYS:SG	1.52	1.31
30:W:60:VAL:CG1	30:W:63:THR:HG23	1.61	1.31
30:W:169:HIS:CD2	30:W:187:PRO:CG	2.11	1.30
24:Q:105:GLN:O	24:Q:109:LEU:HG	1.22	1.30
17:K:63:ASP:OD2	20:N:607:VAL:HG11	1.20	1.30

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:I:223:ILE:CG1	15:I:347:ILE:HG21	1.62	1.30
16:J:133:PRO:HG2	16:J:237:MET:CE	1.60	1.30
19:M:295:ARG:CD	19:M:339:ASP:OD2	1.80	1.30
20:N:99:THR:OG1	26:S:240:LEU:CD1	1.80	1.29
18:L:322:LYS:NZ	18:L:328:TYR:OH	1.62	1.29
26:S:299:GLN:O	26:S:300:LEU:HD23	1.14	1.29
14:H:190:VAL:CG2	14:H:212:VAL:HG21	1.63	1.29
16:J:235:PHE:CE1	16:J:276:LEU:HD22	1.68	1.29
15:I:118:ASP:OD1	15:I:120:HIS:HD2	1.00	1.29
15:I:373:THR:OG1	15:I:413:LYS:HG2	1.20	1.29
17:K:63:ASP:CB	20:N:607:VAL:CG1	2.11	1.29
30:W:60:VAL:CG1	30:W:63:THR:CG2	2.09	1.29
17:K:63:ASP:HB3	20:N:607:VAL:CG1	1.60	1.28
16:J:28:ILE:HG23	26:S:242:HIS:CD2	1.67	1.28
18:L:238:ILE:CD1	18:L:257:LEU:CA	2.10	1.28
18:L:303:LEU:HD21	18:L:339:ASN:CG	1.54	1.28
24:Q:334:ASN:ND2	24:Q:354:ILE:HD13	0.95	1.28
16:J:151:ILE:CG1	16:J:198:LEU:HD22	1.61	1.28
17:K:90:GLY:O	17:K:130:VAL:HG22	1.33	1.28
19:M:80:ILE:O	19:M:84:LYS:HB2	1.18	1.28
18:L:150:GLU:O	18:L:153:LEU:HG	1.21	1.27
15:I:313:LEU:CD1	15:I:340:ALA:HB1	1.62	1.27
26:S:476:PHE:O	26:S:480:ILE:CD1	1.82	1.27
15:I:230:THR:CG2	15:I:353:PHE:O	1.83	1.27
15:I:230:THR:CG2	15:I:353:PHE:CB	2.11	1.27
18:L:226:GLN:HB3	18:L:273:VAL:CG2	1.63	1.27
28:U:94:TRP:CZ3	28:U:121:LEU:HD13	1.68	1.27
25:R:256:VAL:O	25:R:259:TYR:CD1	1.87	1.27
16:J:189:TYR:OH	16:J:316:GLU:HG2	1.29	1.26
18:L:148:VAL:O	18:L:152:PRO:HG3	1.33	1.26
18:L:265:ASP:OD2	18:L:291:ARG:NH2	1.64	1.26
30:W:55:ALA:HA	30:W:83:LYS:O	1.21	1.26
20:N:616:ARG:NE	20:N:650:TYR:CD2	2.03	1.26
14:H:284:ARG:HA	14:H:296:GLN:OE1	1.30	1.26
16:J:354:ALA:HA	16:J:358:GLU:OE1	1.12	1.26
17:K:93:LEU:CD1	17:K:94:GLU:HG3	1.63	1.26
16:J:67:GLN:HA	17:K:136:SER:OG	1.29	1.25
20:N:7:GLY:CA	27:T:170:GLN:HG2	1.63	1.25
18:L:326:ILE:HG21	18:L:328:TYR:CE2	1.72	1.25
16:J:184:LYS:NZ	16:J:281:ASP:OD1	1.70	1.25
19:M:374:ASN:O	19:M:414:GLU:HB2	1.08	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:320:PRO:O	16:J:325:ARG:NH1	1.68	1.25
17:K:145:PRO:CG	17:K:256:GLU:HG3	1.65	1.24
27:T:345:GLN:O	27:T:349:ILE:CG1	1.84	1.24
28:U:91:ILE:O	28:U:116:CYS:SG	1.96	1.24
15:I:230:THR:HG21	15:I:353:PHE:C	1.54	1.24
17:K:184:PRO:HG3	17:K:191:TYR:OH	1.13	1.24
18:L:114:GLU:CB	19:M:95:GLU:OE2	1.85	1.24
30:W:169:HIS:CE1	30:W:187:PRO:HG2	1.70	1.24
17:K:103:VAL:O	17:K:110:ASN:OD1	1.52	1.24
14:H:255:ARG:O	14:H:259:GLU:HG2	1.29	1.24
20:N:99:THR:OG1	26:S:240:LEU:HD11	1.12	1.24
16:J:189:TYR:CD1	16:J:298:ILE:HD11	1.73	1.24
30:W:54:LEU:CB	30:W:85:THR:CB	2.16	1.24
19:M:399:VAL:HA	19:M:427:VAL:CG2	1.68	1.24
23:P:209:ILE:HG21	23:P:226:TYR:CZ	1.72	1.24
14:H:90:GLU:HA	14:H:93:LEU:CD2	1.66	1.24
25:R:120:ALA:CB	25:R:124:PHE:HE1	1.51	1.23
14:H:90:GLU:CA	14:H:93:LEU:HD23	1.67	1.23
16:J:137:LEU:CD1	16:J:220:VAL:CG1	2.15	1.23
19:M:225:MET:HG2	19:M:354:PHE:CE2	1.72	1.23
18:L:383:LYS:HG2	18:L:386:TYR:OH	1.39	1.23
16:J:189:TYR:CE2	16:J:316:GLU:CG	2.21	1.23
30:W:169:HIS:NE2	30:W:187:PRO:HG2	1.53	1.23
14:H:225:CYS:O	14:H:229:VAL:HG23	1.37	1.23
30:W:169:HIS:NE2	30:W:187:PRO:CG	2.01	1.23
16:J:151:ILE:CD1	16:J:198:LEU:HD22	1.69	1.23
15:I:230:THR:HG21	15:I:353:PHE:CB	1.69	1.23
15:I:387:LYS:CB	15:I:390:LEU:HD23	1.66	1.23
17:K:394:VAL:HG13	17:K:398:ASP:CB	1.69	1.23
30:W:169:HIS:CE1	30:W:187:PRO:CG	2.21	1.23
19:M:249:LEU:CD2	19:M:283:ILE:HG12	1.68	1.22
23:P:243:ILE:CG1	23:P:247:TYR:HE2	1.51	1.22
14:H:143:ASP:HB2	14:H:150:HIS:CE1	1.75	1.22
18:L:195:PHE:CD1	18:L:229:ILE:HB	1.74	1.22
18:L:327:ASP:CG	18:L:330:ALA:HB3	1.58	1.22
15:I:373:THR:CG2	15:I:412:MET:O	1.87	1.22
16:J:151:ILE:CD1	16:J:198:LEU:CD2	2.15	1.22
16:J:30:GLU:O	16:J:34:ILE:CG1	1.87	1.22
17:K:116:LEU:O	17:K:119:ILE:HD13	1.32	1.22
16:J:160:GLU:OE1	16:J:313:ARG:NE	1.72	1.21
18:L:67:GLU:O	18:L:82:GLY:HA2	1.39	1.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:143:VAL:HG11	16:J:213:ARG:CD	1.70	1.21
17:K:184:PRO:HA	17:K:191:TYR:CE2	1.73	1.21
25:R:344:HIS:CE1	25:R:359:PRO:HG3	1.74	1.21
22:O:57:ILE:O	22:O:61:GLU:CB	1.86	1.21
16:J:189:TYR:CZ	16:J:316:GLU:CG	2.24	1.21
24:Q:271:VAL:HG11	24:Q:288:LYS:HE2	1.22	1.21
18:L:195:PHE:CE1	18:L:229:ILE:HG13	1.74	1.20
23:P:107:GLN:O	23:P:141:GLU:OE2	1.58	1.20
16:J:372:ARG:NH1	17:K:179:GLU:OE2	1.74	1.20
18:L:138:LEU:O	18:L:140:GLU:N	1.70	1.20
22:O:11:SER:O	22:O:19:PRO:CG	1.90	1.20
16:J:77:VAL:HB	16:J:86:LEU:HD12	1.22	1.20
18:L:303:LEU:HD21	18:L:339:ASN:ND2	0.90	1.20
25:R:256:VAL:O	25:R:259:TYR:HD1	1.19	1.20
19:M:249:LEU:HD23	19:M:283:ILE:CG1	1.71	1.20
18:L:184:ALA:HB2	18:L:231:PHE:CE1	1.77	1.20
19:M:212:PHE:HD1	19:M:217:ILE:CD1	1.55	1.20
19:M:341:ALA:O	19:M:347:ARG:NH1	1.75	1.20
16:J:118:ASN:HD22	16:J:119:ASP:N	1.38	1.19
20:N:7:GLY:HA2	27:T:170:GLN:CG	1.70	1.19
17:K:394:VAL:CG1	17:K:398:ASP:HB2	1.73	1.19
26:S:165:ALA:CB	26:S:203:LEU:HD11	1.72	1.19
19:M:180:ARG:NH1	19:M:241:ALA:O	1.74	1.19
18:L:198:VAL:CG1	18:L:203:ILE:HD11	1.72	1.19
14:H:99:THR:CG2	14:H:142:VAL:HG21	1.72	1.19
18:L:264:MET:SD	18:L:275:MET:HE1	1.82	1.19
23:P:46:THR:O	23:P:50:LEU:CD2	1.90	1.19
14:H:157:ILE:CG2	14:H:162:THR:OG1	1.88	1.19
18:L:115:VAL:HG23	18:L:116:ASP:O	1.03	1.19
19:M:295:ARG:HD2	19:M:339:ASP:OD2	1.03	1.19
25:R:228:MET:CE	25:R:271:PHE:HZ	1.55	1.19
16:J:137:LEU:CG	16:J:224:ILE:HD11	1.73	1.18
16:J:30:GLU:O	16:J:34:ILE:HG13	1.02	1.18
17:K:225:ALA:HB1	17:K:259:PRO:O	1.40	1.18
17:K:394:VAL:CG1	17:K:398:ASP:CB	2.21	1.18
20:N:474:ARG:O	20:N:478:SER:OG	1.61	1.18
22:O:57:ILE:O	22:O:61:GLU:HB2	1.02	1.18
16:J:118:ASN:ND2	16:J:119:ASP:H	1.39	1.18
17:K:63:ASP:CB	20:N:607:VAL:HG13	1.72	1.18
20:N:10:SER:CB	27:T:166:ARG:HB3	1.73	1.18
26:S:228:ARG:NH2	26:S:257:ASN:CG	1.97	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:U:72:HIS:CE1	28:U:111:LEU:HD11	1.77	1.18
14:H:280:ILE:O	14:H:295:VAL:HG12	1.38	1.18
19:M:374:ASN:O	19:M:414:GLU:CB	1.91	1.18
20:N:549:ALA:HB1	20:N:581:SER:CB	1.72	1.18
15:I:394:ASP:OD1	16:J:308:PRO:HG2	1.44	1.18
16:J:279:GLN:O	16:J:284:GLU:CB	1.91	1.18
16:J:189:TYR:CE2	16:J:316:GLU:HG2	1.79	1.18
24:Q:271:VAL:CG1	24:Q:288:LYS:CE	2.09	1.18
23:P:448:LYS:CE	28:U:154:THR:OG1	1.90	1.17
17:K:292:LEU:O	17:K:296:MET:HB2	1.41	1.17
18:L:115:VAL:CG2	18:L:116:ASP:O	1.91	1.17
28:U:70:LEU:HD11	28:U:72:HIS:CE1	1.79	1.17
20:N:26:LYS:CG	27:T:121:LEU:HD21	1.74	1.17
15:I:365:PHE:CD1	15:I:395:ILE:HG23	1.75	1.17
16:J:160:GLU:HB3	16:J:315:ILE:CD1	1.74	1.17
18:L:150:GLU:O	18:L:153:LEU:CG	1.93	1.17
18:L:235:ILE:O	18:L:239:GLY:N	1.76	1.17
16:J:72:TYR:CE2	16:J:121:TYR:OH	1.94	1.17
16:J:86:LEU:CD2	16:J:96:VAL:HG22	1.75	1.16
19:M:80:ILE:HG23	19:M:84:LYS:CG	1.74	1.16
32:Z:164:GLY:HA2	32:Z:167:ALA:HB3	1.26	1.16
32:Z:317:LEU:O	32:Z:321:MET:CB	1.93	1.16
17:K:274:ARG:O	18:L:251:ARG:NH1	1.78	1.16
14:H:161:VAL:HG21	14:H:259:GLU:CB	1.75	1.16
17:K:160:PRO:CG	17:K:220:ALA:HB3	1.75	1.16
22:O:242:SER:O	22:O:279:GLU:OE2	1.63	1.16
24:Q:258:LYS:CE	24:Q:266:ASP:HB3	1.76	1.16
15:I:398:ILE:HG22	15:I:419:PHE:CD1	1.79	1.16
14:H:111:TYR:CZ	14:H:125:LEU:HD22	1.80	1.16
17:K:173:GLN:HE22	17:K:334:PRO:HD3	1.10	1.16
22:O:60:TYR:O	22:O:64:ILE:CB	1.92	1.16
20:N:71:LEU:HA	26:S:273:LYS:HB2	1.22	1.16
15:I:365:PHE:HE2	15:I:383:LEU:HB2	1.09	1.16
17:K:145:PRO:HG2	17:K:256:GLU:CG	1.73	1.16
29:V:306:THR:O	29:V:310:LYS:CE	1.94	1.16
15:I:369:THR:HB	15:I:374:LEU:CD1	1.75	1.16
15:I:401:GLU:HG2	15:I:422:SER:HA	1.27	1.16
17:K:133:HIS:ND1	17:K:136:SER:CB	2.08	1.16
29:V:306:THR:O	29:V:310:LYS:HE2	0.99	1.16
14:H:233:THR:O	14:H:234:ASP:HB2	1.45	1.16
15:I:223:ILE:CD1	15:I:347:ILE:HG21	1.76	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:H:280:ILE:O	14:H:295:VAL:CG1	1.93	1.15
14:H:157:ILE:HG21	14:H:162:THR:OG1	0.98	1.15
16:J:41:ASN:O	16:J:44:ARG:HB2	1.46	1.15
20:N:154:ALA:HA	20:N:157:THR:CB	1.77	1.15
27:T:250:ASN:O	27:T:253:ALA:HB3	1.46	1.15
15:I:287:ILE:HD11	15:I:331:THR:CB	1.75	1.15
23:P:231:ILE:CG1	23:P:247:TYR:OH	1.95	1.15
14:H:245:LEU:HD12	14:H:280:ILE:CD1	1.77	1.15
28:U:215:VAL:CA	28:U:220:LEU:CB	2.25	1.15
18:L:327:ASP:OD1	18:L:330:ALA:HB3	1.44	1.15
23:P:388:GLU:O	23:P:392:PHE:HD2	1.26	1.15
2:B:102:LYS:HE2	2:B:108:GLU:HG2	1.16	1.15
25:R:127:THR:O	25:R:131:THR:HG23	1.42	1.15
28:U:176:LEU:HD21	29:V:214:GLN:HA	1.18	1.15
15:I:373:THR:CB	15:I:412:MET:O	1.94	1.14
17:K:133:HIS:CE1	17:K:136:SER:HB2	1.81	1.14
18:L:84:ARG:O	18:L:85:ARG:HG2	1.44	1.14
25:R:250:LEU:HD22	25:R:257:ARG:HB3	1.15	1.14
18:L:303:LEU:CD2	18:L:339:ASN:HD22	1.45	1.14
23:P:448:LYS:HE2	28:U:154:THR:OG1	1.46	1.14
15:I:343:ARG:HH21	15:I:346:ARG:NH2	1.43	1.14
25:R:186:LEU:HD11	25:R:287:LEU:HG	1.25	1.14
28:U:23:PHE:CD2	28:U:126:VAL:HG11	1.83	1.14
14:H:99:THR:HG21	14:H:142:VAL:CG2	1.77	1.14
16:J:137:LEU:HD13	16:J:224:ILE:CD1	1.78	1.14
18:L:114:GLU:HB2	19:M:95:GLU:OE2	1.47	1.14
15:I:171:VAL:O	15:I:175:LYS:HB2	1.47	1.14
15:I:103:ARG:HG2	15:I:160:ILE:HG21	1.19	1.14
16:J:354:ALA:CA	16:J:358:GLU:OE1	1.94	1.14
14:H:245:LEU:CD1	14:H:280:ILE:HD13	1.78	1.14
16:J:26:SER:OG	17:K:40:LEU:CB	1.94	1.14
17:K:63:ASP:CG	20:N:607:VAL:CG1	2.16	1.14
15:I:180:PRO:HG3	15:I:240:ALA:C	1.68	1.14
17:K:219:VAL:O	17:K:223:THR:HB	1.48	1.14
16:J:33:LEU:HD21	17:K:47:LEU:HB3	1.27	1.14
20:N:35:TRP:CH2	26:S:273:LYS:CD	2.29	1.14
15:I:343:ARG:NH2	15:I:346:ARG:HH21	1.45	1.14
16:J:224:ILE:HG23	16:J:237:MET:SD	1.87	1.14
16:J:137:LEU:HD11	16:J:220:VAL:HG13	1.28	1.13
16:J:189:TYR:CZ	16:J:316:GLU:HB3	1.83	1.13
24:Q:264:PRO:CB	24:Q:295:LYS:HE3	1.77	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:U:22:HIS:CD2	28:U:35:VAL:HG11	1.72	1.13
23:P:384:LEU:HB3	23:P:388:GLU:HB2	1.25	1.13
15:I:103:ARG:HG2	15:I:160:ILE:CG2	1.77	1.13
17:K:82:ILE:HG21	17:K:116:LEU:HD11	1.29	1.13
19:M:187:ASP:O	19:M:368:ILE:HD13	1.45	1.13
20:N:35:TRP:CZ2	26:S:273:LYS:HE2	1.84	1.13
15:I:122:ILE:HD11	15:I:130:GLU:CB	1.77	1.13
17:K:125:LYS:HB3	17:K:126:PRO:HD3	1.14	1.13
17:K:64:GLU:O	17:K:68:LEU:HD12	1.48	1.13
15:I:421:LYS:O	15:I:425:ASN:HB2	1.45	1.13
32:Z:667:GLY:HA2	32:Z:671:ALA:HB2	1.28	1.13
24:Q:163:LYS:HD2	24:Q:200:ILE:CG2	1.77	1.12
26:S:448:GLU:O	26:S:461:LYS:CB	1.95	1.12
19:M:177:VAL:HG21	19:M:248:PHE:CD2	1.84	1.12
20:N:419:ALA:HB1	20:N:449:ILE:HD12	1.26	1.12
26:S:299:GLN:O	26:S:300:LEU:CD2	1.96	1.12
16:J:28:ILE:CG2	26:S:242:HIS:CD2	2.31	1.12
17:K:56:VAL:CG1	20:N:603:LEU:CD1	2.26	1.12
18:L:58:GLY:CA	18:L:74:THR:HG23	1.77	1.12
23:P:209:ILE:HG21	23:P:226:TYR:OH	1.48	1.12
18:L:143:ARG:HG2	18:L:147:GLU:OE2	1.49	1.12
14:H:299:MET:CE	14:H:303:ILE:HD11	1.78	1.12
17:K:93:LEU:HD12	17:K:94:GLU:HG3	1.26	1.12
19:M:139:LEU:O	19:M:140:VAL:HG13	1.46	1.12
24:Q:264:PRO:HB3	24:Q:295:LYS:HE3	1.14	1.12
18:L:338:PHE:CZ	18:L:375:ALA:CB	2.32	1.12
14:H:333:ARG:HG2	14:H:334:PRO:HD2	1.29	1.12
16:J:86:LEU:CD2	16:J:96:VAL:CG2	2.26	1.12
30:W:169:HIS:ND1	30:W:187:PRO:HG2	1.61	1.12
16:J:338:LEU:HD21	16:J:383:PHE:HE2	1.06	1.12
20:N:470:ASN:H	20:N:474:ARG:HB2	1.14	1.12
24:Q:339:ILE:HB	24:Q:387:ILE:HD11	1.13	1.12
27:T:120:LYS:CG	27:T:124:LEU:CG	2.28	1.12
14:H:299:MET:HE2	14:H:303:ILE:HD11	1.12	1.12
17:K:170:MET:O	17:K:174:LYS:HB2	1.49	1.12
17:K:345:PHE:CD2	17:K:360:LEU:CG	2.33	1.12
18:L:338:PHE:HZ	18:L:375:ALA:CB	1.63	1.12
17:K:41:TYR:CZ	20:N:155:LEU:CD2	2.20	1.12
28:U:70:LEU:CD2	28:U:111:LEU:CD2	2.27	1.12
14:H:274:PHE:HD2	14:H:319:MET:SD	1.71	1.11
18:L:226:GLN:CB	18:L:273:VAL:HG23	1.80	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:334:ASN:CG	24:Q:354:ILE:HD13	1.69	1.11
15:I:373:THR:CB	15:I:413:LYS:HG2	1.46	1.11
17:K:92:PHE:O	17:K:127:ASN:OD1	1.66	1.11
19:M:226:TYR:CB	19:M:335:VAL:CG2	2.28	1.11
29:V:267:PRO:HD2	29:V:268:GLU:OE1	1.48	1.11
15:I:373:THR:HB	15:I:412:MET:O	1.44	1.11
25:R:228:MET:CE	25:R:271:PHE:CZ	2.33	1.11
16:J:90:HIS:HB3	16:J:91:PRO:HD3	1.22	1.11
17:K:184:PRO:CG	17:K:191:TYR:OH	1.96	1.11
20:N:70:HIS:O	26:S:273:LYS:CD	1.97	1.11
20:N:7:GLY:HA2	27:T:170:GLN:NE2	1.64	1.11
17:K:226:ALA:CB	17:K:257:ASN:HD22	1.61	1.11
16:J:151:ILE:HD11	16:J:198:LEU:HD23	1.15	1.11
18:L:253:ILE:HD11	19:M:261:ILE:HD11	1.24	1.11
26:S:476:PHE:O	26:S:480:ILE:HD12	1.49	1.11
16:J:137:LEU:HD11	16:J:220:VAL:CG1	1.77	1.11
17:K:163:MET:CG	17:K:221:HIS:HE1	1.62	1.11
14:H:125:LEU:HA	14:H:149:ILE:HB	1.31	1.11
23:P:190:MET:O	23:P:193:CYS:SG	2.08	1.11
2:B:102:LYS:CE	2:B:108:GLU:HG2	1.79	1.10
15:I:313:LEU:HG	15:I:346:ARG:NH1	1.65	1.10
17:K:54:LEU:O	17:K:58:GLU:HB2	1.51	1.10
17:K:86:PRO:O	17:K:134:LYS:HE3	1.51	1.10
19:M:80:ILE:HG23	19:M:84:LYS:HG3	1.18	1.10
20:N:401:LYS:HG2	20:N:438:GLN:CG	1.80	1.10
25:R:133:ALA:HB3	25:R:136:HIS:HD2	1.12	1.10
16:J:133:PRO:CG	16:J:237:MET:HE1	1.80	1.10
17:K:403:TYR:O	17:K:407:ILE:CD1	1.99	1.10
23:P:149:LEU:HD11	23:P:165:ILE:HD13	1.15	1.10
19:M:80:ILE:O	19:M:84:LYS:CB	2.00	1.10
22:O:132:LYS:HB2	22:O:162:TYR:OH	1.49	1.10
28:U:94:TRP:CZ3	28:U:121:LEU:CD1	2.34	1.10
14:H:355:PHE:CE1	14:H:385:ILE:CG2	2.33	1.10
14:H:387:SER:O	14:H:391:GLU:HB2	1.52	1.10
16:J:150:MET:O	16:J:151:ILE:HG13	1.48	1.10
19:M:228:PRO:HG2	19:M:356:MET:HG3	1.19	1.10
23:P:243:ILE:CG1	23:P:247:TYR:CE2	2.35	1.10
28:U:70:LEU:HD21	28:U:111:LEU:HD23	1.32	1.10
24:Q:402:GLU:HG3	29:V:249:LEU:HD11	1.22	1.10
19:M:384:LEU:HA	19:M:387:CYS:SG	1.92	1.09
26:S:472:PRO:O	26:S:476:PHE:CD2	2.05	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:225:ALA:CB	17:K:259:PRO:O	2.00	1.09
17:K:293:LEU:CD2	17:K:326:ARG:NH1	2.14	1.09
17:K:57:GLN:O	17:K:61:ILE:HG12	1.52	1.09
25:R:344:HIS:NE2	25:R:359:PRO:HG3	1.67	1.09
17:K:41:TYR:HE1	20:N:156:GLU:HG3	1.12	1.09
29:V:53:VAL:HG12	29:V:77:GLN:HE22	1.17	1.09
32:Z:792:ALA:CB	32:Z:824:ALA:HB2	1.82	1.09
16:J:66:LEU:HD11	17:K:116:LEU:HD21	1.34	1.09
14:H:180:CYS:SG	14:H:183:GLN:HG3	1.92	1.09
15:I:200:SER:HB2	15:I:219:PRO:HG3	1.31	1.09
16:J:137:LEU:HD13	16:J:224:ILE:HD11	1.14	1.09
17:K:207:PRO:CG	17:K:335:LEU:CD2	2.11	1.09
14:H:190:VAL:HG11	14:H:212:VAL:CG2	1.83	1.09
18:L:303:LEU:HD22	18:L:339:ASN:HA	1.28	1.09
16:J:235:PHE:HE1	16:J:276:LEU:HD22	0.93	1.09
27:T:330:ILE:CG2	27:T:334:GLU:OE1	2.00	1.09
14:H:425:ALA:HB1	15:I:339:PRO:HB3	1.16	1.08
16:J:160:GLU:CB	16:J:315:ILE:CD1	2.31	1.08
19:M:202:ILE:HG21	19:M:282:ILE:HD11	1.34	1.08
16:J:147:THR:O	16:J:150:MET:HG2	1.53	1.08
25:R:241:ILE:HD13	25:R:260:LEU:HD11	1.26	1.08
18:L:258:MET:HA	18:L:261:LEU:HD12	1.18	1.08
28:U:79:TYR:HE1	28:U:83:LYS:HE2	1.16	1.08
22:O:341:LEU:HB3	22:O:345:GLN:OE1	1.50	1.08
25:R:120:ALA:HB1	25:R:124:PHE:HE1	0.95	1.08
15:I:200:SER:CB	15:I:219:PRO:HG3	1.83	1.08
17:K:190:LEU:HD22	17:K:194:ILE:HD11	1.31	1.08
17:K:271:ALA:HB2	17:K:289:LEU:HD21	1.28	1.08
17:K:41:TYR:CE1	20:N:156:GLU:HG3	1.88	1.08
16:J:46:GLN:HB3	17:K:61:ILE:CG2	1.83	1.08
19:M:202:ILE:CD1	19:M:329:ILE:HD11	1.84	1.08
15:I:283:PHE:CE1	15:I:328:ILE:HG22	1.88	1.08
16:J:187:LEU:HD12	16:J:293:MET:O	1.54	1.08
19:M:226:TYR:CG	19:M:335:VAL:HG21	1.89	1.08
18:L:198:VAL:HG11	18:L:203:ILE:HD11	1.15	1.08
30:W:108:ARG:NH2	30:W:193:GLY:C	2.06	1.08
17:K:90:GLY:O	17:K:130:VAL:CG2	2.02	1.08
18:L:148:VAL:HG22	18:L:167:PRO:CB	1.83	1.08
24:Q:264:PRO:HB3	24:Q:295:LYS:CE	1.83	1.08
18:L:195:PHE:CD1	18:L:229:ILE:CB	2.35	1.08
18:L:327:ASP:OD1	18:L:330:ALA:CB	2.01	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:Z:667:GLY:C	32:Z:671:ALA:HB3	1.73	1.08
18:L:145:LEU:HG	18:L:149:ILE:HD12	1.12	1.07
20:N:791:LEU:O	20:N:792:ASN:HB2	1.46	1.07
28:U:22:HIS:NE2	28:U:35:VAL:HG13	1.67	1.07
28:U:94:TRP:CH2	28:U:121:LEU:HD22	1.88	1.07
14:H:161:VAL:HG21	14:H:259:GLU:HB2	1.30	1.07
16:J:183:PRO:HB3	16:J:312:ASP:OD2	1.41	1.07
17:K:121:ARG:O	17:K:123:LEU:N	1.86	1.07
17:K:207:PRO:CB	17:K:335:LEU:CD2	2.30	1.07
15:I:170:LEU:CD1	15:I:269:GLU:HB3	1.85	1.07
16:J:154:LEU:O	16:J:158:ILE:HG13	1.52	1.07
18:L:205:ASP:HB2	18:L:210:GLU:HG2	1.10	1.07
15:I:223:ILE:HG13	15:I:347:ILE:HG21	1.09	1.07
16:J:114:VAL:HG12	16:J:126:ILE:HA	1.34	1.07
22:O:341:LEU:CB	22:O:345:GLN:OE1	2.01	1.07
15:I:295:TYR:OH	16:J:271:ARG:HB2	1.52	1.07
17:K:276:ASP:HB3	17:K:282:ASP:OD2	1.53	1.07
18:L:49:ALA:O	18:L:52:SER:OG	1.70	1.07
23:P:388:GLU:O	23:P:392:PHE:CD2	2.07	1.07
24:Q:155:ARG:HA	24:Q:158:LYS:HG2	1.26	1.07
16:J:31:LEU:HA	16:J:34:ILE:HD12	1.31	1.07
23:P:46:THR:O	23:P:50:LEU:HD22	1.55	1.07
20:N:470:ASN:H	20:N:474:ARG:CB	1.66	1.07
15:I:369:THR:HB	15:I:374:LEU:HD13	1.11	1.06
17:K:63:ASP:CB	20:N:607:VAL:HG11	1.79	1.06
23:P:317:TRP:HZ2	23:P:351:TRP:CZ3	1.72	1.06
14:H:190:VAL:HG21	14:H:212:VAL:CG2	1.86	1.06
15:I:409:GLU:OE1	15:I:411:ARG:NH2	1.88	1.06
15:I:107:MET:HE3	15:I:160:ILE:HD12	1.32	1.06
15:I:187:ILE:HD12	15:I:194:ILE:HD11	1.35	1.06
26:S:448:GLU:C	26:S:461:LYS:CG	2.23	1.06
15:I:115:ILE:HA	15:I:121:ALA:HB2	1.30	1.06
20:N:7:GLY:CA	27:T:170:GLN:HE21	1.66	1.06
22:O:73:PRO:HB3	22:O:110:ALA:HB2	1.33	1.06
24:Q:220:ALA:O	24:Q:222:GLU:HG2	1.56	1.06
24:Q:397:TYR:CE2	28:U:258:VAL:HG21	1.90	1.06
15:I:187:ILE:CD1	15:I:194:ILE:HD11	1.85	1.06
15:I:118:ASP:CG	15:I:120:HIS:CD2	2.27	1.06
16:J:235:PHE:CE1	16:J:276:LEU:CD2	2.38	1.06
16:J:39:SER:HB3	17:K:54:LEU:HD13	1.38	1.06
16:J:151:ILE:HG12	16:J:198:LEU:HD22	1.37	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:371:SER:O	17:K:375:ILE:HD12	1.52	1.06
20:N:402:PHE:HB2	20:N:437:TYR:HB3	1.33	1.06
24:Q:212:MET:HG3	24:Q:235:ALA:HB1	1.36	1.06
20:N:7:GLY:HA2	27:T:170:GLN:HG2	1.18	1.06
32:Z:792:ALA:HB2	32:Z:824:ALA:CB	1.86	1.06
19:M:376:SER:HB3	19:M:414:GLU:OE1	1.54	1.05
17:K:56:VAL:HG13	20:N:603:LEU:HD12	1.35	1.05
15:I:313:LEU:HD12	15:I:340:ALA:HB1	1.35	1.05
17:K:371:SER:O	17:K:375:ILE:CD1	2.04	1.05
23:P:168:GLU:O	23:P:170:GLN:N	1.88	1.05
16:J:46:GLN:HB3	17:K:61:ILE:HG21	1.12	1.05
24:Q:163:LYS:HD2	24:Q:200:ILE:HG21	1.29	1.05
30:W:55:ALA:CA	30:W:83:LYS:O	2.02	1.05
14:H:190:VAL:HG21	14:H:212:VAL:HG21	1.07	1.05
15:I:246:THR:OG1	15:I:280:SER:HB3	1.54	1.05
15:I:122:ILE:HD11	15:I:130:GLU:HB3	1.06	1.05
17:K:354:LEU:HA	17:K:393:ILE:CG2	1.85	1.05
28:U:43:TRP:HA	28:U:48:LEU:CD2	1.84	1.05
30:W:169:HIS:CG	30:W:187:PRO:CG	2.33	1.05
16:J:45:LEU:O	16:J:49:ARG:HB2	1.54	1.05
16:J:114:VAL:CG1	16:J:126:ILE:HG23	1.87	1.05
16:J:90:HIS:HB3	16:J:91:PRO:CD	1.86	1.05
17:K:106:THR:CA	17:K:245:ARG:NH2	2.02	1.05
19:M:226:TYR:HB2	19:M:335:VAL:CG2	1.85	1.05
22:O:248:PHE:CE1	22:O:272:ILE:HG13	1.92	1.05
25:R:304:TYR:HA	25:R:307:LEU:HD23	1.38	1.05
14:H:220:THR:HG21	14:H:343:PHE:HB3	1.33	1.05
15:I:230:THR:HG21	15:I:353:PHE:CA	1.85	1.05
15:I:387:LYS:HB2	15:I:390:LEU:HD23	1.32	1.05
16:J:28:ILE:HD13	26:S:240:LEU:O	0.89	1.05
15:I:424:GLU:CA	15:I:428:TYR:CD2	2.38	1.04
16:J:160:GLU:HB3	16:J:315:ILE:HD11	1.06	1.04
18:L:238:ILE:HD12	18:L:257:LEU:HB2	1.34	1.04
14:H:299:MET:CE	14:H:328:ASP:OD2	2.05	1.04
15:I:369:THR:CB	15:I:374:LEU:HD13	1.86	1.04
18:L:215:ILE:HD13	18:L:260:LEU:CD2	1.86	1.04
19:M:288:LEU:HD21	19:M:342:LEU:HD13	1.36	1.04
19:M:96:LEU:HD11	19:M:145:LEU:HB2	1.32	1.04
27:T:116:LEU:O	27:T:120:LYS:HB2	1.54	1.04
23:P:48:LEU:HD21	23:P:90:LEU:CD1	1.88	1.04
18:L:58:GLY:HA2	18:L:74:THR:CG2	1.86	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:O:38:THR:O	22:O:42:LEU:CG	2.05	1.04
15:I:250:VAL:CG2	15:I:270:LEU:HD13	1.87	1.04
18:L:258:MET:HA	18:L:261:LEU:CD1	1.86	1.04
19:M:142:ALA:O	19:M:145:LEU:N	1.91	1.04
19:M:272:PHE:CD2	19:M:316:GLN:HB3	1.91	1.04
14:H:274:PHE:HB2	14:H:319:MET:SD	1.98	1.04
15:I:122:ILE:CD1	15:I:130:GLU:HB3	1.87	1.04
15:I:223:ILE:HG13	15:I:347:ILE:CG2	1.87	1.04
17:K:154:LEU:O	17:K:155:THR:HG23	1.58	1.04
18:L:130:VAL:O	18:L:189:SER:OG	1.74	1.04
18:L:145:LEU:HG	18:L:149:ILE:HD11	1.33	1.04
27:T:330:ILE:HG23	27:T:334:GLU:CD	1.76	1.04
30:W:108:ARG:CZ	30:W:193:GLY:O	2.04	1.04
15:I:373:THR:OG1	15:I:413:LYS:CG	2.06	1.03
16:J:189:TYR:CZ	16:J:316:GLU:CB	2.40	1.03
28:U:70:LEU:HD21	28:U:111:LEU:HD22	1.37	1.03
15:I:313:LEU:HG	15:I:346:ARG:HH11	0.93	1.03
16:J:137:LEU:HD22	16:J:224:ILE:CD1	1.87	1.03
17:K:149:SER:HA	17:K:246:MET:HE3	1.38	1.03
18:L:205:ASP:CB	18:L:210:GLU:HG2	1.86	1.03
23:P:396:LEU:HD22	23:P:401:THR:CB	1.87	1.03
16:J:46:GLN:CB	17:K:61:ILE:HG21	1.86	1.03
28:U:94:TRP:CZ2	28:U:109:ASN:OD1	2.11	1.03
15:I:200:SER:CA	15:I:219:PRO:HG3	1.88	1.03
17:K:343:LEU:O	17:K:347:THR:HG23	1.58	1.03
18:L:143:ARG:CG	18:L:147:GLU:OE2	2.06	1.03
24:Q:258:LYS:HE2	24:Q:266:ASP:HB3	1.04	1.03
26:S:348:PHE:CE2	26:S:361:PHE:HA	1.94	1.03
28:U:22:HIS:CD2	28:U:35:VAL:HG13	1.91	1.03
19:M:142:ALA:HA	19:M:145:LEU:HD12	1.35	1.03
29:V:203:ILE:HG22	29:V:204:THR:H	1.24	1.03
30:W:52:ILE:O	30:W:52:ILE:HG13	1.54	1.03
15:I:398:ILE:HG22	15:I:419:PHE:HD1	1.20	1.03
17:K:267:ILE:HD13	17:K:309:MET:HB3	1.37	1.03
14:H:220:THR:CG2	14:H:343:PHE:HB3	1.88	1.03
16:J:183:PRO:HB2	16:J:312:ASP:OD2	1.55	1.03
16:J:333:SER:HB2	16:J:338:LEU:CD1	1.89	1.03
17:K:275:PHE:CZ	17:K:289:LEU:HD12	1.92	1.03
23:P:71:VAL:O	23:P:74:CYS:SG	2.17	1.03
24:Q:332:GLU:OE1	24:Q:364:LYS:HD3	1.55	1.03
30:W:53:THR:N	30:W:61:LEU:HD21	1.74	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:V:229:LEU:HD13	29:V:305:ASP:OD1	1.56	1.03
14:H:299:MET:HE1	14:H:328:ASP:OD2	1.56	1.03
15:I:250:VAL:HG21	15:I:270:LEU:HD13	1.37	1.02
18:L:56:ILE:HD13	19:M:132:TYR:CE1	1.92	1.02
24:Q:412:ASP:O	24:Q:416:ASN:OD1	1.77	1.02
20:N:35:TRP:CH2	26:S:273:LYS:CE	1.97	1.02
15:I:232:LYS:HA	15:I:353:PHE:CE2	1.93	1.02
17:K:160:PRO:HG2	17:K:220:ALA:CB	1.88	1.02
19:M:249:LEU:HD23	19:M:283:ILE:HG12	1.05	1.02
25:R:201:PHE:HB3	25:R:223:THR:HG22	1.41	1.02
19:M:312:GLU:O	19:M:316:GLN:HG2	1.59	1.02
20:N:26:LYS:CG	27:T:121:LEU:CD2	2.38	1.02
24:Q:157:LEU:HB2	24:Q:166:LEU:HD12	1.41	1.02
17:K:90:GLY:O	17:K:130:VAL:N	1.92	1.02
19:M:83:ASN:OD1	19:M:161:LEU:HD22	1.59	1.02
28:U:23:PHE:CD2	28:U:126:VAL:HG21	1.94	1.02
14:H:274:PHE:CD2	14:H:319:MET:SD	2.53	1.02
15:I:387:LYS:HB3	15:I:390:LEU:HD23	1.35	1.02
16:J:25:LEU:HD23	20:N:102:ALA:HB1	1.40	1.02
19:M:80:ILE:HG23	19:M:84:LYS:CD	1.88	1.02
14:H:254:ALA:O	14:H:258:ARG:HG2	1.59	1.02
19:M:202:ILE:HD11	19:M:329:ILE:HD11	1.37	1.02
20:N:35:TRP:HH2	26:S:273:LYS:CD	1.68	1.02
32:Z:164:GLY:HA2	32:Z:167:ALA:CB	1.89	1.02
32:Z:309:GLU:O	32:Z:313:GLU:N	1.91	1.02
2:B:132:ARG:NH1	21:X:123:THR:O	1.93	1.02
14:H:299:MET:HE3	14:H:328:ASP:HB3	1.39	1.02
24:Q:421:LEU:CB	28:U:280:ILE:HG12	1.89	1.02
27:T:250:ASN:O	27:T:253:ALA:CB	2.06	1.02
28:U:72:HIS:HE1	28:U:111:LEU:CD1	1.73	1.02
23:P:149:LEU:HD11	23:P:165:ILE:CD1	1.90	1.01
25:R:108:ALA:HB1	25:R:124:PHE:CE1	1.94	1.01
14:H:112:ILE:HG12	14:H:122:VAL:HG22	1.41	1.01
14:H:117:GLN:NE2	15:I:127:VAL:O	1.92	1.01
15:I:402:ALA:HB1	15:I:414:VAL:HG11	1.40	1.01
17:K:248:ARG:HG3	17:K:295:GLN:HE22	1.22	1.01
18:L:148:VAL:HG22	18:L:167:PRO:HB3	1.38	1.01
20:N:423:MET:HE1	20:N:445:ALA:HB1	1.39	1.01
15:I:373:THR:O	15:I:413:LYS:HB3	1.58	1.01
16:J:67:GLN:CA	17:K:136:SER:OG	2.07	1.01
25:R:186:LEU:CA	25:R:201:PHE:HZ	1.72	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:W:60:VAL:HG11	30:W:63:THR:HG23	1.01	1.01
26:S:165:ALA:HB2	26:S:203:LEU:HD11	1.41	1.01
26:S:472:PRO:HB2	26:S:476:PHE:HE2	1.21	1.01
29:V:30:GLN:HG2	29:V:204:THR:OG1	1.60	1.01
14:H:111:TYR:CE2	14:H:125:LEU:HD23	1.60	1.01
15:I:313:LEU:HD11	15:I:340:ALA:HB1	1.37	1.01
16:J:86:LEU:HD23	16:J:96:VAL:HG22	1.24	1.01
23:P:146:THR:HG21	23:P:169:LEU:HD13	1.39	1.01
20:N:7:GLY:HA2	27:T:170:GLN:HE21	1.18	1.01
14:H:245:LEU:HD12	14:H:280:ILE:HD13	1.37	1.01
17:K:116:LEU:HB2	17:K:119:ILE:HD11	1.42	1.01
16:J:26:SER:OG	17:K:40:LEU:CD1	2.09	1.01
18:L:145:LEU:CG	18:L:149:ILE:CD1	2.38	1.01
23:P:209:ILE:CG2	23:P:226:TYR:OH	2.09	1.01
26:S:175:MET:HB3	26:S:184:ALA:HB2	1.41	1.01
14:H:355:PHE:CE1	14:H:385:ILE:HG23	1.95	1.01
15:I:373:THR:O	15:I:413:LYS:HA	1.61	1.01
16:J:114:VAL:HG12	16:J:126:ILE:CA	1.89	1.01
19:M:137:ILE:HG22	19:M:140:VAL:HG23	1.38	1.01
25:R:241:ILE:CD1	25:R:260:LEU:HD11	1.91	1.01
32:Z:318:THR:O	32:Z:322:SER:CA	2.08	1.01
14:H:247:GLN:N	14:H:247:GLN:HE21	1.58	1.01
15:I:115:ILE:HA	15:I:121:ALA:CB	1.90	1.00
15:I:144:LEU:HD11	15:I:162:VAL:CG2	1.90	1.00
28:U:131:LEU:HD11	28:U:199:LYS:HD3	1.37	1.00
15:I:200:SER:O	15:I:219:PRO:CG	2.09	1.00
15:I:313:LEU:CD1	15:I:340:ALA:CB	2.38	1.00
16:J:143:VAL:CG1	16:J:213:ARG:HD3	1.92	1.00
17:K:293:LEU:CD2	17:K:326:ARG:HH11	1.70	1.00
25:R:185:GLY:C	25:R:201:PHE:CE2	2.33	1.00
25:R:183:TYR:HE1	25:R:213:LEU:HD11	1.20	1.00
32:Z:271:MET:O	32:Z:273:ASN:N	1.92	1.00
14:H:330:ALA:HB1	14:H:336:ARG:NH1	1.76	1.00
16:J:189:TYR:OH	16:J:316:GLU:CG	2.08	1.00
17:K:237:GLN:NE2	17:K:242:GLU:HG2	1.76	1.00
17:K:207:PRO:HB2	17:K:335:LEU:HD21	1.43	1.00
19:M:217:ILE:HG13	19:M:218:GLN:N	1.74	1.00
19:M:83:ASN:HA	19:M:161:LEU:HD13	1.41	1.00
17:K:345:PHE:CD2	17:K:360:LEU:CD2	2.44	1.00
19:M:177:VAL:HG21	19:M:248:PHE:HD2	1.18	1.00
24:Q:276:ALA:O	24:Q:278:ARG:N	1.94	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:Z:412:ALA:HA	32:Z:447:ALA:HB2	1.43	1.00
28:U:70:LEU:HD21	28:U:111:LEU:HD21	1.43	1.00
14:H:245:LEU:HD12	14:H:280:ILE:CG1	1.90	1.00
18:L:130:VAL:HG12	18:L:131:SER:H	1.27	1.00
18:L:331:ILE:HD13	18:L:367:PHE:CD1	1.95	1.00
22:O:225:LEU:CG	22:O:230:ARG:CG	2.39	1.00
14:H:180:CYS:SG	14:H:183:GLN:CG	2.50	1.00
17:K:115:ILE:HD12	17:K:121:ARG:NH1	1.76	1.00
16:J:28:ILE:HG23	26:S:242:HIS:HD2	0.98	1.00
24:Q:212:MET:HG3	24:Q:235:ALA:CB	1.91	1.00
17:K:226:ALA:HB1	17:K:257:ASN:HD22	1.24	1.00
18:L:358:ASP:O	18:L:359:HIS:ND1	1.95	1.00
22:O:132:LYS:HB2	22:O:162:TYR:CZ	1.97	1.00
14:H:258:ARG:O	14:H:262:GLU:N	1.95	0.99
20:N:161:ASP:O	20:N:164:GLU:HB2	1.62	0.99
23:P:67:LEU:HD13	23:P:106:GLN:CB	1.92	0.99
25:R:250:LEU:CD2	25:R:257:ARG:HB3	1.89	0.99
32:Z:698:SER:HA	32:Z:702:PRO:CB	1.92	0.99
16:J:338:LEU:HD21	16:J:383:PHE:CE2	1.97	0.99
32:Z:272:LEU:O	32:Z:274:ASP:N	1.95	0.99
32:Z:661:ALA:O	32:Z:662:MET:O	1.80	0.99
15:I:398:ILE:HA	15:I:422:SER:OG	1.61	0.99
16:J:160:GLU:HB2	16:J:315:ILE:HD13	1.43	0.99
17:K:167:ILE:CD1	17:K:218:ALA:HB2	1.93	0.99
25:R:25:LEU:O	25:R:28:LEU:CG	2.10	0.99
27:T:95:TYR:O	27:T:99:LYS:HB2	1.61	0.99
19:M:80:ILE:CG2	19:M:84:LYS:CD	2.40	0.99
25:R:50:MET:HE3	25:R:53:TYR:CE2	1.98	0.99
25:R:344:HIS:CE1	25:R:359:PRO:CG	2.45	0.99
27:T:120:LYS:O	27:T:124:LEU:HB2	0.81	0.99
30:W:60:VAL:HG11	30:W:63:THR:HG21	1.39	0.99
32:Z:667:GLY:CA	32:Z:671:ALA:CB	2.10	0.99
15:I:189:GLY:HA3	15:I:360:THR:HB	1.42	0.99
20:N:576:PRO:CG	20:N:611:ASN:HD22	1.74	0.99
14:H:161:VAL:HG11	14:H:263:MET:SD	1.98	0.99
14:H:425:ALA:HB1	15:I:339:PRO:CB	1.92	0.99
16:J:228:ALA:HB1	16:J:233:GLU:OE2	1.61	0.99
17:K:86:PRO:O	17:K:134:LYS:CE	2.11	0.99
27:T:346:LEU:CD1	29:V:296:ILE:HD13	1.93	0.99
15:I:206:THR:O	15:I:208:PRO:HD2	1.63	0.99
16:J:160:GLU:CB	16:J:315:ILE:HD13	1.92	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:143:VAL:HG11	16:J:213:ARG:HD3	1.00	0.99
29:V:265:MET:HG3	29:V:269:GLN:OE1	1.63	0.99
14:H:302:LEU:HD11	14:H:306:LEU:HD22	1.45	0.98
18:L:305:ASN:N	18:L:308:ALA:HB3	1.77	0.98
19:M:294:LYS:CA	19:M:339:ASP:OD1	2.10	0.98
23:P:304:ASP:CG	23:P:324:TYR:OH	2.01	0.98
24:Q:339:ILE:HB	24:Q:387:ILE:CD1	1.93	0.98
30:W:54:LEU:C	30:W:85:THR:OG1	2.00	0.98
18:L:69:PHE:CZ	18:L:83:CYS:SG	2.55	0.98
14:H:223:THR:O	14:H:227:ARG:HG3	1.62	0.98
18:L:172:LEU:HD22	18:L:301:ILE:HD11	1.42	0.98
19:M:342:LEU:O	19:M:348:LEU:CD1	2.11	0.98
20:N:71:LEU:HA	26:S:273:LYS:CB	1.93	0.98
15:I:230:THR:HG22	15:I:353:PHE:HB3	1.02	0.98
25:R:140:ILE:O	25:R:143:TYR:CG	2.16	0.98
15:I:144:LEU:HG	15:I:162:VAL:CG2	1.93	0.98
16:J:116:LEU:CD2	16:J:121:TYR:CD1	2.46	0.98
16:J:335:LYS:HA	25:R:173:ASP:HB3	1.44	0.98
19:M:136:VAL:O	19:M:138:GLY:N	1.96	0.98
18:L:114:GLU:HB3	19:M:95:GLU:OE2	1.60	0.98
26:S:487:HIS:O	26:S:491:VAL:HG23	1.64	0.98
14:H:174:TYR:HD2	14:H:184:ILE:HD13	1.27	0.98
15:I:249:ARG:HH22	16:J:278:ASN:HB3	1.27	0.98
15:I:230:THR:CG2	15:I:353:PHE:C	2.25	0.98
17:K:106:THR:HA	17:K:245:ARG:CZ	1.93	0.98
19:M:188:ILE:HG22	19:M:189:GLY:H	1.25	0.98
25:R:307:LEU:HD21	25:R:319:MET:HE3	1.44	0.98
15:I:283:PHE:CE1	15:I:328:ILE:CG2	2.46	0.98
16:J:207:THR:HG23	16:J:209:CYS:SG	2.04	0.98
16:J:160:GLU:CB	16:J:315:ILE:HD11	1.93	0.98
17:K:125:LYS:CB	17:K:126:PRO:HD3	1.94	0.98
16:J:67:GLN:HA	17:K:136:SER:HG	0.85	0.98
17:K:309:MET:SD	17:K:327:LEU:HD11	2.03	0.98
18:L:171:LEU:HD12	18:L:277:MET:O	1.64	0.98
23:P:317:TRP:CZ2	23:P:351:TRP:CZ3	2.52	0.98
24:Q:84:LYS:HE3	24:Q:88:LEU:CD2	1.93	0.98
26:S:448:GLU:O	26:S:461:LYS:HB2	1.63	0.98
15:I:284:ILE:HG22	15:I:287:ILE:HG23	1.45	0.97
15:I:373:THR:O	15:I:373:THR:CG2	2.12	0.97
17:K:354:LEU:CA	17:K:393:ILE:HG23	1.93	0.97
18:L:148:VAL:CG2	18:L:167:PRO:CG	2.42	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:R:133:ALA:HB3	25:R:136:HIS:CD2	1.98	0.97
14:H:218:PRO:HD3	14:H:429:TYR:HD2	1.29	0.97
17:K:63:ASP:OD2	20:N:607:VAL:CG1	2.12	0.97
18:L:342:ASP:O	18:L:346:VAL:HG23	1.64	0.97
25:R:27:SER:O	25:R:28:LEU:O	1.81	0.97
16:J:162:LYS:CG	16:J:166:GLU:OE1	2.11	0.97
17:K:354:LEU:HA	17:K:393:ILE:HG23	1.01	0.97
14:H:111:TYR:HE2	14:H:125:LEU:HD23	0.87	0.97
19:M:137:ILE:HG21	19:M:145:LEU:HD11	1.45	0.97
23:P:209:ILE:HG21	23:P:226:TYR:CE1	2.00	0.97
24:Q:273:GLY:O	24:Q:277:LEU:HB2	1.62	0.97
15:I:365:PHE:CE2	15:I:383:LEU:HB2	1.99	0.97
20:N:198:LEU:O	20:N:201:LEU:CG	2.13	0.97
23:P:46:THR:O	23:P:50:LEU:HD23	1.63	0.97
17:K:125:LYS:HB3	17:K:126:PRO:CD	1.95	0.97
17:K:128:ALA:HB1	17:K:142:VAL:HG13	1.45	0.97
17:K:378:ILE:HG13	17:K:406:VAL:HG21	1.43	0.97
20:N:549:ALA:CB	20:N:581:SER:CB	2.41	0.97
32:Z:792:ALA:HB2	32:Z:824:ALA:HB2	0.97	0.97
19:M:314:LEU:HD21	19:M:342:LEU:CD2	1.94	0.97
28:U:215:VAL:O	28:U:220:LEU:CB	2.12	0.97
28:U:43:TRP:HA	28:U:48:LEU:HD23	1.45	0.97
14:H:355:PHE:CE1	14:H:385:ILE:HG22	1.98	0.97
17:K:128:ALA:CB	17:K:142:VAL:HG13	1.94	0.97
20:N:406:ALA:HA	20:N:445:ALA:HB2	1.45	0.97
29:V:64:ASP:HA	29:V:139:ARG:NH1	1.79	0.97
16:J:137:LEU:HD13	16:J:220:VAL:CG1	1.87	0.96
17:K:226:ALA:HB1	17:K:257:ASN:ND2	1.79	0.96
23:P:48:LEU:O	23:P:52:LYS:HD2	1.65	0.96
28:U:94:TRP:CE3	28:U:121:LEU:CD1	2.46	0.96
17:K:41:TYR:HE1	20:N:156:GLU:CG	1.77	0.96
19:M:399:VAL:HG22	19:M:427:VAL:HB	1.43	0.96
25:R:307:LEU:HD21	25:R:319:MET:CE	1.94	0.96
27:T:296:PRO:O	27:T:299:MET:CG	2.13	0.96
28:U:22:HIS:HD2	28:U:35:VAL:CG1	1.65	0.96
29:V:309:PHE:O	29:V:310:LYS:NZ	1.98	0.96
17:K:163:MET:CG	17:K:221:HIS:CE1	2.47	0.96
17:K:106:THR:C	17:K:245:ARG:HH22	1.68	0.96
24:Q:236:PHE:CE1	24:Q:251:LEU:HG	1.98	0.96
24:Q:258:LYS:HE2	24:Q:266:ASP:CB	1.95	0.96
27:T:330:ILE:CG2	27:T:334:GLU:CD	2.31	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:M:314:LEU:CD2	19:M:342:LEU:HD23	1.96	0.96
17:K:63:ASP:HB3	20:N:607:VAL:HG13	0.97	0.96
25:R:250:LEU:HD22	25:R:257:ARG:CB	1.95	0.96
14:H:97:ARG:HH21	15:I:129:SER:HB3	1.31	0.96
15:I:207:HIS:CD2	15:I:210:TYR:OH	2.18	0.96
16:J:273:MET:CE	16:J:305:LEU:HD21	1.96	0.96
20:N:365:CYS:SG	20:N:724:VAL:CB	2.53	0.96
24:Q:190:LEU:HD23	24:Q:217:ILE:HD12	1.45	0.96
28:U:23:PHE:HE2	28:U:126:VAL:CG1	1.59	0.96
14:H:99:THR:CG2	14:H:142:VAL:CG2	2.38	0.96
16:J:116:LEU:HD21	16:J:121:TYR:CD1	2.01	0.96
17:K:184:PRO:HA	17:K:191:TYR:HE2	1.30	0.96
17:K:244:PRO:HA	17:K:291:GLU:HG3	1.47	0.96
24:Q:292:GLN:O	24:Q:296:ASN:OD1	1.84	0.96
17:K:115:ILE:CD1	17:K:121:ARG:CZ	2.35	0.96
17:K:335:LEU:O	17:K:336:PRO:O	1.83	0.96
26:S:169:LEU:HD11	26:S:206:VAL:HG23	1.47	0.96
14:H:302:LEU:O	14:H:306:LEU:HB2	1.64	0.96
16:J:137:LEU:HD22	16:J:224:ILE:HD13	1.48	0.96
19:M:422:GLU:HA	19:M:425:LEU:HB2	1.47	0.96
14:H:87:LEU:O	14:H:91:GLN:HG3	1.65	0.95
18:L:238:ILE:CD1	18:L:257:LEU:CB	2.44	0.95
20:N:7:GLY:HA2	27:T:170:GLN:CD	1.86	0.95
18:L:264:MET:CG	18:L:275:MET:HE1	1.96	0.95
19:M:249:LEU:CG	19:M:283:ILE:HG12	1.96	0.95
24:Q:302:PHE:HB2	24:Q:330:LEU:HD13	1.45	0.95
26:S:472:PRO:HB2	26:S:476:PHE:CE2	2.00	0.95
14:H:103:ASN:HB3	14:H:136:GLU:OE2	1.67	0.95
17:K:403:TYR:C	17:K:407:ILE:HD13	1.84	0.95
24:Q:96:PHE:CE1	24:Q:106:GLU:OE2	2.19	0.95
27:T:89:GLN:CG	27:T:115:GLU:OE1	2.14	0.95
20:N:7:GLY:N	27:T:170:GLN:HG2	1.80	0.95
15:I:398:ILE:CG2	15:I:419:PHE:HD1	1.79	0.95
18:L:138:LEU:HD13	18:L:141:GLN:OE1	1.66	0.95
18:L:277:MET:HG3	18:L:295:LEU:HD21	1.44	0.95
19:M:374:ASN:C	19:M:414:GLU:HB2	1.85	0.95
14:H:284:ARG:CA	14:H:296:GLN:OE1	2.13	0.95
15:I:283:PHE:CD1	15:I:328:ILE:CG2	2.50	0.95
17:K:93:LEU:HD23	17:K:102:ILE:HG22	1.48	0.95
18:L:303:LEU:CD2	18:L:339:ASN:HA	1.95	0.95
19:M:153:VAL:CG1	19:M:158:TYR:HA	1.96	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:302:ASP:OD1	16:J:303:SER:N	1.99	0.95
19:M:96:LEU:HD11	19:M:145:LEU:CB	1.95	0.95
14:H:190:VAL:CG1	14:H:212:VAL:CG2	2.44	0.95
20:N:419:ALA:HB2	20:N:449:ILE:HD13	1.45	0.95
20:N:3:THR:OG1	27:T:127:ASN:HB2	1.66	0.95
28:U:22:HIS:CD2	28:U:35:VAL:HG12	1.98	0.95
14:H:303:ILE:HG23	14:H:336:ARG:CZ	1.95	0.95
17:K:163:MET:HG2	17:K:221:HIS:HE1	1.27	0.95
17:K:210:CYS:SG	17:K:334:PRO:O	2.25	0.95
18:L:215:ILE:HD13	18:L:260:LEU:HD23	1.44	0.95
19:M:226:TYR:CB	19:M:335:VAL:HG21	1.96	0.95
28:U:51:SER:OG	29:V:43:LYS:HE3	1.66	0.95
18:L:264:MET:SD	18:L:275:MET:CE	2.55	0.95
22:O:332:HIS:CG	22:O:332:HIS:O	2.15	0.95
24:Q:258:LYS:CE	24:Q:266:ASP:CB	2.45	0.95
25:R:50:MET:CE	25:R:53:TYR:CE2	2.50	0.95
14:H:246:VAL:C	14:H:247:GLN:HE21	1.68	0.94
17:K:116:LEU:O	17:K:119:ILE:CD1	2.14	0.94
17:K:275:PHE:HZ	17:K:289:LEU:HD12	1.30	0.94
18:L:148:VAL:HG22	18:L:167:PRO:CG	1.97	0.94
20:N:616:ARG:NH2	20:N:650:TYR:HD2	1.64	0.94
15:I:257:GLN:HE22	15:I:266:LEU:HG	1.29	0.94
24:Q:190:LEU:CD2	24:Q:217:ILE:HD12	1.96	0.94
25:R:259:TYR:CD1	25:R:260:LEU:N	2.36	0.94
14:H:351:ARG:CZ	14:H:377:CYS:O	2.15	0.94
17:K:52:GLU:OE1	20:N:596:ASN:ND2	2.00	0.94
29:V:240:HIS:O	29:V:244:VAL:HG23	1.68	0.94
16:J:169:VAL:O	16:J:172:PRO:HD3	1.65	0.94
16:J:41:ASN:O	16:J:44:ARG:CB	2.15	0.94
15:I:144:LEU:CG	15:I:162:VAL:CG2	2.45	0.94
17:K:164:TYR:CD1	17:K:222:HIS:HD2	1.85	0.94
24:Q:411:VAL:HG13	24:Q:415:TYR:CE2	2.03	0.94
14:H:258:ARG:CD	14:H:305:GLN:HE22	1.80	0.94
14:H:365:GLU:OE1	14:H:405:THR:HA	1.68	0.94
29:V:53:VAL:HG12	29:V:77:GLN:NE2	1.83	0.94
17:K:91:GLN:HA	17:K:128:ALA:O	1.66	0.94
16:J:39:SER:CB	17:K:54:LEU:HD13	1.97	0.94
17:K:93:LEU:CD1	17:K:94:GLU:CG	2.44	0.94
18:L:195:PHE:CE1	18:L:229:ILE:CG1	2.50	0.94
15:I:187:ILE:CD1	15:I:194:ILE:CD1	2.46	0.94
16:J:46:GLN:O	16:J:50:ASN:N	2.01	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:370:ILE:HG23	17:K:374:ASP:HB2	1.48	0.94
18:L:101:ASP:O	18:L:105:LEU:HD22	1.68	0.94
23:P:149:LEU:CD1	23:P:165:ILE:HD13	1.98	0.94
24:Q:370:LEU:HG	25:R:233:ARG:NE	1.81	0.94
32:Z:318:THR:O	32:Z:322:SER:N	2.01	0.94
17:K:345:PHE:CG	17:K:360:LEU:CD2	2.51	0.94
28:U:101:LEU:O	28:U:102:HIS:ND1	2.01	0.94
15:I:373:THR:O	15:I:413:LYS:CA	2.14	0.94
18:L:238:ILE:CD1	18:L:257:LEU:HB2	1.97	0.94
15:I:424:GLU:HA	15:I:428:TYR:CE2	2.03	0.93
16:J:133:PRO:HG2	16:J:237:MET:HE1	0.95	0.93
20:N:243:LEU:CB	20:N:915:LYS:CG	2.46	0.93
24:Q:302:PHE:CG	24:Q:330:LEU:CD1	2.51	0.93
24:Q:411:VAL:HG13	24:Q:415:TYR:HE2	1.33	0.93
25:R:216:TYR:O	25:R:220:VAL:HG23	1.68	0.93
25:R:186:LEU:CD1	25:R:287:LEU:HG	1.98	0.93
14:H:299:MET:HE3	14:H:328:ASP:HB2	1.50	0.93
14:H:355:PHE:CD1	14:H:385:ILE:CG2	2.52	0.93
16:J:151:ILE:O	16:J:152:GLY:O	1.85	0.93
18:L:258:MET:CA	18:L:261:LEU:HD12	1.97	0.93
24:Q:370:LEU:HG	25:R:233:ARG:HE	1.32	0.93
25:R:241:ILE:HD11	25:R:260:LEU:HD21	1.48	0.93
15:I:402:ALA:HB1	15:I:414:VAL:HG21	1.47	0.93
17:K:181:VAL:O	17:K:185:LEU:HB2	1.68	0.93
17:K:359:ASP:O	17:K:361:GLU:N	2.01	0.93
19:M:225:MET:CG	19:M:354:PHE:CE2	2.51	0.93
15:I:373:THR:O	15:I:413:LYS:CB	2.15	0.93
16:J:148:TYR:O	16:J:150:MET:N	2.02	0.93
29:V:259:VAL:O	29:V:263:ASP:HB2	1.69	0.93
15:I:408:ARG:NH1	16:J:160:GLU:OE2	2.02	0.93
16:J:26:SER:OG	17:K:40:LEU:HB2	1.67	0.93
16:J:77:VAL:HB	16:J:86:LEU:CD1	1.99	0.93
18:L:219:PHE:O	18:L:223:ARG:HG2	1.69	0.93
19:M:226:TYR:HB2	19:M:335:VAL:HG23	1.51	0.93
16:J:85:VAL:HG22	16:J:99:VAL:HG12	1.50	0.93
24:Q:249:THR:HG23	24:Q:253:TYR:HE2	1.31	0.93
15:I:187:ILE:HD12	15:I:190:LEU:HD12	1.48	0.93
15:I:365:PHE:CD1	15:I:395:ILE:HG22	2.04	0.93
15:I:249:ARG:HH22	16:J:278:ASN:CB	1.81	0.93
18:L:61:LEU:HD12	18:L:78:ARG:HG2	1.51	0.93
19:M:169:ASP:CB	19:M:172:VAL:HG23	1.98	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:411:VAL:CG1	24:Q:415:TYR:HE2	1.80	0.93
16:J:183:PRO:CA	16:J:312:ASP:OD2	2.16	0.93
16:J:28:ILE:HD13	26:S:240:LEU:C	1.87	0.93
16:J:67:GLN:CA	17:K:136:SER:HG	1.78	0.93
17:K:360:LEU:HD12	17:K:363:TYR:CD2	2.02	0.93
15:I:144:LEU:CD1	15:I:162:VAL:CG2	2.47	0.93
17:K:226:ALA:CB	17:K:257:ASN:ND2	2.30	0.93
23:P:153:LYS:CE	23:P:162:ALA:HA	1.99	0.93
25:R:200:LEU:O	25:R:204:THR:HG23	1.69	0.93
25:R:204:THR:OG1	25:R:219:PHE:HZ	1.52	0.93
14:H:172:VAL:CG1	14:H:224:LEU:HD22	1.98	0.92
24:Q:84:LYS:HE3	24:Q:88:LEU:HD21	1.49	0.92
26:S:330:LYS:HG2	26:S:360:TYR:HE2	1.33	0.92
15:I:200:SER:HB2	15:I:219:PRO:CG	1.99	0.92
17:K:160:PRO:HG2	17:K:220:ALA:HB3	0.94	0.92
19:M:150:LEU:HB2	19:M:164:LEU:HB2	1.50	0.92
20:N:419:ALA:CB	20:N:449:ILE:HD12	1.99	0.92
25:R:241:ILE:HD11	25:R:260:LEU:CD2	1.98	0.92
17:K:207:PRO:HG2	17:K:335:LEU:HD21	1.01	0.92
19:M:87:PRO:CB	19:M:155:LYS:HE2	1.99	0.92
19:M:435:LEU:HD21	19:M:438:TYR:CZ	2.04	0.92
20:N:586:VAL:HG11	20:N:601:ARG:HH22	1.34	0.92
25:R:142:PHE:CZ	25:R:180:LEU:HD23	2.05	0.92
15:I:103:ARG:CG	15:I:160:ILE:CG2	2.47	0.92
17:K:116:LEU:C	17:K:119:ILE:HD13	1.89	0.92
17:K:41:TYR:CE2	20:N:155:LEU:HD21	2.04	0.92
20:N:419:ALA:CB	20:N:449:ILE:CD1	2.47	0.92
31:Y:57:ARG:O	31:Y:61:GLU:N	2.02	0.92
17:K:394:VAL:HG13	17:K:398:ASP:HB3	1.52	0.92
14:H:125:LEU:CA	14:H:149:ILE:HB	2.00	0.92
16:J:167:LEU:HD11	16:J:174:LEU:HD12	1.51	0.92
25:R:225:TYR:OH	25:R:278:VAL:HG13	1.69	0.92
15:I:182:GLU:O	15:I:241:ASN:ND2	2.03	0.92
17:K:184:PRO:HG3	17:K:191:TYR:HH	1.27	0.92
17:K:248:ARG:HB3	17:K:252:ARG:HH21	1.35	0.92
18:L:291:ARG:HE	18:L:294:ARG:HH11	1.18	0.92
19:M:206:MET:HB2	19:M:327:LYS:NZ	1.83	0.92
26:S:101:LEU:O	26:S:105:SER:CB	2.17	0.92
28:U:122:VAL:HG22	28:U:137:ALA:HA	1.52	0.92
18:L:200:SER:HB3	18:L:234:GLU:O	1.70	0.92
25:R:142:PHE:CE1	25:R:180:LEU:HD23	2.05	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:41:TYR:HE2	20:N:155:LEU:CD2	1.59	0.91
24:Q:410:VAL:HG11	29:V:255:TYR:CD2	2.05	0.91
15:I:144:LEU:CD1	15:I:162:VAL:HG23	2.00	0.91
15:I:401:GLU:HB3	15:I:422:SER:HB2	1.50	0.91
17:K:233:SER:HB3	18:L:259:GLU:OE2	1.68	0.91
19:M:183:GLU:O	19:M:184:GLN:O	1.87	0.91
23:P:444:HIS:CE1	28:U:138:TYR:CE1	2.59	0.91
24:Q:294:SER:O	24:Q:297:ARG:N	2.02	0.91
17:K:207:PRO:HG2	17:K:335:LEU:HD23	1.49	0.91
18:L:238:ILE:HD11	18:L:257:LEU:CB	2.01	0.91
28:U:72:HIS:HE1	28:U:111:LEU:HD11	1.13	0.91
29:V:146:ASP:OD2	29:V:149:GLN:HG2	1.70	0.91
28:U:176:LEU:HD23	29:V:217:LEU:HD12	1.50	0.91
17:K:184:PRO:CA	17:K:191:TYR:CE2	2.54	0.91
17:K:207:PRO:HB2	17:K:335:LEU:CD2	1.97	0.91
20:N:220:LEU:O	20:N:224:ASP:N	2.03	0.91
16:J:137:LEU:HD13	16:J:220:VAL:HG13	0.92	0.91
17:K:90:GLY:C	17:K:130:VAL:HG22	1.91	0.91
17:K:210:CYS:HB3	17:K:333:PHE:HB3	1.49	0.91
23:P:279:PHE:CE2	23:P:364:ARG:HD2	2.05	0.91
14:H:351:ARG:NH2	14:H:374:ALA:O	2.04	0.91
29:V:203:ILE:CG2	29:V:204:THR:H	1.83	0.91
29:V:237:HIS:ND1	29:V:298:GLN:OE1	2.04	0.91
2:B:120:ASP:OD1	4:C:83:ARG:NH1	2.04	0.91
14:H:190:VAL:CB	14:H:212:VAL:HG21	2.00	0.91
18:L:363:VAL:CG2	18:L:364:GLN:N	2.32	0.91
23:P:150:ALA:HB2	23:P:165:ILE:HD11	1.52	0.91
23:P:66:ILE:O	23:P:70:VAL:HG12	1.70	0.91
29:V:240:HIS:O	29:V:244:VAL:CG2	2.19	0.91
14:H:112:ILE:HG12	14:H:122:VAL:CG2	2.00	0.91
15:I:206:THR:C	15:I:208:PRO:HD2	1.89	0.91
17:K:200:ARG:HH22	17:K:299:PHE:HB3	1.34	0.91
18:L:145:LEU:CG	18:L:149:ILE:HD11	2.00	0.91
18:L:338:PHE:HA	18:L:378:LYS:NZ	1.86	0.91
24:Q:273:GLY:HA2	24:Q:277:LEU:CB	2.00	0.91
17:K:170:MET:O	17:K:174:LYS:CB	2.19	0.91
18:L:322:LYS:CD	18:L:326:ILE:HD11	2.01	0.91
18:L:241:ARG:NH1	19:M:299:GLU:OE1	2.04	0.91
24:Q:339:ILE:CB	24:Q:387:ILE:HD11	2.01	0.91
28:U:266:ILE:CD1	29:V:284:LEU:HD22	2.00	0.91
28:U:22:HIS:NE2	28:U:35:VAL:CG1	2.30	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:I:106:PRO:HB2	16:J:97:VAL:HG12	1.54	0.90
16:J:307:ARG:NH1	16:J:307:ARG:HB3	1.86	0.90
20:N:497:LEU:CD1	20:N:515:ALA:HB3	2.01	0.90
24:Q:155:ARG:HA	24:Q:158:LYS:CG	2.00	0.90
24:Q:297:ARG:CB	24:Q:333:GLN:HB3	2.01	0.90
28:U:79:TYR:CE1	28:U:83:LYS:HE2	2.05	0.90
15:I:366:GLN:O	15:I:370:SER:HB3	1.71	0.90
17:K:394:VAL:HG12	17:K:398:ASP:HB2	1.51	0.90
20:N:752:THR:HB	20:N:753:GLY:HA2	1.52	0.90
23:P:274:VAL:CG1	23:P:287:VAL:CG1	2.49	0.90
14:H:255:ARG:O	14:H:259:GLU:CG	2.18	0.90
14:H:349:GLU:O	14:H:352:THR:OG1	1.88	0.90
17:K:345:PHE:CG	17:K:360:LEU:HD21	2.07	0.90
19:M:237:ALA:CB	19:M:284:PHE:CE2	2.54	0.90
19:M:80:ILE:CG2	19:M:84:LYS:HG3	2.01	0.90
27:T:120:LYS:C	27:T:124:LEU:HB2	1.89	0.90
27:T:215:LEU:O	27:T:217:ALA:N	2.04	0.90
16:J:63:LEU:HD12	17:K:79:VAL:HG21	1.51	0.90
17:K:164:TYR:HD1	17:K:222:HIS:HD2	1.14	0.90
17:K:293:LEU:HD22	17:K:326:ARG:HH12	1.15	0.90
19:M:87:PRO:HB2	19:M:155:LYS:HE2	1.52	0.90
25:R:263:LEU:CB	25:R:271:PHE:CE2	2.16	0.90
28:U:266:ILE:HD11	29:V:284:LEU:HD22	1.51	0.90
18:L:145:LEU:CG	18:L:149:ILE:HD12	2.01	0.90
20:N:524:LYS:CB	20:N:555:VAL:CB	2.49	0.90
24:Q:302:PHE:CG	24:Q:330:LEU:HD12	2.07	0.90
25:R:186:LEU:HD11	25:R:287:LEU:CG	2.02	0.90
15:I:227:PRO:CD	15:I:355:LEU:HD21	2.01	0.90
19:M:80:ILE:CG2	19:M:84:LYS:HD2	2.02	0.90
23:P:453:HIS:O	23:P:454:ASN:ND2	2.04	0.90
24:Q:105:GLN:O	24:Q:109:LEU:CG	2.17	0.90
27:T:224:VAL:HG13	27:T:225:TYR:H	1.34	0.90
17:K:248:ARG:HG3	17:K:295:GLN:NE2	1.87	0.90
18:L:331:ILE:CD1	18:L:367:PHE:CD1	2.54	0.90
23:P:74:CYS:O	23:P:78:LYS:HB2	1.72	0.90
24:Q:203:PRO:HB2	24:Q:204:PRO:HD3	1.53	0.90
29:V:203:ILE:HG22	29:V:204:THR:N	1.83	0.90
15:I:246:THR:OG1	15:I:280:SER:CB	2.20	0.90
14:H:425:ALA:HB2	15:I:339:PRO:HB3	1.49	0.90
18:L:173:TYR:CE1	18:L:388:PRO:HD3	2.06	0.90
17:K:56:VAL:HG12	20:N:603:LEU:CD1	1.97	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:H:166:VAL:HG12	14:H:237:PHE:O	1.72	0.90
18:L:56:ILE:O	18:L:100:LEU:N	2.05	0.90
28:U:79:TYR:HE2	28:U:91:ILE:HB	1.34	0.90
30:W:169:HIS:CE1	30:W:187:PRO:CD	2.51	0.90
14:H:89:SER:O	14:H:92:PRO:HD2	1.72	0.89
17:K:184:PRO:HB3	17:K:191:TYR:CZ	2.07	0.89
18:L:363:VAL:HG23	18:L:364:GLN:H	1.33	0.89
19:M:212:PHE:HD1	19:M:217:ILE:HD11	0.73	0.89
20:N:71:LEU:CA	26:S:273:LYS:HB2	2.02	0.89
32:Z:259:PHE:CB	32:Z:262:PHE:CB	2.50	0.89
16:J:30:GLU:HB3	16:J:34:ILE:HD11	1.54	0.89
17:K:125:LYS:CB	17:K:126:PRO:CD	2.50	0.89
17:K:128:ALA:HB1	17:K:142:VAL:CG1	2.00	0.89
16:J:26:SER:OG	17:K:40:LEU:CG	2.19	0.89
14:H:86:THR:HA	14:H:89:SER:OG	1.71	0.89
15:I:271:PHE:HZ	15:I:316:LEU:HD13	1.37	0.89
15:I:365:PHE:HE2	15:I:383:LEU:CB	1.84	0.89
16:J:114:VAL:HG12	16:J:126:ILE:CB	2.02	0.89
16:J:137:LEU:CD2	16:J:224:ILE:HD11	2.01	0.89
16:J:273:MET:HE2	16:J:293:MET:SD	2.12	0.89
18:L:257:LEU:O	18:L:261:LEU:HD12	1.71	0.89
19:M:256:LEU:HD12	19:M:291:ILE:HD13	1.53	0.89
19:M:376:SER:HB2	19:M:377:PRO:HD2	1.53	0.89
19:M:407:ALA:CB	19:M:415:LEU:HD22	2.02	0.89
20:N:69:TYR:HE2	26:S:236:ARG:CG	1.86	0.89
15:I:284:ILE:CG2	15:I:287:ILE:HG23	2.01	0.89
17:K:93:LEU:HB3	17:K:102:ILE:O	1.73	0.89
18:L:138:LEU:C	18:L:140:GLU:H	1.73	0.89
18:L:148:VAL:HG23	18:L:167:PRO:HG3	1.52	0.89
23:P:107:GLN:C	23:P:141:GLU:OE2	2.11	0.89
32:Z:318:THR:C	32:Z:322:SER:CB	2.41	0.89
14:H:99:THR:HG21	14:H:142:VAL:HG21	0.91	0.89
14:H:425:ALA:CB	15:I:339:PRO:CB	2.49	0.89
15:I:227:PRO:HD2	15:I:355:LEU:HD21	1.53	0.89
16:J:162:LYS:HG2	16:J:166:GLU:OE1	1.72	0.89
19:M:410:ARG:NH2	19:M:419:ASP:OD1	2.03	0.89
25:R:228:MET:HE1	25:R:271:PHE:CZ	2.08	0.89
29:V:35:SER:HB3	29:V:213:GLU:OE2	1.71	0.89
31:Y:54:ASN:O	31:Y:58:ALA:N	2.06	0.89
22:O:284:ARG:NH1	22:O:291:LEU:CD2	2.35	0.89
28:U:23:PHE:HE1	28:U:28:LYS:O	1.53	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:W:55:ALA:O	30:W:85:THR:OG1	1.89	0.89
18:L:322:LYS:CB	18:L:326:ILE:HD11	2.02	0.89
20:N:350:LEU:O	20:N:354:LYS:N	2.05	0.89
27:T:344:ARG:HG3	27:T:348:MET:HG2	1.54	0.89
2:B:101:TRP:CZ3	2:B:107:TYR:O	2.25	0.89
15:I:414:VAL:CG1	15:I:418:ASP:HB2	2.03	0.89
19:M:373:MET:CE	19:M:415:LEU:HD11	2.01	0.89
27:T:346:LEU:HD13	29:V:296:ILE:CD1	2.03	0.89
14:H:245:LEU:CD1	14:H:280:ILE:CD1	2.45	0.89
15:I:183:THR:HA	15:I:241:ASN:HD22	1.36	0.89
18:L:338:PHE:HD1	18:L:378:LYS:HZ2	0.89	0.89
14:H:259:GLU:O	14:H:263:MET:HG3	1.73	0.88
17:K:267:ILE:HD13	17:K:309:MET:CB	2.02	0.88
20:N:35:TRP:CZ3	26:S:273:LYS:CD	2.55	0.88
14:H:102:ILE:HD11	14:H:120:LYS:HD3	1.53	0.88
15:I:390:LEU:CD1	15:I:395:ILE:HG13	2.03	0.88
16:J:151:ILE:CD1	16:J:198:LEU:HB3	2.02	0.88
18:L:235:ILE:O	18:L:239:GLY:CA	2.21	0.88
19:M:248:PHE:CZ	19:M:250:LYS:HB3	2.07	0.88
19:M:384:LEU:O	19:M:387:CYS:SG	2.30	0.88
29:V:248:MET:HE2	29:V:284:LEU:HD23	1.53	0.88
16:J:273:MET:HE1	16:J:305:LEU:HD21	1.55	0.88
16:J:55:LYS:O	16:J:59:LEU:HB2	1.73	0.88
24:Q:302:PHE:HB2	24:Q:330:LEU:CD1	2.04	0.88
24:Q:96:PHE:CZ	24:Q:106:GLU:OE2	2.25	0.88
25:R:228:MET:HE3	25:R:263:LEU:HD22	1.53	0.88
26:S:165:ALA:HB3	26:S:203:LEU:HD11	1.53	0.88
14:H:190:VAL:CG2	14:H:212:VAL:CG2	2.46	0.88
17:K:56:VAL:HG13	20:N:603:LEU:CD1	1.98	0.88
16:J:339:THR:HA	25:R:207:THR:HG22	1.55	0.88
32:Z:227:ALA:O	32:Z:229:VAL:N	2.06	0.88
15:I:227:PRO:CG	15:I:355:LEU:HD21	2.03	0.88
15:I:373:THR:O	15:I:373:THR:HG22	1.72	0.88
16:J:189:TYR:CE2	16:J:316:GLU:HG3	2.07	0.88
17:K:366:ARG:NH1	17:K:403:TYR:CD2	2.41	0.88
28:U:262:LEU:O	28:U:266:ILE:HG22	1.73	0.88
28:U:270:VAL:HG11	29:V:285:GLU:HG3	1.55	0.88
14:H:368:ILE:HB	14:H:406:GLU:OE1	1.71	0.88
17:K:95:ALA:HA	17:K:101:ALA:HA	1.56	0.88
25:R:185:GLY:C	25:R:201:PHE:HZ	1.58	0.88
2:B:203:SER:O	2:B:207:SER:N	2.05	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:207:SER:O	2:B:208:ILE:HD13	1.74	0.88
14:H:102:ILE:CD1	14:H:120:LYS:CD	2.51	0.88
15:I:401:GLU:HG2	15:I:422:SER:CA	2.03	0.88
16:J:137:LEU:CD2	16:J:224:ILE:CD1	2.51	0.88
18:L:322:LYS:HB2	18:L:326:ILE:HD11	1.55	0.88
23:P:420:ASP:O	23:P:422:ASN:N	2.07	0.88
24:Q:271:VAL:HG12	24:Q:288:LYS:HE3	1.56	0.88
24:Q:334:ASN:O	24:Q:338:VAL:HG23	1.72	0.88
14:H:102:ILE:HD11	14:H:120:LYS:CD	2.03	0.88
16:J:114:VAL:HG12	16:J:126:ILE:HG23	1.54	0.88
16:J:209:CYS:SG	16:J:243:PRO:HB2	2.13	0.88
17:K:164:TYR:CD1	17:K:222:HIS:CD2	2.60	0.88
17:K:164:TYR:HD1	17:K:222:HIS:CD2	1.92	0.88
16:J:60:ARG:HB2	17:K:75:ALA:HB1	1.54	0.88
18:L:257:LEU:O	18:L:261:LEU:CD1	2.22	0.88
19:M:153:VAL:HG12	19:M:158:TYR:HA	1.55	0.88
25:R:50:MET:HE3	25:R:53:TYR:HE2	1.37	0.88
15:I:107:MET:HE3	15:I:160:ILE:CD1	2.04	0.88
17:K:345:PHE:CE2	17:K:360:LEU:HD11	2.08	0.88
17:K:406:VAL:O	17:K:408:LYS:CG	2.22	0.88
19:M:169:ASP:HB2	19:M:172:VAL:CG2	2.03	0.88
28:U:240:VAL:CB	28:U:242:LEU:HG	2.03	0.88
15:I:424:GLU:HG2	15:I:428:TYR:CE2	2.07	0.88
16:J:321:ASN:O	16:J:325:ARG:HG3	1.74	0.88
17:K:92:PHE:O	17:K:127:ASN:HA	1.73	0.88
24:Q:19:ASP:O	24:Q:23:SER:N	2.06	0.88
32:Z:291:GLN:O	32:Z:295:ALA:N	2.07	0.88
32:Z:697:ILE:O	32:Z:701:ASN:N	2.06	0.88
15:I:313:LEU:HD12	15:I:340:ALA:CB	1.99	0.87
17:K:106:THR:HA	17:K:245:ARG:HH22	0.99	0.87
17:K:273:LYS:O	17:K:275:PHE:N	2.07	0.87
17:K:345:PHE:CE2	17:K:360:LEU:HG	2.08	0.87
18:L:352:MET:O	18:L:356:ARG:HG3	1.73	0.87
20:N:419:ALA:HB1	20:N:449:ILE:CD1	2.03	0.87
20:N:893:THR:HA	20:N:906:LEU:CG	2.04	0.87
24:Q:52:GLU:O	24:Q:56:LEU:N	2.07	0.87
24:Q:84:LYS:CE	24:Q:88:LEU:CD2	2.52	0.87
30:W:169:HIS:CE1	30:W:187:PRO:HD2	2.07	0.87
14:H:111:TYR:OH	14:H:131:PRO:HA	1.74	0.87
15:I:191:ASP:O	15:I:194:ILE:N	2.06	0.87
16:J:189:TYR:CE1	16:J:316:GLU:HB3	2.09	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:L:184:ALA:HB2	18:L:231:PHE:CZ	2.09	0.87
17:K:258:ALA:HB1	17:K:259:PRO:HD3	1.56	0.87
18:L:205:ASP:HB2	18:L:210:GLU:CG	2.02	0.87
15:I:103:ARG:CG	15:I:160:ILE:HG23	2.05	0.87
16:J:162:LYS:HE2	16:J:166:GLU:OE1	1.72	0.87
17:K:163:MET:HG3	17:K:221:HIS:CE1	2.09	0.87
19:M:233:LYS:HG2	19:M:354:PHE:HD2	1.39	0.87
4:C:11:THR:HB	6:D:20:GLN:NE2	1.89	0.87
14:H:258:ARG:HD3	14:H:305:GLN:HE22	1.37	0.87
17:K:73:LEU:HD22	28:U:184:VAL:HG21	1.55	0.87
18:L:114:GLU:OE1	18:L:114:GLU:N	2.08	0.87
18:L:226:GLN:HB3	18:L:273:VAL:HG23	0.87	0.87
18:L:250:ASP:O	18:L:254:GLN:HG2	1.73	0.87
23:P:343:SER:N	23:P:347:GLY:HA3	1.90	0.87
14:H:125:LEU:HD13	14:H:129:VAL:HG23	1.55	0.87
19:M:314:LEU:CD2	19:M:342:LEU:CD2	2.53	0.87
20:N:803:LYS:N	20:N:879:ASP:OD2	2.08	0.87
15:I:118:ASP:CG	15:I:120:HIS:NE2	2.27	0.87
18:L:227:PRO:HG3	18:L:272:ARG:HG2	1.56	0.87
18:L:325:GLU:OE1	18:L:364:GLN:HG2	1.75	0.87
19:M:399:VAL:HA	19:M:427:VAL:HG21	0.88	0.87
20:N:69:TYR:OH	26:S:239:THR:OG1	1.93	0.87
27:T:346:LEU:CD1	29:V:296:ILE:CD1	2.53	0.87
14:H:196:LEU:O	14:H:198:PRO:HD3	1.74	0.87
15:I:170:LEU:HD13	15:I:269:GLU:HB3	1.53	0.87
19:M:303:ASP:O	19:M:307:GLN:OE1	1.92	0.87
14:H:111:TYR:CD2	14:H:125:LEU:HB3	2.10	0.87
14:H:209:PRO:HG2	14:H:339:ARG:HG3	1.55	0.87
31:Y:62:LYS:O	31:Y:66:LYS:N	2.07	0.87
16:J:247:PHE:CE1	16:J:292:ILE:CG2	2.57	0.86
19:M:137:ILE:HD13	19:M:145:LEU:CD1	2.05	0.86
14:H:95:VAL:HB	15:I:156:VAL:HG12	1.57	0.86
15:I:106:PRO:O	15:I:154:HIS:CD2	2.28	0.86
19:M:225:MET:HG2	19:M:354:PHE:HE2	1.18	0.86
20:N:696:ILE:HG12	20:N:737:LEU:HA	1.58	0.86
16:J:114:VAL:HG12	16:J:126:ILE:CG2	2.06	0.86
17:K:176:GLU:OE2	17:K:329:ARG:HD2	1.75	0.86
17:K:391:ARG:NH1	17:K:395:LEU:HG	1.90	0.86
17:K:64:GLU:O	17:K:68:LEU:CD1	2.23	0.86
18:L:322:LYS:CG	18:L:326:ILE:HD11	2.05	0.86
27:T:322:GLN:O	27:T:324:LYS:N	2.07	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:T:330:ILE:N	27:T:331:PRO:CD	2.38	0.86
14:H:176:ASP:O	35:H:501:ADP:C2	2.29	0.86
18:L:148:VAL:O	18:L:152:PRO:CG	2.21	0.86
19:M:88:TYR:HE1	19:M:161:LEU:HD12	1.40	0.86
20:N:191:LYS:O	20:N:195:ASN:N	2.08	0.86
25:R:300:ARG:NH1	25:R:333:GLU:CG	2.39	0.86
26:S:231:LEU:CB	26:S:250:LEU:HD11	2.05	0.86
32:Z:256:PHE:CB	32:Z:260:SER:HA	2.05	0.86
15:I:424:GLU:CA	15:I:428:TYR:HD2	1.80	0.86
19:M:188:ILE:O	19:M:368:ILE:HD11	1.76	0.86
23:P:279:PHE:CD2	23:P:364:ARG:HD2	2.10	0.86
25:R:208:PHE:HD2	25:R:216:TYR:CD1	1.93	0.86
27:T:123:LEU:O	27:T:126:LEU:HD12	1.76	0.86
31:Y:59:GLU:O	31:Y:63:HIS:N	2.09	0.86
15:I:144:LEU:HD11	15:I:162:VAL:HG22	1.57	0.86
15:I:204:PRO:O	15:I:208:PRO:HB3	1.76	0.86
20:N:470:ASN:N	20:N:474:ARG:CB	2.39	0.86
26:S:169:LEU:HD11	26:S:206:VAL:CG2	2.06	0.86
15:I:257:GLN:HG3	15:I:262:ASP:HB3	1.57	0.86
19:M:314:LEU:HD21	19:M:342:LEU:HD23	1.55	0.86
30:W:53:THR:O	30:W:58:CYS:HA	1.75	0.86
32:Z:667:GLY:O	32:Z:672:LEU:N	2.09	0.86
15:I:271:PHE:HB3	15:I:322:ARG:NH2	1.91	0.86
18:L:212:ALA:O	18:L:216:ARG:HD2	1.76	0.86
18:L:323:HIS:O	18:L:325:GLU:N	2.08	0.86
24:Q:271:VAL:HG11	24:Q:288:LYS:HE3	0.86	0.86
26:S:231:LEU:O	26:S:250:LEU:HD21	1.75	0.86
16:J:247:PHE:CE1	16:J:292:ILE:HG22	2.10	0.86
16:J:333:SER:HB2	16:J:338:LEU:HD11	1.56	0.86
17:K:116:LEU:HB2	17:K:119:ILE:CD1	2.06	0.86
18:L:325:GLU:OE1	18:L:363:VAL:HG23	1.75	0.86
18:L:90:SER:O	18:L:93:LYS:HE3	1.76	0.86
20:N:490:ARG:H	20:N:519:VAL:HG23	1.39	0.86
23:P:78:LYS:N	23:P:79:GLU:HB3	1.91	0.86
25:R:158:THR:O	25:R:162:GLU:HG2	1.76	0.86
26:S:476:PHE:O	26:S:480:ILE:HD13	1.73	0.86
2:B:171:LYS:HB3	2:B:205:VAL:HG21	1.58	0.85
18:L:195:PHE:CD1	18:L:229:ILE:CG2	2.58	0.85
27:T:330:ILE:N	27:T:331:PRO:HD3	1.91	0.85
14:H:333:ARG:HG2	14:H:334:PRO:CD	2.05	0.85
18:L:61:LEU:CD1	18:L:78:ARG:HG2	2.05	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:R:344:HIS:O	25:R:357:ASN:OD1	1.93	0.85
16:J:72:TYR:HE2	16:J:121:TYR:OH	1.45	0.85
16:J:150:MET:O	16:J:151:ILE:CG1	2.23	0.85
19:M:217:ILE:HG13	19:M:218:GLN:H	1.37	0.85
26:S:207:ALA:O	26:S:210:CYS:HB3	1.76	0.85
26:S:231:LEU:HB3	26:S:250:LEU:HD11	1.59	0.85
17:K:406:VAL:O	17:K:408:LYS:HG3	1.74	0.85
17:K:212:LYS:NZ	35:K:501:ADP:O2B	2.10	0.85
19:M:233:LYS:HG2	19:M:354:PHE:CD2	2.10	0.85
18:L:50:LEU:HD22	19:M:82:VAL:HG11	1.56	0.85
32:Z:668:ALA:HB2	32:Z:701:ASN:CB	2.07	0.85
17:K:345:PHE:HD2	17:K:360:LEU:HG	1.34	0.85
17:K:93:LEU:HD11	17:K:94:GLU:CG	2.07	0.85
19:M:215:LEU:HD23	19:M:217:ILE:CG2	2.07	0.85
19:M:435:LEU:HD21	19:M:438:TYR:CE1	2.11	0.85
32:Z:259:PHE:O	32:Z:261:ARG:HA	1.77	0.85
15:I:225:TYR:HA	15:I:331:THR:O	1.76	0.85
15:I:272:ARG:HG2	15:I:272:ARG:HH11	1.41	0.85
17:K:83:GLN:O	17:K:87:LEU:HD21	1.75	0.85
19:M:217:ILE:O	19:M:218:GLN:HB2	1.74	0.85
19:M:272:PHE:CE2	19:M:316:GLN:CB	2.59	0.85
23:P:445:LEU:O	23:P:449:GLU:HG3	1.77	0.85
25:R:183:TYR:CE1	25:R:213:LEU:CD1	2.55	0.85
14:H:224:LEU:O	14:H:228:ALA:N	2.09	0.85
14:H:215:PHE:CD2	14:H:324:PRO:HG3	2.10	0.85
16:J:31:LEU:CA	16:J:34:ILE:HD12	2.06	0.85
23:P:274:VAL:CG1	23:P:287:VAL:HG12	2.06	0.85
25:R:21:GLN:HG2	25:R:286:TRP:HE3	1.39	0.85
25:R:347:ILE:O	26:S:415:SER:N	2.08	0.85
15:I:387:LYS:HB2	15:I:390:LEU:CD2	2.06	0.85
22:O:248:PHE:CD1	22:O:272:ILE:HG13	2.12	0.85
28:U:8:LYS:O	28:U:47:VAL:HG13	1.77	0.85
29:V:98:MET:CE	29:V:98:MET:HA	2.07	0.85
32:Z:721:VAL:O	32:Z:725:SER:N	2.09	0.85
15:I:227:PRO:HG2	15:I:355:LEU:HD21	1.57	0.85
20:N:35:TRP:CZ3	26:S:273:LYS:HD3	2.12	0.85
28:U:12:HIS:CD2	28:U:50:VAL:O	2.29	0.85
29:V:283:HIS:O	29:V:287:HIS:HB2	1.77	0.85
14:H:413:VAL:HG13	14:H:417:ILE:HD12	1.57	0.85
15:I:94:GLU:O	15:I:98:LYS:N	2.09	0.85
20:N:423:MET:CE	20:N:445:ALA:HB1	2.07	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:R:108:ALA:HB2	25:R:123:ALA:HB3	1.57	0.85
29:V:237:HIS:CE1	29:V:298:GLN:OE1	2.30	0.85
15:I:390:LEU:HD13	15:I:395:ILE:HG13	1.59	0.84
18:L:255:ARG:HH21	18:L:255:ARG:HG3	1.42	0.84
18:L:327:ASP:CG	18:L:330:ALA:CB	2.41	0.84
19:M:402:GLU:OE1	19:M:427:VAL:HG22	1.76	0.84
25:R:120:ALA:CB	25:R:124:PHE:CE1	2.40	0.84
14:H:125:LEU:HD12	14:H:126:SER:O	1.78	0.84
15:I:184:TYR:OH	15:I:239:VAL:HG22	1.77	0.84
32:Z:501:LEU:O	32:Z:505:MET:N	2.10	0.84
14:H:126:SER:N	14:H:149:ILE:O	2.10	0.84
14:H:190:VAL:CG1	14:H:212:VAL:HG23	2.06	0.84
15:I:144:LEU:CG	15:I:162:VAL:HG22	2.07	0.84
14:H:423:PHE:HB3	15:I:342:ILE:HG21	1.58	0.84
16:J:151:ILE:HD11	16:J:198:LEU:CG	2.05	0.84
19:M:385:ALA:O	19:M:388:THR:OG1	1.94	0.84
17:K:56:VAL:CG1	20:N:603:LEU:HD11	2.06	0.84
27:T:344:ARG:CG	27:T:348:MET:HG2	2.06	0.84
29:V:88:ASP:OD1	29:V:89:PRO:HD2	1.77	0.84
16:J:116:LEU:HD23	16:J:121:TYR:CD1	2.12	0.84
19:M:402:GLU:OE1	19:M:427:VAL:CG2	2.26	0.84
20:N:148:LYS:NZ	20:N:179:TYR:CD2	2.45	0.84
20:N:751:ARG:O	20:N:752:THR:OG1	1.94	0.84
24:Q:402:GLU:CG	29:V:249:LEU:HD11	2.06	0.84
14:H:157:ILE:HG21	14:H:162:THR:HG1	1.41	0.84
14:H:190:VAL:CG1	14:H:212:VAL:HG21	2.07	0.84
14:H:261:PHE:CZ	14:H:306:LEU:HD13	2.12	0.84
15:I:193:GLN:OE1	15:I:352:GLU:O	1.96	0.84
16:J:29:GLU:HB3	17:K:44:TYR:CD2	2.12	0.84
22:O:57:ILE:C	22:O:61:GLU:HB2	1.98	0.84
15:I:275:GLU:HB2	15:I:322:ARG:HH12	1.41	0.84
16:J:151:ILE:HD13	16:J:198:LEU:HB3	1.58	0.84
18:L:143:ARG:O	18:L:147:GLU:OE1	1.96	0.84
18:L:153:LEU:HD12	18:L:154:THR:HG23	1.59	0.84
18:L:58:GLY:HA2	18:L:74:THR:HG23	0.91	0.84
19:M:342:LEU:O	19:M:348:LEU:HD11	1.77	0.84
24:Q:251:LEU:HD11	24:Q:276:ALA:HB1	1.58	0.84
24:Q:273:GLY:HA2	24:Q:277:LEU:HB2	1.56	0.84
25:R:241:ILE:CD1	25:R:260:LEU:CD1	2.55	0.84
14:H:330:ALA:HB1	14:H:336:ARG:HH11	1.41	0.84
14:H:88:GLN:O	14:H:92:PRO:HD3	1.78	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:148:TYR:HD1	16:J:202:ALA:HB1	1.42	0.84
19:M:384:LEU:CA	19:M:387:CYS:SG	2.66	0.84
20:N:697:GLN:NE2	20:N:742:HIS:O	2.11	0.84
23:P:374:THR:HG22	23:P:375:MET:H	1.41	0.84
24:Q:236:PHE:CE2	24:Q:240:ASP:OD2	2.30	0.84
24:Q:2:ALA:HB2	24:Q:34:ASP:H	1.39	0.84
25:R:53:TYR:O	25:R:56:ALA:N	2.11	0.84
26:S:178:SER:O	26:S:180:ARG:N	2.09	0.84
15:I:365:PHE:CE1	15:I:395:ILE:HG22	2.13	0.84
17:K:149:SER:HA	17:K:246:MET:CE	2.08	0.84
17:K:154:LEU:O	17:K:155:THR:CG2	2.26	0.84
17:K:273:LYS:HG3	17:K:274:ARG:H	1.41	0.84
20:N:232:ILE:O	20:N:236:LEU:N	2.09	0.84
24:Q:157:LEU:HB2	24:Q:166:LEU:CD1	2.07	0.84
25:R:344:HIS:CE1	25:R:359:PRO:HB3	2.13	0.84
26:S:494:MET:CB	28:U:279:LYS:HE3	2.07	0.84
14:H:273:PHE:CE2	14:H:275:ASP:HB2	2.12	0.84
17:K:345:PHE:CE2	17:K:360:LEU:CG	2.60	0.84
18:L:317:ALA:HB2	18:L:347:CYS:SG	2.16	0.84
15:I:200:SER:O	15:I:219:PRO:CD	2.25	0.84
14:H:334:PRO:O	14:H:334:PRO:HG2	1.76	0.83
18:L:363:VAL:CG2	18:L:364:GLN:H	1.90	0.83
25:R:289:ALA:HB3	25:R:290:PRO:HD3	1.60	0.83
30:W:25:ARG:HH12	30:W:143:PHE:HB3	1.42	0.83
30:W:60:VAL:HG13	30:W:63:THR:CG2	2.04	0.83
16:J:85:VAL:CG2	16:J:99:VAL:HG12	2.06	0.83
14:H:284:ARG:O	14:H:285:PHE:O	1.96	0.83
15:I:285:ASP:HA	15:I:330:ALA:HB3	1.60	0.83
16:J:155:ASP:O	16:J:158:ILE:N	2.11	0.83
21:X:3:ILE:O	21:X:5:THR:N	2.08	0.83
15:I:285:ASP:OD1	15:I:330:ALA:HB3	1.79	0.83
18:L:326:ILE:CG2	18:L:328:TYR:CE2	2.61	0.83
20:N:885:MET:O	20:N:889:LEU:CG	2.26	0.83
26:S:463:MET:O	26:S:466:ILE:N	2.11	0.83
29:V:29:GLU:OE2	29:V:139:ARG:NH2	2.11	0.83
31:Y:12:LEU:O	31:Y:15:GLU:O	1.95	0.83
15:I:402:ALA:CB	15:I:414:VAL:HG21	2.08	0.83
16:J:28:ILE:CD1	26:S:240:LEU:C	2.44	0.83
19:M:150:LEU:CB	19:M:164:LEU:HB2	2.07	0.83
20:N:360:VAL:HG22	20:N:361:ARG:H	1.44	0.83
14:H:245:LEU:HD12	14:H:280:ILE:HG12	1.58	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:286:THR:O	16:J:287:LYS:HB2	1.78	0.83
24:Q:194:ARG:NH1	24:Q:214:SER:OG	2.11	0.83
24:Q:66:LEU:CB	24:Q:109:LEU:HD11	2.08	0.83
28:U:224:HIS:O	28:U:228:TYR:CE1	2.31	0.83
15:I:112:LEU:O	15:I:147:GLY:HA2	1.79	0.83
15:I:230:THR:HG23	15:I:353:PHE:O	1.77	0.83
17:K:249:ASP:OD1	17:K:252:ARG:NH1	2.12	0.83
20:N:142:LEU:O	20:N:145:HIS:CG	2.32	0.83
24:Q:84:LYS:CE	24:Q:88:LEU:HD21	2.07	0.83
26:S:224:LEU:O	26:S:228:ARG:HB2	1.79	0.83
32:Z:800:LEU:O	32:Z:804:LEU:CB	2.27	0.83
15:I:271:PHE:HZ	15:I:316:LEU:CD1	1.92	0.83
18:L:215:ILE:CD1	18:L:260:LEU:CD2	2.56	0.83
24:Q:279:TYR:O	24:Q:280:ALA:O	1.96	0.83
25:R:120:ALA:HB1	25:R:124:PHE:CZ	2.13	0.83
14:H:143:ASP:CB	14:H:150:HIS:CE1	2.62	0.83
18:L:327:ASP:OD2	18:L:330:ALA:HB3	1.76	0.83
18:L:353:PHE:HA	18:L:356:ARG:HB2	1.60	0.83
18:L:56:ILE:HD13	19:M:132:TYR:HE1	1.42	0.83
19:M:399:VAL:CG2	19:M:427:VAL:HB	2.08	0.83
17:K:93:LEU:HD11	17:K:94:GLU:CD	1.99	0.83
24:Q:248:ILE:CG2	24:Q:283:GLN:OE1	2.27	0.83
25:R:228:MET:HE3	25:R:271:PHE:HZ	1.44	0.83
15:I:264:PRO:O	15:I:268:ARG:HG3	1.79	0.82
16:J:280:LEU:HA	16:J:284:GLU:HG2	1.60	0.82
17:K:93:LEU:HD11	17:K:94:GLU:HG3	1.59	0.82
19:M:90:VAL:HG23	19:M:127:SER:OG	1.79	0.82
24:Q:332:GLU:OE1	24:Q:364:LYS:CD	2.26	0.82
27:T:346:LEU:HD13	29:V:296:ILE:HD13	1.59	0.82
25:R:344:HIS:CE1	25:R:359:PRO:CB	2.62	0.82
32:Z:367:SER:O	32:Z:371:ASN:N	2.12	0.82
14:H:174:TYR:CD2	14:H:184:ILE:HD13	2.13	0.82
14:H:302:LEU:CD1	14:H:306:LEU:HD22	2.09	0.82
14:H:87:LEU:O	14:H:91:GLN:N	2.12	0.82
16:J:41:ASN:C	16:J:44:ARG:HB2	2.00	0.82
24:Q:334:ASN:HD21	24:Q:354:ILE:HD13	1.00	0.82
14:H:161:VAL:HG21	14:H:259:GLU:HB3	1.61	0.82
14:H:191:VAL:HG11	14:H:229:VAL:HG11	1.60	0.82
16:J:307:ARG:HH11	16:J:307:ARG:HB3	1.41	0.82
17:K:411:GLU:O	17:K:412:GLN:HB2	1.76	0.82
30:W:53:THR:O	30:W:59:GLU:N	2.11	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:Z:388:ASP:O	32:Z:392:THR:N	2.11	0.82
15:I:283:PHE:CD1	15:I:328:ILE:HG22	2.12	0.82
15:I:223:ILE:CD1	15:I:347:ILE:CG2	2.56	0.82
16:J:196:LYS:HG2	16:J:317:PHE:CE1	2.14	0.82
17:K:176:GLU:CG	17:K:331:ILE:CD1	2.58	0.82
17:K:394:VAL:HG13	17:K:398:ASP:CG	1.99	0.82
18:L:303:LEU:HD22	18:L:339:ASN:CA	2.08	0.82
19:M:91:SER:O	19:M:151:VAL:HG22	1.78	0.82
20:N:148:LYS:HE3	20:N:179:TYR:HD2	1.45	0.82
23:P:351:TRP:HZ3	23:P:354:LEU:HD23	1.44	0.82
24:Q:76:PHE:CB	24:Q:80:ILE:CB	2.56	0.82
14:H:220:THR:HG21	14:H:343:PHE:CB	2.10	0.82
15:I:144:LEU:HD21	15:I:162:VAL:HG22	1.60	0.82
15:I:414:VAL:CG1	15:I:418:ASP:CB	2.57	0.82
16:J:333:SER:HB2	16:J:338:LEU:HD12	1.60	0.82
19:M:407:ALA:HB3	19:M:415:LEU:HD22	1.61	0.82
20:N:397:THR:H	20:N:400:ALA:HB3	1.42	0.82
28:U:131:LEU:HD11	28:U:199:LYS:CD	2.07	0.82
29:V:240:HIS:O	29:V:244:VAL:CB	2.27	0.82
16:J:65:LEU:HD12	16:J:68:GLU:OE2	1.79	0.82
16:J:85:VAL:HG22	16:J:99:VAL:CG1	2.08	0.82
19:M:288:LEU:O	19:M:292:GLY:N	2.12	0.82
25:R:183:TYR:CZ	25:R:213:LEU:HD11	2.13	0.82
16:J:72:TYR:CD2	16:J:121:TYR:CE1	2.68	0.82
17:K:119:ILE:O	17:K:121:ARG:N	2.13	0.82
16:J:128:PRO:HD3	17:K:96:VAL:HG13	1.61	0.82
18:L:346:VAL:HA	18:L:374:VAL:HG21	1.60	0.82
19:M:249:LEU:HD23	19:M:283:ILE:CD1	2.09	0.82
19:M:376:SER:HB2	19:M:377:PRO:CD	2.10	0.82
25:R:134:LEU:HD13	25:R:138:LEU:CG	2.10	0.82
26:S:215:ALA:O	26:S:218:TYR:HB2	1.79	0.82
26:S:345:ARG:O	26:S:347:GLN:N	2.13	0.82
26:S:476:PHE:HD1	28:U:261:TYR:CD1	1.98	0.82
14:H:190:VAL:HG11	14:H:212:VAL:HG23	1.58	0.82
15:I:180:PRO:CG	15:I:241:ASN:N	2.43	0.82
14:H:279:ALA:HB2	15:I:310:LEU:HD23	1.62	0.82
15:I:315:GLN:HE22	15:I:322:ARG:HH21	1.25	0.82
17:K:162:VAL:HG11	17:K:214:MET:HE2	1.60	0.82
19:M:375:VAL:HG12	19:M:376:SER:N	1.94	0.82
24:Q:85:ALA:O	24:Q:89:VAL:HG23	1.79	0.82
16:J:28:ILE:CG2	26:S:242:HIS:NE2	2.43	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:I:271:PHE:CG	15:I:315:GLN:NE2	2.47	0.82
15:I:390:LEU:CD1	15:I:395:ILE:CG1	2.58	0.82
26:S:175:MET:HB3	26:S:184:ALA:CB	2.09	0.82
28:U:215:VAL:C	28:U:220:LEU:CB	2.48	0.82
15:I:275:GLU:HG3	15:I:322:ARG:NH1	1.95	0.81
15:I:275:GLU:HG3	15:I:322:ARG:HH11	1.44	0.81
17:K:293:LEU:HD22	17:K:326:ARG:HH11	1.01	0.81
19:M:284:PHE:HD1	19:M:285:ILE:N	1.78	0.81
19:M:342:LEU:O	19:M:348:LEU:HD12	1.79	0.81
29:V:251:LEU:CD1	29:V:283:HIS:HB3	2.09	0.81
29:V:306:THR:C	29:V:310:LYS:HE2	2.00	0.81
30:W:142:ASN:O	30:W:173:VAL:N	2.13	0.81
32:Z:345:PRO:O	32:Z:349:TYR:N	2.12	0.81
15:I:269:GLU:O	15:I:273:VAL:HG23	1.79	0.81
16:J:86:LEU:CD2	16:J:96:VAL:HG23	2.09	0.81
18:L:97:ARG:NH1	19:M:95:GLU:OE1	2.13	0.81
22:O:73:PRO:CB	22:O:110:ALA:HB2	2.10	0.81
25:R:117:LYS:O	25:R:121:LEU:HG	1.80	0.81
25:R:33:GLY:H	25:R:34:ASP:HB3	1.45	0.81
15:I:363:ARG:O	15:I:367:ILE:HG13	1.80	0.81
16:J:66:LEU:CD1	17:K:116:LEU:HD21	2.10	0.81
17:K:160:PRO:CG	17:K:220:ALA:CB	2.55	0.81
16:J:26:SER:HG	17:K:40:LEU:HB2	1.45	0.81
18:L:238:ILE:HD11	18:L:257:LEU:N	1.94	0.81
20:N:100:ILE:O	20:N:104:CYS:SG	2.37	0.81
22:O:73:PRO:HB3	22:O:110:ALA:CB	2.09	0.81
22:O:274:LEU:HD23	22:O:275:LEU:N	1.95	0.81
25:R:120:ALA:CA	25:R:124:PHE:HE1	1.87	0.81
25:R:146:ARG:NH1	25:R:213:LEU:HD12	1.95	0.81
28:U:94:TRP:HZ2	28:U:109:ASN:CG	1.82	0.81
14:H:177:VAL:HG11	14:H:184:ILE:HD11	1.61	0.81
15:I:107:MET:HE2	15:I:151:LEU:HD22	1.62	0.81
17:K:149:SER:N	17:K:150:SER:HA	1.94	0.81
18:L:326:ILE:HG21	18:L:328:TYR:CD2	2.14	0.81
24:Q:273:GLY:HA2	24:Q:277:LEU:CG	2.10	0.81
25:R:51:ALA:HB3	25:R:52:PRO:HD3	1.62	0.81
15:I:414:VAL:HG13	15:I:418:ASP:CB	2.10	0.81
16:J:77:VAL:CB	16:J:86:LEU:HD12	2.08	0.81
17:K:164:TYR:HB2	17:K:222:HIS:NE2	1.96	0.81
19:M:249:LEU:O	19:M:283:ILE:HA	1.81	0.81
20:N:195:ASN:HB3	20:N:199:ARG:HH12	1.44	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:O:4:VAL:HG13	22:O:26:GLU:OE2	1.79	0.81
14:H:307:ASP:HB2	14:H:336:ARG:HG2	1.62	0.81
16:J:183:PRO:HB3	16:J:312:ASP:CG	1.99	0.81
16:J:187:LEU:HD22	16:J:311:ILE:HD13	1.62	0.81
16:J:360:LYS:NZ	35:J:501:ADP:O3'	2.13	0.81
17:K:275:PHE:HZ	17:K:289:LEU:CD1	1.92	0.81
17:K:359:ASP:C	17:K:361:GLU:H	1.82	0.81
17:K:213:THR:N	35:K:501:ADP:O2A	2.13	0.81
18:L:184:ALA:CB	18:L:231:PHE:CE1	2.63	0.81
19:M:202:ILE:HG21	19:M:282:ILE:CD1	2.08	0.81
19:M:248:PHE:CE2	19:M:250:LYS:HB3	2.16	0.81
19:M:252:ALA:HB3	19:M:255:GLN:HG3	1.62	0.81
19:M:423:GLY:O	19:M:427:VAL:HG23	1.80	0.81
19:M:399:VAL:N	19:M:427:VAL:HG21	1.93	0.81
19:M:80:ILE:CG2	19:M:84:LYS:CG	2.57	0.81
24:Q:57:LEU:O	24:Q:60:THR:N	2.13	0.81
30:W:142:ASN:ND2	30:W:148:VAL:O	2.14	0.81
16:J:214:VAL:HG21	16:J:234:LEU:HD21	1.61	0.81
18:L:195:PHE:CD1	18:L:229:ILE:HG21	2.16	0.81
18:L:171:LEU:HD13	18:L:277:MET:HB3	1.62	0.81
24:Q:212:MET:CG	24:Q:235:ALA:HB1	2.10	0.81
25:R:259:TYR:HD1	25:R:260:LEU:H	1.28	0.81
25:R:376:LEU:O	25:R:380:VAL:HG23	1.80	0.81
14:H:218:PRO:HD3	14:H:429:TYR:CD2	2.14	0.81
23:P:301:LYS:CG	23:P:324:TYR:CD1	2.63	0.81
29:V:116:PRO:O	29:V:118:PHE:CE1	2.33	0.81
15:I:232:LYS:HA	15:I:353:PHE:HE2	1.44	0.81
16:J:154:LEU:O	16:J:158:ILE:CG1	2.28	0.81
16:J:232:ARG:NE	16:J:279:GLN:HE22	1.78	0.81
17:K:272:THR:HA	17:K:316:THR:O	1.80	0.81
30:W:16:MET:CG	30:W:29:GLN:NE2	2.43	0.81
14:H:164:MET:SD	14:H:240:VAL:HG22	2.20	0.81
14:H:172:VAL:HG11	14:H:224:LEU:HD22	1.63	0.81
14:H:315:ILE:HD12	14:H:315:ILE:N	1.95	0.81
16:J:24:TYR:O	16:J:25:LEU:C	2.17	0.81
24:Q:202:CYS:O	24:Q:206:LEU:HD22	1.81	0.81
25:R:146:ARG:HH12	25:R:213:LEU:HD12	1.44	0.81
18:L:145:LEU:CD1	18:L:149:ILE:HD11	2.10	0.81
18:L:148:VAL:CG2	18:L:167:PRO:HB3	2.09	0.81
18:L:383:LYS:HG2	18:L:386:TYR:CZ	2.15	0.81
24:Q:294:SER:HA	24:Q:330:LEU:HD21	1.61	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:R:179:ARG:HB3	25:R:210:SER:OG	1.80	0.81
16:J:338:LEU:HD22	16:J:342:ILE:CD1	2.10	0.80
15:I:116:ILE:HB	15:I:118:ASP:OD1	1.80	0.80
15:I:287:ILE:HD11	15:I:331:THR:HB	0.83	0.80
15:I:356:PRO:HB3	15:I:361:LYS:HG3	1.62	0.80
18:L:322:LYS:NZ	18:L:326:ILE:HD12	1.97	0.80
17:K:56:VAL:CG1	20:N:603:LEU:HD12	2.02	0.80
20:N:902:PRO:HA	20:N:915:LYS:HB3	1.63	0.80
24:Q:273:GLY:CA	24:Q:277:LEU:HB2	2.12	0.80
29:V:240:HIS:O	29:V:244:VAL:HB	1.81	0.80
28:U:51:SER:OG	29:V:43:LYS:CE	2.29	0.80
14:H:125:LEU:CD1	14:H:129:VAL:HG23	2.12	0.80
17:K:391:ARG:HH12	17:K:395:LEU:CD1	1.95	0.80
17:K:391:ARG:HH12	17:K:395:LEU:HG	1.46	0.80
19:M:139:LEU:O	19:M:140:VAL:CG1	2.27	0.80
19:M:198:LEU:CD1	19:M:240:CYS:SG	2.70	0.80
19:M:212:PHE:CD1	19:M:217:ILE:CD1	2.43	0.80
20:N:497:LEU:HD11	20:N:515:ALA:HB3	1.62	0.80
27:T:163:SER:O	27:T:166:ARG:HB2	1.81	0.80
28:U:267:ARG:HB2	29:V:288:VAL:HG11	1.62	0.80
28:U:67:VAL:HG11	30:W:88:THR:HG23	1.61	0.80
17:K:378:ILE:CG1	17:K:406:VAL:HG21	2.12	0.80
19:M:215:LEU:CD2	19:M:217:ILE:CG2	2.60	0.80
25:R:123:ALA:O	25:R:127:THR:HG23	1.82	0.80
32:Z:238:ASN:HA	32:Z:245:ASN:H	1.47	0.80
17:K:345:PHE:CE2	17:K:360:LEU:CD1	2.65	0.80
19:M:435:LEU:CD2	19:M:438:TYR:CE1	2.64	0.80
24:Q:163:LYS:CD	24:Q:200:ILE:HG21	2.11	0.80
20:N:99:THR:CB	26:S:240:LEU:HD11	2.11	0.80
16:J:151:ILE:HA	35:J:501:ADP:N1	1.97	0.80
16:J:188:LEU:HB2	16:J:294:ALA:CB	2.12	0.80
16:J:297:ARG:O	16:J:300:ILE:HG12	1.82	0.80
17:K:92:PHE:HB3	17:K:128:ALA:H	1.44	0.80
17:K:162:VAL:HG11	17:K:214:MET:CE	2.11	0.80
17:K:354:LEU:CD1	17:K:394:VAL:HB	2.11	0.80
18:L:148:VAL:O	18:L:167:PRO:HG2	1.81	0.80
24:Q:264:PRO:CG	24:Q:295:LYS:HE3	2.10	0.80
25:R:381:GLN:O	25:R:384:SER:OG	1.99	0.80
15:I:168:ASP:OD2	15:I:170:LEU:HB2	1.81	0.80
15:I:180:PRO:CG	15:I:240:ALA:C	2.49	0.80
17:K:394:VAL:CG1	17:K:398:ASP:HB3	2.06	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:L:61:LEU:CD1	18:L:78:ARG:CG	2.59	0.80
22:O:11:SER:HA	22:O:22:TRP:CG	2.17	0.80
15:I:283:PHE:HE1	15:I:328:ILE:CG2	1.93	0.80
17:K:103:VAL:HG11	17:K:139:LEU:HD21	1.62	0.80
17:K:212:LYS:HA	17:K:333:PHE:HE2	1.46	0.80
19:M:246:ALA:HB2	19:M:280:PRO:HG2	1.63	0.80
18:L:253:ILE:CD1	19:M:261:ILE:HD11	2.10	0.80
20:N:643:SER:H	20:N:649:ARG:HE	1.30	0.80
20:N:788:VAL:H	20:N:881:PRO:HA	1.45	0.80
24:Q:302:PHE:CB	24:Q:330:LEU:CD1	2.60	0.80
25:R:208:PHE:HD2	25:R:216:TYR:HD1	1.30	0.80
15:I:107:MET:HE1	15:I:160:ILE:HB	1.64	0.80
15:I:230:THR:HG22	15:I:353:PHE:CB	1.93	0.80
17:K:191:TYR:CD1	17:K:198:PRO:HB3	2.16	0.80
18:L:61:LEU:CD1	18:L:78:ARG:CD	2.59	0.80
23:P:384:LEU:CD1	23:P:392:PHE:CE2	2.65	0.80
25:R:118:GLU:HA	25:R:121:LEU:HD12	1.62	0.80
14:H:355:PHE:CD1	14:H:385:ILE:HG22	2.15	0.80
15:I:144:LEU:HG	15:I:162:VAL:HG23	1.64	0.80
17:K:354:LEU:HD11	17:K:394:VAL:HB	1.64	0.80
24:Q:114:ILE:HD13	24:Q:133:LEU:HD22	1.64	0.80
24:Q:410:VAL:HG22	29:V:256:ASN:CA	2.11	0.80
28:U:72:HIS:CE1	28:U:111:LEU:CD1	2.54	0.80
12:G:207:THR:HB	12:G:226:ASP:O	1.81	0.79
16:J:149:GLU:HG2	25:R:133:ALA:HB1	1.62	0.79
16:J:151:ILE:CG1	16:J:198:LEU:CD2	2.49	0.79
16:J:162:LYS:HG3	16:J:166:GLU:OE1	1.81	0.79
17:K:88:VAL:O	17:K:132:LEU:HB2	1.82	0.79
18:L:155:ASN:N	18:L:156:PRO:CD	2.46	0.79
18:L:303:LEU:HD23	18:L:339:ASN:HD22	1.47	0.79
19:M:141:ASP:OD2	19:M:144:LYS:NZ	2.15	0.79
19:M:251:LEU:HD21	19:M:256:LEU:HD21	1.62	0.79
23:P:384:LEU:CB	23:P:388:GLU:HB2	2.10	0.79
24:Q:239:TYR:HA	24:Q:242:ILE:CG2	2.12	0.79
15:I:369:THR:HG22	15:I:399:CYS:SG	2.22	0.79
17:K:176:GLU:HG3	17:K:331:ILE:HD11	1.62	0.79
17:K:343:LEU:O	17:K:347:THR:CG2	2.30	0.79
25:R:300:ARG:O	25:R:304:TYR:CD1	2.34	0.79
14:H:161:VAL:CG2	14:H:259:GLU:HB2	2.12	0.79
14:H:87:LEU:C	14:H:91:GLN:HG3	2.02	0.79
18:L:322:LYS:HD3	18:L:326:ILE:HD11	1.63	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:L:176:PRO:O	19:M:344:ARG:HD3	1.83	0.79
14:H:209:PRO:HD3	19:M:405:MET:SD	2.22	0.79
20:N:370:VAL:HG12	20:N:407:SER:OG	1.81	0.79
14:H:102:ILE:CD1	14:H:120:LYS:HD3	2.10	0.79
14:H:176:ASP:O	35:H:501:ADP:H2	1.63	0.79
15:I:180:PRO:HG2	15:I:241:ASN:N	1.98	0.79
16:J:188:LEU:HB2	16:J:294:ALA:HB1	1.62	0.79
17:K:370:ILE:HD11	17:K:407:ILE:HG13	1.65	0.79
19:M:89:LEU:CD1	19:M:128:THR:HG23	2.12	0.79
22:O:132:LYS:CB	22:O:162:TYR:OH	2.28	0.79
23:P:420:ASP:HB3	23:P:421:PRO:HD3	1.63	0.79
24:Q:302:PHE:CB	24:Q:330:LEU:HD13	2.11	0.79
25:R:21:GLN:HG2	25:R:286:TRP:CE3	2.17	0.79
27:T:332:SER:OG	29:V:307:VAL:CG1	2.31	0.79
14:H:348:LEU:HD23	14:H:351:ARG:HH22	1.46	0.79
15:I:401:GLU:HB3	15:I:422:SER:CB	2.13	0.79
16:J:184:LYS:HD2	16:J:280:LEU:O	1.82	0.79
16:J:189:TYR:CE1	16:J:298:ILE:HD11	2.17	0.79
18:L:155:ASN:OD1	18:L:158:LEU:HD12	1.83	0.79
18:L:198:VAL:HG21	18:L:218:MET:SD	2.23	0.79
19:M:294:LYS:HA	19:M:339:ASP:CG	2.03	0.79
22:O:4:VAL:CG1	22:O:26:GLU:OE2	2.31	0.79
25:R:30:GLU:HA	25:R:31:HIS:CG	2.17	0.79
25:R:318:TYR:O	25:R:321:GLU:CG	2.31	0.79
15:I:230:THR:CB	15:I:353:PHE:HB3	2.12	0.79
17:K:109:SER:HB2	17:K:111:TYR:CZ	2.18	0.79
17:K:115:ILE:HD11	17:K:121:ARG:NH2	1.97	0.79
17:K:176:GLU:HG2	17:K:331:ILE:CD1	2.13	0.79
18:L:216:ARG:NH2	18:L:259:GLU:OE2	2.15	0.79
25:R:191:ILE:HG22	25:R:192:ARG:N	1.97	0.79
32:Z:498:LEU:O	32:Z:502:LEU:N	2.15	0.79
32:Z:667:GLY:HA2	32:Z:671:ALA:HB3	0.79	0.79
2:B:101:TRP:CE3	2:B:107:TYR:O	2.35	0.79
15:I:180:PRO:CD	15:I:241:ASN:HA	2.12	0.79
15:I:417:GLU:HA	15:I:420:LYS:HB2	1.64	0.79
16:J:298:ILE:HG23	16:J:301:LEU:HD21	1.64	0.79
16:J:72:TYR:CD2	16:J:121:TYR:HE1	2.01	0.79
17:K:162:VAL:CG1	17:K:214:MET:CE	2.61	0.79
18:L:20:LYS:O	18:L:24:GLY:N	2.13	0.79
19:M:80:ILE:HG22	19:M:84:LYS:HD2	1.64	0.79
20:N:147:TYR:O	20:N:151:ILE:N	2.12	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:S:328:VAL:HG13	26:S:329:HIS:N	1.95	0.79
32:Z:903:ASN:O	32:Z:907:ASP:N	2.15	0.79
14:H:279:ALA:HB2	15:I:310:LEU:CD2	2.12	0.79
15:I:394:ASP:OD1	16:J:308:PRO:CG	2.30	0.79
16:J:47:ALA:O	16:J:51:GLU:N	2.11	0.79
17:K:276:ASP:CB	17:K:282:ASP:OD2	2.31	0.79
19:M:399:VAL:HG22	19:M:427:VAL:CB	2.11	0.79
20:N:476:GLY:HA2	20:N:479:LEU:HD12	1.64	0.79
23:P:146:THR:HG21	23:P:169:LEU:CD1	2.11	0.79
30:W:65:THR:HG21	30:W:70:ARG:CG	2.13	0.79
30:W:54:LEU:CA	30:W:85:THR:CB	2.60	0.79
15:I:387:LYS:CB	15:I:390:LEU:CD2	2.57	0.79
15:I:401:GLU:CB	15:I:422:SER:HB2	2.12	0.79
17:K:176:GLU:HG2	17:K:331:ILE:HD13	1.65	0.79
17:K:210:CYS:CB	17:K:333:PHE:HB3	2.11	0.79
19:M:137:ILE:HD13	19:M:145:LEU:HD13	1.63	0.79
19:M:293:THR:HG23	19:M:337:ILE:CG2	2.11	0.79
14:H:299:MET:CE	14:H:328:ASP:CB	2.53	0.79
18:L:176:PRO:C	19:M:344:ARG:HD3	2.03	0.79
18:L:117:PRO:HD3	19:M:94:ILE:HG23	1.65	0.79
23:P:68:VAL:O	23:P:71:VAL:HG22	1.82	0.79
15:I:232:LYS:NZ	15:I:332:ASN:HD22	1.81	0.78
17:K:167:ILE:HD13	17:K:218:ALA:HB2	1.63	0.78
17:K:391:ARG:HH12	17:K:395:LEU:CG	1.95	0.78
18:L:143:ARG:O	18:L:147:GLU:CD	2.21	0.78
18:L:338:PHE:HZ	18:L:375:ALA:CA	1.96	0.78
20:N:6:ALA:HB1	27:T:169:ALA:C	2.03	0.78
23:P:274:VAL:HG11	23:P:287:VAL:HG12	1.64	0.78
14:H:173:THR:HG22	14:H:174:TYR:H	1.48	0.78
16:J:147:THR:HG23	16:J:150:MET:HE2	1.64	0.78
16:J:320:PRO:HG3	16:J:355:SER:HA	1.63	0.78
17:K:184:PRO:CB	17:K:191:TYR:CZ	2.67	0.78
17:K:212:LYS:HG2	17:K:333:PHE:CD2	2.17	0.78
18:L:215:ILE:CD1	18:L:260:LEU:HD21	2.14	0.78
19:M:272:PHE:CE2	19:M:316:GLN:HB3	2.18	0.78
24:Q:325:LYS:HD2	24:Q:325:LYS:N	1.98	0.78
28:U:48:LEU:CD1	28:U:120:VAL:HG21	2.12	0.78
28:U:48:LEU:HD13	28:U:120:VAL:HG21	1.65	0.78
2:B:163:PHE:HA	4:C:55:LEU:O	1.83	0.78
14:H:148:GLN:NE2	14:H:150:HIS:CE1	2.51	0.78
14:H:95:VAL:HG13	14:H:96:ALA:H	1.47	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:I:162:VAL:HG13	15:I:163:LEU:N	1.98	0.78
16:J:114:VAL:HG11	16:J:126:ILE:HG12	1.65	0.78
17:K:116:LEU:CA	17:K:119:ILE:HD13	2.13	0.78
18:L:350:ALA:CB	18:L:366:ASP:O	2.31	0.78
23:P:154:GLU:HB3	23:P:158:ASP:HB3	1.65	0.78
17:K:80:LYS:HB2	29:V:151:VAL:HG21	1.64	0.78
31:Y:16:ASP:CB	31:Y:17:ASP:HA	2.14	0.78
32:Z:257:ARG:O	32:Z:259:PHE:N	2.16	0.78
14:H:273:PHE:HE2	14:H:275:ASP:HB2	1.48	0.78
16:J:114:VAL:CG1	16:J:126:ILE:HA	2.12	0.78
17:K:133:HIS:CE1	17:K:136:SER:CB	2.61	0.78
18:L:319:PRO:C	18:L:320:ILE:HG13	2.04	0.78
19:M:249:LEU:HB3	19:M:283:ILE:HA	1.64	0.78
20:N:646:PRO:O	20:N:650:TYR:N	2.15	0.78
23:P:153:LYS:HE2	23:P:162:ALA:HA	1.64	0.78
23:P:408:ARG:O	23:P:410:ALA:N	2.15	0.78
30:W:55:ALA:N	30:W:85:THR:OG1	2.17	0.78
16:J:189:TYR:HE2	16:J:316:GLU:CG	1.95	0.78
20:N:497:LEU:O	20:N:501:LEU:N	2.12	0.78
22:O:274:LEU:HD11	22:O:319:LEU:CD1	2.13	0.78
23:P:390:GLU:OE2	23:P:408:ARG:NH2	2.16	0.78
25:R:120:ALA:CA	25:R:124:PHE:CE1	2.67	0.78
17:K:173:GLN:NE2	17:K:334:PRO:HD3	1.94	0.78
18:L:195:PHE:HD1	18:L:229:ILE:CG2	1.94	0.78
32:Z:792:ALA:CB	32:Z:824:ALA:CB	2.54	0.78
14:H:363:SER:OG	15:I:213:GLU:O	2.02	0.78
17:K:394:VAL:HG12	17:K:395:LEU:N	1.99	0.78
19:M:376:SER:CB	19:M:414:GLU:OE1	2.31	0.78
27:T:345:GLN:O	27:T:349:ILE:CD1	2.31	0.78
26:S:476:PHE:CD1	28:U:261:TYR:CD1	2.72	0.78
2:B:102:LYS:HE2	2:B:108:GLU:CG	2.06	0.78
16:J:247:PHE:CD1	16:J:292:ILE:HG22	2.18	0.78
16:J:33:LEU:HD21	17:K:47:LEU:CB	2.12	0.78
17:K:271:ALA:CB	17:K:289:LEU:HD21	2.11	0.78
18:L:238:ILE:CD1	18:L:257:LEU:N	2.46	0.78
23:P:384:LEU:HD13	23:P:388:GLU:HB3	1.64	0.78
29:V:255:TYR:CA	29:V:280:PRO:HG2	2.13	0.78
15:I:406:ALA:HB2	15:I:414:VAL:HG22	1.66	0.78
16:J:247:PHE:CD1	16:J:292:ILE:CG2	2.67	0.78
17:K:176:GLU:CG	17:K:331:ILE:HD13	2.14	0.78
24:Q:258:LYS:HE3	24:Q:266:ASP:CB	2.14	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:U:94:TRP:CZ2	28:U:109:ASN:CG	2.55	0.78
16:J:65:LEU:HD12	16:J:68:GLU:CD	2.04	0.78
15:I:108:SER:HA	16:J:95:PHE:HD1	1.46	0.78
17:K:85:ILE:HG22	29:V:148:ILE:HD13	1.65	0.78
19:M:399:VAL:HG23	19:M:427:VAL:HG11	1.65	0.78
25:R:388:ASN:HA	28:U:279:LYS:NZ	1.98	0.78
27:T:329:THR:O	27:T:333:THR:OG1	2.00	0.78
28:U:12:HIS:HD2	28:U:51:SER:HA	1.47	0.78
14:H:191:VAL:HG13	14:H:271:LEU:HD21	1.65	0.77
14:H:365:GLU:HB2	14:H:404:ALA:O	1.84	0.77
19:M:237:ALA:HB2	19:M:284:PHE:CE2	2.19	0.77
23:P:154:GLU:CB	23:P:158:ASP:HB3	2.14	0.77
32:Z:654:VAL:CB	32:Z:685:THR:CB	2.62	0.77
10:F:66:LYS:HE2	12:G:97:PHE:O	50.51	0.77
14:H:143:ASP:HB2	14:H:150:HIS:ND1	1.97	0.77
14:H:177:VAL:CG1	14:H:184:ILE:HD11	2.14	0.77
14:H:254:ALA:O	14:H:258:ARG:CG	2.31	0.77
15:I:175:LYS:HE3	15:I:277:HIS:CE1	2.19	0.77
17:K:268:ASP:O	17:K:272:THR:HG23	1.83	0.77
17:K:345:PHE:CD2	17:K:360:LEU:HD21	2.17	0.77
19:M:180:ARG:CZ	19:M:241:ALA:O	2.31	0.77
23:P:274:VAL:HG11	23:P:287:VAL:CG1	2.14	0.77
25:R:108:ALA:HB2	25:R:123:ALA:CB	2.14	0.77
27:T:343:ALA:O	27:T:347:GLU:N	2.17	0.77
23:P:448:LYS:HE3	28:U:154:THR:OG1	1.81	0.77
32:Z:533:ASP:O	32:Z:537:THR:N	2.15	0.77
14:H:121:PHE:HA	19:M:88:TYR:O	1.82	0.77
14:H:362:MET:HB2	15:I:214:MET:O	1.85	0.77
17:K:200:ARG:NH2	17:K:299:PHE:CB	2.46	0.77
17:K:372:GLY:HA2	17:K:375:ILE:CD1	2.13	0.77
20:N:151:ILE:O	20:N:155:LEU:N	2.14	0.77
20:N:587:ALA:O	20:N:591:CYS:N	2.16	0.77
20:N:663:THR:O	20:N:698:GLN:NE2	2.17	0.77
20:N:743:ASN:OD1	20:N:883:ARG:NH1	2.17	0.77
30:W:52:ILE:CG1	30:W:52:ILE:O	2.32	0.77
6:D:12:PHE:HB2	8:E:18:GLN:OE1	1.83	0.77
6:D:8:ARG:HB3	6:D:11:ILE:HD12	1.66	0.77
15:I:231:GLY:HA2	35:I:501:ADP:O1A	1.84	0.77
16:J:224:ILE:CG2	16:J:237:MET:SD	2.70	0.77
16:J:90:HIS:CB	16:J:91:PRO:HD3	2.10	0.77
17:K:237:GLN:HE22	17:K:242:GLU:HG2	1.46	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:383:GLY:O	17:K:387:VAL:HG23	1.84	0.77
26:S:328:VAL:HG13	26:S:329:HIS:H	1.49	0.77
28:U:23:PHE:CD2	28:U:126:VAL:CG2	2.66	0.77
15:I:107:MET:HE1	15:I:151:LEU:HB3	1.66	0.77
17:K:143:LEU:HB3	17:K:146:GLU:OE2	1.85	0.77
17:K:162:VAL:CG1	17:K:214:MET:HE3	2.14	0.77
18:L:219:PHE:O	18:L:223:ARG:CG	2.32	0.77
20:N:474:ARG:O	20:N:478:SER:CB	2.33	0.77
32:Z:527:VAL:HA	32:Z:565:ASN:HA	1.65	0.77
15:I:278:ALA:HB1	15:I:279:PRO:CD	2.15	0.77
15:I:365:PHE:CD1	15:I:395:ILE:HG21	2.16	0.77
15:I:402:ALA:HB1	15:I:414:VAL:CG1	2.12	0.77
16:J:228:ALA:CB	16:J:233:GLU:OE2	2.33	0.77
18:L:121:ASN:O	18:L:125:GLU:HB3	1.83	0.77
22:O:284:ARG:NH1	22:O:291:LEU:HD23	2.00	0.77
23:P:48:LEU:HD21	23:P:90:LEU:HD12	1.64	0.77
24:Q:169:VAL:O	24:Q:173:GLU:HB2	1.84	0.77
24:Q:411:VAL:CG1	24:Q:415:TYR:CE2	2.62	0.77
25:R:201:PHE:O	25:R:204:THR:OG1	2.03	0.77
25:R:268:TYR:O	25:R:271:PHE:N	2.18	0.77
16:J:45:LEU:HD23	26:S:495:ARG:CB	2.14	0.77
28:U:79:TYR:HE1	28:U:83:LYS:CE	1.96	0.77
29:V:255:TYR:HA	29:V:280:PRO:HG2	1.66	0.77
12:G:121:GLN:HG3	21:X:129:ARG:HG3	1.66	0.77
14:H:351:ARG:HA	14:H:354:ILE:HD12	1.67	0.77
15:I:398:ILE:HG22	15:I:419:PHE:CE1	2.19	0.77
20:N:470:ASN:N	20:N:474:ARG:HB2	1.96	0.77
24:Q:271:VAL:HG11	24:Q:288:LYS:CD	2.14	0.77
16:J:360:LYS:O	16:J:364:THR:HG23	1.83	0.77
24:Q:238:GLY:O	24:Q:242:ILE:HG22	1.85	0.77
25:R:135:GLY:O	25:R:139:ASP:HB2	1.84	0.77
14:H:299:MET:HE3	14:H:328:ASP:CG	2.05	0.77
15:I:424:GLU:CG	15:I:428:TYR:CE2	2.68	0.77
15:I:234:LEU:HD11	35:I:501:ADP:H2'	1.66	0.77
18:L:326:ILE:CG2	18:L:328:TYR:CD2	2.68	0.77
19:M:169:ASP:HB3	19:M:172:VAL:HG23	1.64	0.77
19:M:295:ARG:HH11	19:M:295:ARG:HB2	1.50	0.77
20:N:490:ARG:H	20:N:519:VAL:CG2	1.97	0.77
26:S:345:ARG:C	26:S:347:GLN:H	1.88	0.77
27:T:187:TYR:O	27:T:191:LEU:HB2	1.85	0.77
32:Z:684:PRO:O	32:Z:688:ARG:N	2.17	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:H:209:PRO:CG	14:H:339:ARG:HG3	2.15	0.77
18:L:305:ASN:H	18:L:308:ALA:HB3	1.47	0.77
19:M:168:TYR:CZ	19:M:274:LEU:HD23	2.20	0.77
20:N:413:LYS:HA	20:N:449:ILE:HG12	1.66	0.77
20:N:437:TYR:O	20:N:441:GLY:N	2.18	0.77
24:Q:410:VAL:HG22	29:V:256:ASN:N	2.00	0.77
14:H:151:ILE:HG22	14:H:152:PRO:HD2	1.66	0.76
15:I:203:LEU:HB3	15:I:204:PRO:HD3	1.66	0.76
17:K:93:LEU:HA	17:K:127:ASN:OD1	1.85	0.76
17:K:200:ARG:HH22	17:K:299:PHE:CB	1.97	0.76
17:K:70:LYS:O	17:K:73:LEU:HD12	1.85	0.76
24:Q:114:ILE:CG1	24:Q:129:LEU:HD22	2.16	0.76
26:S:326:GLN:HE21	26:S:356:SER:HB3	1.49	0.76
27:T:141:LEU:HD13	27:T:182:LEU:HD13	1.67	0.76
32:Z:496:ASP:O	32:Z:500:LEU:N	2.19	0.76
10:F:84:ASP:OD2	10:F:135:ARG:NH2	2.18	0.76
14:H:233:THR:HG23	14:H:234:ASP:N	2.00	0.76
18:L:56:ILE:CD1	19:M:132:TYR:HE1	1.98	0.76
20:N:499:THR:O	20:N:503:GLN:N	2.18	0.76
23:P:444:HIS:CG	28:U:157:HIS:HB3	2.20	0.76
29:V:248:MET:HE2	29:V:284:LEU:CD2	2.15	0.76
18:L:50:LEU:HD13	19:M:82:VAL:CG2	2.16	0.76
24:Q:134:VAL:HG22	24:Q:149:LEU:HD23	1.66	0.76
24:Q:334:ASN:ND2	24:Q:354:ILE:CG1	2.47	0.76
27:T:344:ARG:O	27:T:348:MET:N	2.18	0.76
28:U:102:HIS:N	28:U:105:ASP:OD2	2.17	0.76
28:U:217:THR:O	28:U:219:LYS:N	2.18	0.76
28:U:240:VAL:CB	28:U:242:LEU:CG	2.63	0.76
14:H:411:GLU:O	14:H:415:LYS:N	2.18	0.76
14:H:47:GLN:O	14:H:51:ASP:N	2.17	0.76
14:H:94:GLN:OE1	14:H:150:HIS:NE2	2.18	0.76
15:I:313:LEU:CG	15:I:346:ARG:HH11	1.87	0.76
17:K:128:ALA:CB	17:K:142:VAL:CG1	2.60	0.76
19:M:226:TYR:HB3	19:M:335:VAL:CG2	2.14	0.76
25:R:246:ILE:O	25:R:250:LEU:N	2.17	0.76
14:H:204:LEU:HD23	14:H:206:ILE:HG23	1.68	0.76
14:H:387:SER:OG	14:H:416:VAL:HG11	1.86	0.76
16:J:189:TYR:CE2	16:J:316:GLU:CB	2.65	0.76
20:N:586:VAL:HG11	20:N:601:ARG:NH2	1.99	0.76
22:O:240:PHE:O	22:O:275:LEU:HD13	1.85	0.76
23:P:274:VAL:CG1	23:P:287:VAL:HG13	2.15	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:R:185:GLY:CA	25:R:201:PHE:CE2	2.68	0.76
29:V:101:GLN:NE2	30:W:101:GLN:HE22	1.84	0.76
32:Z:698:SER:HA	32:Z:702:PRO:CA	2.14	0.76
14:H:190:VAL:HG11	14:H:212:VAL:HG21	1.67	0.76
15:I:144:LEU:CD2	15:I:162:VAL:HG22	2.16	0.76
16:J:116:LEU:CD2	16:J:121:TYR:HD1	1.98	0.76
17:K:146:GLU:OE1	18:L:70:ILE:HD13	1.85	0.76
24:Q:93:LEU:CD1	24:Q:129:LEU:HD11	2.16	0.76
25:R:225:TYR:HE1	25:R:256:VAL:CB	1.98	0.76
16:J:28:ILE:HD12	26:S:240:LEU:O	1.80	0.76
29:V:267:PRO:HD2	29:V:268:GLU:H	1.50	0.76
16:J:26:SER:OG	17:K:40:LEU:HD13	1.83	0.76
18:L:184:ALA:CB	18:L:231:PHE:CZ	2.69	0.76
23:P:351:TRP:CZ3	23:P:354:LEU:HD23	2.21	0.76
24:Q:273:GLY:C	24:Q:277:LEU:HB2	2.05	0.76
14:H:125:LEU:HA	14:H:149:ILE:CB	2.15	0.76
15:I:249:ARG:NH2	16:J:278:ASN:HB3	2.00	0.76
15:I:405:MET:CE	15:I:421:LYS:HD2	2.16	0.76
20:N:102:ALA:HA	20:N:105:ILE:HD12	1.68	0.76
20:N:160:LEU:O	20:N:164:GLU:N	2.18	0.76
20:N:576:PRO:CG	20:N:611:ASN:ND2	2.47	0.76
24:Q:82:LYS:HB3	24:Q:122:ARG:NH2	2.00	0.76
16:J:339:THR:HG23	25:R:206:SER:O	1.85	0.76
30:W:16:MET:HB3	30:W:26:LEU:HB2	1.67	0.76
32:Z:663:GLY:O	32:Z:700:SER:CB	2.33	0.76
15:I:115:ILE:O	15:I:116:ILE:HD13	1.85	0.76
15:I:207:HIS:CG	15:I:210:TYR:OH	2.39	0.76
17:K:215:LEU:CD2	17:K:333:PHE:HZ	1.99	0.76
16:J:29:GLU:HB3	17:K:44:TYR:CE2	2.21	0.76
18:L:327:ASP:OD2	18:L:330:ALA:CB	2.32	0.76
25:R:197:ALA:HB1	25:R:201:PHE:CD2	2.21	0.76
16:J:137:LEU:HD11	16:J:220:VAL:HG11	1.65	0.76
16:J:343:ASN:HB3	16:J:346:LYS:HD3	1.66	0.76
16:J:391:MET:HA	16:J:394:ASP:HB2	1.68	0.76
17:K:292:LEU:O	17:K:296:MET:CB	2.28	0.76
18:L:325:GLU:OE1	18:L:364:GLN:CG	2.34	0.76
19:M:91:SER:HB2	19:M:124:ILE:HG22	1.68	0.76
18:L:50:LEU:HD13	19:M:82:VAL:HG21	1.66	0.76
20:N:559:ARG:HB3	20:N:562:GLU:HB2	1.68	0.76
18:L:104:THR:HG21	29:V:50:PRO:CB	2.15	0.76
30:W:161:ASN:HD21	30:W:164:ASP:HA	1.51	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:84:THR:HG21	21:X:156:VAL:HG13	1.67	0.76
15:I:288:ASP:O	15:I:292:THR:HG22	1.86	0.75
16:J:214:VAL:HG21	16:J:234:LEU:CD2	2.16	0.75
16:J:247:PHE:HE1	16:J:292:ILE:CG2	1.99	0.75
16:J:340:ARG:HB3	16:J:340:ARG:HH11	1.51	0.75
20:N:714:SER:O	20:N:718:ASN:N	2.19	0.75
25:R:185:GLY:CA	25:R:201:PHE:CZ	2.69	0.75
28:U:21:ASP:O	28:U:25:ARG:HB2	1.85	0.75
12:G:15:PRO:HG3	21:X:25:TYR:CE2	2.21	0.75
12:G:50:LYS:HE2	12:G:211:SER:OG	1.86	0.75
15:I:363:ARG:O	15:I:367:ILE:CG1	2.34	0.75
16:J:148:TYR:CD1	16:J:202:ALA:HB1	2.21	0.75
25:R:225:TYR:OH	25:R:278:VAL:CG1	2.33	0.75
25:R:225:TYR:CZ	25:R:278:VAL:HG11	2.21	0.75
16:J:45:LEU:HD22	26:S:491:VAL:O	1.86	0.75
14:H:94:GLN:OE1	14:H:150:HIS:CD2	2.38	0.75
15:I:111:THR:HA	15:I:149:SER:HA	1.68	0.75
15:I:170:LEU:HD11	15:I:269:GLU:HB3	1.65	0.75
16:J:339:THR:OG1	16:J:377:HIS:HB3	1.85	0.75
17:K:367:PRO:O	17:K:369:LYS:N	2.19	0.75
18:L:196:LEU:HD12	18:L:230:ILE:CD1	2.16	0.75
18:L:338:PHE:CE1	18:L:378:LYS:HE3	2.21	0.75
19:M:295:ARG:HD2	19:M:339:ASP:CG	2.05	0.75
23:P:218:ASN:O	23:P:221:LYS:CG	2.33	0.75
24:Q:82:LYS:HG2	24:Q:120:GLU:OE2	1.87	0.75
29:V:291:LEU:O	29:V:295:ASN:HB2	1.86	0.75
16:J:214:VAL:HG11	16:J:234:LEU:HD22	1.69	0.75
17:K:366:ARG:HH11	17:K:403:TYR:HD2	1.34	0.75
19:M:90:VAL:CG2	19:M:127:SER:OG	2.34	0.75
19:M:142:ALA:O	19:M:145:LEU:CB	2.34	0.75
19:M:80:ILE:CG2	19:M:84:LYS:CE	2.65	0.75
23:P:342:GLY:H	23:P:347:GLY:HA2	1.52	0.75
24:Q:82:LYS:HB3	24:Q:122:ARG:HH21	1.52	0.75
24:Q:154:LEU:O	24:Q:158:LYS:NZ	2.14	0.75
24:Q:9:PHE:O	24:Q:13:GLN:N	2.17	0.75
25:R:344:HIS:CG	25:R:359:PRO:HD3	2.22	0.75
26:S:228:ARG:CZ	26:S:257:ASN:CG	2.53	0.75
30:W:2:VAL:HG13	30:W:4:GLU:HG2	1.69	0.75
14:H:174:TYR:HE2	14:H:184:ILE:HG23	1.49	0.75
17:K:263:PHE:HE1	17:K:265:ASP:HB2	1.51	0.75
18:L:61:LEU:HD11	18:L:78:ARG:CG	2.15	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:M:88:TYR:CE1	19:M:161:LEU:HD12	2.21	0.75
17:K:41:TYR:OH	20:N:155:LEU:CD2	2.33	0.75
22:O:338:PRO:HB2	28:U:231:GLN:OE1	1.87	0.75
24:Q:84:LYS:HE3	24:Q:88:LEU:HD23	1.68	0.75
25:R:300:ARG:HH12	25:R:333:GLU:CG	1.99	0.75
18:L:318:GLY:O	18:L:320:ILE:N	2.19	0.75
20:N:673:GLU:O	20:N:676:THR:OG1	2.05	0.75
24:Q:62:GLN:O	24:Q:66:LEU:N	2.17	0.75
25:R:228:MET:HE2	25:R:271:PHE:CZ	2.20	0.75
25:R:48:ASN:HB2	25:R:50:MET:SD	2.27	0.75
29:V:138:GLU:O	29:V:161:ARG:NH2	2.19	0.75
14:H:277:ILE:HD11	14:H:321:THR:HB	1.68	0.75
15:I:144:LEU:CD1	15:I:162:VAL:HG22	2.14	0.75
15:I:402:ALA:CB	15:I:414:VAL:HG11	2.15	0.75
16:J:194:THR:HA	16:J:356:GLY:H	1.52	0.75
18:L:282:PRO:HB2	18:L:388:PRO:HB3	1.68	0.75
19:M:121:CYS:HB3	19:M:133:PHE:CE1	2.21	0.75
20:N:802:TYR:HB3	20:N:894:MET:HA	1.69	0.75
25:R:234:PRO:O	25:R:237:ARG:HG3	1.86	0.75
27:T:330:ILE:HG22	27:T:334:GLU:OE1	1.84	0.75
31:Y:60:LEU:O	31:Y:64:GLY:N	2.11	0.75
17:K:312:ASN:HD22	17:K:313:ARG:H	1.35	0.75
17:K:372:GLY:HA2	17:K:375:ILE:HD13	1.67	0.75
18:L:200:SER:OG	18:L:238:ILE:CG2	2.35	0.75
18:L:43:SER:OG	19:M:75:GLU:OE2	2.04	0.75
19:M:80:ILE:HG23	19:M:84:LYS:CE	2.17	0.75
17:K:183:LEU:HB3	17:K:184:PRO:HD3	1.69	0.75
17:K:244:PRO:CA	17:K:291:GLU:HG3	2.15	0.75
18:L:143:ARG:HG3	18:L:147:GLU:OE2	1.87	0.75
18:L:338:PHE:CZ	18:L:375:ALA:CA	2.69	0.75
18:L:51:GLN:O	18:L:53:VAL:HG23	1.87	0.75
24:Q:396:THR:OG1	29:V:242:GLU:HG2	1.87	0.75
29:V:229:LEU:CD1	29:V:305:ASP:OD1	2.32	0.75
14:H:172:VAL:HG13	14:H:224:LEU:HD22	1.66	0.74
14:H:224:LEU:HD23	14:H:227:ARG:HH11	1.52	0.74
15:I:257:GLN:NE2	15:I:262:ASP:O	2.20	0.74
16:J:356:GLY:HA3	35:J:501:ADP:C8	2.22	0.74
17:K:179:GLU:O	17:K:184:PRO:CG	2.35	0.74
17:K:381:GLU:OE2	18:L:297:ARG:NH1	2.19	0.74
18:L:363:VAL:HG22	18:L:364:GLN:N	2.00	0.74
24:Q:96:PHE:HE2	24:Q:106:GLU:HA	1.52	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:R:219:PHE:CE1	25:R:223:THR:CG2	2.70	0.74
25:R:300:ARG:NH2	25:R:337:PHE:HZ	1.85	0.74
2:B:171:LYS:HB3	2:B:205:VAL:CG2	2.18	0.74
15:I:402:ALA:HB1	15:I:414:VAL:CG2	2.17	0.74
18:L:117:PRO:HB3	19:M:94:ILE:HA	1.69	0.74
24:Q:153:LEU:HD12	24:Q:156:GLU:HB2	1.68	0.74
24:Q:256:LEU:HD23	24:Q:322:HIS:CD2	2.23	0.74
28:U:74:TYR:CD1	29:V:98:MET:SD	2.80	0.74
32:Z:426:LEU:O	32:Z:430:ASP:CB	2.34	0.74
14:H:130:ALA:HB1	14:H:131:PRO:HD2	1.68	0.74
15:I:108:SER:HA	16:J:95:PHE:CD1	2.22	0.74
16:J:207:THR:CG2	16:J:209:CYS:SG	2.75	0.74
17:K:151:ILE:HG22	17:K:152:MET:N	2.02	0.74
17:K:106:THR:CB	17:K:245:ARG:NH2	2.50	0.74
18:L:354:ALA:HB1	19:M:215:LEU:HD11	1.69	0.74
19:M:373:MET:HE3	19:M:415:LEU:HD11	1.68	0.74
20:N:397:THR:O	20:N:401:LYS:N	2.14	0.74
24:Q:203:PRO:O	24:Q:207:GLN:HB2	1.87	0.74
25:R:186:LEU:CA	25:R:201:PHE:CZ	2.61	0.74
26:S:472:PRO:HD2	26:S:473:GLN:H	1.52	0.74
12:G:121:GLN:O	21:X:128:VAL:HA	1.86	0.74
15:I:122:ILE:HD11	15:I:130:GLU:C	2.07	0.74
16:J:137:LEU:CD1	16:J:224:ILE:CD1	2.45	0.74
24:Q:249:THR:HG23	24:Q:253:TYR:CE2	2.20	0.74
25:R:366:TYR:CE1	25:R:370:ILE:HG13	2.22	0.74
30:W:15:TYR:CE2	30:W:144:GLY:HA2	2.22	0.74
14:H:307:ASP:OD2	14:H:335:GLY:C	2.25	0.74
15:I:401:GLU:CG	15:I:422:SER:HB2	2.17	0.74
17:K:162:VAL:HG13	17:K:214:MET:HE3	1.69	0.74
17:K:337:ASP:O	17:K:341:LYS:CD	2.35	0.74
17:K:378:ILE:HG23	17:K:402:ALA:HB1	1.69	0.74
16:J:33:LEU:CD2	17:K:47:LEU:HB3	2.14	0.74
18:L:331:ILE:HD11	18:L:367:PHE:CG	2.21	0.74
18:L:338:PHE:HZ	18:L:375:ALA:HB2	0.98	0.74
20:N:414:GLY:H	20:N:449:ILE:HG23	1.51	0.74
25:R:197:ALA:HB1	25:R:201:PHE:CE2	2.23	0.74
25:R:21:GLN:HG3	25:R:286:TRP:CZ3	2.22	0.74
20:N:69:TYR:CE2	26:S:236:ARG:CG	2.70	0.74
6:D:3:ARG:HG3	12:G:123:TYR:OH	1.87	0.74
14:H:114:ASN:H	14:H:114:ASN:HD22	1.35	0.74
15:I:200:SER:C	15:I:219:PRO:HG3	2.08	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:I:362:LYS:HG3	15:I:384:ILE:CD1	2.18	0.74
17:K:267:ILE:CD1	17:K:309:MET:HB3	2.16	0.74
17:K:384:MET:SD	17:K:384:MET:N	2.60	0.74
18:L:156:PRO:HA	18:L:159:PHE:HD2	1.51	0.74
19:M:272:PHE:CE2	19:M:316:GLN:HB2	2.22	0.74
19:M:373:MET:HE1	19:M:415:LEU:HD11	1.68	0.74
26:S:198:GLN:CB	26:S:203:LEU:HD23	2.16	0.74
27:T:335:LEU:O	27:T:339:VAL:N	2.17	0.74
12:G:121:GLN:O	21:X:128:VAL:HG12	1.87	0.74
14:H:345:LEU:HD23	14:H:345:LEU:N	2.02	0.74
15:I:190:LEU:CD1	15:I:194:ILE:HD11	2.16	0.74
17:K:230:VAL:HG11	17:K:235:PHE:CE1	2.23	0.74
18:L:97:ARG:NH2	18:L:112:PRO:O	2.20	0.74
20:N:58:GLN:HB3	20:N:84:ALA:HA	1.67	0.74
24:Q:334:ASN:HD22	24:Q:354:ILE:CD1	1.95	0.74
25:R:220:VAL:HG21	25:R:249:VAL:HG11	1.68	0.74
26:S:231:LEU:O	26:S:235:LEU:HB2	1.88	0.74
14:H:353:HIS:O	14:H:357:ILE:HD12	1.88	0.74
15:I:287:ILE:CD1	15:I:331:THR:CB	2.48	0.74
15:I:320:ASP:OD1	15:I:321:SER:N	2.14	0.74
15:I:369:THR:CG2	15:I:399:CYS:SG	2.75	0.74
18:L:199:VAL:HG11	19:M:315:ASN:ND2	2.02	0.74
25:R:128:TYR:HA	25:R:131:THR:CG2	2.17	0.74
16:J:149:GLU:CG	25:R:133:ALA:HB1	2.17	0.74
25:R:234:PRO:HD2	25:R:235:ASP:H	1.52	0.74
25:R:225:TYR:CZ	25:R:278:VAL:CG1	2.71	0.74
29:V:150:SER:OG	29:V:156:VAL:HG12	1.87	0.74
14:H:206:ILE:HG13	14:H:207:GLU:N	2.03	0.74
14:H:348:LEU:HD22	14:H:375:ARG:HA	1.68	0.74
15:I:356:PRO:CB	15:I:361:LYS:HG3	2.18	0.74
15:I:94:GLU:HG3	15:I:98:LYS:HE3	1.68	0.74
18:L:254:GLN:O	18:L:257:LEU:N	2.20	0.74
18:L:383:LYS:CG	18:L:386:TYR:OH	2.30	0.74
20:N:164:GLU:C	20:N:165:LYS:HG3	2.07	0.74
22:O:248:PHE:CE2	22:O:272:ILE:HD11	2.23	0.74
24:Q:203:PRO:CB	24:Q:204:PRO:HD3	2.18	0.74
16:J:45:LEU:CD2	26:S:495:ARG:CB	2.66	0.74
27:T:330:ILE:H	27:T:331:PRO:HD3	1.51	0.74
8:E:33:VAL:HG11	8:E:168:VAL:HG11	1.70	0.74
17:K:371:SER:O	17:K:375:ILE:HD11	1.88	0.74
19:M:121:CYS:HB3	19:M:133:PHE:CZ	2.23	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:M:359:GLU:O	19:M:362:ARG:N	2.21	0.74
20:N:148:LYS:CE	20:N:179:TYR:CD2	2.71	0.74
24:Q:104:GLY:O	24:Q:108:GLU:N	2.19	0.74
24:Q:334:ASN:HD21	24:Q:354:ILE:CD1	1.72	0.74
27:T:224:VAL:HG13	27:T:225:TYR:N	2.03	0.74
15:I:144:LEU:HD11	15:I:162:VAL:HA	1.69	0.73
15:I:388:ASP:OD1	15:I:389:ASP:OD1	2.06	0.73
16:J:41:ASN:HA	16:J:44:ARG:HB2	1.69	0.73
18:L:338:PHE:CD1	18:L:378:LYS:CE	2.70	0.73
28:U:185:GLY:O	28:U:186:THR:OG1	2.06	0.73
28:U:256:GLN:O	28:U:260:VAL:HG23	1.88	0.73
14:H:114:ASN:HB3	14:H:120:LYS:HG2	1.69	0.73
15:I:232:LYS:CA	15:I:353:PHE:CE2	2.70	0.73
17:K:210:CYS:SG	17:K:334:PRO:C	2.67	0.73
17:K:93:LEU:HD12	17:K:94:GLU:CG	2.11	0.73
19:M:169:ASP:HB2	19:M:172:VAL:HG23	1.65	0.73
19:M:388:THR:HG22	19:M:391:PHE:CD2	2.23	0.73
17:K:56:VAL:HG12	20:N:603:LEU:HD13	1.70	0.73
20:N:791:LEU:O	20:N:792:ASN:CB	2.33	0.73
20:N:935:ILE:O	20:N:939:GLU:N	2.19	0.73
22:O:273:GLN:HE22	22:O:302:ILE:CB	2.00	0.73
23:P:360:GLU:O	23:P:364:ARG:HB2	1.88	0.73
28:U:70:LEU:CD1	28:U:72:HIS:CE1	2.68	0.73
29:V:64:ASP:HA	29:V:139:ARG:HH11	1.52	0.73
16:J:165:ILE:C	16:J:168:PRO:HD2	2.08	0.73
16:J:45:LEU:HD11	26:S:492:LYS:HG2	1.69	0.73
17:K:246:MET:O	17:K:249:ASP:N	2.21	0.73
17:K:408:LYS:O	17:K:410:ASP:N	2.18	0.73
18:L:109:ARG:HH11	18:L:109:ARG:HB3	1.54	0.73
18:L:148:VAL:HG23	18:L:167:PRO:CG	2.15	0.73
18:L:277:MET:CG	18:L:295:LEU:HD21	2.17	0.73
20:N:153:ILE:O	20:N:157:THR:N	2.18	0.73
25:R:21:GLN:CG	25:R:286:TRP:CE3	2.70	0.73
28:U:22:HIS:HD2	28:U:35:VAL:HG12	1.41	0.73
28:U:74:TYR:CD1	29:V:101:GLN:OE1	2.41	0.73
32:Z:164:GLY:CA	32:Z:167:ALA:HB3	2.12	0.73
18:L:303:LEU:HD21	18:L:339:ASN:HD22	0.93	0.73
24:Q:251:LEU:HD11	24:Q:276:ALA:CB	2.19	0.73
24:Q:49:SER:O	24:Q:53:LEU:CB	2.36	0.73
28:U:23:PHE:CD2	28:U:126:VAL:CB	2.72	0.73
28:U:57:PRO:HG2	29:V:101:GLN:HG2	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:H:208:PRO:HG2	14:H:316:LYS:NZ	2.03	0.73
14:H:355:PHE:HE1	14:H:385:ILE:HG22	1.54	0.73
16:J:305:LEU:O	16:J:306:LEU:HD23	1.87	0.73
16:J:388:ALA:O	16:J:392:GLN:N	2.20	0.73
17:K:115:ILE:CD1	17:K:121:ARG:HH12	1.97	0.73
17:K:345:PHE:CD1	17:K:360:LEU:HD21	2.24	0.73
18:L:251:ARG:O	18:L:255:ARG:HG2	1.89	0.73
19:M:237:ALA:HB1	19:M:284:PHE:CD2	2.24	0.73
20:N:601:ARG:O	20:N:605:VAL:HG23	1.88	0.73
20:N:791:LEU:HB2	20:N:913:ILE:HA	1.70	0.73
28:U:23:PHE:CD2	28:U:126:VAL:CG1	2.58	0.73
28:U:23:PHE:HE2	28:U:126:VAL:HG11	0.93	0.73
32:Z:227:ALA:O	32:Z:228:LYS:C	2.26	0.73
32:Z:724:ASN:O	32:Z:728:ALA:N	2.17	0.73
14:H:245:LEU:HD11	14:H:280:ILE:HD13	1.68	0.73
15:I:197:ILE:HG12	15:I:235:LEU:HD11	1.69	0.73
15:I:315:GLN:NE2	15:I:322:ARG:HH21	1.86	0.73
17:K:366:ARG:NH1	17:K:403:TYR:HD2	1.85	0.73
18:L:151:LEU:N	18:L:152:PRO:HD2	2.04	0.73
18:L:363:VAL:HG22	18:L:365:GLU:H	1.54	0.73
24:Q:157:LEU:CB	24:Q:166:LEU:HD12	2.16	0.73
25:R:204:THR:OG1	25:R:219:PHE:CZ	2.33	0.73
28:U:250:TYR:O	28:U:253:THR:HG22	1.88	0.73
30:W:25:ARG:HH22	30:W:143:PHE:H	1.36	0.73
15:I:112:LEU:N	15:I:148:CYS:O	2.22	0.73
19:M:399:VAL:CG2	19:M:427:VAL:CB	2.66	0.73
19:M:74:LYS:HA	19:M:77:SER:OG	1.89	0.73
24:Q:202:CYS:CB	24:Q:203:PRO:HA	2.19	0.73
25:R:21:GLN:CG	25:R:286:TRP:CZ3	2.72	0.73
25:R:304:TYR:HD2	25:R:334:LEU:CD2	2.01	0.73
15:I:190:LEU:HD13	15:I:194:ILE:HD11	1.68	0.73
28:U:101:LEU:CD2	28:U:138:TYR:CE2	2.72	0.73
28:U:94:TRP:CD1	28:U:112:MET:CG	2.71	0.73
14:H:258:ARG:HD3	14:H:305:GLN:NE2	2.03	0.73
14:H:330:ALA:CB	14:H:336:ARG:HH11	2.02	0.73
15:I:133:VAL:HG23	15:I:159:VAL:HG23	1.71	0.73
15:I:180:PRO:HG2	15:I:241:ASN:CA	2.19	0.73
17:K:401:LYS:O	17:K:405:THR:N	2.20	0.73
19:M:206:MET:HB2	19:M:327:LYS:HZ1	1.51	0.73
24:Q:397:TYR:CZ	28:U:258:VAL:HG21	2.24	0.73
24:Q:400:ALA:CB	28:U:262:LEU:HD11	2.19	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:Z:403:LYS:O	32:Z:404:ASP:CB	2.36	0.73
15:I:264:PRO:HA	15:I:311:GLU:HG2	1.70	0.73
16:J:247:PHE:CE1	16:J:292:ILE:HG21	2.23	0.73
16:J:369:TYR:O	16:J:372:ARG:HG2	1.89	0.73
16:J:88:LYS:HB2	16:J:94:LYS:HG2	1.71	0.73
17:K:299:PHE:CD1	17:K:303:VAL:HG11	2.24	0.73
17:K:54:LEU:O	17:K:58:GLU:N	2.19	0.73
18:L:255:ARG:NH2	18:L:255:ARG:HG3	2.02	0.73
18:L:257:LEU:HD22	18:L:257:LEU:O	1.88	0.73
20:N:708:GLN:O	20:N:712:LEU:N	2.13	0.73
20:N:74:PHE:O	20:N:78:LEU:N	2.21	0.73
24:Q:279:TYR:O	24:Q:280:ALA:C	2.27	0.73
24:Q:255:LEU:HB2	24:Q:287:LEU:HD13	1.69	0.73
24:Q:301:ASP:O	24:Q:304:LYS:CG	2.37	0.73
26:S:469:THR:O	26:S:473:GLN:HG3	1.89	0.73
28:U:70:LEU:CD2	28:U:111:LEU:HD21	2.08	0.73
21:X:3:ILE:HG22	21:X:5:THR:OG1	1.88	0.73
14:H:353:HIS:O	14:H:357:ILE:HG13	1.89	0.72
16:J:70:GLY:O	16:J:118:ASN:OD1	2.06	0.72
16:J:164:VAL:C	16:J:168:PRO:HG2	2.09	0.72
16:J:279:GLN:O	16:J:284:GLU:CG	2.37	0.72
17:K:87:LEU:HB3	17:K:132:LEU:O	1.89	0.72
17:K:89:ILE:CD1	18:L:70:ILE:HG23	2.19	0.72
19:M:191:LEU:O	19:M:195:ILE:HG13	1.89	0.72
24:Q:66:LEU:CB	24:Q:109:LEU:CD1	2.67	0.72
24:Q:256:LEU:HD23	24:Q:322:HIS:CG	2.24	0.72
30:W:157:VAL:HG11	30:W:170:LEU:HB2	1.68	0.72
14:H:233:THR:O	14:H:234:ASP:CB	2.29	0.72
14:H:351:ARG:NH2	14:H:377:CYS:O	2.22	0.72
15:I:200:SER:O	15:I:219:PRO:HD2	1.89	0.72
16:J:86:LEU:HD23	16:J:96:VAL:HG23	1.63	0.72
17:K:207:PRO:HD2	17:K:333:PHE:O	1.89	0.72
19:M:236:LEU:CD1	19:M:354:PHE:CZ	2.72	0.72
23:P:384:LEU:HD22	23:P:388:GLU:CG	2.19	0.72
14:H:373:LEU:CD2	14:H:410:LEU:HD23	2.20	0.72
30:W:131:LEU:O	30:W:135:LYS:N	2.21	0.72
14:H:97:ARG:NH2	15:I:129:SER:HB3	2.02	0.72
15:I:217:LYS:HB3	15:I:218:PRO:CD	2.18	0.72
15:I:387:LYS:HG2	15:I:390:LEU:HB3	1.70	0.72
17:K:90:GLY:C	17:K:130:VAL:CG2	2.54	0.72
18:L:381:GLU:HB3	18:L:384:LEU:HD21	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:L:84:ARG:O	18:L:85:ARG:CG	2.32	0.72
19:M:142:ALA:O	19:M:145:LEU:HB2	1.89	0.72
20:N:427:LEU:HB3	20:N:428:PRO:CD	2.18	0.72
20:N:724:VAL:O	20:N:728:PHE:HB2	1.89	0.72
22:O:4:VAL:CG1	22:O:26:GLU:OE1	2.38	0.72
23:P:200:ILE:CG1	23:P:201:ARG:H	2.02	0.72
24:Q:169:VAL:O	24:Q:173:GLU:CB	2.36	0.72
28:U:34:ARG:NH2	28:U:102:HIS:HD2	1.87	0.72
32:Z:318:THR:CA	32:Z:322:SER:CB	2.68	0.72
14:H:324:PRO:HD2	14:H:432:TYR:CD1	2.24	0.72
14:H:353:HIS:O	14:H:357:ILE:CG1	2.37	0.72
15:I:106:PRO:HG3	16:J:121:TYR:HB2	1.72	0.72
16:J:193:GLY:O	16:J:355:SER:HB2	1.90	0.72
17:K:222:HIS:O	17:K:223:THR:O	2.06	0.72
20:N:616:ARG:CZ	20:N:650:TYR:CE2	2.72	0.72
20:N:801:GLN:HB3	20:N:879:ASP:H	1.55	0.72
25:R:304:TYR:O	25:R:307:LEU:HG	1.90	0.72
26:S:231:LEU:CA	26:S:250:LEU:HD11	2.20	0.72
26:S:326:GLN:HE21	26:S:356:SER:CB	2.01	0.72
14:H:111:TYR:HH	14:H:131:PRO:HA	1.54	0.72
15:I:365:PHE:HE1	15:I:395:ILE:CG2	1.95	0.72
16:J:86:LEU:HD22	16:J:96:VAL:HG22	1.72	0.72
24:Q:212:MET:CG	24:Q:235:ALA:CB	2.65	0.72
25:R:54:TYR:OH	25:R:65:ILE:O	2.07	0.72
28:U:79:TYR:CE2	28:U:91:ILE:HB	2.22	0.72
28:U:263:ALA:HB1	29:V:288:VAL:HG13	1.71	0.72
2:B:65:THR:HG21	21:X:159:GLY:HA3	1.72	0.72
14:H:284:ARG:HG3	14:H:296:GLN:CD	2.09	0.72
14:H:330:ALA:O	14:H:336:ARG:NE	2.14	0.72
14:H:83:ASP:O	14:H:87:LEU:N	2.20	0.72
16:J:203:VAL:O	16:J:207:THR:HB	1.90	0.72
17:K:205:TYR:CE1	17:K:332:GLU:HA	2.25	0.72
17:K:360:LEU:HD12	17:K:363:TYR:HD2	1.51	0.72
19:M:54:ILE:O	19:M:58:GLU:N	2.18	0.72
16:J:25:LEU:HD11	20:N:105:ILE:HG21	1.71	0.72
20:N:202:VAL:O	20:N:206:MET:N	2.18	0.72
32:Z:288:VAL:O	32:Z:292:LYS:N	2.22	0.72
32:Z:698:SER:CA	32:Z:702:PRO:CB	2.68	0.72
15:I:106:PRO:O	15:I:154:HIS:HD2	1.72	0.72
16:J:27:LYS:HA	17:K:40:LEU:HD22	1.72	0.72
17:K:75:ALA:O	17:K:79:VAL:HG23	1.88	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:O:35:HIS:HB2	30:W:14:GLU:HG3	1.72	0.72
24:Q:127:GLN:NE2	24:Q:156:GLU:O	2.22	0.72
25:R:50:MET:CE	25:R:53:TYR:HE2	1.97	0.72
27:T:234:GLN:O	27:T:237:MET:HB2	1.89	0.72
17:K:283:ARG:O	17:K:287:ARG:HD2	1.89	0.72
18:L:148:VAL:C	18:L:167:PRO:HG2	2.09	0.72
18:L:57:VAL:HG12	18:L:74:THR:HG21	1.70	0.72
19:M:237:ALA:CB	19:M:284:PHE:CD2	2.73	0.72
16:J:25:LEU:HA	20:N:102:ALA:HB1	1.69	0.72
23:P:87:ILE:O	23:P:91:SER:N	2.20	0.72
24:Q:163:LYS:HB2	24:Q:200:ILE:HG21	1.71	0.72
26:S:265:ASP:O	26:S:268:GLU:CG	2.37	0.72
20:N:7:GLY:C	27:T:170:GLN:HE21	1.93	0.72
22:O:370:GLN:HB2	27:T:340:ILE:CG2	2.19	0.72
30:W:169:HIS:CD2	30:W:187:PRO:CB	2.72	0.72
32:Z:247:ALA:O	32:Z:251:CYS:N	2.22	0.72
15:I:250:VAL:HG23	15:I:270:LEU:HD13	1.72	0.72
16:J:161:ILE:HG21	16:J:203:VAL:HG21	1.72	0.72
16:J:247:PHE:C	16:J:248:MET:HG3	2.09	0.72
17:K:176:GLU:HG3	17:K:331:ILE:CD1	2.19	0.72
17:K:190:LEU:CD2	17:K:194:ILE:HD11	2.17	0.72
18:L:130:VAL:O	18:L:189:SER:CB	2.37	0.72
18:L:326:ILE:HG21	18:L:328:TYR:CZ	2.25	0.72
28:U:94:TRP:HH2	28:U:121:LEU:HD22	1.51	0.72
28:U:23:PHE:CE1	28:U:28:LYS:O	2.42	0.72
15:I:180:PRO:HD2	15:I:241:ASN:HA	1.72	0.71
16:J:373:GLU:HG2	16:J:375:ARG:HD2	1.71	0.71
17:K:200:ARG:NH2	17:K:299:PHE:HB2	2.03	0.71
17:K:303:VAL:HG12	17:K:305:VAL:HG23	1.72	0.71
18:L:101:ASP:OD2	18:L:104:THR:N	2.23	0.71
18:L:303:LEU:HD13	18:L:337:GLY:O	1.88	0.71
25:R:307:LEU:CD1	25:R:308:LEU:HD23	2.19	0.71
26:S:374:LYS:O	26:S:377:GLN:CG	2.38	0.71
28:U:9:VAL:HG23	28:U:158:VAL:HG11	1.70	0.71
30:W:60:VAL:HG12	30:W:62:THR:H	1.54	0.71
14:H:229:VAL:O	14:H:233:THR:HB	1.90	0.71
15:I:287:ILE:HG21	15:I:329:MET:HE1	1.72	0.71
15:I:342:ILE:HG23	15:I:350:LYS:CE	2.19	0.71
20:N:95:GLU:O	20:N:99:THR:N	2.22	0.71
23:P:209:ILE:CG2	23:P:226:TYR:CZ	2.63	0.71
25:R:134:LEU:CD1	25:R:138:LEU:CG	2.67	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:V:227:GLU:OE1	29:V:228:GLY:N	2.22	0.71
8:E:209:ALA:HB1	8:E:217:LEU:HD11	1.72	0.71
15:I:103:ARG:HG3	15:I:160:ILE:HG23	1.71	0.71
16:J:41:ASN:CA	16:J:44:ARG:HB2	2.19	0.71
15:I:154:HIS:HE1	16:J:95:PHE:CD1	2.08	0.71
23:P:154:GLU:CG	23:P:162:ALA:HB2	2.20	0.71
23:P:420:ASP:O	23:P:423:ASN:N	2.23	0.71
24:Q:84:LYS:NZ	24:Q:88:LEU:CD2	2.53	0.71
25:R:241:ILE:HD13	25:R:260:LEU:CD1	2.13	0.71
25:R:263:LEU:CA	25:R:271:PHE:CE2	2.73	0.71
30:W:169:HIS:ND1	30:W:187:PRO:CG	2.38	0.71
14:H:204:LEU:HD23	14:H:206:ILE:CG2	2.21	0.71
15:I:373:THR:O	15:I:373:THR:HG23	1.90	0.71
18:L:93:LYS:HB3	18:L:94:PRO:CD	2.20	0.71
20:N:70:HIS:C	26:S:273:LYS:HD2	2.11	0.71
26:S:482:PHE:CE1	26:S:486:ILE:HD11	2.25	0.71
14:H:161:VAL:HG13	14:H:260:LEU:HD12	1.71	0.71
14:H:387:SER:O	14:H:391:GLU:CB	2.35	0.71
15:I:140:ASP:HB3	15:I:143:LEU:HG	1.73	0.71
15:I:285:ASP:OD1	15:I:330:ALA:CB	2.37	0.71
16:J:204:ALA:HB1	16:J:211:PHE:HB2	1.73	0.71
18:L:195:PHE:CE1	18:L:229:ILE:CB	2.73	0.71
18:L:321:THR:OG1	18:L:361:PHE:HA	1.89	0.71
19:M:374:ASN:O	19:M:414:GLU:CA	2.38	0.71
20:N:799:LYS:HD3	20:N:880:ASN:HD21	1.55	0.71
24:Q:97:LEU:HD23	24:Q:106:GLU:HG2	1.73	0.71
25:R:108:ALA:HB1	25:R:124:PHE:CZ	2.24	0.71
25:R:127:THR:C	25:R:131:THR:HG23	2.10	0.71
25:R:304:TYR:HD2	25:R:334:LEU:HD21	1.55	0.71
28:U:45:LYS:CG	28:U:46:LYS:H	2.04	0.71
14:H:242:GLY:HA2	14:H:280:ILE:HG12	1.72	0.71
14:H:373:LEU:O	14:H:377:CYS:SG	2.49	0.71
17:K:141:ASP:OD1	17:K:142:VAL:N	2.24	0.71
17:K:205:TYR:HA	17:K:311:THR:O	1.91	0.71
18:L:148:VAL:CA	18:L:167:PRO:HG2	2.21	0.71
18:L:150:GLU:O	18:L:153:LEU:CD1	2.37	0.71
24:Q:289:CYS:O	24:Q:293:ALA:HB2	1.91	0.71
30:W:61:LEU:HD23	30:W:61:LEU:N	2.05	0.71
32:Z:444:ALA:HA	32:Z:447:ALA:HB3	1.72	0.71
32:Z:444:ALA:O	32:Z:448:CYS:N	2.20	0.71
15:I:407:LEU:HD13	16:J:175:PHE:CE1	2.26	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:354:ALA:CB	16:J:358:GLU:OE1	2.37	0.71
18:L:148:VAL:CG2	18:L:167:PRO:CB	2.62	0.71
19:M:272:PHE:CD2	19:M:316:GLN:CB	2.72	0.71
19:M:310:MET:CE	19:M:339:ASP:HB2	2.20	0.71
20:N:364:VAL:O	20:N:367:THR:HB	1.91	0.71
20:N:643:SER:O	20:N:649:ARG:NE	2.24	0.71
20:N:810:THR:H	20:N:888:GLN:HE22	1.36	0.71
24:Q:212:MET:HE1	24:Q:250:SER:HB2	1.72	0.71
28:U:12:HIS:HD2	28:U:50:VAL:O	1.72	0.71
28:U:12:HIS:CD2	28:U:51:SER:HA	2.26	0.71
14:H:125:LEU:HD13	14:H:129:VAL:CG2	2.20	0.71
17:K:190:LEU:O	17:K:196:ILE:HD12	1.89	0.71
19:M:223:VAL:HG12	19:M:224:LEU:N	2.04	0.71
22:O:9:GLN:O	22:O:13:ASN:CB	2.39	0.71
22:O:242:SER:C	22:O:279:GLU:OE2	2.29	0.71
24:Q:148:HIS:CE1	24:Q:152:GLN:NE2	2.59	0.71
25:R:50:MET:HE2	25:R:53:TYR:CE2	2.25	0.71
25:R:296:VAL:HG11	31:Y:51:ASP:HB3	1.73	0.71
32:Z:765:ALA:O	32:Z:769:THR:N	2.21	0.71
15:I:283:PHE:HD1	15:I:328:ILE:HB	1.55	0.71
15:I:369:THR:CB	15:I:374:LEU:CD1	2.55	0.71
17:K:248:ARG:O	17:K:252:ARG:HB2	1.90	0.71
17:K:366:ARG:HD2	17:K:403:TYR:HE2	1.56	0.71
25:R:143:TYR:O	25:R:146:ARG:HB3	1.91	0.71
27:T:299:MET:CG	27:T:300:THR:H	2.04	0.71
15:I:365:PHE:CE2	15:I:383:LEU:CB	2.66	0.71
16:J:81:ASP:O	16:J:82:LYS:HB2	1.90	0.71
18:L:253:ILE:O	18:L:257:LEU:N	2.21	0.71
18:L:303:LEU:CD2	18:L:339:ASN:CA	2.68	0.71
23:P:345:GLU:O	23:P:349:LYS:HB2	1.90	0.71
14:H:244:GLU:HA	15:I:268:ARG:HH22	1.55	0.70
20:N:347:ASN:HD22	20:N:743:ASN:HD21	1.36	0.70
20:N:354:LYS:O	20:N:358:ASP:N	2.22	0.70
24:Q:48:GLN:O	24:Q:52:GLU:N	2.23	0.70
14:H:114:ASN:HB3	14:H:120:LYS:CG	2.21	0.70
16:J:69:GLN:NE2	16:J:69:GLN:HA	2.05	0.70
17:K:210:CYS:SG	17:K:335:LEU:HD23	2.30	0.70
18:L:130:VAL:HG12	18:L:131:SER:N	2.06	0.70
19:M:146:LYS:HE2	19:M:149:ASP:OD2	1.91	0.70
19:M:91:SER:HB2	19:M:124:ILE:CG2	2.21	0.70
20:N:713:TYR:O	20:N:717:ILE:N	2.16	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:U:265:LEU:O	28:U:268:SER:OG	2.05	0.70
15:I:329:MET:HG3	15:I:347:ILE:CD1	2.20	0.70
16:J:273:MET:CE	16:J:293:MET:SD	2.78	0.70
16:J:154:LEU:HD21	16:J:317:PHE:CD2	2.26	0.70
17:K:372:GLY:CA	17:K:375:ILE:CD1	2.68	0.70
22:O:109:GLU:CG	22:O:110:ALA:H	2.04	0.70
14:H:103:ASN:CB	14:H:136:GLU:OE2	2.39	0.70
14:H:284:ARG:HG3	14:H:296:GLN:NE2	2.06	0.70
15:I:375:ALA:HB2	15:I:414:VAL:O	1.91	0.70
15:I:398:ILE:CG2	15:I:419:PHE:CD1	2.59	0.70
16:J:207:THR:HG23	16:J:209:CYS:HG	1.56	0.70
16:J:25:LEU:HD23	20:N:102:ALA:CB	2.20	0.70
20:N:35:TRP:HZ3	26:S:273:LYS:HD3	1.56	0.70
24:Q:76:PHE:O	24:Q:80:ILE:N	2.24	0.70
25:R:263:LEU:CG	25:R:271:PHE:HE2	2.01	0.70
26:S:327:THR:O	26:S:330:LYS:HB2	1.91	0.70
14:H:180:CYS:SG	14:H:183:GLN:HG2	2.31	0.70
14:H:172:VAL:HG11	14:H:224:LEU:CD2	2.21	0.70
14:H:166:VAL:CG1	14:H:237:PHE:O	2.40	0.70
14:H:353:HIS:O	14:H:357:ILE:CD1	2.39	0.70
15:I:122:ILE:HD11	15:I:130:GLU:CA	2.20	0.70
16:J:273:MET:HE1	16:J:305:LEU:CD2	2.21	0.70
17:K:173:GLN:NE2	17:K:332:GLU:O	2.23	0.70
17:K:247:VAL:HG13	17:K:251:PHE:CE2	2.27	0.70
17:K:97:ASP:OD1	17:K:98:GLN:N	2.24	0.70
18:L:243:PHE:O	18:L:244:SER:OG	2.10	0.70
20:N:667:GLU:CG	20:N:668:ALA:H	2.05	0.70
20:N:741:GLY:O	20:N:743:ASN:ND2	2.24	0.70
22:O:242:SER:O	22:O:279:GLU:CD	2.29	0.70
23:P:203:GLN:O	23:P:206:SER:OG	2.09	0.70
24:Q:135:SER:HB2	24:Q:172:LEU:HD21	1.72	0.70
26:S:330:LYS:O	26:S:334:VAL:HG23	1.92	0.70
27:T:337:LYS:O	27:T:341:GLU:N	2.17	0.70
29:V:251:LEU:HD13	29:V:283:HIS:CB	2.21	0.70
30:W:157:VAL:O	30:W:168:SER:OG	2.08	0.70
15:I:366:GLN:O	15:I:370:SER:CB	2.40	0.70
15:I:424:GLU:HA	15:I:428:TYR:HD2	0.89	0.70
16:J:250:GLU:O	16:J:269:VAL:HG21	1.92	0.70
16:J:26:SER:OG	17:K:40:LEU:HB3	1.89	0.70
18:L:119:VAL:O	18:L:123:SER:HB2	1.90	0.70
18:L:146:ARG:NH1	18:L:150:GLU:OE1	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:L:353:PHE:CA	18:L:356:ARG:HB2	2.22	0.70
20:N:616:ARG:HH21	20:N:647:HIS:HA	1.57	0.70
25:R:71:ASN:O	25:R:75:LYS:HG3	1.91	0.70
28:U:131:LEU:CD1	28:U:199:LYS:HD3	2.16	0.70
30:W:25:ARG:NH1	30:W:143:PHE:HB3	2.07	0.70
17:K:386:ALA:O	17:K:391:ARG:HG3	1.92	0.70
17:K:92:PHE:N	17:K:128:ALA:O	2.24	0.70
22:O:9:GLN:O	22:O:13:ASN:HB3	1.92	0.70
24:Q:220:ALA:C	24:Q:222:GLU:H	1.94	0.70
24:Q:41:GLU:O	24:Q:45:VAL:N	2.22	0.70
28:U:70:LEU:CD2	28:U:111:LEU:HD23	2.08	0.70
31:Y:55:GLN:HA	31:Y:58:ALA:HB3	1.73	0.70
32:Z:485:LEU:HA	32:Z:488:ALA:HB3	1.72	0.70
32:Z:747:GLN:O	32:Z:750:GLN:N	2.25	0.70
14:H:263:MET:HB3	14:H:267:LYS:HZ1	1.56	0.70
15:I:174:MET:O	15:I:248:LEU:HA	1.91	0.70
15:I:387:LYS:CG	15:I:390:LEU:HB3	2.22	0.70
16:J:86:LEU:HD22	16:J:96:VAL:CG2	2.21	0.70
17:K:337:ASP:O	17:K:341:LYS:HG3	1.92	0.70
17:K:407:ILE:H	17:K:407:ILE:HD12	1.56	0.70
19:M:89:LEU:HD21	19:M:126:THR:CG2	2.22	0.70
24:Q:239:TYR:O	24:Q:244:SER:HA	1.90	0.70
15:I:118:ASP:CG	15:I:120:HIS:HE2	1.95	0.70
15:I:170:LEU:HD11	15:I:269:GLU:CB	2.21	0.70
17:K:406:VAL:O	17:K:408:LYS:HG2	1.91	0.70
16:J:56:VAL:HG11	17:K:72:PHE:CZ	2.27	0.70
18:L:200:SER:OG	18:L:238:ILE:HG22	1.90	0.70
19:M:294:LYS:HG3	19:M:339:ASP:OD1	1.91	0.70
24:Q:117:ALA:O	24:Q:121:LYS:N	2.22	0.70
24:Q:193:ALA:HA	24:Q:196:THR:HG22	1.73	0.70
32:Z:670:MET:O	32:Z:674:THR:N	2.23	0.70
14:H:166:VAL:O	14:H:168:GLU:N	2.25	0.70
15:I:107:MET:CE	15:I:151:LEU:HB3	2.22	0.70
15:I:180:PRO:CG	15:I:241:ASN:HA	2.22	0.70
17:K:154:LEU:C	17:K:155:THR:HG23	2.10	0.70
17:K:235:PHE:HB2	17:K:270:ILE:HD11	1.74	0.70
18:L:338:PHE:HA	18:L:378:LYS:HZ2	1.56	0.70
20:N:887:ALA:O	20:N:890:LYS:N	2.25	0.70
28:U:94:TRP:HD1	28:U:112:MET:CG	2.05	0.70
14:H:282:GLY:O	14:H:328:ASP:N	2.25	0.69
14:H:95:VAL:HB	15:I:156:VAL:CG1	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:I:170:LEU:CD1	15:I:269:GLU:CB	2.68	0.69
15:I:204:PRO:HG3	15:I:211:TYR:CE2	2.27	0.69
16:J:184:LYS:O	16:J:290:LYS:HA	1.92	0.69
16:J:148:TYR:CD2	16:J:206:HIS:HD2	2.09	0.69
17:K:116:LEU:CB	17:K:119:ILE:CD1	2.69	0.69
17:K:231:VAL:HG12	17:K:233:SER:H	1.57	0.69
17:K:94:GLU:O	17:K:102:ILE:N	2.20	0.69
19:M:215:LEU:HD22	19:M:217:ILE:HG21	1.74	0.69
19:M:180:ARG:NH2	19:M:246:ALA:O	2.25	0.69
19:M:286:ASP:O	19:M:287:GLU:HG2	1.91	0.69
22:O:374:ILE:HG23	28:U:188:SER:HA	1.73	0.69
23:P:128:LEU:HA	23:P:131:VAL:HG12	1.74	0.69
23:P:342:GLY:N	23:P:347:GLY:HA2	2.06	0.69
25:R:268:TYR:HB3	25:R:323:PHE:HE1	1.57	0.69
27:T:164:PHE:O	27:T:168:MET:N	2.19	0.69
28:U:256:GLN:HG2	29:V:295:ASN:HD21	1.57	0.69
4:C:110:VAL:HG22	4:C:135:ILE:HD12	1.73	0.69
14:H:174:TYR:CE2	14:H:184:ILE:CG2	2.75	0.69
17:K:93:LEU:CB	17:K:102:ILE:O	2.40	0.69
20:N:35:TRP:HA	20:N:38:ILE:HB	1.73	0.69
24:Q:46:LYS:CB	24:Q:88:LEU:HD11	2.22	0.69
25:R:268:TYR:HB3	25:R:323:PHE:CE1	2.27	0.69
25:R:53:TYR:HH	25:R:150:PHE:HZ	1.38	0.69
29:V:267:PRO:CD	29:V:268:GLU:OE1	2.35	0.69
30:W:54:LEU:HA	30:W:58:CYS:HA	1.73	0.69
15:I:220:LYS:HB2	15:I:348:ASP:OD2	1.91	0.69
15:I:92:GLN:O	15:I:96:ARG:N	2.17	0.69
18:L:146:ARG:HH22	18:L:190:GLN:CD	1.96	0.69
19:M:146:LYS:CE	19:M:149:ASP:OD2	2.40	0.69
26:S:179:LYS:HG3	26:S:180:ARG:N	2.06	0.69
26:S:198:GLN:CB	26:S:203:LEU:CD2	2.70	0.69
30:W:53:THR:N	30:W:59:GLU:O	2.23	0.69
32:Z:503:PRO:O	32:Z:507:ASP:N	2.25	0.69
14:H:188:ARG:HG3	14:H:192:GLU:HB3	1.73	0.69
15:I:107:MET:CE	15:I:160:ILE:HB	2.22	0.69
15:I:271:PHE:CD1	15:I:315:GLN:NE2	2.60	0.69
17:K:163:MET:HA	17:K:221:HIS:ND1	2.07	0.69
25:R:185:GLY:O	25:R:201:PHE:CE2	2.45	0.69
28:U:139:ILE:HG22	28:U:140:SER:N	2.07	0.69
30:W:124:LEU:HD13	30:W:152:LYS:HB3	1.72	0.69
16:J:91:PRO:O	16:J:92:GLU:O	2.09	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:211:GLY:N	35:K:501:ADP:O1A	2.25	0.69
17:K:395:LEU:N	17:K:398:ASP:OD2	2.22	0.69
18:L:303:LEU:CG	18:L:339:ASN:ND2	2.54	0.69
23:P:15:LYS:CB	23:P:47:LEU:HD21	2.21	0.69
24:Q:108:GLU:O	24:Q:112:GLU:HG3	1.92	0.69
24:Q:84:LYS:NZ	24:Q:88:LEU:HD21	2.07	0.69
25:R:237:ARG:HB3	25:R:264:TYR:CE1	2.28	0.69
26:S:285:TRP:CD1	26:S:315:LYS:HG2	2.28	0.69
30:W:108:ARG:HH22	30:W:193:GLY:C	1.96	0.69
14:H:104:ALA:HB2	14:H:111:TYR:CD1	2.28	0.69
16:J:298:ILE:CG2	16:J:301:LEU:HD21	2.22	0.69
18:L:87:LEU:O	18:L:88:ASP:HB2	1.93	0.69
19:M:314:LEU:HD21	19:M:342:LEU:HD21	1.71	0.69
20:N:560:MET:HA	20:N:589:ALA:HB1	1.74	0.69
25:R:21:GLN:HG3	25:R:286:TRP:HZ3	1.58	0.69
25:R:348:ASP:HB3	25:R:353:ILE:HG22	1.75	0.69
25:R:366:TYR:HE1	25:R:370:ILE:HG13	1.54	0.69
26:S:231:LEU:HB3	26:S:250:LEU:CD1	2.22	0.69
27:T:254:GLU:CG	27:T:255:SER:H	2.03	0.69
14:H:188:ARG:HG3	14:H:192:GLU:CB	2.21	0.69
15:I:344:PRO:O	15:I:344:PRO:HG2	1.91	0.69
15:I:421:LYS:O	15:I:425:ASN:CB	2.33	0.69
17:K:173:GLN:NE2	17:K:333:PHE:HA	2.08	0.69
17:K:337:ASP:O	17:K:341:LYS:HD2	1.93	0.69
17:K:82:ILE:HG21	17:K:116:LEU:CD1	2.17	0.69
18:L:195:PHE:CE1	18:L:229:ILE:HG21	2.28	0.69
18:L:98:VAL:HA	18:L:110:TYR:HA	1.75	0.69
19:M:137:ILE:CG2	19:M:140:VAL:HG23	2.21	0.69
19:M:202:ILE:CG2	19:M:282:ILE:HD11	2.18	0.69
20:N:154:ALA:O	20:N:158:ARG:N	2.24	0.69
20:N:609:ASP:O	20:N:615:ARG:NE	2.24	0.69
20:N:95:GLU:CG	26:S:240:LEU:HD12	2.23	0.69
23:P:443:THR:HG21	28:U:204:LYS:HD2	1.74	0.69
24:Q:397:TYR:CE2	28:U:258:VAL:CG2	2.72	0.69
27:T:173:CYS:O	27:T:177:ASP:HB3	1.93	0.69
32:Z:842:VAL:O	32:Z:875:ALA:HA	1.93	0.69
14:H:219:GLY:O	14:H:381:THR:HB	1.92	0.69
15:I:180:PRO:HG3	15:I:240:ALA:O	1.92	0.69
16:J:33:LEU:HA	16:J:36:ASN:ND2	2.08	0.69
30:W:60:VAL:HG13	30:W:63:THR:HG22	1.74	0.69
15:I:283:PHE:CE1	15:I:328:ILE:HG21	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:143:VAL:CG1	16:J:213:ARG:CD	2.59	0.69
16:J:326:LEU:HD13	16:J:345:ARG:HG2	1.73	0.69
17:K:216:ALA:HB2	17:K:263:PHE:CE2	2.28	0.69
20:N:86:ASP:OD1	20:N:87:LEU:N	2.25	0.69
24:Q:410:VAL:HG11	29:V:255:TYR:CE2	2.27	0.69
27:T:116:LEU:O	27:T:120:LYS:CB	2.38	0.69
17:K:219:VAL:O	17:K:223:THR:CB	2.34	0.69
17:K:354:LEU:H	17:K:393:ILE:HG12	1.56	0.69
18:L:244:SER:N	18:L:245:GLU:HA	2.08	0.69
20:N:35:TRP:HB2	20:N:67:VAL:HG22	1.75	0.69
20:N:71:LEU:HD23	26:S:273:LYS:CD	2.23	0.69
32:Z:318:THR:HA	32:Z:322:SER:CB	2.22	0.69
14:H:174:TYR:CD2	14:H:184:ILE:HG21	2.27	0.69
15:I:189:GLY:HA3	15:I:360:THR:CB	2.19	0.69
16:J:220:VAL:HG13	16:J:224:ILE:CD1	2.23	0.69
17:K:167:ILE:HG12	17:K:214:MET:HE2	1.76	0.69
17:K:41:TYR:HE2	20:N:155:LEU:HD21	1.45	0.69
18:L:291:ARG:HE	18:L:294:ARG:NH1	1.89	0.69
20:N:442:GLY:O	20:N:446:LEU:N	2.25	0.69
20:N:68:PHE:HB3	20:N:73:ALA:HB3	1.75	0.69
23:P:153:LYS:HE2	23:P:162:ALA:CB	2.23	0.69
24:Q:212:MET:CE	24:Q:250:SER:HB2	2.21	0.69
26:S:472:PRO:C	26:S:476:PHE:CD2	2.66	0.69
30:W:7:MET:HA	30:W:50:GLY:H	1.58	0.69
14:H:125:LEU:CD1	14:H:129:VAL:CG2	2.71	0.68
15:I:227:PRO:HG2	15:I:355:LEU:HD11	1.75	0.68
16:J:43:ARG:HG3	17:K:61:ILE:HG13	1.74	0.68
17:K:166:ASP:OD2	17:K:214:MET:HE3	1.93	0.68
18:L:244:SER:H	18:L:245:GLU:HA	1.58	0.68
18:L:180:LYS:NZ	18:L:280:ASN:OD1	2.25	0.68
20:N:360:VAL:HG22	20:N:361:ARG:N	2.07	0.68
20:N:616:ARG:CD	20:N:650:TYR:CD2	2.75	0.68
25:R:307:LEU:HD21	25:R:319:MET:HE2	1.75	0.68
16:J:45:LEU:HD21	26:S:492:LYS:HA	1.75	0.68
29:V:101:GLN:NE2	30:W:101:GLN:NE2	2.40	0.68
2:B:191:PHE:HE1	2:B:219:VAL:HG21	1.58	0.68
15:I:112:LEU:HB2	15:I:148:CYS:H	1.58	0.68
16:J:71:SER:HB2	17:K:112:TYR:O	1.91	0.68
17:K:149:SER:H	17:K:150:SER:HA	1.56	0.68
17:K:205:TYR:HD2	17:K:314:ALA:CB	2.06	0.68
17:K:215:LEU:HD22	17:K:333:PHE:CZ	2.28	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:345:PHE:CG	17:K:360:LEU:HD23	2.28	0.68
17:K:394:VAL:HG13	17:K:398:ASP:OD2	1.92	0.68
19:M:188:ILE:HG22	19:M:189:GLY:N	2.05	0.68
20:N:227:GLN:O	20:N:231:ASP:N	2.16	0.68
22:O:3:ASP:O	22:O:7:PHE:N	2.25	0.68
23:P:154:GLU:CG	23:P:162:ALA:CB	2.71	0.68
23:P:444:HIS:CE1	28:U:138:TYR:CZ	2.81	0.68
26:S:469:THR:O	26:S:472:PRO:HD2	1.92	0.68
16:J:151:ILE:O	16:J:152:GLY:C	2.31	0.68
16:J:189:TYR:CG	16:J:298:ILE:HD11	2.27	0.68
18:L:171:LEU:HD12	18:L:277:MET:C	2.14	0.68
17:K:374:ASP:OD1	18:L:292:PRO:HD2	1.94	0.68
22:O:34:TRP:CB	30:W:17:ARG:HH12	2.06	0.68
23:P:448:LYS:O	23:P:452:ILE:HD12	1.93	0.68
24:Q:206:LEU:HD23	24:Q:207:GLN:N	2.08	0.68
14:H:112:ILE:CG1	14:H:122:VAL:HG22	2.21	0.68
14:H:218:PRO:CD	14:H:429:TYR:HD2	2.05	0.68
14:H:153:LEU:HD22	15:I:132:TYR:OH	1.94	0.68
15:I:152:LEU:HD22	15:I:157:HIS:O	1.94	0.68
15:I:287:ILE:HG21	15:I:329:MET:CE	2.24	0.68
17:K:83:GLN:HG2	17:K:140:VAL:CG1	2.24	0.68
17:K:145:PRO:HG2	17:K:256:GLU:HG3	0.77	0.68
17:K:299:PHE:CE1	17:K:303:VAL:HG11	2.27	0.68
18:L:230:ILE:HB	18:L:275:MET:HG2	1.76	0.68
18:L:338:PHE:CE1	18:L:378:LYS:CE	2.77	0.68
19:M:79:LYS:O	19:M:83:ASN:HB2	1.92	0.68
20:N:491:GLN:O	20:N:495:ASP:N	2.17	0.68
22:O:292:THR:OG1	22:O:294:GLU:HG2	1.92	0.68
23:P:317:TRP:CZ2	23:P:351:TRP:CH2	2.81	0.68
27:T:104:ARG:O	27:T:108:ASN:HB2	1.93	0.68
14:H:239:ARG:NH2	15:I:320:ASP:HB3	2.08	0.68
14:H:256:MET:O	14:H:260:LEU:HD13	1.94	0.68
16:J:143:VAL:HG11	16:J:213:ARG:NE	2.09	0.68
16:J:30:GLU:O	16:J:34:ILE:CD1	2.41	0.68
18:L:198:VAL:CG1	18:L:203:ILE:CD1	2.64	0.68
20:N:804:SER:HB2	20:N:892:LEU:HA	1.73	0.68
22:O:132:LYS:CB	22:O:162:TYR:CZ	2.74	0.68
24:Q:96:PHE:CE2	24:Q:106:GLU:HA	2.28	0.68
26:S:278:GLU:O	26:S:279:GLN:C	2.31	0.68
30:W:65:THR:CG2	30:W:70:ARG:CG	2.72	0.68
14:H:239:ARG:HG2	14:H:239:ARG:O	1.92	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:393:LYS:HA	16:J:396:GLU:HB3	1.74	0.68
17:K:190:LEU:HD22	17:K:194:ILE:CD1	2.16	0.68
19:M:249:LEU:HG	19:M:283:ILE:HG23	1.74	0.68
20:N:67:VAL:O	20:N:71:LEU:N	2.27	0.68
23:P:446:ILE:O	23:P:450:GLU:HG3	1.94	0.68
27:T:332:SER:OG	29:V:307:VAL:HG13	1.92	0.68
28:U:94:TRP:CH2	28:U:121:LEU:CD2	2.74	0.68
29:V:98:MET:HA	29:V:98:MET:HE2	1.75	0.68
8:E:137:ASP:OD2	8:E:143:ARG:NH1	2.26	0.68
15:I:235:LEU:O	15:I:239:VAL:HG23	1.94	0.68
15:I:283:PHE:HD1	15:I:328:ILE:CB	2.07	0.68
16:J:188:LEU:HB3	16:J:317:PHE:HE1	1.58	0.68
18:L:108:MET:O	18:L:109:ARG:HB2	1.92	0.68
19:M:198:LEU:HD12	19:M:240:CYS:SG	2.34	0.68
20:N:137:MET:O	20:N:141:CYS:N	2.26	0.68
23:P:149:LEU:CD1	23:P:165:ILE:CD1	2.63	0.68
24:Q:332:GLU:OE1	24:Q:364:LYS:CE	2.41	0.68
25:R:228:MET:CE	25:R:263:LEU:HD22	2.22	0.68
26:S:228:ARG:HE	26:S:257:ASN:CG	1.97	0.68
32:Z:758:ASN:O	32:Z:762:VAL:N	2.21	0.68
10:F:31:ILE:HD13	10:F:140:ALA:HB2	1.75	0.68
35:H:501:ADP:O2B	15:I:346:ARG:NH2	2.25	0.68
15:I:174:MET:CE	15:I:270:LEU:HA	2.24	0.68
16:J:376:VAL:HG12	17:K:190:LEU:CD2	2.24	0.68
17:K:212:LYS:HA	17:K:333:PHE:CE2	2.28	0.68
18:L:254:GLN:O	18:L:255:ARG:C	2.32	0.68
18:L:253:ILE:HG13	19:M:308:ARG:NH2	2.08	0.68
23:P:274:VAL:HG12	23:P:287:VAL:CG1	2.23	0.68
25:R:99:GLU:OE1	25:R:99:GLU:N	2.26	0.68
26:S:463:MET:O	26:S:465:ASP:N	2.26	0.68
15:I:110:GLY:O	15:I:150:VAL:N	2.16	0.68
15:I:122:ILE:CD1	15:I:130:GLU:C	2.63	0.68
16:J:41:ASN:O	16:J:44:ARG:CA	2.42	0.68
19:M:169:ASP:OD2	19:M:270:ASP:OD2	2.11	0.68
24:Q:23:SER:O	24:Q:27:LEU:N	2.27	0.68
27:T:187:TYR:O	27:T:191:LEU:CB	2.40	0.68
28:U:99:PRO:O	28:U:123:ILE:HG21	1.94	0.68
14:H:247:GLN:N	14:H:247:GLN:NE2	2.40	0.68
14:H:299:MET:CE	14:H:328:ASP:CG	2.62	0.68
15:I:230:THR:CG2	15:I:353:PHE:CA	2.59	0.68
16:J:151:ILE:CD1	16:J:198:LEU:HD23	2.01	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:O:245:VAL:CB	22:O:276:CYS:SG	2.82	0.68
24:Q:91:SER:O	24:Q:95:LEU:HD12	1.94	0.68
25:R:198:ALA:O	25:R:202:LEU:HB2	1.94	0.68
25:R:345:CYS:SG	25:R:354:VAL:HG13	2.33	0.68
27:T:338:GLN:O	27:T:342:TYR:N	2.19	0.68
2:B:72:ILE:HG21	2:B:114:LEU:HD11	1.76	0.67
14:H:143:ASP:HB2	14:H:150:HIS:NE2	2.10	0.67
14:H:174:TYR:CE2	14:H:184:ILE:HG23	2.28	0.67
17:K:205:TYR:CD2	17:K:314:ALA:CB	2.77	0.67
19:M:228:PRO:CG	19:M:356:MET:HG3	2.10	0.67
20:N:147:TYR:CG	20:N:167:ILE:CG1	2.78	0.67
20:N:604:HIS:HA	20:N:607:VAL:HB	1.75	0.67
23:P:384:LEU:HD13	23:P:388:GLU:CB	2.23	0.67
24:Q:193:ALA:O	24:Q:196:THR:HG22	1.94	0.67
25:R:304:TYR:HA	25:R:307:LEU:CD2	2.18	0.67
26:S:333:ILE:HG21	26:S:360:TYR:HB3	1.76	0.67
15:I:356:PRO:HB2	15:I:361:LYS:HE3	1.76	0.67
16:J:143:VAL:CG1	16:J:213:ARG:NE	2.57	0.67
16:J:220:VAL:HG13	16:J:224:ILE:HD11	1.77	0.67
17:K:283:ARG:O	17:K:287:ARG:HG3	1.94	0.67
17:K:54:LEU:O	17:K:58:GLU:CB	2.37	0.67
18:L:352:MET:O	18:L:356:ARG:CG	2.42	0.67
19:M:142:ALA:O	19:M:145:LEU:CA	2.41	0.67
19:M:198:LEU:HD11	19:M:240:CYS:SG	2.34	0.67
19:M:249:LEU:O	19:M:284:PHE:N	2.28	0.67
20:N:55:ARG:CG	20:N:56:SER:N	2.57	0.67
24:Q:282:ARG:HD3	24:Q:309:TYR:CE1	2.30	0.67
25:R:105:MET:O	25:R:109:GLU:HB2	1.95	0.67
26:S:330:LYS:HG2	26:S:360:TYR:CE2	2.24	0.67
27:T:346:LEU:HA	27:T:349:ILE:HD12	1.77	0.67
29:V:160:PHE:HB2	29:V:201:TYR:O	1.95	0.67
29:V:241:ASN:O	29:V:245:VAL:HG23	1.93	0.67
29:V:58:LEU:HB2	29:V:71:ASP:HB2	1.76	0.67
30:W:130:ARG:HA	30:W:133:LYS:HD2	1.77	0.67
4:C:11:THR:HB	6:D:20:GLN:HE22	1.57	0.67
14:H:111:TYR:CE2	14:H:125:LEU:CG	2.76	0.67
14:H:300:LEU:HD23	14:H:303:ILE:HD12	1.76	0.67
14:H:218:PRO:CD	14:H:429:TYR:CD2	2.78	0.67
15:I:206:THR:C	15:I:208:PRO:CD	2.63	0.67
15:I:313:LEU:CG	15:I:346:ARG:NH1	2.50	0.67
15:I:401:GLU:CB	15:I:422:SER:CB	2.72	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:109:SER:HB2	17:K:111:TYR:CE2	2.28	0.67
18:L:166:PRO:HB2	18:L:274:LYS:NZ	2.09	0.67
18:L:180:LYS:HG2	18:L:301:ILE:HD12	1.74	0.67
18:L:313:LEU:HD23	18:L:332:VAL:CG2	2.24	0.67
25:R:289:ALA:HB3	25:R:290:PRO:CD	2.24	0.67
27:T:95:TYR:O	27:T:99:LYS:CB	2.41	0.67
28:U:74:TYR:CE1	29:V:98:MET:SD	2.88	0.67
29:V:48:GLY:O	29:V:49:VAL:C	2.31	0.67
15:I:298:ASN:ND2	15:I:299:SER:H	1.93	0.67
15:I:283:PHE:HD1	15:I:328:ILE:CG2	2.03	0.67
16:J:287:LYS:O	16:J:288:ASN:HB2	1.93	0.67
17:K:93:LEU:HD23	17:K:102:ILE:CG2	2.23	0.67
17:K:279:THR:HG21	18:L:248:SER:HB3	1.74	0.67
18:L:61:LEU:HD11	18:L:72:LYS:HB2	1.76	0.67
20:N:419:ALA:HB2	20:N:449:ILE:CD1	2.11	0.67
20:N:405:THR:HB	20:N:441:GLY:HA3	1.76	0.67
25:R:90:ASP:O	25:R:94:ASN:CG	2.33	0.67
14:H:355:PHE:HE1	14:H:385:ILE:CG2	2.04	0.67
16:J:232:ARG:HE	16:J:279:GLN:NE2	1.92	0.67
16:J:300:ILE:HG13	16:J:301:LEU:N	2.09	0.67
17:K:384:MET:O	17:K:388:ARG:HB2	1.94	0.67
18:L:178:THR:HB	18:L:301:ILE:O	1.95	0.67
25:R:344:HIS:CD2	25:R:359:PRO:HG3	2.29	0.67
25:R:345:CYS:SG	25:R:346:LYS:N	2.67	0.67
25:R:344:HIS:HB3	25:R:357:ASN:O	1.95	0.67
2:B:67:THR:HG22	2:B:69:LEU:H	1.58	0.67
15:I:168:ASP:O	15:I:170:LEU:N	2.28	0.67
16:J:66:LEU:O	17:K:136:SER:CB	2.43	0.67
18:L:163:GLY:O	18:L:164:ILE:HG13	1.93	0.67
18:L:226:GLN:HB2	18:L:272:ARG:HB3	1.75	0.67
19:M:375:VAL:HG12	19:M:376:SER:H	1.59	0.67
23:P:48:LEU:HD21	23:P:90:LEU:CG	2.25	0.67
17:K:118:THR:O	17:K:120:ASP:N	2.28	0.67
17:K:152:MET:O	17:K:153:MET:HB3	1.95	0.67
17:K:215:LEU:O	17:K:219:VAL:HG23	1.95	0.67
17:K:270:ILE:HD12	17:K:288:ILE:HG21	1.75	0.67
17:K:237:GLN:O	18:L:208:ILE:HB	1.95	0.67
20:N:45:ILE:HG23	20:N:60:ALA:HB1	1.76	0.67
24:Q:118:LYS:HE2	24:Q:126:ARG:CZ	2.24	0.67
24:Q:190:LEU:HD21	24:Q:214:SER:HA	1.76	0.67
24:Q:316:ASP:HB3	24:Q:319:ILE:HB	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:84:LYS:CE	24:Q:88:LEU:HD23	2.22	0.67
25:R:307:LEU:HD11	25:R:308:LEU:CD2	2.25	0.67
16:J:28:ILE:HG21	26:S:242:HIS:CD2	2.29	0.67
26:S:480:ILE:HD12	26:S:480:ILE:H	1.59	0.67
30:W:107:MET:O	30:W:137:ASN:N	2.18	0.67
32:Z:730:GLY:O	32:Z:734:SER:N	2.27	0.67
2:B:206:LEU:O	2:B:207:SER:OG	2.12	0.67
6:D:12:PHE:HB3	8:E:21:TYR:CB	2.25	0.67
14:H:362:MET:HE1	15:I:216:ILE:HD11	1.76	0.67
15:I:259:TYR:O	15:I:262:ASP:HB2	1.95	0.67
15:I:284:ILE:CG2	15:I:287:ILE:CG2	2.73	0.67
15:I:275:GLU:CG	15:I:322:ARG:NH1	2.56	0.67
17:K:105:SER:CB	17:K:109:SER:OG	2.43	0.67
17:K:89:ILE:HG23	17:K:143:LEU:HD23	1.76	0.67
18:L:155:ASN:N	18:L:156:PRO:HD3	2.10	0.67
18:L:305:ASN:O	18:L:309:ARG:N	2.19	0.67
18:L:350:ALA:HB1	18:L:366:ASP:O	1.95	0.67
19:M:310:MET:CE	19:M:339:ASP:CB	2.72	0.67
20:N:148:LYS:HE3	20:N:179:TYR:CD2	2.28	0.67
24:Q:257:CYS:O	24:Q:261:LEU:HG	1.95	0.67
24:Q:37:GLU:H	24:Q:38:ASN:HA	1.60	0.67
14:H:60:ASN:HA	32:Z:592:ASN:CB	2.25	0.67
32:Z:832:THR:O	32:Z:876:HIS:HA	1.95	0.67
14:H:356:LYS:O	14:H:360:ARG:HB2	1.95	0.67
15:I:106:PRO:HG3	16:J:121:TYR:CB	2.25	0.67
17:K:163:MET:HG2	17:K:221:HIS:CE1	2.19	0.67
19:M:304:ARG:O	19:M:308:ARG:HG3	1.94	0.67
22:O:364:GLU:HB3	28:U:198:LEU:HB3	1.77	0.67
23:P:449:GLU:O	23:P:453:HIS:HB2	1.95	0.67
25:R:33:GLY:H	25:R:34:ASP:CB	2.07	0.67
14:H:230:ALA:HB2	14:H:237:PHE:CD2	2.30	0.67
14:H:411:GLU:O	14:H:415:LYS:HB2	1.95	0.67
15:I:288:ASP:OD2	15:I:292:THR:HG21	1.95	0.67
16:J:26:SER:O	16:J:29:GLU:HB2	1.95	0.67
17:K:60:TYR:O	17:K:63:ASP:HB2	1.94	0.67
19:M:375:VAL:C	19:M:414:GLU:HG3	2.15	0.67
19:M:83:ASN:HA	19:M:161:LEU:CD1	2.23	0.67
16:J:25:LEU:HG	20:N:102:ALA:HA	1.77	0.67
20:N:423:MET:HE1	20:N:445:ALA:CB	2.20	0.67
20:N:497:LEU:HD13	20:N:515:ALA:HB3	1.74	0.67
25:R:30:GLU:HA	25:R:31:HIS:O	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:S:328:VAL:O	26:S:331:LEU:N	2.28	0.67
17:K:80:LYS:HB2	29:V:151:VAL:CG2	2.25	0.67
32:Z:667:GLY:O	32:Z:671:ALA:HB3	1.95	0.67
16:J:161:ILE:CD1	16:J:199:LEU:HG	2.25	0.66
16:J:232:ARG:HE	16:J:279:GLN:HE22	1.41	0.66
17:K:191:TYR:HA	17:K:196:ILE:HD12	1.77	0.66
18:L:241:ARG:HD2	19:M:297:ASP:OD1	1.94	0.66
19:M:224:LEU:HD12	19:M:330:ALA:O	1.95	0.66
22:O:4:VAL:CG1	22:O:26:GLU:CD	2.64	0.66
22:O:338:PRO:HG3	28:U:232:ASP:OD1	1.95	0.66
23:P:420:ASP:CB	23:P:421:PRO:CD	2.72	0.66
23:P:453:HIS:C	23:P:454:ASN:HD22	1.98	0.66
32:Z:438:ASP:O	32:Z:442:SER:N	2.21	0.66
14:H:299:MET:CE	14:H:303:ILE:CD1	2.67	0.66
15:I:195:GLN:O	15:I:199:GLU:HB2	1.96	0.66
15:I:290:ILE:O	15:I:305:ILE:HG21	1.94	0.66
16:J:301:LEU:HD12	16:J:301:LEU:O	1.95	0.66
18:L:175:PRO:O	18:L:178:THR:HG23	1.95	0.66
23:P:166:LEU:O	23:P:189:GLN:HG2	1.94	0.66
24:Q:397:TYR:CD2	28:U:258:VAL:HG21	2.31	0.66
30:W:169:HIS:CD2	30:W:187:PRO:CD	2.62	0.66
32:Z:412:ALA:HA	32:Z:447:ALA:CB	2.21	0.66
18:L:51:GLN:O	18:L:53:VAL:CG2	2.42	0.66
19:M:399:VAL:HG23	19:M:427:VAL:CG1	2.25	0.66
20:N:218:GLN:O	20:N:222:PHE:N	2.27	0.66
10:F:42:THR:HG22	10:F:44:GLU:H	1.60	0.66
14:H:307:ASP:OD2	14:H:335:GLY:O	2.14	0.66
14:H:224:LEU:HD11	35:H:501:ADP:N3	2.10	0.66
17:K:124:LEU:O	17:K:125:LYS:O	2.13	0.66
17:K:179:GLU:O	17:K:184:PRO:HG2	1.93	0.66
20:N:462:LEU:O	20:N:466:LYS:N	2.22	0.66
23:P:317:TRP:CZ2	23:P:351:TRP:HZ3	2.08	0.66
23:P:408:ARG:HB3	24:Q:345:VAL:HA	1.77	0.66
25:R:268:TYR:O	25:R:270:VAL:N	2.28	0.66
14:H:423:PHE:HB3	15:I:342:ILE:CG2	2.24	0.66
15:I:373:THR:HG22	15:I:412:MET:O	1.86	0.66
16:J:114:VAL:CG1	16:J:126:ILE:HG12	2.24	0.66
16:J:138:MET:HE3	16:J:143:VAL:HG22	1.77	0.66
17:K:378:ILE:HG23	17:K:402:ALA:CB	2.25	0.66
18:L:232:MET:O	18:L:278:ALA:HB3	1.94	0.66
19:M:272:PHE:HD2	19:M:316:GLN:HB3	1.58	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:M:93:VAL:HA	19:M:124:ILE:HG12	1.78	0.66
20:N:459:ASP:HA	20:N:462:LEU:HB3	1.78	0.66
20:N:523:SER:HA	20:N:559:ARG:HD2	1.77	0.66
20:N:71:LEU:CD2	26:S:273:LYS:HB3	2.24	0.66
28:U:170:VAL:CG1	29:V:155:VAL:HG23	2.26	0.66
28:U:51:SER:HG	29:V:43:LYS:HE3	1.58	0.66
29:V:284:LEU:O	29:V:288:VAL:HG23	1.95	0.66
14:H:111:TYR:HD2	14:H:125:LEU:HB3	1.61	0.66
14:H:291:GLY:O	14:H:293:ASN:N	2.25	0.66
15:I:421:LYS:O	15:I:425:ASN:N	2.29	0.66
16:J:30:GLU:C	16:J:34:ILE:CD1	2.63	0.66
16:J:72:TYR:CD2	16:J:121:TYR:OH	2.31	0.66
17:K:151:ILE:HG22	17:K:152:MET:H	1.59	0.66
18:L:253:ILE:HG13	19:M:308:ARG:HH22	1.61	0.66
20:N:492:ASP:O	20:N:496:LEU:N	2.26	0.66
20:N:573:ASP:O	20:N:579:ARG:NE	2.28	0.66
28:U:101:LEU:HD21	28:U:138:TYR:CE2	2.30	0.66
29:V:146:ASP:OD2	29:V:149:GLN:CG	2.42	0.66
29:V:88:ASP:OD1	29:V:89:PRO:CD	2.44	0.66
16:J:298:ILE:HD12	16:J:298:ILE:H	1.61	0.66
17:K:184:PRO:CB	17:K:191:TYR:OH	2.44	0.66
18:L:325:GLU:CD	18:L:364:GLN:HG2	2.15	0.66
19:M:171:ARG:NH2	19:M:263:ASP:OD1	2.27	0.66
19:M:399:VAL:CA	19:M:427:VAL:CG2	2.45	0.66
15:I:200:SER:O	15:I:219:PRO:HG2	1.94	0.66
14:H:363:SER:HB2	15:I:214:MET:HA	1.77	0.66
15:I:276:GLU:C	15:I:278:ALA:H	1.99	0.66
17:K:207:PRO:HG2	17:K:335:LEU:CG	2.23	0.66
17:K:248:ARG:HB3	17:K:252:ARG:NH2	2.09	0.66
17:K:337:ASP:O	17:K:341:LYS:CG	2.44	0.66
18:L:372:ARG:O	18:L:376:ASP:N	2.29	0.66
19:M:380:ASN:HB3	19:M:383:GLU:CD	2.15	0.66
19:M:89:LEU:HD11	19:M:128:THR:HG23	1.78	0.66
20:N:345:ASN:O	20:N:743:ASN:ND2	2.29	0.66
24:Q:271:VAL:CB	24:Q:288:LYS:CE	2.73	0.66
25:R:51:ALA:O	25:R:54:TYR:N	2.29	0.66
29:V:251:LEU:HD13	29:V:283:HIS:HB3	1.77	0.66
32:Z:694:LEU:O	32:Z:698:SER:N	2.27	0.66
14:H:148:GLN:NE2	14:H:150:HIS:HE1	1.94	0.66
14:H:327:LEU:HB3	14:H:332:MET:SD	2.36	0.66
15:I:248:LEU:HD12	15:I:274:ALA:HB2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:115:ALA:N	16:J:125:LYS:O	2.29	0.66
19:M:136:VAL:C	19:M:138:GLY:H	1.99	0.66
19:M:288:LEU:CD2	19:M:342:LEU:HD13	2.19	0.66
20:N:402:PHE:CB	20:N:437:TYR:HB3	2.20	0.66
20:N:699:THR:HB	20:N:706:VAL:HG21	1.78	0.66
22:O:347:LYS:CE	22:O:351:ASP:OD2	2.43	0.66
23:P:373:ILE:HG21	23:P:415:PHE:CE2	2.30	0.66
24:Q:183:LEU:O	24:Q:187:ARG:CB	2.44	0.66
24:Q:400:ALA:HB2	28:U:262:LEU:HD11	1.76	0.66
26:S:165:ALA:CB	26:S:203:LEU:CD1	2.64	0.66
27:T:250:ASN:O	27:T:253:ALA:N	2.29	0.66
29:V:234:TYR:CZ	29:V:298:GLN:NE2	2.64	0.66
14:H:212:VAL:HG22	14:H:339:ARG:HB2	1.78	0.66
16:J:271:ARG:HG2	16:J:275:GLU:OE1	1.95	0.66
17:K:53:PHE:O	17:K:57:GLN:OE1	2.14	0.66
18:L:61:LEU:HD11	18:L:78:ARG:CD	2.26	0.66
20:N:475:HIS:ND1	20:N:507:VAL:O	2.29	0.66
24:Q:239:TYR:CB	24:Q:247:ALA:HB2	2.27	0.66
25:R:331:ASP:OD1	26:S:414:TYR:OH	2.13	0.66
26:S:228:ARG:NE	26:S:257:ASN:CG	2.50	0.66
21:X:83:ASP:OD2	21:X:129:ARG:NH2	2.29	0.66
14:H:416:VAL:O	14:H:417:ILE:C	2.32	0.65
17:K:212:LYS:CE	35:K:501:ADP:O2B	2.44	0.65
18:L:150:GLU:HA	18:L:153:LEU:HD21	1.77	0.65
18:L:322:LYS:HZ3	18:L:326:ILE:HD12	1.60	0.65
19:M:89:LEU:HD21	19:M:126:THR:HB	1.78	0.65
19:M:183:GLU:O	19:M:184:GLN:C	2.35	0.65
19:M:212:PHE:CG	19:M:217:ILE:HD11	2.28	0.65
27:T:269:ASP:O	27:T:273:GLY:N	2.20	0.65
22:O:349:MET:HG3	28:U:234:PHE:CZ	2.32	0.65
29:V:234:TYR:CE1	29:V:298:GLN:NE2	2.65	0.65
30:W:2:VAL:O	30:W:47:ASN:ND2	2.27	0.65
14:H:148:GLN:HE21	14:H:150:HIS:CE1	2.14	0.65
15:I:144:LEU:CG	15:I:162:VAL:HG23	2.20	0.65
15:I:291:GLY:O	15:I:293:LYS:N	2.28	0.65
20:N:497:LEU:HD11	20:N:515:ALA:CB	2.25	0.65
20:N:616:ARG:NH1	20:N:650:TYR:CD2	2.61	0.65
20:N:616:ARG:HD3	20:N:650:TYR:CE2	2.31	0.65
22:O:57:ILE:O	22:O:61:GLU:N	2.30	0.65
24:Q:209:THR:O	24:Q:213:GLN:HB2	1.97	0.65
24:Q:37:GLU:CB	24:Q:39:ASP:N	2.59	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:R:48:ASN:CB	25:R:50:MET:SD	2.85	0.65
26:S:320:THR:O	26:S:322:VAL:HG23	1.96	0.65
32:Z:200:ALA:HA	32:Z:201:GLU:CB	2.24	0.65
32:Z:429:ILE:O	32:Z:433:LEU:N	2.29	0.65
14:H:242:GLY:HA3	14:H:280:ILE:HG13	1.79	0.65
15:I:187:ILE:CD1	15:I:190:LEU:HD12	2.25	0.65
16:J:150:MET:C	16:J:151:ILE:HG13	2.16	0.65
18:L:245:GLU:O	19:M:300:LYS:O	2.14	0.65
19:M:308:ARG:O	19:M:312:GLU:N	2.25	0.65
23:P:90:LEU:O	23:P:90:LEU:HD23	1.97	0.65
24:Q:171:LEU:HD21	24:Q:210:LEU:HA	1.79	0.65
28:U:256:GLN:HE22	29:V:299:CYS:N	1.93	0.65
18:L:264:MET:CE	18:L:275:MET:HE1	2.27	0.65
19:M:226:TYR:HB3	19:M:335:VAL:HG22	1.77	0.65
19:M:375:VAL:C	19:M:414:GLU:CG	2.64	0.65
20:N:12:LEU:HD11	20:N:48:LEU:HD11	1.78	0.65
22:O:27:GLU:O	22:O:31:LYS:N	2.19	0.65
24:Q:220:ALA:O	24:Q:222:GLU:N	2.28	0.65
32:Z:255:VAL:O	32:Z:256:PHE:C	2.34	0.65
14:H:126:SER:OG	14:H:129:VAL:HG22	1.97	0.65
14:H:263:MET:HB3	14:H:267:LYS:NZ	2.11	0.65
14:H:156:LYS:HE3	15:I:113:GLU:OE2	1.97	0.65
15:I:271:PHE:CZ	15:I:316:LEU:CD1	2.78	0.65
18:L:322:LYS:HB2	18:L:326:ILE:CD1	2.25	0.65
22:O:347:LYS:NZ	22:O:351:ASP:OD2	2.30	0.65
25:R:15:PRO:HD2	25:R:146:ARG:HG2	1.79	0.65
27:T:228:HIS:O	27:T:232:LEU:HB2	1.96	0.65
2:B:102:LYS:HE3	2:B:108:GLU:HG2	1.75	0.65
14:H:274:PHE:CB	14:H:319:MET:SD	2.82	0.65
15:I:114:GLU:HA	15:I:114:GLU:OE1	1.96	0.65
15:I:180:PRO:CG	15:I:241:ASN:CA	2.74	0.65
15:I:187:ILE:HD11	15:I:194:ILE:CD1	2.27	0.65
15:I:283:PHE:HE1	15:I:328:ILE:HG22	1.48	0.65
17:K:247:VAL:CG1	17:K:251:PHE:CE2	2.80	0.65
17:K:401:LYS:O	17:K:405:THR:HB	1.97	0.65
18:L:383:LYS:CG	18:L:386:TYR:CZ	2.78	0.65
20:N:696:ILE:HG22	20:N:697:GLN:HG2	1.79	0.65
28:U:110:GLU:HA	28:U:113:LYS:HE2	1.78	0.65
29:V:225:TRP:O	29:V:227:GLU:N	2.29	0.65
12:G:121:GLN:HG3	21:X:129:ARG:CG	2.26	0.65
32:Z:166:VAL:O	32:Z:170:TRP:N	2.22	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:H:277:ILE:HD12	14:H:277:ILE:N	2.12	0.65
14:H:330:ALA:CA	14:H:336:ARG:HH11	2.09	0.65
14:H:334:PRO:O	14:H:334:PRO:CG	2.45	0.65
15:I:217:LYS:HB3	15:I:218:PRO:HD2	1.79	0.65
16:J:273:MET:CE	16:J:305:LEU:CD2	2.74	0.65
16:J:328:ILE:HA	16:J:331:ILE:HD12	1.79	0.65
17:K:162:VAL:CG1	17:K:214:MET:HE2	2.27	0.65
18:L:235:ILE:O	18:L:239:GLY:HA3	1.96	0.65
18:L:235:ILE:HG13	18:L:278:ALA:O	1.97	0.65
18:L:56:ILE:CD1	19:M:132:TYR:CE1	2.71	0.65
19:M:293:THR:HG23	19:M:337:ILE:HG23	1.77	0.65
20:N:423:MET:CE	20:N:445:ALA:CB	2.74	0.65
24:Q:51:LEU:O	24:Q:55:SER:N	2.27	0.65
25:R:130:LYS:O	25:R:132:VAL:N	2.30	0.65
25:R:219:PHE:CE1	25:R:223:THR:HG21	2.32	0.65
25:R:32:ARG:HA	25:R:33:GLY:O	1.96	0.65
25:R:388:ASN:HA	28:U:279:LYS:HZ3	1.58	0.65
28:U:215:VAL:HG13	28:U:220:LEU:CB	2.27	0.65
30:W:6:THR:HB	30:W:49:VAL:HG22	1.78	0.65
32:Z:720:GLU:O	32:Z:724:ASN:N	2.28	0.65
8:E:132:LEU:HD22	8:E:144:LEU:HD11	1.79	0.65
14:H:307:ASP:HB2	14:H:336:ARG:CG	2.27	0.65
14:H:95:VAL:CB	15:I:156:VAL:HG12	2.27	0.65
14:H:239:ARG:HH22	15:I:320:ASP:HB3	1.61	0.65
17:K:377:SER:O	17:K:381:GLU:HB2	1.96	0.65
18:L:111:LEU:HD11	19:M:133:PHE:CG	2.32	0.65
18:L:113:ARG:HG3	18:L:113:ARG:HH11	1.62	0.65
19:M:175:MET:SD	19:M:251:LEU:HD13	2.37	0.65
19:M:303:ASP:O	19:M:307:GLN:CD	2.35	0.65
20:N:622:LEU:HB3	20:N:626:LEU:HD12	1.79	0.65
22:O:348:GLY:O	22:O:352:ARG:HG3	1.97	0.65
24:Q:134:VAL:HG22	24:Q:149:LEU:CD2	2.27	0.65
24:Q:220:ALA:C	24:Q:222:GLU:N	2.51	0.65
25:R:186:LEU:HA	25:R:201:PHE:CZ	2.32	0.65
14:H:402:LYS:HE2	14:H:403:ILE:HG12	1.78	0.65
14:H:416:VAL:HA	14:H:420:TYR:HD2	1.62	0.65
15:I:252:GLY:HA2	15:I:255:LEU:HB2	1.79	0.65
19:M:47:LEU:O	19:M:51:GLU:N	2.30	0.65
20:N:35:TRP:O	20:N:39:SER:N	2.29	0.65
20:N:616:ARG:NH1	20:N:650:TYR:CE2	2.65	0.65
20:N:68:PHE:O	20:N:73:ALA:N	2.28	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:O:341:LEU:CA	22:O:345:GLN:OE1	2.44	0.65
23:P:421:PRO:HD2	23:P:422:ASN:H	1.62	0.65
24:Q:302:PHE:CD1	24:Q:330:LEU:CD1	2.80	0.65
32:Z:661:ALA:O	32:Z:662:MET:C	2.35	0.65
32:Z:836:GLU:O	32:Z:837:LEU:CB	2.43	0.65
14:H:183:GLN:NE2	14:H:342:GLU:O	2.30	0.65
14:H:296:GLN:NE2	14:H:299:MET:SD	2.70	0.65
14:H:218:PRO:HG3	14:H:429:TYR:CD2	2.32	0.65
15:I:271:PHE:HB3	15:I:315:GLN:HE22	1.61	0.65
16:J:144:PRO:O	16:J:201:ARG:HG3	1.97	0.65
18:L:383:LYS:HG2	18:L:386:TYR:HH	1.60	0.65
19:M:136:VAL:C	19:M:138:GLY:N	2.50	0.65
19:M:229:PRO:CB	19:M:333:ASN:HD22	2.10	0.65
19:M:265:ALA:O	19:M:269:ARG:HG3	1.97	0.65
19:M:228:PRO:HD2	19:M:354:PHE:O	1.97	0.65
19:M:375:VAL:CG1	19:M:376:SER:N	2.59	0.65
24:Q:170:GLN:O	24:Q:174:SER:HB2	1.96	0.65
24:Q:252:LYS:HA	24:Q:287:LEU:CD1	2.27	0.65
32:Z:163:ALA:O	32:Z:167:ALA:N	2.24	0.65
15:I:363:ARG:O	15:I:367:ILE:CD1	2.46	0.64
19:M:229:PRO:HA	19:M:333:ASN:HD22	1.62	0.64
19:M:347:ARG:HG3	19:M:347:ARG:HH11	1.62	0.64
22:O:35:HIS:CG	30:W:14:GLU:HG2	2.32	0.64
24:Q:97:LEU:HD23	24:Q:106:GLU:CG	2.26	0.64
24:Q:248:ILE:HG22	24:Q:283:GLN:OE1	1.96	0.64
25:R:183:TYR:CD1	25:R:213:LEU:HD21	2.33	0.64
26:S:278:GLU:O	26:S:279:GLN:O	2.15	0.64
27:T:328:THR:N	27:T:331:PRO:HG2	2.12	0.64
15:I:373:THR:CB	15:I:413:LYS:CG	2.36	0.64
16:J:173:GLU:O	16:J:177:ALA:CB	2.45	0.64
17:K:154:LEU:O	17:K:155:THR:CB	2.43	0.64
23:P:448:LYS:HE2	28:U:154:THR:HG1	1.60	0.64
23:P:48:LEU:HD21	23:P:90:LEU:HD11	1.79	0.64
27:T:299:MET:CG	27:T:300:THR:N	2.61	0.64
27:T:344:ARG:HA	27:T:347:GLU:HB2	1.79	0.64
10:F:50:VAL:HG11	10:F:66:LYS:HB2	1.80	0.64
14:H:107:GLU:O	14:H:108:ASP:CG	2.35	0.64
19:M:90:VAL:HA	19:M:151:VAL:O	1.98	0.64
19:M:226:TYR:CB	19:M:335:VAL:HG22	2.24	0.64
20:N:604:HIS:O	20:N:608:SER:N	2.31	0.64
20:N:347:ASN:CG	20:N:883:ARG:HH22	2.00	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:P:78:LYS:HA	23:P:79:GLU:C	2.17	0.64
25:R:289:ALA:CB	25:R:290:PRO:HD3	2.26	0.64
32:Z:353:LEU:O	32:Z:356:ASN:O	2.15	0.64
15:I:393:ALA:O	15:I:396:LYS:N	2.29	0.64
17:K:116:LEU:CA	17:K:119:ILE:CD1	2.75	0.64
19:M:172:VAL:HG21	19:M:270:ASP:CB	2.27	0.64
19:M:288:LEU:H	19:M:332:THR:HG22	1.60	0.64
19:M:384:LEU:C	19:M:387:CYS:HG	1.97	0.64
20:N:19:LEU:O	20:N:23:ALA:N	2.21	0.64
20:N:26:LYS:CG	27:T:121:LEU:HD23	2.24	0.64
20:N:801:GLN:HA	20:N:879:ASP:HB2	1.80	0.64
23:P:200:ILE:CG1	23:P:201:ARG:N	2.60	0.64
23:P:384:LEU:HD13	23:P:392:PHE:CE2	2.32	0.64
24:Q:122:ARG:O	24:Q:124:PHE:N	2.30	0.64
24:Q:239:TYR:HB2	24:Q:247:ALA:HB2	1.79	0.64
25:R:146:ARG:NH1	25:R:213:LEU:CD1	2.59	0.64
30:W:131:LEU:HD13	30:W:138:VAL:HG21	1.78	0.64
12:G:15:PRO:HA	21:X:25:TYR:CD2	2.32	0.64
32:Z:796:LEU:O	32:Z:799:VAL:N	2.31	0.64
15:I:263:GLY:N	15:I:264:PRO:CD	2.60	0.64
15:I:94:GLU:CG	15:I:98:LYS:HE3	2.27	0.64
18:L:222:ALA:O	18:L:226:GLN:N	2.31	0.64
18:L:241:ARG:O	18:L:242:ARG:HB2	1.96	0.64
18:L:322:LYS:NZ	18:L:328:TYR:CZ	2.64	0.64
18:L:67:GLU:O	18:L:82:GLY:CA	2.31	0.64
18:L:61:LEU:CD1	18:L:78:ARG:HD3	2.26	0.64
20:N:56:SER:O	20:N:59:PHE:N	2.25	0.64
23:P:274:VAL:HG12	23:P:287:VAL:HG12	1.77	0.64
24:Q:260:MET:SD	24:Q:325:LYS:HB3	2.37	0.64
26:S:414:TYR:CD1	26:S:417:ILE:HD11	2.33	0.64
27:T:330:ILE:HG21	27:T:334:GLU:OE1	1.91	0.64
27:T:89:GLN:O	27:T:92:THR:OG1	2.12	0.64
28:U:157:HIS:O	28:U:157:HIS:ND1	2.31	0.64
28:U:263:ALA:HA	29:V:288:VAL:HG22	1.80	0.64
29:V:237:HIS:CD2	29:V:237:HIS:C	2.70	0.64
14:H:64:GLY:HA2	32:Z:589:SER:CB	2.28	0.64
14:H:423:PHE:O	14:H:425:ALA:N	2.30	0.64
15:I:369:THR:HB	15:I:374:LEU:HD12	1.76	0.64
16:J:104:ASP:OD2	16:J:107:ASP:OD2	2.15	0.64
16:J:114:VAL:HA	16:J:127:LEU:H	1.61	0.64
16:J:198:LEU:HD11	35:J:501:ADP:H2'	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:I:106:PRO:CB	16:J:97:VAL:HG12	2.27	0.64
17:K:116:LEU:CB	17:K:119:ILE:HD11	2.25	0.64
17:K:371:SER:C	17:K:375:ILE:HD11	2.18	0.64
18:L:175:PRO:HD2	18:L:178:THR:HG21	1.80	0.64
18:L:313:LEU:HD23	18:L:332:VAL:HG23	1.78	0.64
20:N:201:LEU:CG	20:N:202:VAL:N	2.59	0.64
20:N:201:LEU:CG	20:N:202:VAL:H	2.11	0.64
20:N:399:TRP:O	20:N:403:THR:N	2.31	0.64
20:N:398:ASN:HB3	20:N:437:TYR:CD2	2.33	0.64
20:N:556:MET:HA	20:N:559:ARG:HD3	1.80	0.64
24:Q:242:ILE:HG13	24:Q:243:ASP:H	1.63	0.64
24:Q:65:GLU:O	24:Q:69:LEU:N	2.31	0.64
14:H:330:ALA:CB	14:H:336:ARG:NH1	2.57	0.64
15:I:115:ILE:CA	15:I:121:ALA:HB2	2.20	0.64
16:J:112:CYS:HA	16:J:130:LYS:HB3	1.79	0.64
16:J:26:SER:HG	17:K:40:LEU:CD1	2.11	0.64
16:J:354:ALA:HA	16:J:358:GLU:CD	2.12	0.64
17:K:129:SER:C	17:K:143:LEU:HB2	2.18	0.64
20:N:6:ALA:HB1	27:T:169:ALA:CB	2.28	0.64
28:U:174:HIS:O	28:U:177:ARG:HG2	1.97	0.64
14:H:394:MET:O	14:H:398:ARG:N	2.26	0.64
14:H:421:ALA:O	14:H:424:SER:OG	2.12	0.64
17:K:133:HIS:O	17:K:137:ASN:HA	1.97	0.64
17:K:240:LEU:N	17:K:240:LEU:HD23	2.13	0.64
18:L:257:LEU:HD13	18:L:257:LEU:C	2.18	0.64
19:M:409:ARG:C	19:M:411:GLY:H	2.01	0.64
23:P:326:MET:O	23:P:330:LYS:HB2	1.98	0.64
24:Q:203:PRO:HB2	24:Q:204:PRO:CD	2.26	0.64
24:Q:53:LEU:O	24:Q:57:LEU:N	2.27	0.64
26:S:299:GLN:O	26:S:300:LEU:CG	2.45	0.64
28:U:176:LEU:HD13	28:U:179:ILE:HB	1.79	0.64
28:U:70:LEU:HD11	28:U:111:LEU:HD21	1.79	0.64
29:V:89:PRO:HD2	29:V:90:VAL:H	1.62	0.64
15:I:199:GLU:O	15:I:204:PRO:HD3	1.97	0.64
17:K:370:ILE:HG23	17:K:374:ASP:CB	2.25	0.64
18:L:331:ILE:HD11	18:L:367:PHE:CD1	2.33	0.64
19:M:197:GLU:OE2	19:M:350:ARG:NH2	2.31	0.64
19:M:64:HIS:O	19:M:68:ALA:N	2.30	0.64
20:N:146:LYS:O	20:N:149:GLN:HB3	1.97	0.64
24:Q:167:VAL:HG22	24:Q:196:THR:HG23	1.79	0.64
24:Q:55:SER:O	24:Q:59:LYS:N	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:R:249:VAL:O	25:R:252:SER:N	2.29	0.64
22:O:370:GLN:HB2	27:T:340:ILE:HG21	1.79	0.64
30:W:97:LEU:HD13	30:W:107:MET:HB3	1.78	0.64
10:F:182:GLN:HE22	12:G:54:SER:HB2	1.63	0.64
15:I:190:LEU:HD13	15:I:194:ILE:CD1	2.28	0.64
15:I:401:GLU:CG	15:I:422:SER:CB	2.75	0.64
16:J:114:VAL:HG13	16:J:126:ILE:HG23	1.78	0.64
16:J:338:LEU:HD22	16:J:342:ILE:HD13	1.78	0.64
17:K:248:ARG:CB	17:K:252:ARG:HH21	2.08	0.64
20:N:27:LEU:O	20:N:31:VAL:N	2.31	0.64
24:Q:97:LEU:HD22	24:Q:136:LEU:HD11	1.79	0.64
30:W:55:ALA:HA	30:W:83:LYS:C	2.15	0.64
32:Z:734:SER:CB	32:Z:768:LEU:O	2.46	0.64
14:H:191:VAL:HG11	14:H:229:VAL:CG1	2.27	0.63
15:I:250:VAL:HG21	15:I:270:LEU:CD1	2.23	0.63
15:I:252:GLY:O	15:I:255:LEU:N	2.30	0.63
15:I:315:GLN:HE22	15:I:322:ARG:NH2	1.96	0.63
15:I:94:GLU:HA	15:I:97:SER:OG	1.98	0.63
16:J:160:GLU:OE1	16:J:313:ARG:CZ	2.44	0.63
16:J:65:LEU:HD21	17:K:114:ARG:CZ	2.28	0.63
18:L:172:LEU:HD13	18:L:180:LYS:HA	1.81	0.63
19:M:141:ASP:O	19:M:145:LEU:HG	1.98	0.63
20:N:158:ARG:HA	20:N:193:PHE:CE1	2.33	0.63
22:O:4:VAL:HG11	22:O:26:GLU:OE1	1.99	0.63
24:Q:166:LEU:O	24:Q:170:GLN:HG3	1.98	0.63
26:S:221:LEU:CB	27:T:129:LEU:HB3	2.28	0.63
29:V:35:SER:CB	29:V:213:GLU:OE2	2.43	0.63
14:H:254:ALA:HB1	14:H:258:ARG:NH2	2.13	0.63
15:I:373:THR:C	15:I:413:LYS:HB3	2.19	0.63
16:J:326:LEU:HD13	16:J:345:ARG:CG	2.27	0.63
18:L:241:ARG:O	19:M:299:GLU:OE2	2.16	0.63
19:M:226:TYR:CD2	19:M:335:VAL:HG21	2.34	0.63
25:R:117:LYS:HB2	25:R:151:TYR:CE2	2.33	0.63
30:W:15:TYR:HB2	30:W:114:GLY:HA2	1.80	0.63
15:I:284:ILE:HG21	15:I:287:ILE:CG2	2.28	0.63
15:I:424:GLU:CA	15:I:428:TYR:CE2	2.75	0.63
16:J:219:LEU:HD23	17:K:286:GLN:HG2	1.80	0.63
16:J:92:GLU:OE1	16:J:95:PHE:CE2	2.51	0.63
17:K:190:LEU:O	17:K:196:ILE:CD1	2.46	0.63
17:K:227:PHE:CE1	17:K:261:ILE:HG21	2.33	0.63
17:K:205:TYR:HE1	17:K:332:GLU:HA	1.61	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:L:171:LEU:HD13	18:L:277:MET:CB	2.27	0.63
19:M:202:ILE:HD11	19:M:329:ILE:CD1	2.21	0.63
20:N:35:TRP:CZ2	20:N:70:HIS:HB3	2.34	0.63
20:N:475:HIS:O	20:N:479:LEU:N	2.31	0.63
26:S:328:VAL:CG1	26:S:329:HIS:H	2.10	0.63
28:U:131:LEU:CD1	28:U:199:LYS:CD	2.76	0.63
32:Z:383:ALA:O	32:Z:384:ALA:HB3	1.99	0.63
14:H:284:ARG:CG	14:H:296:GLN:CD	2.67	0.63
14:H:89:SER:O	14:H:92:PRO:CD	2.46	0.63
15:I:183:THR:HA	15:I:241:ASN:ND2	2.12	0.63
15:I:197:ILE:HG21	15:I:235:LEU:HD11	1.79	0.63
15:I:365:PHE:HD1	15:I:395:ILE:CG2	2.00	0.63
16:J:167:LEU:HD21	16:J:174:LEU:HD13	1.79	0.63
17:K:64:GLU:C	17:K:68:LEU:HD12	2.17	0.63
20:N:112:CYS:O	20:N:116:ALA:N	2.23	0.63
20:N:165:LYS:O	20:N:168:LEU:HB2	1.99	0.63
23:P:23:THR:HA	23:P:40:LEU:CB	2.28	0.63
25:R:105:MET:O	25:R:109:GLU:CB	2.47	0.63
25:R:381:GLN:HG2	26:S:486:ILE:CD1	2.28	0.63
28:U:256:GLN:HG2	29:V:295:ASN:ND2	2.12	0.63
29:V:82:VAL:HG11	29:V:113:HIS:CE1	2.33	0.63
30:W:119:ASP:OD1	30:W:120:ASN:N	2.31	0.63
14:H:186:LYS:HB2	14:H:341:ILE:HD11	1.81	0.63
14:H:348:LEU:HD23	14:H:351:ARG:NH2	2.13	0.63
16:J:220:VAL:CG1	16:J:224:ILE:HD12	2.28	0.63
16:J:45:LEU:CD1	26:S:492:LYS:HG2	2.28	0.63
16:J:88:LYS:HA	16:J:94:LYS:HA	1.79	0.63
20:N:233:LEU:HA	20:N:236:LEU:HB3	1.81	0.63
20:N:458:ILE:O	20:N:462:LEU:N	2.22	0.63
23:P:68:VAL:O	23:P:71:VAL:CG2	2.47	0.63
24:Q:107:VAL:O	24:Q:111:LEU:HB2	1.97	0.63
24:Q:203:PRO:HG2	24:Q:204:PRO:CD	2.29	0.63
26:S:472:PRO:O	26:S:476:PHE:HD2	1.76	0.63
28:U:214:LYS:HA	28:U:218:GLY:H	1.64	0.63
29:V:203:ILE:CG2	29:V:204:THR:N	2.48	0.63
30:W:111:ALA:O	30:W:141:ILE:N	2.27	0.63
22:O:70:ARG:C	30:W:17:ARG:HH21	2.02	0.63
15:I:414:VAL:HG12	15:I:418:ASP:HB2	1.80	0.63
17:K:258:ALA:HB1	17:K:259:PRO:CD	2.27	0.63
17:K:403:TYR:CA	17:K:407:ILE:HD13	2.28	0.63
17:K:372:GLY:HA3	35:K:501:ADP:C8	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:M:235:LEU:O	19:M:239:ALA:N	2.25	0.63
20:N:119:PRO:CG	20:N:120:GLU:H	2.11	0.63
20:N:116:ALA:O	20:N:119:PRO:O	2.17	0.63
20:N:389:ASN:HB3	20:N:392:TRP:HB2	1.81	0.63
22:O:368:GLU:HG3	22:O:369:HIS:N	2.13	0.63
24:Q:206:LEU:HD23	24:Q:206:LEU:C	2.19	0.63
30:W:32:ALA:HB2	30:W:179:LEU:HD23	1.80	0.63
32:Z:735:GLY:O	32:Z:776:LEU:O	2.16	0.63
14:H:102:ILE:CD1	14:H:120:LYS:HD2	2.28	0.63
14:H:301:GLU:OE1	19:M:254:PRO:HB2	1.99	0.63
14:H:271:LEU:HD23	14:H:316:LYS:HB2	1.80	0.63
15:I:342:ILE:HG23	15:I:350:LYS:HE2	1.80	0.63
16:J:114:VAL:CG1	16:J:126:ILE:CG2	2.66	0.63
16:J:147:THR:O	16:J:150:MET:CG	2.37	0.63
16:J:373:GLU:HG2	16:J:375:ARG:CD	2.28	0.63
16:J:78:ARG:O	16:J:86:LEU:HB3	1.99	0.63
18:L:195:PHE:CG	18:L:229:ILE:HB	2.31	0.63
18:L:117:PRO:CB	19:M:147:PRO:HB3	2.29	0.63
19:M:226:TYR:CG	19:M:335:VAL:CG2	2.68	0.63
20:N:377:HIS:HB3	20:N:411:ILE:HG23	1.79	0.63
20:N:680:VAL:HB	20:N:683:VAL:HG23	1.80	0.63
20:N:745:THR:O	20:N:784:THR:N	2.31	0.63
22:O:306:GLU:O	22:O:309:LEU:N	2.32	0.63
24:Q:190:LEU:HD22	24:Q:217:ILE:HD12	1.80	0.63
24:Q:294:SER:HA	24:Q:330:LEU:CD2	2.27	0.63
24:Q:411:VAL:HG21	25:R:376:LEU:HD11	1.81	0.63
25:R:51:ALA:HB3	25:R:52:PRO:CD	2.28	0.63
26:S:328:VAL:CG1	26:S:329:HIS:N	2.62	0.63
26:S:360:TYR:HE1	26:S:395:ILE:HD11	1.64	0.63
28:U:139:ILE:O	28:U:155:PHE:HA	1.98	0.63
28:U:223:ASN:O	28:U:225:GLN:N	2.32	0.63
14:H:405:THR:N	14:H:408:ASP:OD2	2.25	0.63
14:H:86:THR:CA	14:H:89:SER:OG	2.47	0.63
17:K:394:VAL:CG1	17:K:395:LEU:N	2.61	0.63
18:L:205:ASP:OD2	18:L:210:GLU:OE2	2.16	0.63
20:N:353:LEU:O	20:N:357:LYS:N	2.29	0.63
32:Z:661:ALA:CB	32:Z:693:ALA:HB1	2.28	0.63
14:H:111:TYR:OH	14:H:125:LEU:HD22	1.99	0.63
14:H:362:MET:HE2	14:H:364:VAL:HG12	1.81	0.63
15:I:286:GLU:N	15:I:330:ALA:O	2.24	0.63
15:I:109:VAL:HB	16:J:94:LYS:O	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:M:233:LYS:CG	19:M:354:PHE:CD2	2.81	0.63
20:N:423:MET:O	20:N:427:LEU:N	2.32	0.63
20:N:714:SER:HA	20:N:717:ILE:HB	1.81	0.63
20:N:750:SER:OG	20:N:751:ARG:N	2.30	0.63
23:P:153:LYS:HE2	23:P:162:ALA:CA	2.27	0.63
25:R:179:ARG:HH12	25:R:209:THR:HB	1.64	0.63
12:G:15:PRO:HB3	21:X:25:TYR:CZ	2.34	0.63
32:Z:272:LEU:O	32:Z:273:ASN:C	2.37	0.63
32:Z:747:GLN:O	32:Z:751:TYR:N	2.31	0.63
15:I:164:MET:HG2	15:I:164:MET:O	1.99	0.62
16:J:286:THR:HG22	16:J:287:LYS:H	1.64	0.62
16:J:339:THR:HA	25:R:207:THR:CG2	2.26	0.62
17:K:92:PHE:CE2	17:K:124:LEU:CD2	2.82	0.62
19:M:80:ILE:O	19:M:84:LYS:N	2.32	0.62
20:N:564:ASP:HA	20:N:567:ILE:HB	1.81	0.62
20:N:654:MET:O	20:N:658:ILE:N	2.30	0.62
24:Q:258:LYS:HE3	24:Q:266:ASP:OD2	1.99	0.62
25:R:71:ASN:HB3	25:R:75:LYS:NZ	2.14	0.62
27:T:161:ILE:HA	27:T:164:PHE:CE2	2.33	0.62
22:O:349:MET:HG3	28:U:234:PHE:CE2	2.34	0.62
30:W:11:ASP:O	30:W:16:MET:CG	2.46	0.62
32:Z:265:ALA:O	32:Z:269:ALA:N	2.31	0.62
14:H:132:THR:O	14:H:134:ILE:N	2.27	0.62
15:I:133:VAL:HB	15:I:158:ALA:HA	1.81	0.62
15:I:227:PRO:HD2	15:I:355:LEU:CD2	2.26	0.62
17:K:190:LEU:O	17:K:194:ILE:HB	1.99	0.62
17:K:205:TYR:HE1	17:K:332:GLU:CA	2.12	0.62
17:K:371:SER:C	17:K:375:ILE:CD1	2.67	0.62
19:M:225:MET:HG2	19:M:354:PHE:CZ	2.32	0.62
20:N:192:GLN:O	20:N:196:LYS:CG	2.47	0.62
22:O:108:ASP:O	22:O:111:VAL:N	2.32	0.62
22:O:223:GLU:HA	22:O:226:ARG:CG	2.29	0.62
22:O:321:LYS:HD2	22:O:335:TRP:NE1	2.13	0.62
23:P:131:VAL:CG1	23:P:142:ARG:HB2	2.30	0.62
23:P:384:LEU:HD11	23:P:392:PHE:CE2	2.32	0.62
2:B:191:PHE:CE1	2:B:219:VAL:HG21	2.34	0.62
15:I:283:PHE:CD1	15:I:328:ILE:HG21	2.34	0.62
16:J:87:VAL:O	16:J:95:PHE:N	2.29	0.62
16:J:92:GLU:OE1	16:J:95:PHE:HE2	1.82	0.62
25:R:237:ARG:HB2	25:R:264:TYR:OH	1.98	0.62
25:R:53:TYR:OH	25:R:150:PHE:HZ	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:G:103:LEU:HD12	12:G:104:PRO:HD2	1.81	0.62
14:H:153:LEU:HD21	15:I:132:TYR:CE2	2.35	0.62
15:I:168:ASP:C	15:I:170:LEU:H	2.01	0.62
15:I:363:ARG:O	15:I:367:ILE:HD12	2.00	0.62
16:J:72:TYR:CD2	16:J:121:TYR:CZ	2.88	0.62
17:K:95:ALA:HA	17:K:101:ALA:CA	2.27	0.62
17:K:212:LYS:CG	17:K:333:PHE:CD2	2.82	0.62
18:L:61:LEU:HD11	18:L:78:ARG:HE	1.64	0.62
20:N:110:LYS:O	20:N:114:GLU:N	2.20	0.62
20:N:406:ALA:HA	20:N:445:ALA:CB	2.25	0.62
22:O:342:ASP:CG	22:O:343:LEU:H	2.02	0.62
23:P:19:ASP:O	23:P:23:THR:N	2.18	0.62
25:R:228:MET:HE1	25:R:263:LEU:HB2	1.81	0.62
26:S:320:THR:O	26:S:322:VAL:N	2.32	0.62
29:V:251:LEU:CD1	29:V:283:HIS:CB	2.78	0.62
30:W:164:ASP:O	30:W:168:SER:N	2.33	0.62
14:H:138:MET:O	14:H:140:VAL:HG13	2.00	0.62
15:I:271:PHE:CB	15:I:315:GLN:NE2	2.63	0.62
17:K:354:LEU:HD21	17:K:399:PHE:CZ	2.34	0.62
18:L:242:ARG:NH1	18:L:286:ASP:OD2	2.32	0.62
19:M:295:ARG:CB	19:M:295:ARG:HH11	2.11	0.62
19:M:90:VAL:O	19:M:127:SER:OG	2.09	0.62
20:N:369:THR:OG1	20:N:731:ILE:HG21	1.99	0.62
23:P:269:SER:O	23:P:273:TYR:HD2	1.81	0.62
23:P:390:GLU:OE2	23:P:408:ARG:CZ	2.47	0.62
26:S:302:TYR:OH	26:S:397:ARG:NH1	2.31	0.62
28:U:96:HIS:HE1	28:U:100:LYS:O	1.82	0.62
14:H:151:ILE:HG22	14:H:152:PRO:CD	2.29	0.62
15:I:164:MET:CE	16:J:78:ARG:HH22	2.13	0.62
17:K:171:ASP:O	17:K:175:GLN:N	2.26	0.62
17:K:93:LEU:CG	17:K:94:GLU:HG3	2.29	0.62
18:L:338:PHE:CE1	18:L:375:ALA:HA	2.35	0.62
19:M:215:LEU:HD23	19:M:217:ILE:HG22	1.80	0.62
19:M:289:ASP:O	19:M:290:ALA:C	2.37	0.62
20:N:353:LEU:HG	20:N:357:LYS:HE2	1.80	0.62
20:N:711:GLN:O	20:N:715:LYS:N	2.17	0.62
24:Q:76:PHE:O	24:Q:80:ILE:O	2.18	0.62
25:R:267:ARG:O	25:R:270:VAL:HG13	1.98	0.62
29:V:288:VAL:O	29:V:292:MET:HG2	1.99	0.62
12:G:5:GLN:HE22	21:X:4:GLY:HA2	1.65	0.62
14:H:125:LEU:CD1	14:H:126:SER:O	2.46	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:H:393:GLY:HA3	15:I:216:ILE:HG21	1.80	0.62
15:I:246:THR:HG21	15:I:277:HIS:HB3	1.81	0.62
16:J:86:LEU:HD13	16:J:87:VAL:N	2.14	0.62
17:K:82:ILE:CG2	17:K:116:LEU:HD11	2.18	0.62
17:K:203:LEU:HD23	17:K:309:MET:O	1.98	0.62
24:Q:130:GLU:OE1	24:Q:149:LEU:HD11	1.99	0.62
25:R:71:ASN:HB3	25:R:75:LYS:HZ2	1.64	0.62
28:U:43:TRP:CA	28:U:48:LEU:CD2	2.72	0.62
32:Z:783:SER:CB	32:Z:897:PHE:CB	2.78	0.62
14:H:125:LEU:CB	14:H:149:ILE:HB	2.28	0.62
14:H:299:MET:CE	14:H:328:ASP:HB3	2.23	0.62
14:H:373:LEU:HD21	14:H:410:LEU:HD23	1.81	0.62
14:H:87:LEU:O	14:H:91:GLN:CG	2.44	0.62
14:H:93:LEU:O	14:H:94:GLN:HG2	1.99	0.62
15:I:107:MET:HE1	15:I:151:LEU:HD13	1.81	0.62
15:I:356:PRO:HB2	15:I:361:LYS:CE	2.29	0.62
16:J:133:PRO:O	16:J:136:SER:OG	2.11	0.62
16:J:189:TYR:HE2	16:J:316:GLU:HG3	1.55	0.62
16:J:78:ARG:NH1	16:J:80:MET:HG2	2.14	0.62
18:L:385:ASP:OD1	18:L:385:ASP:N	2.31	0.62
19:M:314:LEU:CD2	19:M:342:LEU:HD21	2.29	0.62
20:N:16:GLU:O	20:N:19:LEU:N	2.33	0.62
22:O:132:LYS:HB2	22:O:162:TYR:HH	1.62	0.62
22:O:116:THR:OG1	22:O:154:ARG:CG	2.48	0.62
25:R:145:LEU:O	25:R:148:GLY:N	2.32	0.62
25:R:151:TYR:O	25:R:152:MET:HB2	2.00	0.62
25:R:300:ARG:NH2	25:R:337:PHE:CZ	2.67	0.62
28:U:167:ALA:HB1	29:V:42:LEU:C	2.19	0.62
14:H:142:VAL:O	14:H:143:ASP:C	2.38	0.62
16:J:130:LYS:HD3	16:J:130:LYS:N	2.14	0.62
16:J:148:TYR:OH	16:J:203:VAL:HG22	1.99	0.62
17:K:167:ILE:CG1	17:K:214:MET:HE2	2.29	0.62
16:J:30:GLU:OE2	17:K:43:ARG:HB3	2.00	0.62
20:N:374:SER:O	20:N:378:CYS:N	2.33	0.62
24:Q:187:ARG:HD3	24:Q:217:ILE:HG21	1.81	0.62
24:Q:271:VAL:CG1	24:Q:288:LYS:HE2	2.03	0.62
24:Q:302:PHE:CD1	24:Q:330:LEU:HD11	2.34	0.62
25:R:307:LEU:C	25:R:307:LEU:HD12	2.19	0.62
27:T:236:LEU:C	27:T:238:GLU:H	2.02	0.62
10:F:182:GLN:HB3	12:G:55:GLU:OE2	1.99	0.62
16:J:247:PHE:HE1	16:J:292:ILE:HG21	1.61	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:187:LEU:CD1	16:J:293:MET:O	2.40	0.62
17:K:302:ASN:N	17:K:302:ASN:HD22	1.97	0.62
18:L:87:LEU:HD11	18:L:107:ILE:HG22	1.82	0.62
18:L:338:PHE:HE1	18:L:378:LYS:HE3	1.65	0.62
23:P:401:THR:O	23:P:402:ILE:HG23	1.99	0.62
24:Q:6:VAL:O	24:Q:10:GLN:N	2.22	0.62
26:S:296:LYS:HD3	26:S:304:GLU:CG	2.30	0.62
26:S:463:MET:C	26:S:465:ASP:N	2.50	0.62
2:B:202:LEU:O	2:B:205:VAL:HG12	1.99	0.61
14:H:153:LEU:CD2	15:I:132:TYR:OH	2.48	0.61
15:I:252:GLY:O	15:I:255:LEU:HB2	2.00	0.61
15:I:275:GLU:CB	15:I:322:ARG:HH12	2.10	0.61
17:K:355:SER:OG	17:K:358:VAL:HG23	1.99	0.61
19:M:375:VAL:CG1	19:M:376:SER:H	2.13	0.61
25:R:307:LEU:HD12	25:R:308:LEU:HD23	1.79	0.61
30:W:139:ASP:OD2	30:W:187:PRO:O	2.16	0.61
16:J:151:ILE:CD1	16:J:198:LEU:CB	2.76	0.61
17:K:170:MET:C	17:K:174:LYS:HD3	2.20	0.61
17:K:238:LYS:NZ	19:M:129:ARG:HE	1.99	0.61
19:M:367:GLN:HA	19:M:370:SER:OG	2.01	0.61
19:M:388:THR:HG22	19:M:391:PHE:HD2	1.63	0.61
19:M:80:ILE:HG23	19:M:84:LYS:HE3	1.81	0.61
20:N:505:ASP:CG	20:N:508:THR:H	2.02	0.61
27:T:342:TYR:O	27:T:346:LEU:HG	2.00	0.61
28:U:266:ILE:HG23	29:V:288:VAL:HG21	1.80	0.61
29:V:293:THR:O	29:V:297:VAL:HG22	2.00	0.61
16:J:104:ASP:HB2	16:J:107:ASP:H	1.64	0.61
16:J:162:LYS:HG3	16:J:166:GLU:CD	2.20	0.61
18:L:291:ARG:HD2	18:L:292:PRO:O	2.00	0.61
18:L:319:PRO:O	18:L:320:ILE:HG13	1.99	0.61
18:L:244:SER:O	19:M:300:LYS:HG2	1.99	0.61
19:M:360:GLU:O	19:M:364:ARG:N	2.32	0.61
19:M:375:VAL:O	19:M:414:GLU:HG3	1.99	0.61
20:N:601:ARG:CZ	20:N:601:ARG:HB3	2.29	0.61
20:N:667:GLU:CG	20:N:668:ALA:N	2.63	0.61
28:U:108:ILE:O	28:U:111:LEU:HB3	2.01	0.61
28:U:212:LEU:O	28:U:215:VAL:HB	2.00	0.61
28:U:176:LEU:HG	29:V:217:LEU:HB2	1.82	0.61
32:Z:127:SER:O	32:Z:131:MET:N	2.34	0.61
14:H:166:VAL:CG2	14:H:168:GLU:O	2.48	0.61
16:J:203:VAL:O	16:J:207:THR:N	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:335:LEU:N	17:K:335:LEU:HD23	2.14	0.61
17:K:42:SER:O	17:K:46:LYS:HB2	1.99	0.61
17:K:93:LEU:CD2	17:K:110:ASN:HD21	2.14	0.61
18:L:215:ILE:CD1	18:L:260:LEU:HD23	2.24	0.61
18:L:387:LYS:HG2	18:L:388:PRO:CD	2.30	0.61
19:M:217:ILE:O	19:M:218:GLN:CB	2.46	0.61
19:M:233:LYS:CG	19:M:354:PHE:HD2	2.11	0.61
20:N:768:GLN:O	20:N:775:LEU:HD12	1.99	0.61
22:O:23:HIS:O	22:O:26:GLU:HB2	2.00	0.61
23:P:231:ILE:CG1	23:P:247:TYR:CZ	2.83	0.61
24:Q:332:GLU:OE2	24:Q:368:MET:SD	2.58	0.61
27:T:267:ILE:O	27:T:270:GLU:HB2	2.01	0.61
29:V:225:TRP:C	29:V:227:GLU:H	2.04	0.61
28:U:14:LEU:HD11	29:V:40:LYS:HA	1.82	0.61
30:W:53:THR:CB	30:W:61:LEU:HD21	2.30	0.61
15:I:152:LEU:HA	15:I:158:ALA:O	1.99	0.61
16:J:116:LEU:HD23	16:J:121:TYR:CE1	2.35	0.61
16:J:339:THR:HG22	16:J:340:ARG:H	1.66	0.61
17:K:167:ILE:HA	35:K:501:ADP:N1	2.15	0.61
18:L:199:VAL:HG12	18:L:233:ASP:HB3	1.83	0.61
18:L:43:SER:OG	19:M:75:GLU:CD	2.39	0.61
19:M:288:LEU:N	19:M:332:THR:HG22	2.16	0.61
19:M:359:GLU:O	19:M:363:ALA:N	2.27	0.61
20:N:140:ARG:O	20:N:144:ASP:N	2.28	0.61
20:N:526:ALA:HA	20:N:529:ILE:HD12	1.83	0.61
24:Q:205:LYS:O	24:Q:208:ALA:N	2.33	0.61
25:R:381:GLN:HG2	26:S:486:ILE:HD11	1.82	0.61
29:V:248:MET:HE3	29:V:284:LEU:HA	1.81	0.61
14:H:208:PRO:O	14:H:210:LYS:N	2.33	0.61
16:J:25:LEU:HA	20:N:102:ALA:CB	2.30	0.61
16:J:274:LEU:HG	16:J:305:LEU:CD1	2.31	0.61
18:L:132:TYR:HD2	18:L:146:ARG:HE	1.44	0.61
18:L:223:ARG:O	18:L:226:GLN:CG	2.47	0.61
19:M:252:ALA:HB3	19:M:255:GLN:CG	2.28	0.61
19:M:395:GLN:O	19:M:427:VAL:HG11	2.00	0.61
20:N:412:HIS:HB2	20:N:449:ILE:HD11	1.82	0.61
23:P:427:ASP:O	23:P:431:LYS:HG3	2.01	0.61
23:P:453:HIS:O	23:P:454:ASN:CB	2.49	0.61
23:P:82:LEU:O	23:P:86:ASN:N	2.30	0.61
24:Q:187:ARG:HA	24:Q:217:ILE:HD13	1.82	0.61
24:Q:203:PRO:HG2	24:Q:204:PRO:HD3	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:255:LEU:HD21	24:Q:270:LEU:HB2	1.83	0.61
24:Q:276:ALA:C	24:Q:278:ARG:N	2.53	0.61
26:S:330:LYS:CG	26:S:360:TYR:HE2	2.11	0.61
30:W:129:LYS:HB3	30:W:133:LYS:HE3	1.83	0.61
19:M:310:MET:HE1	19:M:339:ASP:OD2	2.00	0.61
19:M:384:LEU:C	19:M:387:CYS:SG	2.79	0.61
19:M:402:GLU:OE2	19:M:426:GLU:OE1	2.18	0.61
20:N:787:CYS:O	20:N:909:GLY:O	2.18	0.61
24:Q:114:ILE:HG12	24:Q:129:LEU:HD22	1.83	0.61
26:S:220:PHE:O	26:S:223:LYS:N	2.27	0.61
29:V:96:LEU:HD13	29:V:100:LYS:NZ	2.16	0.61
10:F:49:ALA:HB2	10:F:217:LEU:HD23	1.83	0.61
15:I:223:ILE:HD11	15:I:347:ILE:HG21	1.80	0.61
17:K:230:VAL:CG1	17:K:235:PHE:CE1	2.84	0.61
17:K:93:LEU:C	17:K:93:LEU:HD12	2.21	0.61
18:L:322:LYS:CB	18:L:326:ILE:CD1	2.78	0.61
19:M:169:ASP:O	19:M:172:VAL:N	2.32	0.61
25:R:124:PHE:O	25:R:127:THR:OG1	2.05	0.61
28:U:83:LYS:NZ	28:U:89:GLU:O	2.34	0.61
30:W:113:VAL:N	30:W:141:ILE:O	2.32	0.61
6:D:16:GLY:O	8:E:25:ALA:HB2	2.00	0.61
14:H:111:TYR:OH	14:H:134:ILE:HD12	2.01	0.61
14:H:178:GLY:HA3	14:H:357:ILE:CD1	2.30	0.61
14:H:424:SER:C	14:H:426:THR:H	2.04	0.61
16:J:133:PRO:CG	16:J:237:MET:CE	2.53	0.61
17:K:79:VAL:O	17:K:82:ILE:HG22	2.01	0.61
18:L:145:LEU:CD1	18:L:299:ILE:CD1	2.79	0.61
18:L:171:LEU:CD1	18:L:277:MET:C	2.69	0.61
18:L:303:LEU:CD2	18:L:339:ASN:CG	2.45	0.61
19:M:217:ILE:CG1	19:M:218:GLN:N	2.57	0.61
20:N:234:GLU:O	20:N:238:LYS:N	2.27	0.61
20:N:418:GLU:O	20:N:422:LEU:N	2.30	0.61
20:N:885:MET:HB3	20:N:888:GLN:H	1.65	0.61
24:Q:200:ILE:HD12	24:Q:201:TYR:C	2.21	0.61
25:R:191:ILE:CG2	25:R:192:ARG:N	2.63	0.61
28:U:23:PHE:HD2	28:U:126:VAL:CB	2.14	0.61
29:V:211:GLU:O	29:V:215:LYS:HG3	2.01	0.61
12:G:72:ILE:HD11	21:X:71:ARG:NH1	36.01	0.61
14:H:102:ILE:HD11	14:H:120:LYS:CG	2.31	0.61
14:H:258:ARG:HD2	14:H:305:GLN:HE22	1.63	0.61
15:I:233:THR:HB	35:I:501:ADP:O2A	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:28:ILE:HG21	26:S:242:HIS:NE2	2.14	0.61
16:J:298:ILE:O	16:J:301:LEU:HG	2.00	0.61
18:L:195:PHE:CZ	18:L:229:ILE:HG13	2.33	0.61
18:L:238:ILE:HD11	18:L:257:LEU:HA	0.62	0.61
18:L:61:LEU:HD11	18:L:78:ARG:NE	2.15	0.61
20:N:414:GLY:N	20:N:449:ILE:HG23	2.15	0.61
14:H:302:LEU:O	14:H:306:LEU:CB	2.45	0.60
15:I:119:ASN:O	15:I:134:SER:HA	2.00	0.60
15:I:174:MET:HE1	15:I:270:LEU:HA	1.81	0.60
15:I:271:PHE:HB3	15:I:322:ARG:HH21	1.62	0.60
15:I:365:PHE:CZ	15:I:395:ILE:HG23	2.20	0.60
17:K:279:THR:HG21	18:L:248:SER:CB	2.30	0.60
17:K:391:ARG:NH1	17:K:395:LEU:CG	2.60	0.60
19:M:261:ILE:O	19:M:261:ILE:HG12	2.01	0.60
20:N:177:LEU:O	20:N:181:LEU:N	2.25	0.60
20:N:191:LYS:CG	20:N:194:ARG:HH21	2.14	0.60
20:N:535:TYR:O	20:N:539:THR:OG1	2.16	0.60
25:R:304:TYR:HD1	25:R:304:TYR:H	1.49	0.60
28:U:138:TYR:HD1	28:U:157:HIS:HA	1.64	0.60
29:V:71:ASP:OD1	29:V:104:ARG:NH1	2.31	0.60
30:W:13:SER:H	30:W:16:MET:HB2	1.65	0.60
10:F:127:ASP:HB3	12:G:125:ARG:HH21	1.66	0.60
14:H:242:GLY:CA	14:H:280:ILE:HG12	2.31	0.60
16:J:115:ALA:O	16:J:124:HIS:N	2.33	0.60
16:J:235:PHE:CE1	16:J:276:LEU:HD23	2.33	0.60
16:J:41:ASN:O	16:J:44:ARG:N	2.34	0.60
17:K:185:LEU:HD22	17:K:259:PRO:HB3	1.83	0.60
16:J:219:LEU:HD21	17:K:275:PHE:CE2	2.36	0.60
17:K:70:LYS:HA	17:K:73:LEU:CD1	2.31	0.60
18:L:221:TYR:O	18:L:225:HIS:HB2	2.01	0.60
20:N:546:ARG:HD3	20:N:768:GLN:NE2	2.16	0.60
24:Q:10:GLN:O	24:Q:14:SER:N	2.28	0.60
24:Q:109:LEU:O	24:Q:112:GLU:HB2	2.00	0.60
24:Q:183:LEU:O	24:Q:187:ARG:HB3	2.01	0.60
25:R:214:MET:HG3	25:R:218:THR:OG1	2.00	0.60
15:I:123:VAL:O	15:I:130:GLU:HG2	2.02	0.60
15:I:187:ILE:HD12	15:I:194:ILE:CD1	2.18	0.60
15:I:184:TYR:CD1	15:I:238:ALA:HB1	2.36	0.60
16:J:79:ALA:C	16:J:80:MET:HG3	2.22	0.60
17:K:149:SER:HB2	17:K:246:MET:HB3	1.82	0.60
18:L:198:VAL:CG2	18:L:218:MET:SD	2.89	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:M:265:ALA:CB	19:M:312:GLU:HG2	2.31	0.60
20:N:323:LEU:O	20:N:327:LYS:N	2.33	0.60
20:N:381:THR:HG23	20:N:412:HIS:ND1	2.15	0.60
22:O:360:VAL:HG11	28:U:198:LEU:O	2.00	0.60
23:P:449:GLU:O	23:P:453:HIS:N	2.33	0.60
23:P:67:LEU:HA	23:P:70:VAL:CG1	2.30	0.60
25:R:123:ALA:O	25:R:126:LYS:HG3	2.02	0.60
25:R:225:TYR:CE1	25:R:256:VAL:CB	2.84	0.60
23:P:449:GLU:OE2	28:U:223:ASN:ND2	2.35	0.60
28:U:21:ASP:O	28:U:25:ARG:CB	2.49	0.60
28:U:70:LEU:CD1	28:U:111:LEU:HD21	2.31	0.60
8:E:158:ALA:O	10:F:58:LEU:HD13	2.02	0.60
15:I:204:PRO:O	15:I:208:PRO:CB	2.48	0.60
15:I:218:PRO:CG	15:I:326:LYS:NZ	2.65	0.60
15:I:271:PHE:CZ	15:I:316:LEU:HD13	2.29	0.60
16:J:161:ILE:HD12	16:J:199:LEU:HG	1.82	0.60
16:J:183:PRO:CB	16:J:312:ASP:CG	2.60	0.60
17:K:170:MET:O	17:K:174:LYS:HD3	2.01	0.60
19:M:206:MET:HB2	19:M:327:LYS:HZ3	1.63	0.60
19:M:53:LYS:O	19:M:57:SER:N	2.24	0.60
20:N:927:PRO:O	20:N:928:VAL:HG12	2.01	0.60
29:V:266:THR:HB	29:V:267:PRO:HD3	1.82	0.60
32:Z:598:CYS:O	32:Z:599:ALA:HB2	2.01	0.60
6:D:155:ASN:ND2	8:E:77:THR:OG1	2.35	0.60
14:H:153:LEU:HD21	15:I:132:TYR:HE2	1.67	0.60
14:H:204:LEU:HG	14:H:204:LEU:O	1.99	0.60
16:J:151:ILE:HD11	16:J:198:LEU:CB	2.31	0.60
17:K:167:ILE:CG1	17:K:214:MET:CE	2.80	0.60
18:L:104:THR:HG21	29:V:50:PRO:HB3	1.83	0.60
20:N:399:TRP:HA	20:N:402:PHE:HB3	1.83	0.60
20:N:535:TYR:O	20:N:539:THR:N	2.32	0.60
20:N:596:ASN:O	20:N:600:ARG:N	2.24	0.60
22:O:21:VAL:O	22:O:24:ARG:HB2	2.01	0.60
23:P:153:LYS:CE	23:P:162:ALA:CA	2.76	0.60
23:P:420:ASP:CB	23:P:421:PRO:HD3	2.27	0.60
24:Q:252:LYS:HA	24:Q:287:LEU:HD11	1.84	0.60
24:Q:325:LYS:HD2	24:Q:325:LYS:H	1.66	0.60
25:R:21:GLN:HB2	25:R:286:TRP:CZ3	2.36	0.60
26:S:480:ILE:HD12	26:S:480:ILE:N	2.16	0.60
32:Z:238:ASN:O	32:Z:244:GLU:HA	2.01	0.60
14:H:275:ASP:O	14:H:276:GLU:HB2	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:I:197:ILE:HG12	15:I:235:LEU:CD1	2.31	0.60
16:J:188:LEU:HB3	16:J:317:PHE:CE1	2.37	0.60
17:K:105:SER:HB2	17:K:109:SER:OG	2.02	0.60
17:K:259:PRO:HA	17:K:304:ASN:O	2.02	0.60
18:L:108:MET:O	18:L:109:ARG:CB	2.49	0.60
18:L:156:PRO:HA	18:L:159:PHE:CD2	2.35	0.60
24:Q:171:LEU:HD21	24:Q:210:LEU:CA	2.31	0.60
27:T:175:TYR:CE1	27:T:188:MET:HB2	2.36	0.60
27:T:224:VAL:CG1	27:T:225:TYR:H	2.09	0.60
28:U:176:LEU:HD23	29:V:217:LEU:CD1	2.27	0.60
28:U:179:ILE:HG22	29:V:218:LEU:HD21	1.82	0.60
24:Q:410:VAL:HG22	29:V:256:ASN:HA	1.81	0.60
15:I:122:ILE:CG1	15:I:130:GLU:HB3	2.30	0.60
15:I:180:PRO:HG3	15:I:241:ASN:N	2.08	0.60
15:I:181:GLN:NE2	15:I:181:GLN:HA	2.15	0.60
15:I:287:ILE:N	15:I:287:ILE:HD12	2.17	0.60
15:I:411:ARG:NH2	15:I:418:ASP:OD2	2.35	0.60
16:J:43:ARG:CG	17:K:61:ILE:HG13	2.31	0.60
18:L:197:LYS:NZ	19:M:320:PHE:CZ	2.69	0.60
22:O:4:VAL:HG13	22:O:26:GLU:CD	2.21	0.60
24:Q:194:ARG:NH1	24:Q:214:SER:CB	2.65	0.60
25:R:228:MET:HE1	25:R:271:PHE:CE2	2.37	0.60
27:T:335:LEU:HA	27:T:338:GLN:HB2	1.83	0.60
28:U:45:LYS:CG	28:U:46:LYS:N	2.63	0.60
30:W:161:ASN:ND2	30:W:164:ASP:HA	2.16	0.60
2:B:126:THR:HG22	4:C:127:ARG:HH21	1.67	0.60
6:D:14:PRO:HA	8:E:21:TYR:CD1	2.37	0.60
14:H:183:GLN:OE1	14:H:183:GLN:N	2.34	0.60
15:I:119:ASN:HA	15:I:141:LYS:CE	2.31	0.60
15:I:362:LYS:HA	15:I:384:ILE:HD11	1.83	0.60
20:N:45:ILE:HA	20:N:48:LEU:HD12	1.84	0.60
23:P:304:ASP:CG	23:P:324:TYR:HH	2.05	0.60
25:R:263:LEU:CA	25:R:271:PHE:CD2	2.84	0.60
30:W:53:THR:H	30:W:61:LEU:HD21	1.60	0.60
14:H:230:ALA:HB2	14:H:237:PHE:CG	2.37	0.60
14:H:246:VAL:C	14:H:247:GLN:NE2	2.49	0.60
16:J:175:PHE:N	16:J:175:PHE:CD1	2.70	0.60
16:J:381:GLU:HG3	24:Q:191:THR:OG1	2.01	0.60
17:K:388:ARG:CG	18:L:147:GLU:HG2	2.31	0.60
18:L:148:VAL:CG2	18:L:167:PRO:HG2	2.29	0.60
18:L:202:SER:CB	19:M:269:ARG:NH2	2.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:M:399:VAL:HG22	19:M:427:VAL:CG2	2.31	0.60
20:N:772:TRP:CE2	20:N:774:PRO:HD2	2.37	0.60
26:S:434:ALA:O	26:S:437:ILE:N	2.34	0.60
20:N:10:SER:CA	27:T:166:ARG:HB3	2.31	0.60
29:V:234:TYR:O	29:V:237:HIS:N	2.34	0.60
29:V:31:VAL:HG12	29:V:67:VAL:HB	1.84	0.60
4:C:67:ILE:HD11	4:C:73:LEU:HD12	1.84	0.60
15:I:340:ALA:O	15:I:346:ARG:HD2	2.01	0.60
15:I:390:LEU:HD11	15:I:395:ILE:CG1	2.32	0.60
16:J:214:VAL:HG21	16:J:234:LEU:CD1	2.31	0.60
17:K:370:ILE:HG22	17:K:375:ILE:HG13	1.84	0.60
17:K:213:THR:OG1	35:K:501:ADP:O1B	2.11	0.60
18:L:303:LEU:HD21	18:L:339:ASN:CB	2.30	0.60
19:M:172:VAL:HG21	19:M:270:ASP:HB2	1.83	0.60
24:Q:163:LYS:CB	24:Q:200:ILE:HG21	2.31	0.60
27:T:94:MET:O	27:T:98:LEU:HB2	2.02	0.60
32:Z:318:THR:C	32:Z:322:SER:H	2.05	0.60
2:B:102:LYS:HG2	2:B:108:GLU:HA	1.84	0.59
2:B:120:ASP:N	4:C:83:ARG:HH12	2.00	0.59
6:D:12:PHE:HB3	8:E:21:TYR:HB2	1.84	0.59
14:H:242:GLY:CA	14:H:280:ILE:CG1	2.79	0.59
15:I:231:GLY:O	15:I:353:PHE:HE2	1.84	0.59
15:I:248:LEU:CD1	15:I:274:ALA:HB2	2.33	0.59
17:K:207:PRO:HB2	17:K:335:LEU:HD22	1.83	0.59
18:L:111:LEU:HD22	19:M:97:LEU:CD1	2.31	0.59
18:L:151:LEU:C	18:L:153:LEU:H	2.04	0.59
18:L:146:ARG:NH2	18:L:190:GLN:OE1	2.33	0.59
18:L:198:VAL:O	18:L:232:MET:HA	2.00	0.59
18:L:343:LEU:O	18:L:346:VAL:HB	2.01	0.59
19:M:229:PRO:CA	19:M:333:ASN:HD22	2.14	0.59
20:N:531:ASP:O	20:N:535:TYR:N	2.29	0.59
22:O:38:THR:O	22:O:42:LEU:CB	2.49	0.59
28:U:91:ILE:C	28:U:116:CYS:SG	2.80	0.59
32:Z:509:LYS:O	32:Z:514:VAL:N	2.35	0.59
2:B:203:SER:O	2:B:207:SER:CA	2.50	0.59
15:I:153:ASN:O	15:I:157:HIS:HA	2.02	0.59
15:I:197:ILE:CG1	15:I:235:LEU:HD11	2.32	0.59
14:H:226:ALA:CB	15:I:319:PHE:HE1	2.16	0.59
17:K:403:TYR:HA	17:K:407:ILE:CD1	2.32	0.59
18:L:188:ALA:O	18:L:192:ASP:OD1	2.20	0.59
18:L:314:LYS:HE2	18:L:328:TYR:CD2	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:O:35:HIS:HB2	30:W:14:GLU:CG	2.31	0.59
24:Q:260:MET:HE2	24:Q:322:HIS:HA	1.84	0.59
24:Q:28:HIS:O	24:Q:32:LYS:N	2.35	0.59
25:R:14:ASN:N	25:R:15:PRO:HA	2.16	0.59
25:R:17:LEU:O	25:R:20:ALA:N	2.34	0.59
28:U:240:VAL:O	28:U:242:LEU:N	2.30	0.59
29:V:71:ASP:OD2	29:V:104:ARG:CD	2.50	0.59
22:O:35:HIS:HA	30:W:14:GLU:OE2	2.02	0.59
32:Z:698:SER:O	32:Z:702:PRO:CB	2.50	0.59
2:B:163:PHE:CA	4:C:55:LEU:O	2.49	0.59
14:H:241:ILE:HG22	14:H:243:SER:H	1.68	0.59
14:H:88:GLN:HA	14:H:91:GLN:OE1	2.01	0.59
15:I:111:THR:HB	15:I:124:SER:HB2	1.84	0.59
15:I:232:LYS:NZ	15:I:332:ASN:ND2	2.51	0.59
16:J:118:ASN:O	16:J:121:TYR:CD1	2.55	0.59
16:J:214:VAL:CG2	16:J:234:LEU:HD11	2.31	0.59
19:M:194:GLN:HA	19:M:197:GLU:HG3	1.84	0.59
19:M:256:LEU:HD12	19:M:291:ILE:CD1	2.31	0.59
19:M:260:PHE:HB2	19:M:263:ASP:OD2	2.01	0.59
19:M:311:LEU:HD23	19:M:314:LEU:HD12	1.84	0.59
20:N:793:LYS:HB3	20:N:916:ASP:OD2	2.02	0.59
23:P:202:THR:O	23:P:206:SER:HB3	2.01	0.59
24:Q:218:HIS:HB2	24:Q:228:ALA:HB2	1.83	0.59
27:T:173:CYS:O	27:T:177:ASP:CB	2.49	0.59
28:U:37:GLY:HA2	28:U:56:VAL:HG23	1.85	0.59
29:V:234:TYR:CE1	29:V:298:GLN:CD	2.76	0.59
2:B:49:VAL:HG22	2:B:219:VAL:HG23	1.85	0.59
14:H:425:ALA:C	14:H:427:PRO:HD2	2.23	0.59
15:I:140:ASP:OD1	15:I:141:LYS:N	2.35	0.59
15:I:84:GLN:CB	32:Z:614:HIS:CB	2.80	0.59
17:K:274:ARG:HB3	18:L:251:ARG:HH12	1.66	0.59
18:L:197:LYS:HA	18:L:231:PHE:O	2.01	0.59
18:L:370:ALA:O	18:L:374:VAL:N	2.24	0.59
19:M:272:PHE:HE2	19:M:316:GLN:C	2.05	0.59
20:N:122:GLU:O	20:N:123:LYS:HG3	2.02	0.59
20:N:354:LYS:HA	20:N:357:LYS:HE3	1.84	0.59
20:N:717:ILE:HA	20:N:727:LYS:HE3	1.85	0.59
32:Z:661:ALA:HB1	32:Z:693:ALA:O	2.02	0.59
2:B:202:LEU:O	2:B:205:VAL:CG1	2.49	0.59
14:H:416:VAL:HA	14:H:420:TYR:CD2	2.37	0.59
15:I:176:VAL:HG21	16:J:283:PHE:CE1	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:I:200:SER:C	15:I:219:PRO:CG	2.66	0.59
17:K:275:PHE:CZ	17:K:289:LEU:CD1	2.73	0.59
17:K:212:LYS:HE3	35:K:501:ADP:O2B	2.03	0.59
19:M:294:LYS:CG	19:M:339:ASP:OD1	2.51	0.59
20:N:11:LEU:HD23	20:N:14:GLU:OE1	2.03	0.59
20:N:135:ASN:O	20:N:139:GLN:N	2.29	0.59
20:N:334:ALA:O	20:N:338:HIS:N	2.20	0.59
20:N:808:PRO:HB3	20:N:811:PHE:CD1	2.38	0.59
22:O:245:VAL:HG11	22:O:300:ALA:HA	1.83	0.59
23:P:401:THR:O	23:P:402:ILE:CG2	2.51	0.59
24:Q:239:TYR:HB3	24:Q:247:ALA:H	1.67	0.59
24:Q:7:VAL:O	24:Q:11:ARG:N	2.29	0.59
25:R:263:LEU:HB2	25:R:271:PHE:CZ	2.21	0.59
26:S:165:ALA:HB3	26:S:203:LEU:CD1	2.30	0.59
26:S:268:GLU:CG	26:S:269:LYS:N	2.65	0.59
28:U:142:GLU:HG3	28:U:152:SER:HB2	1.84	0.59
28:U:79:TYR:HE2	28:U:91:ILE:CB	1.83	0.59
32:Z:776:LEU:HA	32:Z:827:PRO:HA	1.83	0.59
32:Z:883:ALA:O	32:Z:895:GLU:HA	2.03	0.59
15:I:373:THR:OG1	15:I:413:LYS:CE	2.51	0.59
15:I:404:LEU:O	15:I:408:ARG:HB2	2.02	0.59
16:J:279:GLN:O	16:J:284:GLU:HG2	2.02	0.59
19:M:90:VAL:HG12	19:M:164:LEU:HD11	1.84	0.59
20:N:377:HIS:HB2	20:N:411:ILE:HG12	1.83	0.59
22:O:284:ARG:HH11	22:O:291:LEU:HD23	1.65	0.59
26:S:338:LEU:HD12	26:S:398:LEU:HD21	1.85	0.59
25:R:347:ILE:O	26:S:414:TYR:HA	2.02	0.59
28:U:38:VAL:HG13	28:U:56:VAL:HG21	1.84	0.59
15:I:343:ARG:CZ	15:I:346:ARG:HH21	2.11	0.59
16:J:371:LEU:HD22	17:K:196:ILE:HD13	1.84	0.59
17:K:176:GLU:OE2	17:K:329:ARG:CD	2.49	0.59
17:K:372:GLY:C	35:K:501:ADP:C8	2.75	0.59
18:L:148:VAL:HA	18:L:167:PRO:HG2	1.84	0.59
18:L:227:PRO:HD3	18:L:272:ARG:HD3	1.85	0.59
18:L:362:VAL:HG12	18:L:363:VAL:N	2.17	0.59
19:M:310:MET:O	19:M:314:LEU:HG	2.02	0.59
20:N:35:TRP:CH2	26:S:273:LYS:HD2	2.33	0.59
20:N:357:LYS:NZ	20:N:385:PHE:HB2	2.18	0.59
24:Q:370:LEU:CG	25:R:233:ARG:NE	2.63	0.59
26:S:231:LEU:HA	26:S:250:LEU:HD11	1.83	0.59
27:T:236:LEU:C	27:T:238:GLU:N	2.54	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:T:332:SER:CB	29:V:307:VAL:CG1	2.81	0.59
8:E:38:ARG:NE	8:E:181:ILE:O	2.34	0.59
16:J:137:LEU:HB2	16:J:224:ILE:CG1	2.32	0.59
14:H:309:PHE:CZ	19:M:248:PHE:CE2	2.91	0.59
19:M:300:LYS:O	19:M:301:ALA:HB2	2.03	0.59
19:M:373:MET:CE	19:M:415:LEU:CD1	2.78	0.59
20:N:546:ARG:HD3	20:N:768:GLN:HE22	1.68	0.59
23:P:209:ILE:HD13	23:P:226:TYR:CD1	2.37	0.59
25:R:307:LEU:CD2	25:R:319:MET:HE2	2.32	0.59
26:S:236:ARG:O	26:S:239:THR:OG1	2.21	0.59
26:S:82:LEU:HA	26:S:85:ALA:CB	2.33	0.59
27:T:89:GLN:CB	27:T:115:GLU:OE1	2.50	0.59
28:U:273:HIS:CD2	29:V:255:TYR:OH	2.56	0.59
29:V:267:PRO:O	29:V:270:LEU:HB3	2.03	0.59
29:V:61:PHE:CE2	29:V:139:ARG:HB2	2.38	0.59
15:I:171:VAL:HG13	15:I:277:HIS:NE2	2.18	0.59
15:I:356:PRO:CB	15:I:361:LYS:CG	2.80	0.59
15:I:379:THR:O	15:I:381:ASP:N	2.36	0.59
15:I:416:ASN:O	15:I:419:PHE:N	2.34	0.59
16:J:98:ASP:OD1	16:J:99:VAL:N	2.35	0.59
17:K:152:MET:O	17:K:153:MET:CB	2.50	0.59
17:K:190:LEU:HB3	17:K:194:ILE:CD1	2.33	0.59
17:K:359:ASP:C	17:K:361:GLU:N	2.50	0.59
18:L:362:VAL:HG12	18:L:363:VAL:H	1.66	0.59
18:L:369:LYS:O	18:L:373:LYS:HB2	2.03	0.59
23:P:131:VAL:HG13	23:P:142:ARG:HB2	1.85	0.59
24:Q:255:LEU:HD21	24:Q:270:LEU:CB	2.32	0.59
28:U:173:GLU:HB3	29:V:152:LYS:O	2.03	0.59
28:U:47:VAL:HG12	28:U:48:LEU:N	2.18	0.59
14:H:263:MET:O	14:H:267:LYS:HD2	2.02	0.59
15:I:168:ASP:HB2	15:I:169:PRO:HD2	1.85	0.59
15:I:278:ALA:HB1	15:I:279:PRO:HD2	1.85	0.59
16:J:43:ARG:HA	16:J:46:GLN:OE1	2.03	0.59
17:K:175:GLN:NE2	17:K:179:GLU:OE2	2.35	0.59
24:Q:19:ASP:HA	24:Q:22:ALA:HB3	1.84	0.59
24:Q:260:MET:HE1	24:Q:325:LYS:HB2	1.85	0.59
24:Q:414:LEU:HG	28:U:276:ILE:HD12	1.83	0.59
25:R:225:TYR:CZ	25:R:278:VAL:HG13	2.38	0.59
26:S:235:LEU:HA	26:S:250:LEU:HD23	1.85	0.59
27:T:332:SER:OG	29:V:307:VAL:HG11	2.02	0.59
29:V:251:LEU:HD11	29:V:283:HIS:ND1	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:G:196:ARG:HD3	12:G:239:ARG:CZ	2.33	0.58
14:H:160:THR:O	14:H:164:MET:HE3	2.02	0.58
14:H:204:LEU:CD2	14:H:206:ILE:CG2	2.81	0.58
14:H:402:LYS:HG3	14:H:403:ILE:N	2.18	0.58
15:I:387:LYS:HD3	15:I:427:LEU:HD13	1.85	0.58
15:I:424:GLU:HG2	15:I:428:TYR:CZ	2.37	0.58
16:J:117:ARG:N	16:J:122:THR:O	2.33	0.58
16:J:184:LYS:HG3	16:J:280:LEU:HD13	1.84	0.58
16:J:189:TYR:CE2	16:J:316:GLU:HB3	2.35	0.58
16:J:27:LYS:CA	17:K:40:LEU:HD22	2.33	0.58
17:K:88:VAL:HG12	18:L:79:TYR:CE1	2.36	0.58
18:L:111:LEU:HD21	19:M:133:PHE:CE1	2.37	0.58
18:L:238:ILE:O	18:L:238:ILE:HD12	2.03	0.58
18:L:320:ILE:O	18:L:322:LYS:HD2	2.03	0.58
18:L:199:VAL:HG11	19:M:315:ASN:CG	2.24	0.58
20:N:6:ALA:HB1	27:T:169:ALA:HB1	1.85	0.58
23:P:56:THR:H	23:P:59:ASP:CB	2.16	0.58
24:Q:332:GLU:CD	24:Q:364:LYS:HD3	2.22	0.58
12:G:5:GLN:NE2	21:X:4:GLY:HA2	2.18	0.58
16:J:151:ILE:CG2	16:J:154:LEU:HD12	2.33	0.58
16:J:338:LEU:HD22	16:J:342:ILE:HD12	1.84	0.58
16:J:72:TYR:CE2	16:J:121:TYR:CZ	2.90	0.58
17:K:41:TYR:HE1	20:N:156:GLU:CD	2.06	0.58
18:L:145:LEU:HD13	18:L:299:ILE:CD1	2.33	0.58
18:L:172:LEU:HD22	18:L:301:ILE:CD1	2.25	0.58
18:L:43:SER:OG	19:M:75:GLU:HG2	2.02	0.58
18:L:69:PHE:HZ	18:L:83:CYS:SG	2.23	0.58
20:N:28:ASN:O	20:N:66:LYS:NZ	2.36	0.58
24:Q:133:LEU:HD11	24:Q:137:TYR:CE2	2.37	0.58
25:R:208:PHE:CD2	25:R:216:TYR:CD1	2.83	0.58
25:R:22:LEU:HA	25:R:25:LEU:HD12	1.84	0.58
25:R:307:LEU:HD11	25:R:308:LEU:HD23	1.84	0.58
27:T:284:PHE:N	27:T:313:ASN:O	2.36	0.58
15:I:187:ILE:HD12	15:I:190:LEU:CD1	2.26	0.58
15:I:272:ARG:NH1	15:I:272:ARG:HG2	2.14	0.58
15:I:390:LEU:HD13	15:I:395:ILE:CG1	2.29	0.58
17:K:285:VAL:O	17:K:288:ILE:HB	2.03	0.58
17:K:370:ILE:CG2	17:K:374:ASP:HB2	2.29	0.58
16:J:53:ASN:HB2	17:K:68:LEU:HD13	1.83	0.58
17:K:352:MET:HB2	18:L:162:VAL:O	2.03	0.58
19:M:333:ASN:O	19:M:334:ARG:HG2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:N:119:PRO:C	20:N:120:GLU:HG2	2.23	0.58
20:N:246:TYR:O	20:N:250:PHE:N	2.36	0.58
29:V:237:HIS:HD2	29:V:238:CYS:N	2.02	0.58
29:V:254:ASN:HB3	29:V:280:PRO:HG3	1.84	0.58
29:V:257:LYS:HA	29:V:260:GLU:HG2	1.85	0.58
2:B:201:CYS:O	2:B:205:VAL:HG12	2.03	0.58
16:J:137:LEU:HD13	16:J:224:ILE:HD12	1.81	0.58
16:J:183:PRO:HA	16:J:312:ASP:OD2	2.04	0.58
17:K:106:THR:O	17:K:245:ARG:NH2	2.37	0.58
17:K:355:SER:OG	17:K:358:VAL:CG2	2.51	0.58
17:K:394:VAL:CG1	17:K:395:LEU:H	2.16	0.58
17:K:94:GLU:O	17:K:101:ALA:HB1	2.03	0.58
18:L:126:ASP:O	18:L:127:PRO:O	2.20	0.58
18:L:216:ARG:NE	18:L:259:GLU:OE1	2.36	0.58
19:M:188:ILE:CG2	19:M:189:GLY:H	2.07	0.58
20:N:475:HIS:CE1	20:N:507:VAL:O	2.55	0.58
20:N:549:ALA:O	20:N:553:ALA:N	2.32	0.58
20:N:647:HIS:HA	20:N:650:TYR:HB3	1.84	0.58
23:P:48:LEU:CD2	23:P:90:LEU:HG	2.33	0.58
24:Q:46:LYS:O	24:Q:50:ILE:N	2.30	0.58
27:T:276:GLU:OE2	27:T:306:ARG:NH2	2.36	0.58
28:U:174:HIS:HB2	29:V:155:VAL:HG12	1.84	0.58
2:B:165:ALA:O	4:C:55:LEU:HD22	2.03	0.58
14:H:196:LEU:O	14:H:198:PRO:CD	2.49	0.58
14:H:254:ALA:HB1	14:H:258:ARG:HH21	1.68	0.58
14:H:301:GLU:OE1	19:M:254:PRO:HG2	2.03	0.58
15:I:227:PRO:HB3	15:I:228:PRO:HD2	1.85	0.58
17:K:116:LEU:N	17:K:119:ILE:HD13	2.18	0.58
17:K:113:VAL:HG23	17:K:139:LEU:HD12	1.85	0.58
17:K:190:LEU:HB3	17:K:194:ILE:HD12	1.86	0.58
17:K:392:TYR:O	17:K:393:ILE:HB	2.04	0.58
17:K:70:LYS:HA	17:K:73:LEU:HD12	1.86	0.58
18:L:56:ILE:HB	18:L:100:LEU:HB2	1.83	0.58
20:N:494:TYR:CE2	20:N:498:LYS:HD2	2.38	0.58
23:P:384:LEU:CD1	23:P:392:PHE:HE2	2.14	0.58
24:Q:334:ASN:HD21	24:Q:354:ILE:CG1	2.12	0.58
26:S:224:LEU:O	26:S:228:ARG:CB	2.51	0.58
27:T:330:ILE:HG23	27:T:334:GLU:CG	2.34	0.58
30:W:4:GLU:HB2	30:W:106:LYS:O	2.02	0.58
14:H:102:ILE:HD11	14:H:120:LYS:HG2	1.86	0.58
15:I:197:ILE:HG23	15:I:198:LYS:N	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:I:271:PHE:HB3	15:I:315:GLN:NE2	2.19	0.58
15:I:342:ILE:O	15:I:343:ARG:O	2.22	0.58
18:L:290:LEU:HA	18:L:295:LEU:HD12	1.86	0.58
20:N:482:GLY:HA2	20:N:485:ALA:HB3	1.86	0.58
20:N:902:PRO:HD3	20:N:914:LEU:HD12	1.86	0.58
23:P:451:MET:SD	23:P:451:MET:N	2.76	0.58
24:Q:289:CYS:O	24:Q:293:ALA:CB	2.51	0.58
26:S:476:PHE:HD1	28:U:261:TYR:HD1	1.49	0.58
30:W:124:LEU:HD11	30:W:156:PHE:HB2	1.85	0.58
30:W:19:GLY:HA2	30:W:25:ARG:H	1.67	0.58
14:H:139:ARG:NH1	14:H:156:LYS:HG3	2.18	0.58
14:H:172:VAL:O	14:H:228:ALA:HA	2.02	0.58
14:H:351:ARG:HD2	14:H:385:ILE:HD11	1.84	0.58
15:I:200:SER:HB2	15:I:219:PRO:CB	2.34	0.58
16:J:321:ASN:O	16:J:325:ARG:CG	2.51	0.58
18:L:104:THR:HG22	18:L:106:THR:HG23	1.85	0.58
18:L:171:LEU:HB2	18:L:277:MET:HB2	1.86	0.58
18:L:211:SER:HB3	18:L:256:THR:CG2	2.34	0.58
19:M:141:ASP:O	19:M:144:LYS:HB2	2.03	0.58
19:M:284:PHE:CD1	19:M:285:ILE:N	2.66	0.58
19:M:333:ASN:C	19:M:334:ARG:HG2	2.24	0.58
22:O:243:GLY:O	22:O:276:CYS:HA	2.04	0.58
23:P:154:GLU:HB2	23:P:158:ASP:HB3	1.86	0.58
23:P:317:TRP:HA	23:P:317:TRP:HE3	1.67	0.58
25:R:191:ILE:C	25:R:291:HIS:CE1	2.77	0.58
28:U:139:ILE:CG2	28:U:140:SER:N	2.66	0.58
29:V:225:TRP:HE3	29:V:226:MET:N	2.01	0.58
29:V:96:LEU:HD22	29:V:100:LYS:NZ	2.19	0.58
14:H:144:ARG:O	14:H:147:TYR:CD1	2.57	0.58
14:H:204:LEU:CD2	14:H:206:ILE:HG21	2.34	0.58
16:J:133:PRO:HG2	16:J:237:MET:HE3	1.76	0.58
17:K:199:PRO:HA	17:K:328:ASP:OD2	2.04	0.58
17:K:336:PRO:HA	17:K:340:GLN:OE1	2.02	0.58
17:K:41:TYR:CE2	20:N:155:LEU:HD22	2.22	0.58
20:N:561:GLU:OE1	20:N:561:GLU:N	2.35	0.58
20:N:645:ASN:HD21	20:N:647:HIS:HB2	1.68	0.58
22:O:248:PHE:CE1	22:O:272:ILE:CG1	2.81	0.58
23:P:161:GLU:N	23:P:161:GLU:OE1	2.36	0.58
23:P:180:LYS:CG	23:P:181:GLU:H	2.17	0.58
24:Q:296:ASN:N	24:Q:296:ASN:OD1	2.36	0.58
25:R:128:TYR:HA	25:R:131:THR:HG21	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:R:168:ILE:HG21	25:R:177:ARG:CG	2.34	0.58
14:H:206:ILE:HG13	14:H:207:GLU:H	1.68	0.58
14:H:233:THR:CG2	14:H:234:ASP:N	2.66	0.58
15:I:316:LEU:HD11	15:I:327:VAL:HG21	1.86	0.58
15:I:218:PRO:HG3	15:I:326:LYS:HZ1	1.69	0.58
16:J:161:ILE:HA	16:J:164:VAL:HG12	1.84	0.58
17:K:258:ALA:CB	17:K:259:PRO:CD	2.81	0.58
18:L:172:LEU:CD2	18:L:301:ILE:HD11	2.28	0.58
18:L:327:ASP:OD1	18:L:330:ALA:HB2	2.01	0.58
19:M:373:MET:HE1	19:M:415:LEU:CD1	2.33	0.58
19:M:78:GLU:HA	19:M:81:LYS:HG3	1.86	0.58
17:K:41:TYR:OH	20:N:155:LEU:HG	2.03	0.58
20:N:325:MET:O	20:N:329:LEU:HG	2.04	0.58
20:N:791:LEU:O	20:N:798:PRO:HD2	2.04	0.58
22:O:216:LEU:HD12	22:O:217:LEU:N	2.19	0.58
23:P:148:THR:O	23:P:152:ILE:HB	2.03	0.58
25:R:77:ASN:HA	25:R:110:TYR:OH	2.04	0.58
28:U:276:ILE:O	28:U:280:ILE:HG13	2.04	0.58
28:U:176:LEU:CD2	29:V:217:LEU:HD12	2.30	0.58
14:H:133:ASP:C	14:H:134:ILE:HG13	2.24	0.58
14:H:174:TYR:CE2	14:H:184:ILE:HG21	2.38	0.58
15:I:225:TYR:C	15:I:232:LYS:HE2	2.24	0.58
16:J:154:LEU:O	16:J:158:ILE:CD1	2.52	0.58
16:J:320:PRO:CD	16:J:354:ALA:O	2.52	0.58
16:J:335:LYS:HA	25:R:173:ASP:CB	2.28	0.58
17:K:130:VAL:C	17:K:143:LEU:CD2	2.73	0.58
17:K:170:MET:O	17:K:174:LYS:CG	2.52	0.58
18:L:352:MET:O	18:L:356:ARG:CB	2.51	0.58
19:M:142:ALA:HA	19:M:145:LEU:CD1	2.21	0.58
19:M:152:GLY:O	19:M:160:ILE:HA	2.03	0.58
20:N:229:VAL:O	20:N:233:LEU:N	2.26	0.58
20:N:3:THR:OG1	27:T:127:ASN:CB	2.47	0.58
20:N:440:GLY:HA2	20:N:443:LEU:HD12	1.86	0.58
22:O:61:GLU:O	22:O:65:SER:HB2	2.04	0.58
25:R:260:LEU:O	25:R:260:LEU:HD22	2.03	0.58
26:S:319:HIS:CG	26:S:320:THR:H	2.21	0.58
27:T:213:GLU:O	27:T:216:PRO:HB2	2.04	0.58
28:U:177:ARG:HG3	28:U:178:ASP:N	2.19	0.58
32:Z:730:GLY:O	32:Z:734:SER:CB	2.51	0.58
14:H:426:THR:N	14:H:427:PRO:CD	2.67	0.57
16:J:214:VAL:HG21	16:J:234:LEU:HD11	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:347:ILE:HD13	16:J:383:PHE:HB3	1.86	0.57
17:K:194:ILE:HB	17:K:196:ILE:HD11	1.86	0.57
17:K:215:LEU:HD22	17:K:333:PHE:HZ	1.63	0.57
17:K:352:MET:CB	18:L:162:VAL:O	2.52	0.57
17:K:403:TYR:CA	17:K:407:ILE:CD1	2.81	0.57
18:L:342:ASP:O	18:L:374:VAL:HG11	2.03	0.57
19:M:235:LEU:HD11	35:M:501:ADP:H2'	1.86	0.57
19:M:292:GLY:O	19:M:293:THR:OG1	2.21	0.57
20:N:353:LEU:HD22	20:N:376:MET:SD	2.44	0.57
20:N:437:TYR:CD1	20:N:472:ILE:CG1	2.86	0.57
23:P:317:TRP:HZ3	23:P:320:LEU:CG	2.16	0.57
24:Q:225:TRP:NE1	24:Q:322:HIS:NE2	2.49	0.57
24:Q:212:MET:HE1	24:Q:249:THR:HG22	1.86	0.57
23:P:408:ARG:CB	24:Q:345:VAL:HA	2.33	0.57
27:T:325:PRO:C	27:T:327:ASP:H	2.07	0.57
28:U:187:LEU:HD13	29:V:293:THR:CB	2.34	0.57
23:P:428:TRP:CZ2	29:V:305:ASP:HB3	2.39	0.57
32:Z:484:GLY:O	32:Z:488:ALA:N	2.31	0.57
14:H:259:GLU:HA	14:H:262:GLU:HB2	1.86	0.57
17:K:246:MET:O	17:K:249:ASP:HB2	2.04	0.57
17:K:205:TYR:OH	17:K:332:GLU:HG2	2.04	0.57
20:N:171:ASN:O	20:N:172:ASP:CG	2.43	0.57
24:Q:216:ILE:HG23	24:Q:318:ILE:CD1	2.35	0.57
29:V:71:ASP:OD2	29:V:104:ARG:HD3	2.04	0.57
14:H:233:THR:HG23	14:H:234:ASP:H	1.68	0.57
14:H:242:GLY:HA3	14:H:280:ILE:CG1	2.34	0.57
15:I:194:ILE:O	15:I:197:ILE:HG22	2.04	0.57
17:K:178:ARG:HA	17:K:182:GLU:HB3	1.86	0.57
17:K:299:PHE:HD1	17:K:303:VAL:HG21	1.69	0.57
17:K:88:VAL:HG23	17:K:88:VAL:O	2.04	0.57
19:M:153:VAL:CG1	19:M:158:TYR:CA	2.79	0.57
19:M:265:ALA:HB1	19:M:312:GLU:HG2	1.85	0.57
19:M:374:ASN:O	19:M:414:GLU:HA	2.03	0.57
22:O:274:LEU:CD2	22:O:275:LEU:N	2.67	0.57
25:R:204:THR:O	25:R:207:THR:O	2.22	0.57
25:R:234:PRO:CD	25:R:235:ASP:H	2.16	0.57
26:S:345:ARG:C	26:S:347:GLN:N	2.57	0.57
27:T:259:PHE:HD1	27:T:262:ILE:HD12	1.68	0.57
28:U:173:GLU:O	28:U:177:ARG:HB3	2.04	0.57
24:Q:414:LEU:HG	28:U:276:ILE:CD1	2.35	0.57
28:U:43:TRP:HA	28:U:48:LEU:HD21	1.78	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:U:79:TYR:CE2	28:U:91:ILE:CB	2.55	0.57
29:V:151:VAL:HG22	29:V:152:LYS:N	2.20	0.57
28:U:204:LYS:HG3	29:V:225:TRP:CZ2	2.39	0.57
32:Z:317:LEU:O	32:Z:321:MET:CA	2.52	0.57
4:C:39:ALA:O	4:C:41:ASN:N	2.37	0.57
4:C:122:GLN:O	6:D:127:LYS:HD2	2.05	0.57
14:H:103:ASN:O	14:H:112:ILE:HB	2.04	0.57
15:I:369:THR:HG23	15:I:399:CYS:SG	2.44	0.57
15:I:410:ARG:O	15:I:411:ARG:HG3	2.03	0.57
18:L:104:THR:HG21	29:V:50:PRO:HB2	1.86	0.57
20:N:162:VAL:C	20:N:164:GLU:H	2.08	0.57
24:Q:260:MET:HE1	24:Q:325:LYS:HG2	1.87	0.57
24:Q:32:LYS:CB	24:Q:33:ARG:CA	2.82	0.57
25:R:111:LEU:HB2	25:R:120:ALA:HB2	1.86	0.57
20:N:95:GLU:CG	26:S:237:THR:HA	2.35	0.57
29:V:101:GLN:HE22	30:W:101:GLN:NE2	2.01	0.57
30:W:169:HIS:CE1	30:W:187:PRO:HG3	2.32	0.57
14:H:104:ALA:HB2	14:H:111:TYR:HD1	1.66	0.57
14:H:99:THR:HG23	14:H:142:VAL:CG2	2.34	0.57
14:H:174:TYR:HE2	14:H:184:ILE:CG2	2.16	0.57
15:I:398:ILE:O	15:I:419:PHE:CE1	2.57	0.57
16:J:134:LEU:HB2	16:J:237:MET:SD	2.44	0.57
17:K:394:VAL:HG12	17:K:395:LEU:H	1.68	0.57
18:L:150:GLU:C	18:L:152:PRO:HD2	2.25	0.57
18:L:66:GLU:CB	18:L:89:LYS:HD3	2.34	0.57
20:N:7:GLY:CA	27:T:170:GLN:NE2	2.39	0.57
26:S:416:ARG:HA	26:S:458:VAL:O	2.04	0.57
26:S:463:MET:O	26:S:464:ILE:C	2.42	0.57
28:U:122:VAL:HG13	28:U:136:GLU:O	2.04	0.57
29:V:117:GLY:HA2	29:V:148:ILE:HD11	1.86	0.57
29:V:254:ASN:HB3	29:V:280:PRO:HB3	1.85	0.57
12:G:225:ASP:HA	12:G:229:VAL:CG2	2.34	0.57
14:H:83:ASP:O	14:H:86:THR:N	2.37	0.57
16:J:175:PHE:N	16:J:175:PHE:HD1	2.02	0.57
17:K:236:VAL:HG12	17:K:288:ILE:CD1	2.33	0.57
17:K:98:GLN:O	17:K:99:ASN:ND2	2.38	0.57
18:L:200:SER:O	18:L:237:ALA:HB3	2.05	0.57
23:P:85:GLU:O	23:P:89:LEU:HG	2.05	0.57
24:Q:200:ILE:HD12	24:Q:200:ILE:C	2.25	0.57
24:Q:360:ASP:HA	24:Q:363:ARG:CB	2.35	0.57
24:Q:37:GLU:N	24:Q:38:ASN:HA	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:X:227:VAL:O	21:X:232:ARG:NH1	2.38	0.57
14:H:164:MET:SD	14:H:244:GLU:OE1	2.62	0.57
14:H:296:GLN:O	14:H:299:MET:HB3	2.03	0.57
15:I:349:ARG:HG3	15:I:349:ARG:HH11	1.70	0.57
17:K:154:LEU:O	17:K:155:THR:OG1	2.20	0.57
18:L:219:PHE:O	18:L:223:ARG:N	2.34	0.57
18:L:387:LYS:HG2	18:L:388:PRO:HD2	1.87	0.57
19:M:229:PRO:HB3	19:M:333:ASN:HD22	1.69	0.57
20:N:42:VAL:HA	20:N:45:ILE:HD12	1.86	0.57
20:N:773:PHE:O	20:N:775:LEU:N	2.36	0.57
22:O:57:ILE:O	22:O:61:GLU:CA	2.51	0.57
23:P:438:LEU:O	23:P:442:THR:HB	2.04	0.57
24:Q:97:LEU:CD2	24:Q:106:GLU:HG2	2.34	0.57
24:Q:93:LEU:HD12	24:Q:129:LEU:HD11	1.87	0.57
2:B:171:LYS:HG3	2:B:205:VAL:HG22	1.87	0.57
12:G:225:ASP:HA	12:G:229:VAL:HG23	1.86	0.57
15:I:125:THR:OG1	15:I:127:VAL:HG22	2.04	0.57
15:I:231:GLY:C	15:I:353:PHE:CE2	2.78	0.57
15:I:399:CYS:HA	15:I:419:PHE:CE1	2.40	0.57
17:K:82:ILE:O	17:K:82:ILE:HD13	2.04	0.57
18:L:365:GLU:C	18:L:367:PHE:H	2.07	0.57
19:M:191:LEU:HD13	19:M:236:LEU:HD11	1.87	0.57
19:M:260:PHE:O	19:M:262:GLY:N	2.38	0.57
19:M:338:LEU:N	19:M:338:LEU:HD23	2.20	0.57
26:S:179:LYS:O	26:S:181:TYR:N	2.38	0.57
26:S:487:HIS:ND1	26:S:487:HIS:O	2.36	0.57
27:T:330:ILE:O	27:T:330:ILE:HG22	2.04	0.57
28:U:252:LYS:HE3	28:U:252:LYS:HA	1.85	0.57
29:V:211:GLU:O	29:V:214:GLN:CG	2.53	0.57
30:W:44:ASN:N	30:W:47:ASN:OD1	2.35	0.57
2:B:141:ILE:HG22	2:B:151:VAL:HG22	1.87	0.57
14:H:300:LEU:HA	14:H:303:ILE:HB	1.86	0.57
15:I:203:LEU:CB	15:I:204:PRO:HD3	2.34	0.57
16:J:85:VAL:N	16:J:97:VAL:O	2.37	0.57
17:K:129:SER:O	17:K:143:LEU:N	2.37	0.57
17:K:230:VAL:HG11	17:K:235:PHE:CZ	2.40	0.57
17:K:215:LEU:HD23	17:K:333:PHE:HZ	1.70	0.57
20:N:164:GLU:O	20:N:165:LYS:HG3	2.04	0.57
20:N:609:ASP:OD1	20:N:610:VAL:N	2.37	0.57
22:O:108:ASP:O	22:O:109:GLU:C	2.43	0.57
22:O:343:LEU:C	22:O:343:LEU:HD13	2.25	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:P:317:TRP:HA	23:P:317:TRP:CE3	2.39	0.57
24:Q:163:LYS:HD2	24:Q:200:ILE:CB	2.35	0.57
24:Q:157:LEU:CB	24:Q:166:LEU:CD1	2.80	0.57
25:R:127:THR:O	25:R:131:THR:CG2	2.36	0.57
25:R:347:ILE:HB	26:S:414:TYR:CD1	2.40	0.57
28:U:224:HIS:HB3	28:U:228:TYR:HE1	1.70	0.57
24:Q:397:TYR:OH	28:U:254:ASN:HB3	2.04	0.57
32:Z:221:ILE:O	32:Z:252:ALA:HB2	2.05	0.57
14:H:100:LYS:O	14:H:114:ASN:ND2	2.38	0.57
15:I:113:GLU:O	15:I:146:PRO:HB3	2.04	0.57
16:J:164:VAL:HG13	16:J:165:ILE:HG13	1.86	0.57
16:J:165:ILE:O	16:J:169:VAL:HG23	2.05	0.57
16:J:127:LEU:CD1	17:K:102:ILE:HD11	2.35	0.57
18:L:317:ALA:O	18:L:318:GLY:C	2.42	0.57
20:N:645:ASN:HD22	20:N:648:VAL:HG23	1.69	0.57
22:O:63:PHE:O	22:O:66:GLU:HB2	2.04	0.57
24:Q:168:GLU:O	24:Q:172:LEU:HB2	2.04	0.57
24:Q:396:THR:OG1	29:V:242:GLU:CG	2.53	0.57
26:S:400:HIS:CG	26:S:401:ASN:N	2.73	0.57
28:U:94:TRP:CZ3	28:U:121:LEU:CD2	2.88	0.57
29:V:89:PRO:CD	29:V:90:VAL:H	2.17	0.57
30:W:9:CYS:HB3	30:W:111:ALA:HA	1.87	0.57
14:H:210:LYS:O	14:H:316:LYS:HA	2.05	0.56
14:H:272:ILE:HG21	14:H:274:PHE:CZ	2.40	0.56
14:H:393:GLY:CA	15:I:216:ILE:HD13	2.35	0.56
14:H:422:LYS:HG3	14:H:423:PHE:CE1	2.40	0.56
17:K:204:MET:SD	17:K:215:LEU:HD23	2.44	0.56
17:K:167:ILE:HG12	17:K:214:MET:CE	2.35	0.56
18:L:226:GLN:CB	18:L:273:VAL:CG2	2.59	0.56
19:M:253:GLY:N	19:M:254:PRO:CD	2.67	0.56
19:M:253:GLY:O	19:M:291:ILE:HG23	2.05	0.56
20:N:434:GLY:O	20:N:435:SER:HB3	2.05	0.56
24:Q:203:PRO:CG	24:Q:204:PRO:HD3	2.35	0.56
25:R:186:LEU:HA	25:R:201:PHE:HZ	1.58	0.56
25:R:279:GLU:CG	31:Y:51:ASP:OD2	2.53	0.56
30:W:54:LEU:CB	30:W:85:THR:CA	2.83	0.56
15:I:106:PRO:CG	16:J:121:TYR:HB2	2.35	0.56
15:I:329:MET:HG3	15:I:347:ILE:HD13	1.87	0.56
16:J:287:LYS:O	16:J:288:ASN:CB	2.53	0.56
16:J:301:LEU:HD11	16:J:306:LEU:HD11	1.87	0.56
18:L:178:THR:HB	18:L:301:ILE:HG22	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:M:402:GLU:OE1	19:M:427:VAL:HG23	2.05	0.56
19:M:399:VAL:CB	19:M:427:VAL:HG21	2.29	0.56
20:N:505:ASP:O	20:N:509:GLY:N	2.38	0.56
20:N:637:VAL:O	20:N:641:SER:N	2.22	0.56
27:T:215:LEU:O	27:T:216:PRO:C	2.43	0.56
27:T:303:ALA:HB1	27:T:308:TRP:HB2	1.87	0.56
28:U:94:TRP:CZ3	28:U:121:LEU:HD22	2.40	0.56
30:W:108:ARG:HH21	30:W:193:GLY:C	2.06	0.56
14:H:245:LEU:O	14:H:247:GLN:NE2	2.38	0.56
14:H:90:GLU:O	14:H:93:LEU:HB2	2.05	0.56
15:I:197:ILE:HG23	15:I:198:LYS:H	1.69	0.56
16:J:149:GLU:OE2	25:R:134:LEU:N	2.36	0.56
16:J:325:ARG:O	16:J:329:LEU:N	2.24	0.56
16:J:340:ARG:HB3	16:J:340:ARG:NH1	2.19	0.56
16:J:67:GLN:N	17:K:136:SER:OG	2.38	0.56
17:K:290:LEU:HA	17:K:293:LEU:HB2	1.86	0.56
18:L:281:ARG:HD3	18:L:284:THR:HG22	1.87	0.56
18:L:363:VAL:HG22	18:L:365:GLU:N	2.18	0.56
18:L:60:VAL:O	18:L:95:GLY:N	2.32	0.56
20:N:368:ALA:HB2	20:N:728:PHE:CD2	2.39	0.56
23:P:384:LEU:HD22	23:P:388:GLU:CB	2.34	0.56
29:V:241:ASN:O	29:V:245:VAL:CG2	2.53	0.56
29:V:267:PRO:CD	29:V:268:GLU:H	2.16	0.56
29:V:53:VAL:CG1	29:V:77:GLN:HE22	2.06	0.56
30:W:128:ALA:HA	30:W:131:LEU:HD12	1.87	0.56
30:W:19:GLY:HA2	30:W:24:THR:HA	1.87	0.56
21:X:50:GLU:OE2	21:X:201:HIS:ND1	2.37	0.56
12:G:6:TYR:OH	21:X:8:ASP:OD2	2.21	0.56
14:H:191:VAL:HG13	14:H:271:LEU:CD2	2.34	0.56
15:I:190:LEU:O	15:I:191:ASP:HB2	2.05	0.56
15:I:173:VAL:HG11	16:J:230:MET:SD	2.46	0.56
17:K:109:SER:CB	17:K:111:TYR:CE2	2.87	0.56
17:K:166:ASP:OD2	17:K:214:MET:CE	2.52	0.56
18:L:132:TYR:CD2	18:L:146:ARG:NE	2.73	0.56
18:L:71:VAL:CG2	18:L:71:VAL:O	2.53	0.56
19:M:223:VAL:CG1	19:M:224:LEU:N	2.68	0.56
20:N:530:GLU:O	20:N:534:GLY:N	2.26	0.56
20:N:5:ALA:N	20:N:37:GLU:OE1	2.37	0.56
20:N:68:PHE:O	20:N:72:GLY:N	2.38	0.56
22:O:274:LEU:C	22:O:274:LEU:HD23	2.26	0.56
25:R:237:ARG:HB3	25:R:264:TYR:CZ	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:H:160:THR:O	14:H:164:MET:CE	2.53	0.56
14:H:95:VAL:HG13	14:H:96:ALA:N	2.18	0.56
15:I:151:LEU:HB3	15:I:160:ILE:HB	1.86	0.56
15:I:358:GLU:O	15:I:362:LYS:HD2	2.06	0.56
15:I:401:GLU:HG2	15:I:422:SER:CB	2.35	0.56
16:J:137:LEU:CG	16:J:224:ILE:CD1	2.64	0.56
17:K:71:GLU:OE2	17:K:74:HIS:CD2	2.59	0.56
17:K:96:VAL:O	17:K:97:ASP:HB3	2.06	0.56
19:M:307:GLN:O	19:M:310:MET:HB3	2.05	0.56
20:N:541:HIS:HB2	20:N:544:ILE:HB	1.87	0.56
20:N:748:LEU:HB2	20:N:759:SER:HB3	1.88	0.56
20:N:790:GLY:HA3	20:N:798:PRO:O	2.06	0.56
30:W:131:LEU:HD11	30:W:156:PHE:HZ	1.69	0.56
30:W:60:VAL:C	30:W:61:LEU:HD23	2.25	0.56
32:Z:164:GLY:HA2	32:Z:167:ALA:HB2	1.84	0.56
8:E:10:PHE:HB2	10:F:23:GLN:OE1	2.06	0.56
12:G:225:ASP:OD1	12:G:225:ASP:N	2.35	0.56
14:H:125:LEU:HB2	14:H:149:ILE:HB	1.86	0.56
14:H:242:GLY:HA2	14:H:280:ILE:CG1	2.36	0.56
14:H:431:THR:HG23	14:H:431:THR:O	2.05	0.56
15:I:175:LYS:HE3	15:I:277:HIS:ND1	2.21	0.56
15:I:249:ARG:HH22	16:J:278:ASN:HB2	1.65	0.56
15:I:251:VAL:HB	15:I:254:GLU:HG3	1.87	0.56
15:I:247:PHE:CE1	15:I:281:ILE:HG21	2.41	0.56
15:I:232:LYS:CA	15:I:353:PHE:HE2	2.12	0.56
16:J:220:VAL:HG12	16:J:224:ILE:HD12	1.88	0.56
17:K:57:GLN:O	17:K:61:ILE:CG1	2.42	0.56
18:L:223:ARG:HG3	18:L:223:ARG:HH11	1.70	0.56
18:L:87:LEU:O	18:L:88:ASP:CB	2.51	0.56
20:N:480:GLY:O	20:N:483:LEU:HB3	2.04	0.56
20:N:515:ALA:HA	20:N:518:LEU:HD12	1.87	0.56
22:O:327:VAL:HG21	23:P:412:ILE:HG12	1.88	0.56
22:O:49:CYS:SG	22:O:50:PHE:N	2.79	0.56
24:Q:172:LEU:HA	24:Q:175:LYS:HD2	1.87	0.56
24:Q:242:ILE:CG1	24:Q:243:ASP:H	2.18	0.56
26:S:374:LYS:O	26:S:378:VAL:HG13	2.06	0.56
30:W:107:MET:HB2	30:W:136:VAL:HA	1.88	0.56
16:J:164:VAL:O	16:J:168:PRO:HG2	2.05	0.56
16:J:151:ILE:HD11	16:J:198:LEU:HB3	1.80	0.56
17:K:191:TYR:CE1	17:K:198:PRO:HB3	2.41	0.56
18:L:245:GLU:C	19:M:300:LYS:O	2.44	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:L:257:LEU:O	18:L:261:LEU:HD11	2.02	0.56
18:L:281:ARG:NH2	18:L:386:TYR:CZ	2.73	0.56
18:L:69:PHE:N	18:L:81:VAL:O	2.38	0.56
19:M:229:PRO:HB3	19:M:333:ASN:ND2	2.20	0.56
23:P:342:GLY:C	23:P:347:GLY:HA3	2.26	0.56
24:Q:96:PHE:CE2	24:Q:106:GLU:HG3	2.39	0.56
24:Q:299:LEU:HD12	24:Q:354:ILE:HD11	1.88	0.56
27:T:160:ASP:O	27:T:163:SER:OG	2.10	0.56
28:U:79:TYR:CE1	28:U:83:LYS:CE	2.80	0.56
14:H:275:ASP:HA	14:H:320:ALA:HB3	1.87	0.56
17:K:114:ARG:O	17:K:138:ALA:HB1	2.06	0.56
17:K:363:TYR:HB3	17:K:403:TYR:CZ	2.41	0.56
19:M:402:GLU:CD	19:M:426:GLU:OE1	2.44	0.56
19:M:87:PRO:HB2	19:M:155:LYS:CE	2.33	0.56
19:M:91:SER:OG	19:M:153:VAL:HG21	2.06	0.56
20:N:236:LEU:HD11	20:N:245:ALA:HB2	1.88	0.56
20:N:623:GLY:HA2	20:N:626:LEU:HB2	1.86	0.56
20:N:801:GLN:CB	20:N:879:ASP:H	2.18	0.56
23:P:63:THR:OG1	23:P:102:ALA:HB1	2.06	0.56
23:P:420:ASP:O	23:P:421:PRO:C	2.43	0.56
24:Q:130:GLU:OE1	24:Q:133:LEU:HD23	2.05	0.56
24:Q:162:ASP:OD2	24:Q:165:LEU:HD12	2.05	0.56
24:Q:190:LEU:HD21	24:Q:214:SER:CA	2.35	0.56
24:Q:2:ALA:HB2	24:Q:34:ASP:N	2.17	0.56
25:R:280:GLN:HE21	31:Y:52:PHE:HB2	1.69	0.56
30:W:6:THR:N	30:W:48:ASN:O	2.37	0.56
14:H:277:ILE:HD12	14:H:278:ASP:H	1.70	0.56
14:H:95:VAL:CG1	14:H:96:ALA:H	2.18	0.56
15:I:102:LEU:HB3	15:I:136:LEU:HD13	1.88	0.56
15:I:151:LEU:O	15:I:159:VAL:HA	2.06	0.56
15:I:175:LYS:CE	15:I:277:HIS:CE1	2.88	0.56
15:I:218:PRO:HB2	15:I:219:PRO:HD2	1.88	0.56
15:I:223:ILE:CG1	15:I:347:ILE:CG2	2.56	0.56
15:I:356:PRO:HB3	15:I:361:LYS:CG	2.35	0.56
16:J:148:TYR:CD2	16:J:206:HIS:CD2	2.93	0.56
16:J:291:VAL:O	16:J:291:VAL:HG22	2.05	0.56
16:J:376:VAL:HA	17:K:194:ILE:HG12	1.88	0.56
17:K:167:ILE:HG13	17:K:214:MET:HE1	1.88	0.56
18:L:223:ARG:HG3	18:L:223:ARG:NH1	2.20	0.56
20:N:540:GLN:O	20:N:541:HIS:ND1	2.38	0.56
20:N:762:GLY:HA2	20:N:778:PHE:HB3	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:P:12:ARG:O	23:P:16:MET:N	2.30	0.56
23:P:48:LEU:HD21	23:P:90:LEU:HG	1.87	0.56
24:Q:261:LEU:O	24:Q:262:ASN:HB2	2.05	0.56
25:R:185:GLY:O	25:R:201:PHE:HE2	1.88	0.56
23:P:448:LYS:NZ	28:U:154:THR:OG1	2.38	0.56
22:O:374:ILE:CG2	28:U:188:SER:HA	2.34	0.56
23:P:449:GLU:OE2	28:U:226:ILE:CD1	2.54	0.56
28:U:240:VAL:CB	28:U:242:LEU:CD2	2.84	0.56
30:W:99:HIS:O	30:W:101:GLN:NE2	2.39	0.56
2:B:98:ALA:O	2:B:102:LYS:HG3	2.06	0.56
12:G:165:SER:OG	12:G:169:ARG:NH2	2.38	0.56
14:H:88:GLN:HG2	14:H:91:GLN:OE1	2.06	0.56
15:I:160:ILE:HG22	15:I:160:ILE:O	2.06	0.56
15:I:184:TYR:HE1	15:I:239:VAL:N	2.03	0.56
17:K:169:GLY:CA	17:K:343:LEU:HD13	2.36	0.56
18:L:194:ASN:HB3	18:L:228:CYS:HA	1.87	0.56
19:M:378:ASP:O	19:M:379:VAL:HG23	2.06	0.56
23:P:120:ILE:HA	23:P:123:ARG:CG	2.35	0.56
23:P:343:SER:H	23:P:347:GLY:HA3	1.71	0.56
24:Q:271:VAL:CB	24:Q:288:LYS:HE3	2.25	0.56
24:Q:358:LYS:CG	24:Q:359:ALA:N	2.69	0.56
24:Q:85:ALA:O	24:Q:89:VAL:CG2	2.52	0.56
28:U:23:PHE:CG	28:U:126:VAL:HG21	2.40	0.56
4:C:14:PRO:HG3	6:D:23:TYR:CE2	2.41	0.56
15:I:120:HIS:HA	15:I:133:VAL:O	2.05	0.56
15:I:401:GLU:CG	15:I:422:SER:HA	2.19	0.56
17:K:103:VAL:CG1	17:K:139:LEU:HD21	2.32	0.56
17:K:167:ILE:HG13	17:K:214:MET:CE	2.35	0.56
17:K:169:GLY:HA2	17:K:343:LEU:HD13	1.87	0.56
18:L:151:LEU:N	18:L:152:PRO:CD	2.69	0.56
18:L:286:ASP:OD1	18:L:287:PRO:HD2	2.06	0.56
18:L:325:GLU:OE1	18:L:363:VAL:CG2	2.51	0.56
19:M:169:ASP:CB	19:M:172:VAL:CG2	2.68	0.56
19:M:399:VAL:CG2	19:M:427:VAL:HG21	2.35	0.56
20:N:370:VAL:CG1	20:N:407:SER:OG	2.53	0.56
20:N:529:ILE:HG23	20:N:566:LEU:HD22	1.88	0.56
20:N:803:LYS:H	20:N:879:ASP:CG	2.06	0.56
22:O:109:GLU:CG	22:O:110:ALA:N	2.69	0.56
22:O:11:SER:CA	22:O:22:TRP:CG	2.83	0.56
24:Q:282:ARG:HD3	24:Q:309:TYR:HE1	1.70	0.56
26:S:268:GLU:CG	26:S:269:LYS:H	2.18	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:V:282:ARG:O	29:V:286:GLU:HB3	2.06	0.56
30:W:141:ILE:HG23	30:W:173:VAL:HG21	1.87	0.56
31:Y:61:GLU:O	31:Y:65:TYR:N	2.37	0.56
15:I:162:VAL:CG1	15:I:163:LEU:N	2.67	0.55
15:I:316:LEU:HD11	15:I:327:VAL:CG2	2.36	0.55
15:I:405:MET:HE1	15:I:421:LYS:HD2	1.86	0.55
16:J:207:THR:HG22	16:J:209:CYS:H	1.71	0.55
17:K:225:ALA:HB2	17:K:259:PRO:O	2.00	0.55
18:L:61:LEU:HD13	18:L:78:ARG:HD3	1.88	0.55
19:M:225:MET:CG	19:M:354:PHE:CZ	2.88	0.55
20:N:381:THR:HG23	20:N:412:HIS:CE1	2.41	0.55
17:K:60:TYR:OH	20:N:640:LEU:HD21	2.06	0.55
20:N:71:LEU:HD22	26:S:273:LYS:HB3	1.87	0.55
20:N:71:LEU:HD23	26:S:273:LYS:HB3	1.86	0.55
23:P:163:ALA:HA	23:P:166:LEU:HG	1.88	0.55
25:R:187:TYR:O	25:R:190:ALA:N	2.39	0.55
25:R:286:TRP:CE2	25:R:287:LEU:HD22	2.41	0.55
28:U:138:TYR:CD1	28:U:157:HIS:HA	2.40	0.55
29:V:115:HIS:O	29:V:146:ASP:OD1	2.23	0.55
14:H:188:ARG:HD2	14:H:192:GLU:CD	2.26	0.55
14:H:363:SER:CB	15:I:214:MET:HA	2.35	0.55
16:J:54:ALA:O	16:J:58:LEU:HB2	2.06	0.55
17:K:258:ALA:O	17:K:260:ALA:N	2.40	0.55
20:N:24:LEU:HB3	20:N:59:PHE:CG	2.41	0.55
20:N:775:LEU:O	20:N:777:HIS:N	2.39	0.55
22:O:139:GLU:CB	22:O:155:PHE:CZ	2.89	0.55
22:O:274:LEU:HD23	22:O:275:LEU:CA	2.36	0.55
24:Q:244:SER:N	24:Q:245:PRO:HD3	2.20	0.55
20:N:6:ALA:CB	27:T:169:ALA:C	2.73	0.55
28:U:252:LYS:HG2	29:V:234:TYR:CD2	2.40	0.55
28:U:194:GLN:HA	29:V:228:GLY:HA3	1.88	0.55
30:W:24:THR:H	30:W:27:GLN:HB2	1.70	0.55
30:W:53:THR:O	30:W:58:CYS:CA	2.53	0.55
32:Z:433:LEU:O	32:Z:441:LYS:HA	2.06	0.55
2:B:101:TRP:HZ3	2:B:107:TYR:O	1.88	0.55
14:H:224:LEU:CD1	35:H:501:ADP:C2	2.89	0.55
14:H:99:THR:OG1	14:H:140:VAL:HG23	2.04	0.55
15:I:233:THR:CB	35:I:501:ADP:O2A	2.53	0.55
15:I:304:GLU:OE2	15:I:304:GLU:HA	2.07	0.55
15:I:309:MET:CE	15:I:341:LEU:HD11	2.37	0.55
15:I:223:ILE:HD12	15:I:347:ILE:CG2	2.33	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:268:ASP:OD1	17:K:272:THR:HG22	2.06	0.55
18:L:215:ILE:HD11	18:L:260:LEU:HD21	1.85	0.55
19:M:299:GLU:O	19:M:300:LYS:CB	2.54	0.55
19:M:310:MET:CE	19:M:339:ASP:OD2	2.54	0.55
20:N:419:ALA:CB	20:N:449:ILE:HD13	2.14	0.55
23:P:440:ASN:O	23:P:443:THR:OG1	2.16	0.55
24:Q:250:SER:HA	24:Q:253:TYR:HD2	1.71	0.55
25:R:298:GLU:HA	25:R:301:ILE:HD12	1.88	0.55
27:T:167:TYR:O	27:T:171:LEU:N	2.39	0.55
30:W:54:LEU:O	30:W:58:CYS:N	2.40	0.55
30:W:5:SER:O	30:W:108:ARG:N	2.39	0.55
14:H:190:VAL:HG11	14:H:212:VAL:CB	2.36	0.55
15:I:118:ASP:CB	15:I:120:HIS:CD2	2.89	0.55
15:I:283:PHE:HE2	15:I:285:ASP:HB2	1.71	0.55
15:I:383:LEU:O	15:I:386:ALA:HB3	2.07	0.55
15:I:405:MET:HE2	15:I:421:LYS:HD2	1.88	0.55
15:I:164:MET:HE2	16:J:78:ARG:HH22	1.70	0.55
16:J:71:SER:O	17:K:111:TYR:HB3	2.07	0.55
17:K:116:LEU:N	17:K:119:ILE:CD1	2.69	0.55
17:K:267:ILE:HG21	17:K:309:MET:HE2	1.88	0.55
19:M:320:PHE:O	19:M:321:GLN:HB2	2.06	0.55
19:M:88:TYR:OH	19:M:161:LEU:CB	2.54	0.55
16:J:25:LEU:CD2	20:N:102:ALA:HB1	2.27	0.55
20:N:902:PRO:HG2	20:N:905:PRO:HA	1.89	0.55
23:P:438:LEU:O	23:P:442:THR:HG22	2.06	0.55
24:Q:86:ALA:O	24:Q:90:ARG:HB2	2.07	0.55
26:S:333:ILE:HD11	26:S:357:LEU:HD13	1.89	0.55
26:S:471:GLU:N	26:S:472:PRO:CD	2.69	0.55
28:U:92:VAL:HA	28:U:116:CYS:SG	2.46	0.55
28:U:98:GLY:O	28:U:99:PRO:C	2.45	0.55
30:W:147:GLU:HB2	30:W:149:ASN:ND2	2.21	0.55
14:H:126:SER:CA	14:H:149:ILE:O	2.53	0.55
15:I:251:VAL:HB	15:I:254:GLU:CD	2.27	0.55
15:I:283:PHE:CE2	15:I:285:ASP:HB2	2.42	0.55
15:I:344:PRO:O	15:I:344:PRO:CG	2.53	0.55
16:J:30:GLU:C	16:J:34:ILE:HG13	2.08	0.55
16:J:376:VAL:O	17:K:194:ILE:HG23	2.06	0.55
17:K:215:LEU:CD2	17:K:333:PHE:CZ	2.85	0.55
20:N:745:THR:N	20:N:784:THR:O	2.31	0.55
22:O:360:VAL:O	22:O:361:LYS:C	2.44	0.55
23:P:67:LEU:O	23:P:71:VAL:HG13	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:260:MET:CE	24:Q:325:LYS:HB2	2.36	0.55
24:Q:96:PHE:CZ	24:Q:106:GLU:CD	2.80	0.55
29:V:254:ASN:C	29:V:280:PRO:HG3	2.27	0.55
2:B:99:ALA:HA	2:B:102:LYS:HD2	1.89	0.55
2:B:165:ALA:O	4:C:55:LEU:HB3	2.06	0.55
14:H:413:VAL:HG13	14:H:417:ILE:CD1	2.32	0.55
16:J:220:VAL:CG1	16:J:224:ILE:CD1	2.84	0.55
16:J:90:HIS:CB	16:J:91:PRO:CD	2.72	0.55
17:K:374:ASP:O	17:K:377:SER:N	2.35	0.55
17:K:387:VAL:HG22	18:L:162:VAL:HG21	1.88	0.55
17:K:368:ASP:OD2	17:K:407:ILE:HG12	2.07	0.55
17:K:55:GLU:O	17:K:56:VAL:C	2.44	0.55
18:L:136:GLY:HA2	18:L:142:ILE:HD11	1.88	0.55
19:M:177:VAL:CG2	19:M:248:PHE:HD2	2.06	0.55
19:M:197:GLU:OE1	19:M:352:ILE:HD12	2.07	0.55
22:O:240:PHE:CG	22:O:275:LEU:CD1	2.89	0.55
24:Q:59:LYS:C	24:Q:61:GLY:N	2.60	0.55
25:R:300:ARG:CZ	25:R:333:GLU:CG	2.85	0.55
16:J:45:LEU:CD2	26:S:492:LYS:HA	2.37	0.55
27:T:259:PHE:HA	27:T:262:ILE:HD12	1.87	0.55
28:U:170:VAL:HG11	29:V:155:VAL:HG23	1.89	0.55
28:U:94:TRP:CZ3	28:U:121:LEU:HD11	2.35	0.55
32:Z:126:ILE:O	32:Z:130:ALA:N	2.39	0.55
32:Z:336:GLU:O	32:Z:340:MET:N	2.40	0.55
2:B:175:SER:OG	2:B:201:CYS:SG	2.62	0.55
2:B:18:PRO:HA	4:C:23:TYR:CD1	2.42	0.55
14:H:173:THR:HG22	14:H:174:TYR:N	2.18	0.55
14:H:220:THR:HG21	14:H:343:PHE:O	2.07	0.55
15:I:349:ARG:HG3	15:I:349:ARG:NH1	2.22	0.55
16:J:151:ILE:HG22	16:J:151:ILE:O	2.07	0.55
19:M:202:ILE:HD13	19:M:329:ILE:HD11	1.84	0.55
19:M:229:PRO:CB	19:M:333:ASN:ND2	2.70	0.55
19:M:394:ALA:O	19:M:397:LYS:HB3	2.06	0.55
19:M:414:GLU:N	19:M:414:GLU:OE2	2.35	0.55
19:M:188:ILE:HA	35:M:501:ADP:N1	2.22	0.55
20:N:935:ILE:CG1	20:N:939:GLU:HB3	2.36	0.55
24:Q:194:ARG:HH12	24:Q:214:SER:HB3	1.70	0.55
24:Q:225:TRP:CD1	24:Q:257:CYS:HA	2.42	0.55
26:S:471:GLU:N	26:S:472:PRO:HD3	2.21	0.55
29:V:238:CYS:O	29:V:242:GLU:HG3	2.07	0.55
15:I:180:PRO:O	15:I:181:GLN:HB2	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:H:398:ARG:HD3	15:I:199:GLU:OE1	2.07	0.55
15:I:276:GLU:O	15:I:278:ALA:N	2.40	0.55
16:J:193:GLY:O	16:J:355:SER:CB	2.54	0.55
16:J:127:LEU:HD13	17:K:102:ILE:HD11	1.89	0.55
17:K:121:ARG:O	17:K:122:GLU:C	2.44	0.55
17:K:247:VAL:HG12	17:K:251:PHE:CD2	2.42	0.55
19:M:382:GLU:O	19:M:386:ARG:N	2.34	0.55
22:O:364:GLU:HG3	22:O:365:MET:N	2.21	0.55
23:P:421:PRO:CD	23:P:422:ASN:H	2.19	0.55
23:P:425:LEU:HD13	29:V:234:TYR:CE2	2.41	0.55
24:Q:414:LEU:N	29:V:259:VAL:HG11	2.22	0.55
27:T:339:VAL:HG21	29:V:303:MET:HG3	1.89	0.55
30:W:12:ASN:ND2	30:W:80:PRO:HA	2.22	0.55
21:X:47:PHE:HB2	21:X:214:SER:HB2	1.88	0.55
32:Z:269:ALA:HA	32:Z:277:LEU:CB	2.37	0.55
32:Z:661:ALA:HB2	32:Z:693:ALA:HB1	1.88	0.55
32:Z:300:ARG:CB	32:Z:787:LEU:CB	2.85	0.55
14:H:111:TYR:CZ	14:H:134:ILE:HD12	2.42	0.55
14:H:190:VAL:HG22	14:H:209:PRO:HB2	1.89	0.55
14:H:297:ARG:O	14:H:301:GLU:N	2.33	0.55
16:J:207:THR:CG2	16:J:209:CYS:HB2	2.37	0.55
18:L:331:ILE:HG23	18:L:371:VAL:HG21	1.89	0.55
18:L:99:ALA:CB	18:L:109:ARG:O	2.54	0.55
20:N:616:ARG:CZ	20:N:647:HIS:CD2	2.90	0.55
22:O:225:LEU:O	22:O:230:ARG:HB2	2.07	0.55
23:P:150:ALA:HB2	23:P:165:ILE:CD1	2.33	0.55
24:Q:310:ARG:HA	24:Q:313:LEU:HB2	1.89	0.55
32:Z:528:GLY:N	32:Z:565:ASN:O	2.40	0.55
2:B:96:TYR:CZ	2:B:100:ASN:OD1	2.60	0.55
16:J:118:ASN:O	16:J:121:TYR:CE1	2.60	0.55
16:J:127:LEU:HD22	17:K:96:VAL:HG21	1.88	0.55
17:K:277:ALA:O	17:K:278:GLN:HB2	2.06	0.55
19:M:312:GLU:O	19:M:316:GLN:CG	2.46	0.55
20:N:198:LEU:HA	20:N:201:LEU:CG	2.36	0.55
20:N:632:GLN:O	20:N:636:VAL:N	2.22	0.55
20:N:35:TRP:CE2	20:N:70:HIS:HB3	2.42	0.55
22:O:341:LEU:HA	22:O:345:GLN:OE1	2.06	0.55
24:Q:22:ALA:O	24:Q:26:ILE:N	2.30	0.55
24:Q:49:SER:O	24:Q:53:LEU:N	2.40	0.55
25:R:377:LEU:CD1	26:S:479:ARG:HG2	2.37	0.55
26:S:267:ALA:O	26:S:271:VAL:HG23	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:43:LEU:HD12	8:E:72:ALA:HB2	1.88	0.54
14:H:193:THR:OG1	14:H:194:PRO:HD3	2.08	0.54
14:H:276:GLU:HG2	15:I:310:LEU:HD11	1.90	0.54
17:K:360:LEU:CD1	17:K:363:TYR:CD2	2.86	0.54
18:L:65:THR:CG2	18:L:68:LYS:HD2	2.37	0.54
19:M:359:GLU:HG3	19:M:362:ARG:NH2	2.22	0.54
19:M:410:ARG:O	19:M:412:ALA:N	2.40	0.54
19:M:89:LEU:HD21	19:M:126:THR:CB	2.36	0.54
20:N:793:LYS:H	20:N:916:ASP:HB2	1.72	0.54
24:Q:85:ALA:O	24:Q:89:VAL:N	2.29	0.54
25:R:111:LEU:O	25:R:115:GLY:N	2.39	0.54
25:R:366:TYR:O	25:R:369:THR:HG22	2.07	0.54
29:V:255:TYR:N	29:V:280:PRO:CG	2.70	0.54
29:V:64:ASP:HA	29:V:139:ARG:HH12	1.67	0.54
32:Z:831:VAL:HA	32:Z:877:GLY:HA2	1.89	0.54
15:I:112:LEU:HB2	15:I:148:CYS:N	2.23	0.54
15:I:122:ILE:HD12	15:I:131:HIS:O	2.08	0.54
15:I:189:GLY:HA2	15:I:360:THR:HG22	1.89	0.54
15:I:287:ILE:HD11	15:I:331:THR:CG2	2.35	0.54
15:I:271:PHE:CB	15:I:315:GLN:HE22	2.19	0.54
16:J:273:MET:SD	16:J:305:LEU:HD21	2.46	0.54
17:K:185:LEU:CD2	17:K:259:PRO:HB3	2.37	0.54
18:L:344:ARG:NE	35:L:401:ADP:O2'	2.40	0.54
20:N:7:GLY:CA	27:T:170:GLN:CG	2.45	0.54
22:O:248:PHE:CD2	22:O:272:ILE:HD11	2.42	0.54
24:Q:260:MET:HE1	24:Q:325:LYS:CB	2.38	0.54
25:R:53:TYR:OH	25:R:150:PHE:CZ	2.59	0.54
14:H:360:ARG:O	14:H:360:ARG:HG2	2.06	0.54
14:H:295:VAL:HG11	15:I:307:ARG:NH1	2.22	0.54
16:J:86:LEU:HD13	16:J:86:LEU:C	2.27	0.54
17:K:47:LEU:O	17:K:50:GLU:N	2.40	0.54
20:N:657:GLY:HA2	20:N:694:ILE:HD11	1.89	0.54
20:N:802:TYR:H	20:N:879:ASP:HB2	1.72	0.54
23:P:384:LEU:HD13	23:P:392:PHE:HE2	1.69	0.54
24:Q:364:LYS:O	24:Q:367:GLN:N	2.41	0.54
21:X:87:LEU:HD12	21:X:133:CYS:SG	2.47	0.54
10:F:17:PRO:HA	12:G:24:TYR:CG	2.42	0.54
15:I:190:LEU:HD12	15:I:194:ILE:HD11	1.89	0.54
15:I:220:LYS:HG2	15:I:345:GLY:O	2.08	0.54
16:J:31:LEU:O	16:J:35:VAL:HG23	2.08	0.54
17:K:188:PHE:HD2	17:K:304:ASN:HD21	1.56	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:43:ARG:HD2	17:K:57:GLN:CB	2.38	0.54
17:K:64:GLU:O	17:K:68:LEU:CG	2.55	0.54
18:L:250:ASP:O	18:L:254:GLN:CG	2.53	0.54
19:M:215:LEU:HD23	19:M:215:LEU:O	2.08	0.54
19:M:88:TYR:OH	19:M:161:LEU:HB3	2.08	0.54
20:N:180:SER:O	20:N:184:CYS:N	2.30	0.54
20:N:357:LYS:HZ2	20:N:385:PHE:HB2	1.70	0.54
24:Q:239:TYR:CA	24:Q:242:ILE:HG22	2.38	0.54
26:S:348:PHE:CG	26:S:361:PHE:HB2	2.43	0.54
28:U:23:PHE:HA	28:U:35:VAL:HG21	1.89	0.54
14:H:362:MET:CE	14:H:364:VAL:HG12	2.37	0.54
15:I:203:LEU:HB3	15:I:204:PRO:CD	2.37	0.54
15:I:303:ARG:O	15:I:307:ARG:HD3	2.06	0.54
15:I:414:VAL:CG1	15:I:418:ASP:HB3	2.36	0.54
16:J:173:GLU:O	16:J:177:ALA:HB2	2.07	0.54
16:J:154:LEU:HD21	16:J:317:PHE:HD2	1.72	0.54
16:J:355:SER:H	16:J:358:GLU:HB2	1.73	0.54
17:K:372:GLY:C	17:K:375:ILE:HD12	2.26	0.54
17:K:354:LEU:HD12	17:K:394:VAL:H	1.73	0.54
17:K:394:VAL:HG11	17:K:398:ASP:CB	2.31	0.54
17:K:92:PHE:CD1	17:K:93:LEU:N	2.75	0.54
18:L:130:VAL:CG1	18:L:131:SER:H	2.11	0.54
18:L:195:PHE:HD1	18:L:229:ILE:HG21	1.62	0.54
18:L:257:LEU:C	18:L:261:LEU:HD12	2.28	0.54
18:L:326:ILE:HG22	18:L:328:TYR:CD2	2.41	0.54
20:N:733:ALA:HA	20:N:736:ILE:HD12	1.88	0.54
22:O:4:VAL:O	22:O:8:LEU:CB	2.55	0.54
23:P:63:THR:O	23:P:67:LEU:HB2	2.08	0.54
24:Q:260:MET:SD	24:Q:325:LYS:CB	2.95	0.54
24:Q:361:VAL:O	24:Q:364:LYS:N	2.39	0.54
26:S:475:ALA:O	26:S:479:ARG:HD2	2.07	0.54
21:X:86:SER:O	21:X:90:ILE:HD12	2.06	0.54
32:Z:142:TYR:O	32:Z:146:GLY:N	2.40	0.54
14:H:384:GLU:HG2	15:I:344:PRO:HG3	1.89	0.54
14:H:386:ARG:HD2	14:H:386:ARG:C	2.28	0.54
15:I:171:VAL:HG22	15:I:273:VAL:HG13	1.90	0.54
15:I:218:PRO:CG	15:I:326:LYS:HZ1	2.20	0.54
15:I:365:PHE:HD1	15:I:395:ILE:HG22	1.64	0.54
16:J:214:VAL:CG2	16:J:234:LEU:CD1	2.86	0.54
16:J:88:LYS:HB2	16:J:94:LYS:CG	2.37	0.54
17:K:155:THR:OG1	17:K:156:SER:N	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:226:ALA:HB2	17:K:257:ASN:ND2	2.19	0.54
17:K:98:GLN:OE1	17:K:121:ARG:NH2	2.38	0.54
18:L:305:ASN:H	18:L:308:ALA:CB	2.17	0.54
19:M:165:PRO:O	19:M:166:THR:HG23	2.07	0.54
19:M:299:GLU:O	19:M:300:LYS:HB2	2.08	0.54
20:N:191:LYS:CG	20:N:195:ASN:CG	2.76	0.54
20:N:532:MET:O	20:N:536:ALA:N	2.29	0.54
23:P:128:LEU:O	23:P:132:THR:HG23	2.08	0.54
23:P:166:LEU:HD21	23:P:192:LEU:CD1	2.37	0.54
23:P:438:LEU:O	23:P:442:THR:CG2	2.56	0.54
24:Q:118:LYS:HE2	24:Q:126:ARG:NE	2.21	0.54
25:R:167:LEU:O	25:R:170:GLU:CG	2.56	0.54
25:R:316:LEU:O	25:R:319:MET:N	2.40	0.54
27:T:345:GLN:O	27:T:349:ILE:HD11	2.07	0.54
29:V:64:ASP:CA	29:V:139:ARG:NH1	2.63	0.54
17:K:77:GLU:O	29:V:151:VAL:HG21	2.08	0.54
32:Z:408:LEU:HA	32:Z:443:GLY:HA2	1.88	0.54
2:B:202:LEU:C	2:B:205:VAL:HG12	2.28	0.54
2:B:6:SER:HB2	2:B:11:ARG:HH11	1.73	0.54
14:H:232:ARG:HG2	14:H:232:ARG:O	2.07	0.54
14:H:407:LYS:HA	14:H:410:LEU:HD12	1.89	0.54
17:K:236:VAL:HG12	17:K:288:ILE:HD11	1.90	0.54
18:L:135:ILE:HG21	18:L:182:LEU:HG	1.88	0.54
18:L:129:ASN:O	18:L:189:SER:HB2	2.08	0.54
19:M:382:GLU:HA	19:M:385:ALA:HB3	1.90	0.54
23:P:153:LYS:HE3	23:P:162:ALA:HA	1.87	0.54
23:P:162:ALA:O	23:P:165:ILE:HG12	2.08	0.54
24:Q:302:PHE:CD2	24:Q:330:LEU:HD12	2.41	0.54
17:K:70:LYS:HE2	28:U:182:THR:OG1	2.08	0.54
29:V:266:THR:HB	29:V:267:PRO:CD	2.38	0.54
30:W:21:PHE:HZ	30:W:179:LEU:HD22	1.71	0.54
30:W:15:TYR:C	30:W:25:ARG:HD3	2.28	0.54
17:K:247:VAL:CG1	17:K:251:PHE:CD2	2.91	0.54
17:K:286:GLN:O	17:K:289:LEU:HB2	2.08	0.54
17:K:411:GLU:HG2	17:K:412:GLN:N	2.23	0.54
18:L:201:SER:O	18:L:204:VAL:HG22	2.07	0.54
18:L:166:PRO:CB	18:L:274:LYS:HZ1	2.20	0.54
18:L:66:GLU:HB3	18:L:89:LYS:HD3	1.89	0.54
19:M:399:VAL:CG2	19:M:427:VAL:CG2	2.86	0.54
19:M:433:ALA:O	19:M:434:ASN:HB2	2.07	0.54
20:N:624:PHE:HE1	20:N:658:ILE:HG21	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:334:ARG:O	25:R:173:ASP:HB2	2.08	0.54
25:R:227:SER:HB2	25:R:231:LEU:CD1	2.37	0.54
25:R:227:SER:HB2	25:R:240:VAL:HG21	1.90	0.54
25:R:237:ARG:CB	25:R:264:TYR:OH	2.56	0.54
25:R:315:THR:HA	25:R:353:ILE:HD12	1.90	0.54
25:R:307:LEU:CD2	25:R:319:MET:CE	2.77	0.54
27:T:327:ASP:C	27:T:331:PRO:HG2	2.28	0.54
14:H:182:GLU:HB2	14:H:183:GLN:OE1	2.08	0.54
14:H:237:PHE:HD1	14:H:271:LEU:HD12	1.72	0.54
15:I:107:MET:CE	15:I:151:LEU:HD13	2.38	0.54
15:I:408:ARG:HD2	16:J:163:GLU:OE2	2.08	0.54
16:J:86:LEU:HD23	16:J:96:VAL:HG21	1.74	0.54
17:K:92:PHE:CD2	17:K:124:LEU:HG	2.43	0.54
17:K:147:ALA:CB	17:K:249:ASP:OD2	2.56	0.54
17:K:391:ARG:HH12	17:K:395:LEU:HD12	1.69	0.54
18:L:153:LEU:C	18:L:156:PRO:HD3	2.29	0.54
19:M:172:VAL:O	19:M:175:MET:HB2	2.08	0.54
18:L:345:ASN:OD1	19:M:349:ASP:OD1	2.26	0.54
20:N:457:ILE:O	20:N:461:LEU:N	2.22	0.54
20:N:717:ILE:HA	20:N:727:LYS:HG2	1.89	0.54
23:P:253:THR:HB	23:P:256:ILE:HG12	1.89	0.54
23:P:76:GLU:CG	23:P:77:ALA:H	2.21	0.54
24:Q:251:LEU:CD1	24:Q:276:ALA:HB1	2.33	0.54
25:R:311:TYR:CG	25:R:314:LEU:HD23	2.43	0.54
28:U:240:VAL:CB	28:U:242:LEU:HD21	2.38	0.54
30:W:6:THR:HG23	30:W:108:ARG:HG2	1.90	0.54
31:Y:45:ASP:O	31:Y:46:ASP:CB	2.56	0.54
14:H:283:ALA:HB3	14:H:285:PHE:HE1	1.72	0.54
14:H:331:LEU:O	14:H:337:LEU:HB2	2.08	0.54
16:J:232:ARG:HG3	16:J:232:ARG:NH1	2.23	0.54
16:J:30:GLU:C	16:J:34:ILE:CG1	2.74	0.54
18:L:125:GLU:O	18:L:126:ASP:C	2.47	0.54
18:L:238:ILE:HG12	18:L:260:LEU:HD11	1.88	0.54
20:N:99:THR:CG2	26:S:240:LEU:HD11	2.38	0.54
23:P:342:GLY:CA	23:P:347:GLY:CA	2.86	0.54
23:P:401:THR:C	23:P:402:ILE:HG23	2.28	0.54
25:R:21:GLN:CG	25:R:286:TRP:HZ3	2.18	0.54
25:R:256:VAL:HG23	25:R:257:ARG:N	2.22	0.54
25:R:292:TYR:CD1	25:R:293:ARG:N	2.76	0.54
24:Q:401:LEU:HD21	25:R:369:THR:HA	1.89	0.54
27:T:155:SER:HA	27:T:158:ARG:CG	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:Z:536:SER:O	32:Z:540:GLN:N	2.41	0.54
32:Z:762:VAL:O	32:Z:766:GLN:N	2.31	0.54
15:I:184:TYR:CE2	15:I:202:GLU:OE1	2.62	0.53
16:J:329:LEU:HD12	16:J:329:LEU:O	2.07	0.53
17:K:129:SER:O	17:K:143:LEU:HB2	2.08	0.53
18:L:117:PRO:CA	19:M:147:PRO:HB3	2.38	0.53
18:L:223:ARG:O	18:L:226:GLN:HG2	2.07	0.53
18:L:356:ARG:HH11	18:L:356:ARG:CG	2.21	0.53
20:N:130:LEU:O	20:N:134:VAL:N	2.26	0.53
20:N:213:PHE:O	20:N:217:CYS:N	2.30	0.53
20:N:711:GLN:O	20:N:715:LYS:CG	2.56	0.53
20:N:748:LEU:HD13	20:N:759:SER:HB2	1.89	0.53
25:R:28:LEU:HB3	25:R:29:PRO:HD2	1.88	0.53
27:T:254:GLU:CG	27:T:255:SER:N	2.71	0.53
28:U:54:PHE:CE1	28:U:78:MET:HG2	2.43	0.53
30:W:53:THR:CA	30:W:61:LEU:HD21	2.38	0.53
32:Z:234:THR:O	32:Z:237:VAL:N	2.41	0.53
32:Z:903:ASN:O	32:Z:906:TYR:N	2.41	0.53
4:C:45:LEU:HD13	4:C:74:VAL:HG22	1.90	0.53
10:F:127:ASP:HB3	12:G:125:ARG:NH2	2.23	0.53
14:H:191:VAL:CG1	14:H:271:LEU:HD11	2.37	0.53
14:H:303:ILE:HG23	14:H:336:ARG:NH1	2.22	0.53
14:H:393:GLY:O	15:I:214:MET:HE1	2.08	0.53
15:I:246:THR:OG1	15:I:280:SER:HB2	2.08	0.53
15:I:174:MET:HE3	15:I:270:LEU:HA	1.90	0.53
16:J:392:GLN:O	16:J:396:GLU:HB2	2.08	0.53
16:J:65:LEU:HA	16:J:68:GLU:HG3	1.89	0.53
20:N:99:THR:CG2	26:S:240:LEU:HD21	2.38	0.53
23:P:344:THR:O	23:P:348:GLU:HB3	2.08	0.53
25:R:185:GLY:HA3	25:R:201:PHE:CZ	2.43	0.53
25:R:268:TYR:OH	25:R:306:GLN:HG2	2.07	0.53
29:V:225:TRP:C	29:V:227:GLU:N	2.62	0.53
30:W:161:ASN:ND2	30:W:168:SER:O	2.41	0.53
30:W:29:GLN:O	30:W:33:VAL:HG23	2.07	0.53
14:H:181:LYS:O	14:H:185:GLU:HB2	2.08	0.53
14:H:190:VAL:HG13	14:H:212:VAL:HG23	1.89	0.53
14:H:297:ARG:NH1	19:M:306:VAL:HG21	2.23	0.53
14:H:397:ILE:HG13	15:I:214:MET:HE1	1.89	0.53
15:I:246:THR:HG1	15:I:280:SER:HB3	1.66	0.53
17:K:125:LYS:HB2	17:K:126:PRO:CD	2.37	0.53
16:J:26:SER:HG	17:K:40:LEU:CB	2.03	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:167:ILE:HA	35:K:501:ADP:C2	2.44	0.53
19:M:89:LEU:HD13	19:M:128:THR:HG23	1.90	0.53
19:M:413:THR:HG1	19:M:414:GLU:H	1.57	0.53
20:N:546:ARG:HD3	20:N:768:GLN:OE1	2.09	0.53
23:P:199:TYR:CG	23:P:200:ILE:N	2.76	0.53
24:Q:113:CYS:HA	24:Q:116:TRP:HB3	1.90	0.53
24:Q:103:THR:OG1	24:Q:140:THR:HG22	2.08	0.53
24:Q:25:ASP:O	24:Q:29:SER:N	2.40	0.53
25:R:176:ARG:O	25:R:179:ARG:HG2	2.08	0.53
32:Z:478:ARG:O	32:Z:482:ILE:N	2.31	0.53
32:Z:767:GLY:O	32:Z:771:LEU:N	2.41	0.53
32:Z:784:ASP:CB	32:Z:895:GLU:O	2.56	0.53
10:F:36:THR:HA	10:F:171:GLY:HA3	1.91	0.53
10:F:182:GLN:NE2	12:G:54:SER:HB2	2.23	0.53
14:H:362:MET:HA	15:I:215:GLY:HA3	1.90	0.53
15:I:268:ARG:O	15:I:272:ARG:N	2.37	0.53
15:I:283:PHE:CD1	15:I:328:ILE:HB	2.41	0.53
15:I:387:LYS:HB3	15:I:390:LEU:CD2	2.23	0.53
15:I:390:LEU:HD11	15:I:395:ILE:HD11	1.90	0.53
16:J:167:LEU:HB3	16:J:168:PRO:HD3	1.91	0.53
16:J:235:PHE:CZ	16:J:280:LEU:HD21	2.44	0.53
16:J:339:THR:HG1	16:J:377:HIS:HB3	1.73	0.53
16:J:356:GLY:HA3	35:J:501:ADP:N7	2.23	0.53
17:K:162:VAL:HG21	17:K:217:LYS:HD3	1.91	0.53
17:K:373:ALA:HA	35:K:501:ADP:O4'	2.08	0.53
18:L:194:ASN:HB3	18:L:228:CYS:SG	2.48	0.53
18:L:200:SER:CB	18:L:234:GLU:O	2.51	0.53
19:M:169:ASP:HB2	19:M:172:VAL:HG21	1.87	0.53
20:N:324:LYS:O	20:N:328:ILE:N	2.33	0.53
22:O:139:GLU:CB	22:O:155:PHE:HZ	2.21	0.53
25:R:208:PHE:CD2	25:R:216:TYR:HD1	2.18	0.53
26:S:348:PHE:CD2	26:S:361:PHE:CG	2.97	0.53
28:U:88:ARG:O	28:U:88:ARG:HD3	2.09	0.53
29:V:118:PHE:O	29:V:121:TRP:NE1	2.36	0.53
32:Z:415:GLY:O	32:Z:419:LEU:N	2.40	0.53
2:B:50:ILE:HG12	2:B:141:ILE:HD13	1.90	0.53
4:C:12:PHE:HB2	6:D:20:GLN:OE1	2.09	0.53
14:H:114:ASN:N	14:H:114:ASN:HD22	2.02	0.53
14:H:362:MET:CE	15:I:216:ILE:HD11	2.37	0.53
15:I:112:LEU:O	15:I:147:GLY:CA	2.55	0.53
15:I:119:ASN:HA	15:I:141:LYS:HE2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:I:256:ILE:HD11	15:I:290:ILE:HA	1.90	0.53
16:J:189:TYR:CD1	16:J:298:ILE:CD1	2.68	0.53
17:K:92:PHE:CE2	17:K:124:LEU:HD23	2.44	0.53
17:K:228:ILE:HG22	17:K:230:VAL:HG23	1.91	0.53
16:J:56:VAL:HG11	17:K:72:PHE:CE2	2.43	0.53
18:L:195:PHE:HA	18:L:229:ILE:O	2.08	0.53
18:L:238:ILE:HD13	18:L:257:LEU:N	2.22	0.53
18:L:47:LEU:O	18:L:50:LEU:HB2	2.09	0.53
19:M:252:ALA:HB1	19:M:254:PRO:HD2	1.90	0.53
19:M:265:ALA:HA	19:M:312:GLU:HG2	1.90	0.53
20:N:436:ALA:O	20:N:440:GLY:N	2.37	0.53
23:P:205:ILE:O	23:P:208:LYS:NZ	2.38	0.53
24:Q:97:LEU:CD2	24:Q:136:LEU:HD11	2.38	0.53
25:R:168:ILE:CG2	25:R:177:ARG:HE	2.21	0.53
16:J:28:ILE:HG21	26:S:240:LEU:O	2.08	0.53
26:S:476:PHE:C	26:S:480:ILE:CD1	2.72	0.53
30:W:138:VAL:N	30:W:167:GLY:O	2.41	0.53
30:W:54:LEU:C	30:W:85:THR:CB	2.77	0.53
14:H:215:PHE:CG	14:H:324:PRO:HG3	2.42	0.53
15:I:414:VAL:HG13	15:I:418:ASP:HB3	1.86	0.53
16:J:132:ASP:HB3	16:J:133:PRO:CD	2.39	0.53
16:J:151:ILE:HG23	16:J:154:LEU:HD12	1.91	0.53
17:K:85:ILE:HG22	17:K:86:PRO:HD3	1.90	0.53
18:L:356:ARG:O	18:L:358:ASP:N	2.42	0.53
18:L:181:THR:HB	35:L:401:ADP:O2A	2.08	0.53
19:M:150:LEU:HB3	19:M:164:LEU:HB2	1.88	0.53
19:M:183:GLU:CD	19:M:235:LEU:HD22	2.29	0.53
19:M:249:LEU:HB3	19:M:283:ILE:CA	2.36	0.53
24:Q:55:SER:HA	24:Q:58:ALA:HB3	1.91	0.53
25:R:128:TYR:HA	25:R:131:THR:HG23	1.89	0.53
27:T:262:ILE:O	27:T:265:ASP:CG	2.47	0.53
28:U:215:VAL:CG1	28:U:220:LEU:CB	2.86	0.53
28:U:14:LEU:CD1	29:V:40:LYS:HA	2.37	0.53
30:W:100:ARG:NE	30:W:105:HIS:O	2.25	0.53
6:D:45:LEU:HD13	6:D:75:SER:HB2	1.90	0.53
10:F:232:GLU:OE2	10:F:232:GLU:N	2.37	0.53
16:J:307:ARG:O	16:J:309:GLY:N	2.41	0.53
16:J:329:LEU:CD2	16:J:344:LEU:HB3	2.39	0.53
16:J:48:GLN:O	16:J:52:LEU:HG	2.09	0.53
17:K:176:GLU:O	17:K:180:ALA:N	2.40	0.53
17:K:216:ALA:CB	17:K:263:PHE:CE2	2.92	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:L:129:ASN:OD1	18:L:130:VAL:HG23	2.09	0.53
18:L:205:ASP:O	18:L:206:LYS:HB3	2.09	0.53
18:L:312:ILE:HA	18:L:315:ILE:HD12	1.91	0.53
19:M:146:LYS:HE3	19:M:149:ASP:OD2	2.09	0.53
20:N:178:ALA:HA	20:N:181:LEU:HB3	1.90	0.53
20:N:752:THR:HB	20:N:753:GLY:CA	2.33	0.53
23:P:180:LYS:CG	23:P:181:GLU:N	2.72	0.53
23:P:290:ILE:HG22	23:P:296:LEU:HD22	1.91	0.53
24:Q:134:VAL:CG2	24:Q:149:LEU:HD23	2.38	0.53
28:U:106:ILE:HG13	28:U:155:PHE:CZ	2.44	0.53
28:U:194:GLN:O	28:U:197:GLY:N	2.42	0.53
32:Z:699:VAL:CB	32:Z:778:LEU:H	2.22	0.53
2:B:76:ILE:HD11	2:B:109:ILE:O	2.09	0.53
14:H:362:MET:CG	14:H:364:VAL:HG13	2.39	0.53
15:I:135:ILE:HD11	15:I:139:VAL:HG23	1.90	0.53
14:H:248:LYS:HA	15:I:260:LEU:HB3	1.91	0.53
16:J:155:ASP:O	16:J:156:LYS:C	2.46	0.53
16:J:33:LEU:CD2	17:K:47:LEU:CB	2.82	0.53
16:J:73:VAL:HG12	17:K:110:ASN:O	2.08	0.53
17:K:318:ASP:OD1	17:K:319:PRO:HD2	2.07	0.53
23:P:180:LYS:O	23:P:184:GLU:HB2	2.08	0.53
16:J:28:ILE:CG2	26:S:242:HIS:HD2	1.83	0.53
27:T:162:PRO:O	27:T:165:GLU:HB2	2.08	0.53
30:W:142:ASN:ND2	30:W:172:THR:HG23	2.24	0.53
6:D:62:SER:OG	6:D:63:GLU:N	2.42	0.53
17:K:385:LEU:HD23	17:K:398:ASP:HA	1.91	0.53
18:L:140:GLU:O	18:L:144:GLU:HB2	2.09	0.53
18:L:227:PRO:HA	18:L:272:ARG:HB3	1.90	0.53
24:Q:92:LEU:O	24:Q:96:PHE:CB	2.57	0.53
27:T:270:GLU:O	27:T:274:CYS:N	2.31	0.53
25:R:388:ASN:HA	28:U:279:LYS:HZ1	1.71	0.53
30:W:144:GLY:HA3	30:W:148:VAL:HG13	1.90	0.53
31:Y:64:GLY:O	31:Y:68:GLU:N	2.42	0.53
2:B:173:THR:O	2:B:176:THR:OG1	2.22	0.53
12:G:15:PRO:HA	21:X:25:TYR:CG	2.44	0.53
14:H:188:ARG:O	14:H:192:GLU:HB3	2.09	0.53
14:H:258:ARG:CD	14:H:305:GLN:NE2	2.60	0.53
14:H:301:GLU:OE1	19:M:254:PRO:CB	2.57	0.53
16:J:114:VAL:CG1	16:J:126:ILE:CB	2.83	0.53
16:J:383:PHE:O	16:J:387:VAL:HG23	2.09	0.53
17:K:360:LEU:O	17:K:364:VAL:HG23	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:N:326:ILE:HA	20:N:329:LEU:HD12	1.90	0.53
20:N:681:ASN:HA	20:N:684:ARG:HG2	1.91	0.53
20:N:738:ASP:HA	20:N:742:HIS:HB3	1.91	0.53
25:R:228:MET:HE3	25:R:263:LEU:CD2	2.35	0.53
27:T:207:GLU:O	27:T:211:GLU:HG2	2.09	0.53
27:T:282:ILE:O	27:T:314:ASN:HA	2.09	0.53
28:U:204:LYS:CG	29:V:225:TRP:CZ2	2.92	0.53
32:Z:597:VAL:C	32:Z:599:ALA:H	2.11	0.53
14:H:273:PHE:HD1	14:H:318:LEU:HB3	1.74	0.52
15:I:307:ARG:O	15:I:311:GLU:N	2.34	0.52
15:I:401:GLU:CG	15:I:422:SER:CA	2.83	0.52
16:J:159:LYS:O	16:J:163:GLU:HG3	2.08	0.52
16:J:207:THR:CG2	16:J:209:CYS:CB	2.87	0.52
16:J:137:LEU:CB	16:J:224:ILE:HD11	2.37	0.52
17:K:258:ALA:CB	17:K:259:PRO:HD3	2.34	0.52
17:K:276:ASP:CA	17:K:282:ASP:OD2	2.57	0.52
17:K:276:ASP:O	17:K:282:ASP:HB2	2.09	0.52
17:K:213:THR:HB	35:K:501:ADP:O2A	2.09	0.52
18:L:101:ASP:O	18:L:105:LEU:HA	2.09	0.52
18:L:145:LEU:HD11	18:L:149:ILE:HD11	1.89	0.52
18:L:207:TYR:HB2	18:L:210:GLU:HB2	1.90	0.52
18:L:65:THR:OG1	18:L:68:LYS:HB2	2.08	0.52
20:N:389:ASN:CB	20:N:392:TRP:HB2	2.38	0.52
20:N:35:TRP:CZ3	26:S:273:LYS:HD2	2.41	0.52
20:N:71:LEU:HD23	26:S:273:LYS:HD3	1.91	0.52
26:S:333:ILE:HD13	26:S:348:PHE:HE1	1.74	0.52
27:T:340:ILE:O	27:T:344:ARG:N	2.37	0.52
29:V:237:HIS:CD2	29:V:238:CYS:N	2.78	0.52
30:W:53:THR:N	30:W:61:LEU:CD2	2.63	0.52
32:Z:609:VAL:O	32:Z:613:LEU:CB	2.57	0.52
15:I:231:GLY:O	15:I:353:PHE:CE2	2.63	0.52
15:I:231:GLY:C	15:I:353:PHE:HE2	2.13	0.52
15:I:357:ASP:CG	15:I:358:GLU:H	2.10	0.52
16:J:85:VAL:HG21	16:J:99:VAL:HG12	1.90	0.52
17:K:89:ILE:HG23	17:K:143:LEU:CD2	2.39	0.52
17:K:92:PHE:O	17:K:127:ASN:CG	2.45	0.52
18:L:152:PRO:HA	18:L:159:PHE:CE2	2.45	0.52
18:L:152:PRO:HB2	18:L:166:PRO:HB3	1.92	0.52
18:L:195:PHE:CE1	18:L:229:ILE:CG2	2.91	0.52
18:L:255:ARG:O	18:L:258:MET:N	2.41	0.52
18:L:360:ASP:OD1	18:L:361:PHE:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:M:268:VAL:O	19:M:272:PHE:HB2	2.08	0.52
19:M:289:ASP:OD1	19:M:289:ASP:N	2.40	0.52
23:P:153:LYS:CE	23:P:162:ALA:CB	2.87	0.52
23:P:384:LEU:HB3	23:P:388:GLU:CB	2.18	0.52
25:R:267:ARG:CG	25:R:270:VAL:CG1	2.87	0.52
30:W:20:ASP:OD2	30:W:25:ARG:NH1	2.43	0.52
14:H:261:PHE:CE1	14:H:306:LEU:HD13	2.43	0.52
15:I:285:ASP:O	15:I:286:GLU:HB2	2.07	0.52
16:J:97:VAL:HB	16:J:121:TYR:O	2.09	0.52
17:K:265:ASP:O	17:K:266:GLU:HB2	2.07	0.52
18:L:143:ARG:HG2	18:L:147:GLU:CD	2.27	0.52
17:K:352:MET:HA	18:L:163:GLY:HA3	1.92	0.52
19:M:188:ILE:O	19:M:368:ILE:CD1	2.53	0.52
20:N:355:ASN:O	20:N:359:ALA:HB2	2.10	0.52
20:N:616:ARG:NH2	20:N:647:HIS:CD2	2.78	0.52
22:O:28:LEU:O	22:O:32:LYS:N	2.29	0.52
25:R:196:GLN:O	25:R:200:LEU:HD23	2.09	0.52
12:G:225:ASP:O	12:G:226:ASP:HB2	2.08	0.52
14:H:302:LEU:HD11	14:H:306:LEU:CD2	2.31	0.52
14:H:314:ASN:N	14:H:315:ILE:HD12	2.24	0.52
16:J:88:LYS:HG3	16:J:93:GLY:C	2.30	0.52
17:K:345:PHE:CE1	17:K:375:ILE:CG2	2.92	0.52
17:K:368:ASP:O	17:K:369:LYS:HB2	2.08	0.52
17:K:47:LEU:HD22	17:K:50:GLU:OE1	2.10	0.52
16:J:127:LEU:HD13	17:K:96:VAL:HG22	1.92	0.52
18:L:132:TYR:N	18:L:132:TYR:CD1	2.77	0.52
18:L:148:VAL:HG11	18:L:170:CYS:SG	2.50	0.52
18:L:259:GLU:O	18:L:263:GLN:HG3	2.09	0.52
19:M:246:ALA:CB	19:M:280:PRO:HG2	2.35	0.52
20:N:616:ARG:NH2	20:N:650:TYR:CD2	2.53	0.52
23:P:351:TRP:HA	23:P:351:TRP:CE3	2.45	0.52
24:Q:180:LEU:O	24:Q:181:SER:HB2	2.08	0.52
24:Q:258:LYS:HG2	24:Q:266:ASP:HB2	1.92	0.52
25:R:379:ARG:NH1	25:R:379:ARG:HG3	2.24	0.52
22:O:370:GLN:CB	27:T:340:ILE:CG2	2.88	0.52
28:U:22:HIS:O	28:U:26:ILE:CG1	2.58	0.52
28:U:194:GLN:HA	29:V:228:GLY:CA	2.40	0.52
15:I:291:GLY:C	15:I:293:LYS:H	2.12	0.52
17:K:91:GLN:CA	17:K:128:ALA:O	2.48	0.52
17:K:161:ASP:O	17:K:162:VAL:C	2.48	0.52
17:K:228:ILE:HG21	17:K:250:VAL:HG13	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:M:91:SER:HG	19:M:153:VAL:HG21	1.74	0.52
19:M:422:GLU:CA	19:M:425:LEU:HB2	2.30	0.52
19:M:80:ILE:HG21	19:M:84:LYS:CE	2.39	0.52
20:N:31:VAL:HG21	20:N:63:VAL:HG12	1.92	0.52
20:N:70:HIS:O	26:S:273:LYS:CE	2.57	0.52
25:R:197:ALA:O	25:R:201:PHE:HD2	1.92	0.52
28:U:158:VAL:HG12	28:U:159:THR:O	2.08	0.52
32:Z:833:PHE:O	32:Z:900:LEU:N	2.36	0.52
16:J:211:PHE:CE1	16:J:247:PHE:HB2	2.45	0.52
16:J:66:LEU:O	17:K:136:SER:HB3	2.10	0.52
17:K:205:TYR:HE1	17:K:332:GLU:CB	2.22	0.52
17:K:388:ARG:HG3	18:L:147:GLU:HG2	1.90	0.52
17:K:245:ARG:HG2	18:L:78:ARG:HH12	1.74	0.52
19:M:80:ILE:CG2	19:M:84:LYS:HE3	2.38	0.52
20:N:354:LYS:O	20:N:358:ASP:CG	2.48	0.52
20:N:661:ALA:HA	20:N:694:ILE:HA	1.91	0.52
22:O:132:LYS:CG	22:O:162:TYR:OH	2.57	0.52
22:O:58:LYS:CG	22:O:59:LEU:H	2.22	0.52
23:P:373:ILE:HG13	23:P:374:THR:H	1.74	0.52
23:P:428:TRP:HH2	29:V:305:ASP:HB2	1.74	0.52
24:Q:252:LYS:HG2	24:Q:287:LEU:HD11	1.92	0.52
25:R:122:THR:O	25:R:126:LYS:HG2	2.10	0.52
26:S:183:GLU:O	26:S:187:ILE:CB	2.58	0.52
20:N:99:THR:HG23	26:S:240:LEU:CD2	2.39	0.52
24:Q:400:ALA:HB1	28:U:262:LEU:HD21	1.91	0.52
32:Z:296:PHE:O	32:Z:300:ARG:N	2.34	0.52
4:C:38:LYS:NZ	6:D:57:ASP:OD2	2.41	0.52
14:H:111:TYR:CE2	14:H:125:LEU:HB3	2.44	0.52
17:K:115:ILE:O	17:K:115:ILE:HG13	2.08	0.52
17:K:345:PHE:CE2	17:K:360:LEU:HD21	2.45	0.52
17:K:93:LEU:HG	17:K:94:GLU:N	2.25	0.52
18:L:148:VAL:HG22	18:L:167:PRO:HG2	1.85	0.52
18:L:322:LYS:NZ	18:L:326:ILE:CD1	2.70	0.52
18:L:50:LEU:HD22	19:M:82:VAL:CG1	2.35	0.52
23:P:186:ILE:HG23	23:P:208:LYS:HZ1	1.74	0.52
26:S:179:LYS:CG	26:S:180:ARG:N	2.73	0.52
10:F:31:ILE:HD11	10:F:158:PRO:CD	2.40	0.52
14:H:376:LEU:N	14:H:376:LEU:HD23	2.24	0.52
15:I:271:PHE:CZ	15:I:316:LEU:HD12	2.43	0.52
16:J:69:GLN:HB3	16:J:118:ASN:OD1	2.10	0.52
16:J:158:ILE:HG22	16:J:162:LYS:HD2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:291:VAL:O	16:J:291:VAL:CG2	2.58	0.52
17:K:95:ALA:HB1	17:K:100:THR:O	2.09	0.52
17:K:310:ALA:O	17:K:311:THR:CG2	2.57	0.52
17:K:388:ARG:HG2	18:L:147:GLU:HG2	1.92	0.52
20:N:160:LEU:O	20:N:163:PHE:C	2.48	0.52
20:N:243:LEU:O	20:N:247:GLN:N	2.29	0.52
20:N:442:GLY:HA2	20:N:445:ALA:HB3	1.91	0.52
23:P:183:VAL:HA	23:P:186:ILE:HD12	1.92	0.52
23:P:301:LYS:CG	23:P:324:TYR:CE1	2.93	0.52
24:Q:232:PHE:CD1	24:Q:253:TYR:HB2	2.45	0.52
28:U:139:ILE:CG2	28:U:140:SER:H	2.22	0.52
29:V:151:VAL:HG22	29:V:152:LYS:H	1.75	0.52
29:V:307:VAL:HG23	29:V:308:VAL:N	2.25	0.52
30:W:12:ASN:CG	30:W:80:PRO:HA	2.29	0.52
4:C:12:PHE:HZ	6:D:79:ILE:HD13	1.74	0.52
4:C:154:TYR:HE2	6:D:60:PHE:CZ	2.28	0.52
14:H:99:THR:HB	14:H:113:ILE:HG21	1.91	0.52
14:H:383:ALA:O	14:H:386:ARG:HB3	2.10	0.52
15:I:204:PRO:HG3	15:I:211:TYR:CZ	2.44	0.52
17:K:100:THR:HG22	17:K:101:ALA:H	1.75	0.52
17:K:109:SER:CB	17:K:111:TYR:CZ	2.92	0.52
18:L:199:VAL:HA	18:L:233:ASP:HB3	1.92	0.52
18:L:336:ASP:C	18:L:338:PHE:H	2.13	0.52
18:L:367:PHE:O	18:L:371:VAL:HG23	2.09	0.52
19:M:251:LEU:CD2	19:M:256:LEU:HD21	2.39	0.52
18:L:253:ILE:HG13	19:M:308:ARG:CZ	2.39	0.52
19:M:343:LEU:O	19:M:345:SER:N	2.43	0.52
25:R:192:ARG:HH12	25:R:294:TYR:HB2	1.74	0.52
32:Z:335:ARG:O	32:Z:838:ARG:CB	2.58	0.52
32:Z:529:SER:N	32:Z:565:ASN:O	2.36	0.52
15:I:234:LEU:O	15:I:238:ALA:N	2.28	0.52
17:K:100:THR:HG22	17:K:101:ALA:N	2.25	0.52
17:K:102:ILE:N	17:K:102:ILE:HD12	2.25	0.52
17:K:115:ILE:HG22	17:K:139:LEU:HD13	1.92	0.52
17:K:90:GLY:N	17:K:130:VAL:O	2.35	0.52
17:K:346:SER:O	17:K:350:SER:HB3	2.10	0.52
18:L:145:LEU:HD12	18:L:299:ILE:CD1	2.40	0.52
19:M:183:GLU:C	19:M:184:GLN:O	2.47	0.52
20:N:360:VAL:CB	20:N:727:LYS:NZ	2.73	0.52
23:P:344:THR:HA	23:P:348:GLU:HB2	1.91	0.52
28:U:275:LEU:HD13	28:U:275:LEU:C	2.30	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:U:256:GLN:HA	29:V:295:ASN:HD21	1.74	0.52
30:W:16:MET:HA	30:W:25:ARG:HB3	1.92	0.52
10:F:96:THR:HA	10:F:107:MET:HG3	1.90	0.51
14:H:188:ARG:HD2	14:H:192:GLU:OE1	2.10	0.51
14:H:209:PRO:CG	14:H:339:ARG:CG	2.88	0.51
14:H:235:ALA:HB1	14:H:269:ALA:O	2.10	0.51
14:H:60:ASN:CA	32:Z:592:ASN:CB	2.88	0.51
17:K:175:GLN:HE21	17:K:179:GLU:CD	2.13	0.51
19:M:369:HIS:CD2	19:M:397:LYS:HB2	2.46	0.51
20:N:533:VAL:O	20:N:536:ALA:HB3	2.10	0.51
20:N:612:ASP:HB3	20:N:647:HIS:HB2	1.91	0.51
22:O:341:LEU:HB2	22:O:345:GLN:OE1	2.03	0.51
24:Q:118:LYS:HE2	24:Q:126:ARG:NH2	2.24	0.51
24:Q:202:CYS:O	24:Q:206:LEU:CD2	2.55	0.51
26:S:348:PHE:CD2	26:S:361:PHE:CB	2.92	0.51
30:W:68:THR:O	30:W:71:ILE:N	2.43	0.51
15:I:183:THR:HG23	15:I:241:ASN:ND2	2.25	0.51
15:I:276:GLU:C	15:I:278:ALA:N	2.62	0.51
16:J:228:ALA:CB	16:J:233:GLU:CD	2.77	0.51
16:J:283:PHE:O	16:J:284:GLU:HB3	2.09	0.51
17:K:87:LEU:HD22	17:K:140:VAL:HG21	1.92	0.51
17:K:89:ILE:HD13	18:L:70:ILE:HG23	1.91	0.51
18:L:182:LEU:HD12	18:L:185:ARG:HH11	1.76	0.51
18:L:303:LEU:CD2	18:L:339:ASN:CB	2.88	0.51
18:L:181:THR:HG21	19:M:319:GLY:HA2	1.92	0.51
20:N:470:ASN:N	20:N:474:ARG:HB3	2.24	0.51
23:P:186:ILE:HG23	23:P:208:LYS:NZ	2.25	0.51
25:R:136:HIS:O	25:R:140:ILE:CB	2.58	0.51
26:S:231:LEU:O	26:S:250:LEU:CD2	2.54	0.51
26:S:302:TYR:CZ	26:S:338:LEU:HD23	2.44	0.51
32:Z:227:ALA:C	32:Z:229:VAL:N	2.63	0.51
32:Z:663:GLY:N	32:Z:664:GLU:CB	2.73	0.51
6:D:155:ASN:HA	8:E:81:ARG:NH2	2.25	0.51
14:H:220:THR:HG22	14:H:343:PHE:HB3	1.88	0.51
17:K:283:ARG:O	17:K:287:ARG:CD	2.59	0.51
18:L:148:VAL:HG13	18:L:149:ILE:HG13	1.93	0.51
18:L:253:ILE:HD11	19:M:261:ILE:CD1	2.17	0.51
18:L:284:THR:HA	19:M:297:ASP:OD1	2.10	0.51
18:L:331:ILE:HG23	18:L:371:VAL:CG2	2.41	0.51
19:M:137:ILE:O	19:M:140:VAL:CG2	2.58	0.51
19:M:249:LEU:HG	19:M:283:ILE:HG12	1.89	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:N:398:ASN:HB3	20:N:437:TYR:CE2	2.46	0.51
23:P:396:LEU:O	23:P:401:THR:N	2.43	0.51
24:Q:56:LEU:C	24:Q:62:GLN:H	2.13	0.51
25:R:369:THR:HG23	25:R:370:ILE:N	2.25	0.51
26:S:265:ASP:HA	26:S:268:GLU:CG	2.39	0.51
26:S:469:THR:OG1	28:U:254:ASN:OD1	2.28	0.51
29:V:116:PRO:O	29:V:118:PHE:CD1	2.63	0.51
15:I:125:THR:OG1	15:I:127:VAL:CG2	2.59	0.51
15:I:231:GLY:CA	35:I:501:ADP:O1A	2.56	0.51
16:J:45:LEU:HD11	26:S:492:LYS:HA	1.92	0.51
17:K:173:GLN:O	17:K:176:GLU:HB3	2.10	0.51
16:J:219:LEU:CD2	17:K:275:PHE:CE2	2.93	0.51
18:L:178:THR:O	18:L:301:ILE:CG2	2.59	0.51
18:L:199:VAL:O	18:L:233:ASP:O	2.28	0.51
19:M:139:LEU:C	19:M:140:VAL:HG22	2.30	0.51
19:M:343:LEU:HB3	19:M:351:LYS:HZ3	1.75	0.51
18:L:43:SER:OG	19:M:75:GLU:CG	2.58	0.51
20:N:12:LEU:HD22	20:N:41:SER:HB3	1.91	0.51
23:P:132:THR:HG22	23:P:142:ARG:NH1	2.26	0.51
23:P:246:HIS:O	23:P:249:ALA:N	2.44	0.51
23:P:315:MET:HG2	23:P:361:HIS:HD2	1.75	0.51
24:Q:236:PHE:CD1	24:Q:251:LEU:HG	2.42	0.51
26:S:348:PHE:CZ	26:S:361:PHE:HA	2.43	0.51
28:U:240:VAL:C	28:U:242:LEU:N	2.63	0.51
29:V:97:ASP:OD1	29:V:98:MET:N	2.42	0.51
32:Z:832:THR:HA	32:Z:898:VAL:O	2.11	0.51
6:D:68:LEU:HD11	6:D:74:CYS:HB3	1.93	0.51
12:G:237:GLU:O	12:G:239:ARG:N	2.43	0.51
14:H:104:ALA:O	14:H:105:ASP:OD1	2.29	0.51
14:H:368:ILE:HG13	14:H:368:ILE:O	2.11	0.51
15:I:219:PRO:O	15:I:220:LYS:O	2.27	0.51
16:J:160:GLU:HB2	16:J:315:ILE:CD1	2.13	0.51
16:J:77:VAL:CB	16:J:86:LEU:CD1	2.81	0.51
17:K:163:MET:CB	17:K:221:HIS:CE1	2.94	0.51
17:K:275:PHE:CE2	17:K:289:LEU:HD12	2.44	0.51
17:K:54:LEU:HG	17:K:55:GLU:N	2.25	0.51
17:K:71:GLU:O	17:K:74:HIS:N	2.42	0.51
19:M:223:VAL:HG12	19:M:224:LEU:H	1.76	0.51
19:M:175:MET:CE	19:M:251:LEU:HD13	2.40	0.51
20:N:457:ILE:HA	20:N:460:TYR:HB3	1.92	0.51
20:N:495:ASP:O	20:N:498:LYS:N	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:N:622:LEU:O	20:N:626:LEU:N	2.38	0.51
23:P:170:GLN:O	23:P:173:THR:HG22	2.11	0.51
23:P:209:ILE:HG21	23:P:226:TYR:HH	1.71	0.51
23:P:251:TYR:HA	23:P:256:ILE:HD11	1.92	0.51
23:P:444:HIS:CD2	28:U:157:HIS:HB3	2.46	0.51
24:Q:367:GLN:OE1	25:R:233:ARG:NH2	2.44	0.51
26:S:166:TYR:O	26:S:169:LEU:HB2	2.11	0.51
20:N:99:THR:HG1	26:S:240:LEU:CD1	2.16	0.51
27:T:339:VAL:O	27:T:343:ALA:N	2.28	0.51
22:O:374:ILE:HG23	28:U:188:SER:CA	2.41	0.51
28:U:60:GLU:HB3	28:U:65:ASP:CG	2.30	0.51
30:W:64:LEU:CG	30:W:101:GLN:HG3	2.41	0.51
32:Z:671:ALA:O	32:Z:675:PHE:CA	2.53	0.51
14:H:356:LYS:O	14:H:360:ARG:CB	2.58	0.51
15:I:151:LEU:O	15:I:160:ILE:N	2.36	0.51
16:J:222:LYS:HG3	17:K:286:GLN:HE22	1.76	0.51
16:J:303:SER:O	16:J:306:LEU:N	2.44	0.51
16:J:154:LEU:CD2	16:J:317:PHE:CE2	2.93	0.51
16:J:31:LEU:N	16:J:34:ILE:HD12	2.26	0.51
16:J:55:LYS:O	16:J:59:LEU:N	2.40	0.51
17:K:205:TYR:HD2	17:K:314:ALA:HB1	1.76	0.51
17:K:257:ASN:O	17:K:258:ALA:HB2	2.10	0.51
18:L:334:LEU:HD21	18:L:372:ARG:HH11	1.75	0.51
20:N:164:GLU:HA	20:N:164:GLU:OE1	2.10	0.51
20:N:51:ASP:O	20:N:57:ARG:HD3	2.10	0.51
20:N:62:LEU:HD12	20:N:65:SER:HB2	1.91	0.51
25:R:304:TYR:CD2	25:R:334:LEU:HD21	2.43	0.51
26:S:265:ASP:OD1	26:S:266:GLN:N	2.40	0.51
26:S:472:PRO:CD	26:S:473:GLN:H	2.20	0.51
28:U:139:ILE:HG22	28:U:140:SER:H	1.76	0.51
29:V:160:PHE:HB3	29:V:202:SER:HA	1.93	0.51
30:W:148:VAL:O	30:W:153:LEU:HD12	2.09	0.51
2:B:38:THR:HG21	2:B:171:LYS:HB2	1.92	0.51
14:H:327:LEU:HD12	14:H:331:LEU:CD1	2.41	0.51
14:H:80:LEU:O	14:H:84:LYS:N	2.41	0.51
15:I:116:ILE:HG22	15:I:117:ASP:OD1	2.11	0.51
14:H:276:GLU:HG2	15:I:310:LEU:HG	1.92	0.51
16:J:55:LYS:O	16:J:59:LEU:CB	2.55	0.51
17:K:106:THR:HA	17:K:245:ARG:NH1	2.24	0.51
17:K:312:ASN:HD22	17:K:313:ARG:N	2.05	0.51
18:L:149:ILE:O	18:L:153:LEU:CD2	2.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:L:155:ASN:H	18:L:156:PRO:HD3	1.73	0.51
23:P:359:VAL:HG21	23:P:392:PHE:CZ	2.45	0.51
23:P:63:THR:OG1	23:P:102:ALA:CB	2.58	0.51
24:Q:273:GLY:O	24:Q:277:LEU:CB	2.49	0.51
28:U:23:PHE:HD2	28:U:126:VAL:HB	1.76	0.51
28:U:176:LEU:HD21	29:V:214:GLN:CA	2.13	0.51
6:D:12:PHE:CB	8:E:21:TYR:HB2	2.40	0.51
14:H:113:ILE:O	14:H:120:LYS:HA	2.11	0.51
14:H:119:ALA:HB1	19:M:127:SER:HB3	1.91	0.51
14:H:143:ASP:HB2	14:H:150:HIS:CG	2.46	0.51
14:H:416:VAL:O	14:H:417:ILE:O	2.28	0.51
15:I:278:ALA:CB	15:I:279:PRO:CD	2.87	0.51
15:I:361:LYS:HE2	15:I:390:LEU:O	2.11	0.51
16:J:100:ASP:H	16:J:123:LEU:HB2	1.76	0.51
17:K:310:ALA:O	17:K:311:THR:HG22	2.10	0.51
17:K:310:ALA:C	17:K:311:THR:HG23	2.30	0.51
18:L:172:LEU:CD1	18:L:180:LYS:HA	2.40	0.51
17:K:146:GLU:OE1	18:L:70:ILE:CD1	2.57	0.51
19:M:310:MET:HE1	19:M:339:ASP:CB	2.40	0.51
20:N:452:ASN:H	20:N:484:ALA:HA	1.75	0.51
22:O:157:ASP:O	22:O:160:SER:OG	2.29	0.51
23:P:154:GLU:CG	23:P:162:ALA:HB3	2.40	0.51
24:Q:249:THR:O	24:Q:253:TYR:CE2	2.64	0.51
24:Q:264:PRO:HB3	24:Q:295:LYS:HE2	1.83	0.51
25:R:228:MET:CE	25:R:263:LEU:CD2	2.89	0.51
28:U:94:TRP:HE1	28:U:109:ASN:HA	1.76	0.51
23:P:421:PRO:CB	28:U:248:ALA:HA	2.40	0.51
27:T:346:LEU:HD11	29:V:296:ILE:CD1	2.37	0.51
30:W:39:SER:O	30:W:43:SER:N	2.39	0.51
32:Z:697:ILE:O	32:Z:702:PRO:N	2.44	0.51
14:H:285:PHE:O	14:H:286:ASP:HB2	2.11	0.51
15:I:112:LEU:HD12	15:I:145:GLU:O	2.11	0.51
15:I:232:LYS:HZ1	15:I:332:ASN:HD22	1.56	0.51
15:I:408:ARG:CZ	16:J:160:GLU:OE2	2.58	0.51
18:L:147:GLU:O	18:L:152:PRO:HD3	2.11	0.51
18:L:265:ASP:O	18:L:266:GLY:C	2.49	0.51
19:M:136:VAL:O	19:M:137:ILE:C	2.48	0.51
19:M:415:LEU:HD23	19:M:415:LEU:N	2.26	0.51
19:M:81:LYS:O	19:M:85:THR:HG23	2.10	0.51
20:N:601:ARG:HG3	20:N:601:ARG:HH11	1.76	0.51
24:Q:155:ARG:CA	24:Q:158:LYS:HG2	2.19	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:183:LEU:HD11	24:Q:220:ALA:HB3	1.93	0.51
24:Q:193:ALA:CA	24:Q:196:THR:HG22	2.39	0.51
25:R:286:TRP:CE2	25:R:287:LEU:CD2	2.94	0.51
14:H:218:PRO:CG	14:H:429:TYR:CD2	2.93	0.51
14:H:315:ILE:CD1	14:H:315:ILE:N	2.67	0.51
14:H:425:ALA:HB2	15:I:339:PRO:CB	2.29	0.51
15:I:361:LYS:HA	15:I:364:ILE:HD12	1.93	0.51
16:J:207:THR:HG23	16:J:207:THR:O	2.11	0.51
16:J:284:GLU:O	16:J:285:ALA:HB3	2.11	0.51
17:K:151:ILE:CG2	17:K:152:MET:N	2.69	0.51
16:J:219:LEU:CD2	17:K:286:GLN:HG2	2.41	0.51
17:K:395:LEU:O	17:K:398:ASP:HB2	2.11	0.51
17:K:92:PHE:HE1	17:K:101:ALA:HB1	1.76	0.51
18:L:151:LEU:O	18:L:153:LEU:N	2.44	0.51
18:L:206:LYS:HA	19:M:261:ILE:HG23	1.93	0.51
18:L:304:PRO:C	18:L:308:ALA:HB3	2.28	0.51
19:M:249:LEU:CB	19:M:283:ILE:HA	2.38	0.51
19:M:231:THR:HG22	19:M:356:MET:HA	1.92	0.51
19:M:59:VAL:O	19:M:63:THR:N	2.32	0.51
19:M:91:SER:O	19:M:151:VAL:CG2	2.56	0.51
20:N:31:VAL:HG13	20:N:35:TRP:HB3	1.93	0.51
20:N:618:ALA:O	20:N:622:LEU:HG	2.12	0.51
20:N:752:THR:CB	20:N:753:GLY:HA2	2.33	0.51
24:Q:239:TYR:CA	24:Q:242:ILE:CG2	2.88	0.51
25:R:117:LYS:HD2	25:R:151:TYR:CD2	2.46	0.51
25:R:19:ILE:HG21	25:R:53:TYR:OH	2.11	0.51
25:R:50:MET:HE2	25:R:53:TYR:CD2	2.45	0.51
26:S:69:THR:CB	26:S:163:VAL:CG1	2.89	0.51
27:T:173:CYS:O	27:T:177:ASP:CG	2.49	0.51
32:Z:164:GLY:CA	32:Z:167:ALA:CB	2.77	0.51
32:Z:497:VAL:O	32:Z:501:LEU:N	2.33	0.51
4:C:75:TYR:HB3	4:C:82:TYR:CD1	2.47	0.50
14:H:245:LEU:C	14:H:247:GLN:NE2	2.64	0.50
14:H:277:ILE:HD12	14:H:278:ASP:OD1	2.11	0.50
14:H:424:SER:O	14:H:426:THR:N	2.44	0.50
16:J:143:VAL:O	16:J:144:PRO:C	2.50	0.50
16:J:247:PHE:HA	16:J:292:ILE:O	2.11	0.50
16:J:274:LEU:CD2	16:J:305:LEU:HD12	2.41	0.50
16:J:76:VAL:HA	16:J:87:VAL:HG22	1.92	0.50
17:K:207:PRO:HD2	17:K:210:CYS:SG	2.51	0.50
19:M:369:HIS:N	19:M:369:HIS:ND1	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:P:317:TRP:CZ2	23:P:321:VAL:HG22	2.47	0.50
23:P:373:ILE:CG2	23:P:415:PHE:CE2	2.94	0.50
28:U:101:LEU:O	28:U:102:HIS:CG	2.64	0.50
28:U:94:TRP:CE2	28:U:109:ASN:OD1	2.61	0.50
30:W:21:PHE:CZ	30:W:179:LEU:HB2	2.46	0.50
14:H:332:MET:O	14:H:333:ARG:O	2.30	0.50
16:J:148:TYR:CG	16:J:206:HIS:CD2	2.99	0.50
18:L:238:ILE:O	18:L:257:LEU:HD23	2.10	0.50
19:M:237:ALA:CB	19:M:284:PHE:HE2	2.15	0.50
19:M:236:LEU:HD12	19:M:354:PHE:CZ	2.47	0.50
19:M:80:ILE:O	19:M:84:LYS:CA	2.59	0.50
20:N:148:LYS:HE2	20:N:179:TYR:HB3	1.91	0.50
23:P:360:GLU:O	23:P:364:ARG:CB	2.57	0.50
25:R:188:CYS:HB2	25:R:197:ALA:HB2	1.93	0.50
25:R:179:ARG:CB	25:R:210:SER:OG	2.56	0.50
25:R:263:LEU:HA	25:R:271:PHE:CD2	2.47	0.50
25:R:327:VAL:O	25:R:330:ILE:N	2.44	0.50
26:S:190:ASP:O	26:S:194:LYS:CG	2.59	0.50
28:U:210:SER:O	28:U:213:GLU:HB2	2.11	0.50
28:U:47:VAL:CG1	28:U:48:LEU:N	2.73	0.50
30:W:124:LEU:O	30:W:127:LEU:HB2	2.11	0.50
12:G:71:GLY:HA3	12:G:221:PHE:CZ	2.46	0.50
14:H:272:ILE:HD12	14:H:315:ILE:CG2	2.40	0.50
14:H:224:LEU:HD11	35:H:501:ADP:C2	2.45	0.50
14:H:94:GLN:O	14:H:95:VAL:HB	2.11	0.50
16:J:151:ILE:CG2	16:J:151:ILE:O	2.59	0.50
16:J:300:ILE:HG13	16:J:301:LEU:H	1.77	0.50
17:K:345:PHE:CZ	17:K:360:LEU:HD11	2.46	0.50
17:K:98:GLN:HA	17:K:98:GLN:OE1	2.09	0.50
18:L:370:ALA:O	18:L:374:VAL:HG23	2.11	0.50
18:L:116:ASP:HA	19:M:94:ILE:HG23	1.93	0.50
20:N:451:ALA:HA	20:N:484:ALA:HA	1.93	0.50
23:P:256:ILE:HG22	23:P:262:LYS:HD3	1.94	0.50
26:S:82:LEU:HA	26:S:85:ALA:HB3	1.94	0.50
28:U:94:TRP:HZ2	28:U:109:ASN:ND2	2.09	0.50
6:D:15:GLU:O	8:E:24:GLU:HB3	2.12	0.50
12:G:15:PRO:HG3	21:X:25:TYR:HE2	1.73	0.50
15:I:107:MET:HE1	15:I:160:ILE:CB	2.38	0.50
15:I:329:MET:HG3	15:I:347:ILE:HD11	1.92	0.50
17:K:172:ILE:O	17:K:176:GLU:N	2.43	0.50
17:K:41:TYR:OH	20:N:155:LEU:CG	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:L:145:LEU:HD13	18:L:299:ILE:HD13	1.93	0.50
18:L:171:LEU:HA	18:L:277:MET:O	2.11	0.50
18:L:65:THR:OG1	18:L:68:LYS:CB	2.60	0.50
18:L:67:GLU:HA	18:L:83:CYS:SG	2.52	0.50
19:M:215:LEU:HD23	19:M:217:ILE:HG23	1.93	0.50
19:M:379:VAL:HG12	19:M:379:VAL:O	2.11	0.50
20:N:341:PHE:HE1	20:N:882:ALA:N	2.08	0.50
20:N:415:HIS:HB3	20:N:418:GLU:OE1	2.10	0.50
20:N:55:ARG:CG	20:N:56:SER:H	2.23	0.50
24:Q:120:GLU:O	24:Q:121:LYS:CB	2.59	0.50
25:R:217:LYS:O	25:R:221:THR:HG23	2.12	0.50
28:U:263:ALA:HB3	29:V:292:MET:SD	2.51	0.50
30:W:169:HIS:CD2	30:W:187:PRO:C	2.85	0.50
30:W:171:VAL:CB	30:W:186:SER:HB2	2.40	0.50
2:B:67:THR:HG22	2:B:69:LEU:N	2.27	0.50
14:H:112:ILE:HA	14:H:122:VAL:HA	1.94	0.50
14:H:300:LEU:HA	14:H:303:ILE:HD12	1.94	0.50
15:I:240:ALA:HA	15:I:243:THR:CG2	2.42	0.50
15:I:97:SER:O	15:I:101:ASP:N	2.24	0.50
16:J:24:TYR:O	16:J:25:LEU:O	2.28	0.50
16:J:371:LEU:HB2	17:K:196:ILE:CD1	2.42	0.50
17:K:184:PRO:CB	17:K:191:TYR:CE2	2.94	0.50
18:L:223:ARG:O	18:L:226:GLN:HG3	2.10	0.50
18:L:243:PHE:C	18:L:244:SER:OG	2.49	0.50
18:L:253:ILE:O	18:L:254:GLN:C	2.50	0.50
19:M:249:LEU:HD23	19:M:283:ILE:HD11	1.93	0.50
19:M:348:LEU:H	19:M:348:LEU:HD12	1.75	0.50
19:M:435:LEU:HD23	19:M:438:TYR:CD1	2.47	0.50
20:N:666:LYS:HA	20:N:669:ILE:HB	1.94	0.50
20:N:923:GLU:HB3	20:N:926:GLU:OE1	2.11	0.50
23:P:63:THR:CB	23:P:102:ALA:HB1	2.41	0.50
24:Q:152:GLN:O	24:Q:156:GLU:HG2	2.12	0.50
24:Q:339:ILE:O	24:Q:387:ILE:HD12	2.11	0.50
25:R:250:LEU:CD2	25:R:257:ARG:CB	2.72	0.50
25:R:79:ASP:O	25:R:82:LYS:HB3	2.11	0.50
27:T:341:GLU:O	27:T:345:GLN:N	2.28	0.50
30:W:112:PHE:HA	30:W:141:ILE:HB	1.94	0.50
14:H:261:PHE:HB3	14:H:265:ARG:HH21	1.77	0.50
14:H:299:MET:HG2	14:H:303:ILE:CD1	2.42	0.50
15:I:168:ASP:C	15:I:170:LEU:N	2.64	0.50
15:I:292:THR:O	15:I:292:THR:OG1	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:372:GLY:CA	17:K:375:ILE:HD12	2.41	0.50
17:K:406:VAL:O	17:K:407:ILE:C	2.50	0.50
18:L:320:ILE:O	18:L:322:LYS:HG3	2.12	0.50
18:L:338:PHE:CE1	18:L:375:ALA:CB	2.92	0.50
18:L:93:LYS:HB3	18:L:94:PRO:HD3	1.91	0.50
19:M:427:VAL:O	19:M:427:VAL:HG12	2.12	0.50
17:K:41:TYR:CE1	20:N:156:GLU:CG	2.67	0.50
23:P:181:GLU:O	23:P:184:GLU:HB3	2.12	0.50
24:Q:125:LEU:O	24:Q:125:LEU:HD13	2.12	0.50
24:Q:331:LEU:CD2	24:Q:364:LYS:HD2	2.42	0.50
25:R:131:THR:C	25:R:132:VAL:HG23	2.31	0.50
25:R:229:ILE:HG13	25:R:295:TYR:OH	2.10	0.50
25:R:304:TYR:HD2	25:R:334:LEU:HD23	1.76	0.50
25:R:53:TYR:O	25:R:55:GLU:N	2.45	0.50
29:V:71:ASP:OD2	29:V:104:ARG:HD2	2.12	0.50
29:V:93:ALA:HA	29:V:96:LEU:HB2	1.93	0.50
2:B:6:SER:HB2	2:B:11:ARG:NH1	2.27	0.50
14:H:99:THR:OG1	14:H:140:VAL:CG2	2.60	0.50
14:H:291:GLY:C	14:H:293:ASN:H	2.14	0.50
14:H:210:LYS:HB3	14:H:312:ARG:HH11	1.76	0.50
15:I:198:LYS:HA	15:I:202:GLU:HB3	1.92	0.50
16:J:247:PHE:HD1	16:J:292:ILE:CG2	2.20	0.50
17:K:236:VAL:HB	18:L:208:ILE:CG2	2.41	0.50
17:K:153:MET:SD	17:K:257:ASN:ND2	2.85	0.50
17:K:388:ARG:HH11	17:K:388:ARG:HG3	1.77	0.50
17:K:372:GLY:CA	35:K:501:ADP:C8	2.94	0.50
18:L:65:THR:H	18:L:68:LYS:HB2	1.76	0.50
19:M:317:LEU:HD11	19:M:328:VAL:HG21	1.94	0.50
20:N:732:LEU:O	20:N:736:ILE:N	2.34	0.50
22:O:149:THR:O	22:O:151:VAL:N	2.44	0.50
22:O:248:PHE:CD2	22:O:272:ILE:CD1	2.94	0.50
22:O:274:LEU:HD11	22:O:319:LEU:HD11	1.90	0.50
22:O:347:LYS:HE2	22:O:351:ASP:OD2	2.11	0.50
23:P:149:LEU:O	23:P:153:LYS:HB3	2.12	0.50
26:S:285:TRP:HD1	26:S:315:LYS:HG2	1.77	0.50
29:V:290:VAL:O	29:V:294:SER:HB3	2.10	0.50
30:W:108:ARG:HA	30:W:137:ASN:O	2.11	0.50
32:Z:147:SER:HA	32:Z:186:THR:O	2.11	0.50
15:I:204:PRO:O	15:I:208:PRO:CG	2.60	0.50
15:I:284:ILE:O	15:I:329:MET:HA	2.12	0.50
16:J:229:ARG:C	16:J:230:MET:HG3	2.28	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:310:ALA:C	17:K:311:THR:CG2	2.79	0.50
17:K:354:LEU:CA	17:K:393:ILE:CG2	2.71	0.50
17:K:56:VAL:HB	17:K:57:GLN:NE2	2.26	0.50
17:K:92:PHE:CE2	17:K:124:LEU:HG	2.46	0.50
18:L:244:SER:HA	18:L:245:GLU:OE2	2.12	0.50
18:L:253:ILE:O	18:L:256:THR:HB	2.12	0.50
20:N:5:ALA:HB2	20:N:34:PHE:HB3	1.94	0.50
20:N:900:TYR:HA	20:N:917:THR:H	1.76	0.50
22:O:364:GLU:HG3	22:O:365:MET:H	1.77	0.50
24:Q:332:GLU:OE1	24:Q:364:LYS:NZ	2.45	0.50
24:Q:363:ARG:O	24:Q:366:SER:OG	2.30	0.50
24:Q:73:VAL:O	24:Q:77:LEU:N	2.44	0.50
24:Q:92:LEU:O	24:Q:96:PHE:HB2	2.12	0.50
27:T:259:PHE:O	27:T:262:ILE:HB	2.11	0.50
28:U:175:LEU:O	28:U:177:ARG:N	2.44	0.50
17:K:73:LEU:CD2	28:U:184:VAL:HG21	2.36	0.50
32:Z:783:SER:CB	32:Z:897:PHE:H	2.25	0.50
14:H:398:ARG:CD	15:I:199:GLU:OE1	2.60	0.50
15:I:255:LEU:HD11	15:I:267:VAL:HG22	1.94	0.50
15:I:290:ILE:O	15:I:305:ILE:CG2	2.58	0.50
15:I:230:THR:CB	15:I:353:PHE:CB	2.81	0.50
17:K:151:ILE:O	17:K:152:MET:HB3	2.12	0.50
17:K:169:GLY:O	17:K:170:MET:HG2	2.12	0.50
18:L:238:ILE:CG1	18:L:260:LEU:HD11	2.42	0.50
18:L:338:PHE:HE1	18:L:375:ALA:HA	1.76	0.50
19:M:183:GLU:O	19:M:187:ASP:HB2	2.11	0.50
19:M:314:LEU:HD23	19:M:342:LEU:CD2	2.41	0.50
20:N:381:THR:HA	20:N:411:ILE:HG22	1.92	0.50
20:N:770:TRP:HA	20:N:773:PHE:CE1	2.47	0.50
25:R:183:TYR:HE1	25:R:213:LEU:CD1	2.07	0.50
25:R:263:LEU:HD13	25:R:271:PHE:CE2	2.47	0.50
25:R:321:GLU:CG	25:R:322:ALA:N	2.75	0.50
26:S:329:HIS:HA	26:S:332:LEU:HB3	1.93	0.50
29:V:101:GLN:NE2	30:W:101:GLN:OE1	2.45	0.50
30:W:62:THR:CB	30:W:73:SER:CB	2.90	0.50
17:K:181:VAL:HG13	17:K:306:LYS:HG3	1.94	0.49
17:K:352:MET:HE3	18:L:164:ILE:HD11	1.93	0.49
18:L:148:VAL:O	18:L:167:PRO:CG	2.57	0.49
18:L:243:PHE:HB3	18:L:245:GLU:HA	1.93	0.49
18:L:166:PRO:CB	18:L:274:LYS:NZ	2.73	0.49
19:M:141:ASP:H	19:M:144:LYS:HD2	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:M:249:LEU:CB	19:M:283:ILE:HG12	2.40	0.49
20:N:339:LEU:O	20:N:343:ILE:N	2.38	0.49
20:N:788:VAL:O	20:N:881:PRO:N	2.45	0.49
20:N:904:LYS:O	20:N:905:PRO:O	2.30	0.49
22:O:104:VAL:O	22:O:105:LYS:HB2	2.12	0.49
24:Q:413:SER:HA	24:Q:416:ASN:ND2	2.28	0.49
25:R:108:ALA:HB1	25:R:124:PHE:CD1	2.44	0.49
28:U:35:VAL:O	28:U:96:HIS:HA	2.11	0.49
28:U:81:MET:O	29:V:91:PHE:HE1	1.95	0.49
30:W:54:LEU:HA	30:W:58:CYS:CA	2.40	0.49
32:Z:281:ILE:O	32:Z:285:CYS:N	2.40	0.49
14:H:144:ARG:O	14:H:147:TYR:CE1	2.64	0.49
14:H:204:LEU:HD21	14:H:206:ILE:HG21	1.92	0.49
14:H:386:ARG:O	14:H:386:ARG:HD2	2.12	0.49
15:I:108:SER:OG	15:I:153:ASN:O	2.21	0.49
15:I:294:ARG:HD2	15:I:294:ARG:O	2.12	0.49
17:K:263:PHE:CE1	17:K:265:ASP:HB2	2.39	0.49
17:K:312:ASN:ND2	17:K:312:ASN:H	2.09	0.49
18:L:195:PHE:HE1	18:L:229:ILE:HG13	1.60	0.49
18:L:170:CYS:HB3	18:L:299:ILE:HD12	1.94	0.49
19:M:168:TYR:HD2	19:M:173:LYS:NZ	2.10	0.49
20:N:370:VAL:HG12	20:N:370:VAL:O	2.11	0.49
20:N:535:TYR:HA	20:N:538:GLU:HB3	1.93	0.49
22:O:16:PRO:HA	22:O:19:PRO:HB2	1.94	0.49
24:Q:258:LYS:HE3	24:Q:266:ASP:CG	2.32	0.49
24:Q:259:ILE:HG22	24:Q:326:LEU:HD11	1.94	0.49
25:R:185:GLY:HA3	25:R:201:PHE:CE2	2.46	0.49
29:V:118:PHE:N	29:V:118:PHE:CD1	2.79	0.49
4:C:185:ASP:O	4:C:189:THR:HG22	2.12	0.49
6:D:16:GLY:HA2	8:E:21:TYR:O	2.13	0.49
8:E:94:HIS:ND1	8:E:101:PRO:O	2.44	0.49
15:I:223:ILE:HD12	15:I:347:ILE:HG21	1.81	0.49
16:J:114:VAL:CB	16:J:126:ILE:HA	2.42	0.49
16:J:195:GLY:HA2	35:J:501:ADP:O1A	2.12	0.49
17:K:205:TYR:CA	17:K:311:THR:O	2.58	0.49
17:K:345:PHE:CE1	17:K:375:ILE:HG23	2.47	0.49
17:K:352:MET:CE	18:L:164:ILE:HD11	2.42	0.49
18:L:65:THR:OG1	18:L:68:LYS:CG	2.60	0.49
18:L:83:CYS:HA	18:L:107:ILE:HD12	1.94	0.49
20:N:517:GLY:HA3	20:N:554:LEU:HD12	1.94	0.49
23:P:179:LYS:HA	23:P:182:ARG:HB3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:P:216:GLU:O	23:P:220:GLU:HG3	2.11	0.49
23:P:245:LYS:O	23:P:248:ARG:HB3	2.11	0.49
24:Q:183:LEU:N	24:Q:184:PRO:CD	2.75	0.49
25:R:21:GLN:CB	25:R:286:TRP:CZ3	2.94	0.49
29:V:55:GLY:HA3	29:V:112:TYR:CE1	2.47	0.49
18:L:101:ASP:HB3	18:L:106:THR:H	1.77	0.49
18:L:149:ILE:O	18:L:153:LEU:HD23	2.11	0.49
18:L:173:TYR:O	18:L:173:TYR:CG	2.66	0.49
18:L:49:ALA:O	18:L:52:SER:CB	2.59	0.49
19:M:150:LEU:HD21	19:M:167:GLU:HG3	1.93	0.49
20:N:570:LEU:HA	20:N:578:LEU:HB3	1.95	0.49
20:N:573:ASP:CG	20:N:575:ASP:N	2.66	0.49
22:O:25:LEU:O	22:O:29:TYR:N	2.32	0.49
24:Q:282:ARG:HD3	24:Q:309:TYR:CD1	2.46	0.49
24:Q:312:GLU:O	24:Q:315:ASP:N	2.46	0.49
24:Q:93:LEU:O	24:Q:97:LEU:HG	2.12	0.49
25:R:37:VAL:O	25:R:40:GLU:HB3	2.12	0.49
26:S:161:PRO:O	26:S:164:GLU:N	2.45	0.49
26:S:480:ILE:O	26:S:484:LEU:HG	2.12	0.49
27:T:280:GLU:O	27:T:316:TYR:HA	2.13	0.49
28:U:101:LEU:HD23	28:U:138:TYR:CE2	2.48	0.49
8:E:80:ALA:HA	8:E:129:ILE:HD13	1.93	0.49
15:I:135:ILE:H	15:I:141:LYS:NZ	2.10	0.49
15:I:154:HIS:CE1	16:J:95:PHE:CD1	2.95	0.49
15:I:225:TYR:HA	15:I:232:LYS:HD3	1.93	0.49
16:J:161:ILE:O	16:J:165:ILE:N	2.44	0.49
16:J:209:CYS:HA	16:J:243:PRO:O	2.12	0.49
16:J:307:ARG:CZ	16:J:307:ARG:HB3	2.42	0.49
17:K:205:TYR:CB	17:K:311:THR:O	2.60	0.49
17:K:251:PHE:O	17:K:255:LYS:HG3	2.13	0.49
17:K:287:ARG:O	17:K:290:LEU:N	2.45	0.49
18:L:219:PHE:O	18:L:223:ARG:CB	2.60	0.49
18:L:282:PRO:CG	18:L:386:TYR:O	2.60	0.49
18:L:313:LEU:CD2	18:L:332:VAL:CG2	2.89	0.49
18:L:350:ALA:HB2	18:L:366:ASP:O	2.11	0.49
18:L:58:GLY:CA	18:L:74:THR:CG2	2.66	0.49
18:L:93:LYS:HB3	18:L:94:PRO:HD2	1.94	0.49
20:N:17:PRO:O	20:N:54:PHE:HE2	1.95	0.49
20:N:601:ARG:HE	20:N:605:VAL:HG21	1.77	0.49
20:N:592:GLY:N	20:N:624:PHE:O	2.44	0.49
23:P:382:LEU:O	23:P:384:LEU:N	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:135:SER:HB2	24:Q:172:LEU:CD2	2.40	0.49
24:Q:200:ILE:O	24:Q:201:TYR:O	2.29	0.49
24:Q:260:MET:HE3	24:Q:322:HIS:CD2	2.48	0.49
24:Q:293:ALA:CB	24:Q:301:ASP:OD2	2.61	0.49
24:Q:351:SER:OG	24:Q:356:LEU:O	2.20	0.49
24:Q:358:LYS:O	24:Q:361:VAL:N	2.45	0.49
26:S:268:GLU:CB	26:S:299:GLN:HE22	2.26	0.49
27:T:343:ALA:HA	27:T:346:LEU:HB2	1.94	0.49
30:W:169:HIS:HD2	30:W:187:PRO:C	2.15	0.49
21:X:215:TRP:HE1	21:X:228:PRO:HD2	1.77	0.49
4:C:50:LYS:NZ	4:C:199:GLU:O	2.44	0.49
6:D:66:TYR:CG	6:D:87:THR:HG21	2.48	0.49
10:F:91:LYS:HG3	10:F:119:LEU:HD11	1.94	0.49
15:I:135:ILE:H	15:I:141:LYS:HZ3	1.60	0.49
15:I:232:LYS:N	15:I:353:PHE:CE2	2.80	0.49
15:I:356:PRO:HB2	15:I:361:LYS:HG3	1.95	0.49
15:I:95:GLU:HA	15:I:98:LYS:HD2	1.95	0.49
17:K:102:ILE:HA	17:K:111:TYR:O	2.12	0.49
17:K:160:PRO:HB3	17:K:217:LYS:HG2	1.95	0.49
17:K:149:SER:CB	17:K:246:MET:HB3	2.43	0.49
17:K:345:PHE:HB3	17:K:360:LEU:HD23	1.94	0.49
16:J:29:GLU:CB	17:K:44:TYR:CD2	2.91	0.49
18:L:309:ARG:O	18:L:313:LEU:N	2.37	0.49
19:M:373:MET:HE3	19:M:415:LEU:CD1	2.38	0.49
23:P:125:ILE:O	23:P:129:ARG:CB	2.61	0.49
23:P:405:LYS:O	23:P:414:ASN:HB3	2.12	0.49
25:R:161:THR:O	25:R:165:LYS:HB2	2.12	0.49
25:R:199:GLU:O	25:R:203:ASP:HB2	2.13	0.49
26:S:472:PRO:CB	26:S:476:PHE:CE2	2.85	0.49
28:U:101:LEU:O	28:U:102:HIS:CE1	2.65	0.49
17:K:122:GLU:HB3	29:V:278:GLN:HB3	1.94	0.49
2:B:109:ILE:HD11	2:B:114:LEU:N	2.27	0.49
8:E:4:ASP:O	10:F:125:GLU:HB3	2.12	0.49
14:H:273:PHE:HD1	14:H:318:LEU:CB	2.26	0.49
15:I:144:LEU:HD13	15:I:150:VAL:HG12	1.94	0.49
18:L:178:THR:O	18:L:301:ILE:HG22	2.13	0.49
19:M:168:TYR:CD2	19:M:173:LYS:NZ	2.80	0.49
19:M:264:GLY:HA3	19:M:309:THR:HG22	1.95	0.49
20:N:570:LEU:HB3	20:N:578:LEU:O	2.12	0.49
23:P:68:VAL:C	23:P:71:VAL:HG22	2.32	0.49
24:Q:96:PHE:CD1	24:Q:106:GLU:OE2	2.65	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:193:ALA:HA	24:Q:196:THR:CG2	2.42	0.49
24:Q:194:ARG:NH1	24:Q:214:SER:HB3	2.28	0.49
24:Q:239:TYR:CD2	24:Q:246:LYS:CB	2.96	0.49
25:R:227:SER:HB2	25:R:231:LEU:HD12	1.94	0.49
25:R:259:TYR:CE1	25:R:260:LEU:HB2	2.47	0.49
25:R:307:LEU:HD11	25:R:308:LEU:HD21	1.94	0.49
27:T:104:ARG:O	27:T:108:ASN:CB	2.59	0.49
27:T:255:SER:O	27:T:258:PHE:CG	2.65	0.49
28:U:140:SER:HA	28:U:154:THR:O	2.11	0.49
28:U:51:SER:OG	29:V:43:LYS:NZ	2.45	0.49
2:B:15:ILE:HD12	4:C:20:GLN:NE2	2.28	0.49
15:I:115:ILE:CD1	15:I:146:PRO:HG3	2.42	0.49
16:J:131:VAL:O	16:J:132:ASP:HB2	2.13	0.49
17:K:179:GLU:O	17:K:184:PRO:HG3	2.12	0.49
17:K:393:ILE:HG22	17:K:394:VAL:N	2.28	0.49
18:L:226:GLN:NE2	18:L:271:HIS:O	2.46	0.49
18:L:352:MET:O	18:L:356:ARG:HB2	2.13	0.49
19:M:413:THR:OG1	19:M:414:GLU:OE2	2.30	0.49
19:M:399:VAL:HG23	19:M:427:VAL:CB	2.39	0.49
20:N:402:PHE:C	20:N:402:PHE:CD1	2.86	0.49
20:N:457:ILE:O	20:N:461:LEU:HG	2.13	0.49
20:N:612:ASP:HB3	20:N:647:HIS:CB	2.43	0.49
20:N:35:TRP:CB	20:N:67:VAL:HG22	2.42	0.49
20:N:67:VAL:O	20:N:71:LEU:HG	2.12	0.49
23:P:201:ARG:O	23:P:205:ILE:CB	2.60	0.49
24:Q:200:ILE:HD12	24:Q:201:TYR:N	2.28	0.49
24:Q:421:LEU:CB	28:U:280:ILE:CG1	2.76	0.49
24:Q:61:GLY:O	24:Q:65:GLU:N	2.30	0.49
26:S:348:PHE:CD2	26:S:361:PHE:HB2	2.48	0.49
27:T:135:LYS:C	27:T:137:THR:H	2.16	0.49
28:U:23:PHE:HE2	28:U:126:VAL:HG12	1.67	0.49
24:Q:415:TYR:OH	28:U:272:LEU:HD21	2.12	0.49
28:U:21:ASP:OD2	29:V:104:ARG:NH1	2.46	0.49
29:V:64:ASP:C	29:V:139:ARG:HH12	2.16	0.49
21:X:74:GLY:HA3	21:X:224:HIS:CD2	2.47	0.49
2:B:202:LEU:HA	2:B:205:VAL:CG1	2.42	0.49
8:E:184:ASP:N	8:E:184:ASP:OD1	2.46	0.49
12:G:227:ASP:O	12:G:230:SER:OG	2.30	0.49
14:H:420:TYR:CE1	15:I:350:LYS:HB2	2.48	0.49
14:H:425:ALA:CA	14:H:427:PRO:HD2	2.42	0.49
14:H:88:GLN:HA	14:H:91:GLN:HB2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:I:356:PRO:HB2	15:I:361:LYS:CG	2.43	0.49
15:I:390:LEU:HD12	15:I:391:SER:O	2.13	0.49
17:K:183:LEU:CB	17:K:184:PRO:HD3	2.41	0.49
17:K:248:ARG:HA	17:K:295:GLN:OE1	2.13	0.49
17:K:257:ASN:O	17:K:258:ALA:CB	2.60	0.49
17:K:89:ILE:HG12	18:L:80:VAL:HG23	1.94	0.49
18:L:215:ILE:CG2	18:L:260:LEU:HD23	2.42	0.49
18:L:65:THR:OG1	18:L:68:LYS:HG3	2.13	0.49
18:L:127:PRO:HD2	19:M:321:GLN:HE21	1.77	0.49
19:M:90:VAL:HG12	19:M:164:LEU:CD1	2.42	0.49
20:N:249:CYS:HA	20:N:252:LEU:HB3	1.94	0.49
20:N:27:LEU:O	20:N:31:VAL:HG23	2.12	0.49
20:N:337:LEU:HA	20:N:340:GLN:HB3	1.95	0.49
20:N:557:TYR:HD1	20:N:588:MET:HB3	1.78	0.49
20:N:788:VAL:N	20:N:881:PRO:HA	2.22	0.49
23:P:168:GLU:O	23:P:169:LEU:C	2.51	0.49
23:P:90:LEU:C	23:P:90:LEU:HD23	2.33	0.49
24:Q:260:MET:CE	24:Q:322:HIS:CD2	2.95	0.49
25:R:260:LEU:C	25:R:260:LEU:HD22	2.33	0.49
24:Q:401:LEU:HD21	25:R:369:THR:CB	2.43	0.49
26:S:318:GLN:O	26:S:319:HIS:C	2.51	0.49
28:U:7:GLN:O	28:U:158:VAL:HG13	2.12	0.49
29:V:105:PRO:O	29:V:106:GLU:HG3	2.13	0.49
14:H:397:ILE:O	14:H:399:ALA:O	2.31	0.49
15:I:236:ALA:HB2	15:I:283:PHE:CE1	2.47	0.49
15:I:232:LYS:HZ2	15:I:332:ASN:ND2	2.11	0.49
16:J:376:VAL:HG12	17:K:190:LEU:HD23	1.94	0.49
17:K:205:TYR:CD2	17:K:314:ALA:HB2	2.46	0.49
17:K:205:TYR:CD1	17:K:205:TYR:C	2.86	0.49
17:K:52:GLU:O	17:K:56:VAL:N	2.32	0.49
17:K:52:GLU:HA	17:K:55:GLU:HB2	1.95	0.49
18:L:213:ARG:HB3	18:L:213:ARG:CZ	2.42	0.49
19:M:137:ILE:HG22	19:M:140:VAL:CG2	2.27	0.49
19:M:409:ARG:C	19:M:411:GLY:N	2.66	0.49
19:M:85:THR:C	19:M:87:PRO:HD2	2.33	0.49
19:M:86:LEU:N	19:M:87:PRO:CD	2.76	0.49
20:N:119:PRO:CG	20:N:120:GLU:N	2.76	0.49
20:N:482:GLY:HA3	20:N:515:ALA:HB1	1.95	0.49
20:N:526:ALA:O	20:N:529:ILE:HB	2.12	0.49
23:P:143:ALA:O	23:P:146:THR:OG1	2.22	0.49
23:P:150:ALA:O	23:P:162:ALA:HB1	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:P:183:VAL:O	23:P:187:LEU:HD13	2.13	0.49
23:P:206:SER:O	23:P:209:ILE:HG22	2.13	0.49
23:P:406:VAL:O	24:Q:343:SER:N	2.45	0.49
23:P:408:ARG:HG2	24:Q:345:VAL:HG23	1.93	0.49
25:R:257:ARG:CG	25:R:258:GLN:N	2.76	0.49
26:S:178:SER:O	26:S:179:LYS:HG2	2.12	0.49
20:N:3:THR:HG1	27:T:127:ASN:HB2	1.75	0.49
27:T:342:TYR:O	27:T:345:GLN:HB2	2.12	0.49
28:U:168:GLU:OE1	28:U:168:GLU:N	2.45	0.49
28:U:34:ARG:HD2	28:U:96:HIS:HB2	1.94	0.49
32:Z:259:PHE:O	32:Z:262:PHE:N	2.40	0.49
14:H:233:THR:CG2	14:H:234:ASP:H	2.25	0.48
15:I:227:PRO:HG2	15:I:355:LEU:CD2	2.35	0.48
15:I:383:LEU:HA	15:I:423:LYS:HZ3	1.77	0.48
16:J:189:TYR:CD1	16:J:189:TYR:O	2.67	0.48
17:K:148:ASP:O	17:K:149:SER:HB3	2.13	0.48
17:K:193:GLN:C	17:K:195:GLY:H	2.16	0.48
17:K:194:ILE:HB	17:K:196:ILE:CD1	2.43	0.48
17:K:167:ILE:HD11	17:K:218:ALA:HB2	1.88	0.48
17:K:380:GLN:O	17:K:384:MET:SD	2.70	0.48
17:K:385:LEU:HD21	17:K:401:LYS:HG3	1.94	0.48
18:L:100:LEU:HD23	18:L:107:ILE:HA	1.94	0.48
18:L:156:PRO:O	18:L:159:PHE:HB2	2.12	0.48
19:M:423:GLY:O	19:M:427:VAL:N	2.24	0.48
20:N:35:TRP:HE3	20:N:67:VAL:HG13	1.78	0.48
23:P:374:THR:HG22	23:P:375:MET:N	2.20	0.48
23:P:406:VAL:CG1	23:P:407:ASP:N	2.75	0.48
24:Q:203:PRO:CB	24:Q:204:PRO:CD	2.84	0.48
24:Q:242:ILE:HG23	24:Q:243:ASP:N	2.28	0.48
25:R:110:TYR:O	25:R:114:ILE:HG12	2.12	0.48
26:S:230:PHE:CG	26:S:231:LEU:N	2.81	0.48
28:U:12:HIS:HD2	28:U:51:SER:CA	2.20	0.48
28:U:240:VAL:C	28:U:242:LEU:H	2.16	0.48
30:W:38:HIS:O	30:W:42:ARG:N	2.44	0.48
2:B:123:GLN:CG	4:C:80:PRO:HB3	2.43	0.48
14:H:172:VAL:CG1	14:H:224:LEU:CD2	2.79	0.48
14:H:283:ALA:O	14:H:296:GLN:OE1	2.31	0.48
15:I:170:LEU:HD11	15:I:269:GLU:HG3	1.95	0.48
15:I:207:HIS:O	15:I:210:TYR:CE1	2.66	0.48
15:I:251:VAL:HB	15:I:254:GLU:CG	2.44	0.48
16:J:104:ASP:CG	16:J:107:ASP:OD2	2.51	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:403:TYR:CG	17:K:407:ILE:HD11	2.47	0.48
17:K:407:ILE:O	17:K:409:LYS:N	2.46	0.48
17:K:51:LEU:HA	17:K:54:LEU:CD2	2.42	0.48
18:L:202:SER:HB2	19:M:269:ARG:NH2	2.28	0.48
20:N:164:GLU:HG3	20:N:165:LYS:HD3	1.96	0.48
20:N:377:HIS:ND1	20:N:382:SER:HB3	2.28	0.48
20:N:528:ALA:O	20:N:532:MET:HG2	2.13	0.48
23:P:196:VAL:O	23:P:197:LYS:CB	2.60	0.48
23:P:396:LEU:O	23:P:400:LYS:N	2.46	0.48
24:Q:190:LEU:HD21	24:Q:214:SER:OG	2.13	0.48
25:R:191:ILE:HG22	25:R:192:ARG:H	1.71	0.48
25:R:288:PHE:O	25:R:290:PRO:HD2	2.12	0.48
26:S:325:LYS:O	26:S:328:VAL:HG12	2.13	0.48
27:T:198:PHE:O	27:T:201:SER:OG	2.18	0.48
30:W:24:THR:O	30:W:28:ALA:N	2.29	0.48
14:H:254:ALA:HA	14:H:301:GLU:HG2	1.95	0.48
15:I:247:PHE:CE2	16:J:283:PHE:HZ	2.31	0.48
15:I:404:LEU:HD13	16:J:313:ARG:HH11	1.79	0.48
16:J:112:CYS:HB2	16:J:130:LYS:HG2	1.95	0.48
16:J:85:VAL:HG11	16:J:108:VAL:HG11	1.95	0.48
17:K:284:GLU:HA	17:K:287:ARG:HD2	1.94	0.48
16:J:29:GLU:OE1	17:K:44:TYR:CZ	2.66	0.48
18:L:162:VAL:HG12	18:L:164:ILE:HD12	1.95	0.48
18:L:182:LEU:CD1	18:L:185:ARG:HH11	2.26	0.48
18:L:313:LEU:CD2	18:L:332:VAL:HG23	2.43	0.48
18:L:344:ARG:HE	35:L:401:ADP:HO2'	1.61	0.48
18:L:71:VAL:HG22	18:L:71:VAL:O	2.13	0.48
19:M:87:PRO:CG	19:M:155:LYS:HE2	2.43	0.48
20:N:475:HIS:HB2	20:N:507:VAL:HG22	1.95	0.48
20:N:490:ARG:O	20:N:519:VAL:HG21	2.13	0.48
20:N:566:LEU:HA	20:N:569:SER:HB2	1.96	0.48
23:P:446:ILE:HA	23:P:449:GLU:OE1	2.12	0.48
24:Q:239:TYR:C	24:Q:247:ALA:HB2	2.34	0.48
24:Q:248:ILE:HG21	24:Q:283:GLN:OE1	2.10	0.48
24:Q:260:MET:HE1	24:Q:325:LYS:CG	2.43	0.48
24:Q:365:LEU:O	24:Q:369:ILE:HG12	2.13	0.48
26:S:175:MET:CB	26:S:184:ALA:CB	2.87	0.48
26:S:82:LEU:HA	26:S:85:ALA:HB2	1.94	0.48
28:U:12:HIS:O	28:U:15:VAL:HG22	2.14	0.48
29:V:38:LEU:O	29:V:41:MET:HB3	2.12	0.48
30:W:5:SER:CB	30:W:100:ARG:HB2	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:W:138:VAL:HG11	30:W:156:PHE:HE2	1.78	0.48
2:B:54:LYS:NZ	2:B:66:VAL:O	2.46	0.48
12:G:30:LYS:O	12:G:163:ALA:HB2	2.13	0.48
14:H:247:GLN:OE1	14:H:256:MET:HE3	2.13	0.48
16:J:138:MET:HE1	16:J:143:VAL:HG23	1.94	0.48
15:I:295:TYR:HH	16:J:271:ARG:HB2	1.73	0.48
17:K:152:MET:HG2	17:K:152:MET:O	2.13	0.48
17:K:273:LYS:HG3	17:K:274:ARG:N	2.19	0.48
17:K:285:VAL:HA	17:K:288:ILE:HD12	1.95	0.48
16:J:222:LYS:CG	17:K:286:GLN:HE22	2.26	0.48
17:K:392:TYR:O	17:K:393:ILE:CB	2.61	0.48
18:L:211:SER:HB3	18:L:256:THR:HG21	1.95	0.48
18:L:331:ILE:HD13	18:L:367:PHE:CE1	2.44	0.48
23:P:286:LEU:O	23:P:290:ILE:HG12	2.14	0.48
22:O:325:ASP:OD1	23:P:372:ARG:HB2	2.13	0.48
24:Q:243:ASP:CB	24:Q:245:PRO:HD3	2.43	0.48
24:Q:288:LYS:O	24:Q:291:ALA:N	2.46	0.48
25:R:205:VAL:CG1	25:R:245:GLU:HB2	2.43	0.48
26:S:327:THR:HA	26:S:330:LYS:HE3	1.94	0.48
27:T:269:ASP:OD1	27:T:270:GLU:N	2.46	0.48
21:X:3:ILE:HG22	21:X:3:ILE:O	2.13	0.48
14:H:374:ALA:HA	14:H:377:CYS:SG	2.54	0.48
14:H:276:GLU:OE2	15:I:313:LEU:CD2	2.61	0.48
16:J:147:THR:CG2	16:J:150:MET:HE2	2.39	0.48
16:J:295:THR:OG1	16:J:296:ASN:N	2.44	0.48
16:J:339:THR:HG22	16:J:340:ARG:N	2.26	0.48
17:K:283:ARG:O	17:K:287:ARG:CG	2.61	0.48
17:K:339:ARG:NE	24:Q:201:TYR:OH	2.44	0.48
16:J:29:GLU:OE1	17:K:44:TYR:CE2	2.66	0.48
18:L:349:GLU:HB3	18:L:370:ALA:HB1	1.94	0.48
19:M:265:ALA:CA	19:M:312:GLU:HG2	2.42	0.48
20:N:178:ALA:O	20:N:182:LYS:N	2.39	0.48
20:N:341:PHE:CE2	20:N:743:ASN:HB3	2.48	0.48
23:P:211:THR:HA	23:P:214:PHE:CD2	2.48	0.48
23:P:317:TRP:CH2	23:P:351:TRP:CZ3	3.00	0.48
24:Q:185:LYS:NZ	24:Q:185:LYS:HB3	2.28	0.48
24:Q:276:ALA:C	24:Q:278:ARG:H	2.16	0.48
24:Q:294:SER:O	24:Q:297:ARG:CA	2.60	0.48
24:Q:392:PRO:O	24:Q:394:ASP:N	2.46	0.48
25:R:185:GLY:O	25:R:201:PHE:CZ	2.56	0.48
25:R:237:ARG:CB	25:R:264:TYR:CZ	2.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:R:304:TYR:CD1	25:R:304:TYR:N	2.81	0.48
26:S:270:LEU:HA	26:S:273:LYS:HE3	1.94	0.48
26:S:322:VAL:O	26:S:325:LYS:N	2.47	0.48
28:U:79:TYR:CZ	28:U:91:ILE:HG13	2.14	0.48
24:Q:414:LEU:CA	29:V:259:VAL:HG11	2.43	0.48
30:W:17:ARG:HG3	30:W:18:ASN:HB2	1.95	0.48
32:Z:552:ASP:O	32:Z:555:ALA:HB3	2.14	0.48
4:C:58:GLU:H	4:C:58:GLU:CD	2.15	0.48
6:D:12:PHE:CZ	8:E:22:ALA:HA	2.49	0.48
15:I:118:ASP:O	15:I:120:HIS:N	2.46	0.48
15:I:343:ARG:NH2	15:I:346:ARG:NH2	2.20	0.48
16:J:138:MET:CE	16:J:143:VAL:HG22	2.43	0.48
16:J:150:MET:HG3	16:J:150:MET:O	2.13	0.48
16:J:370:ALA:HB2	16:J:382:ASP:OD2	2.13	0.48
17:K:153:MET:C	17:K:155:THR:H	2.17	0.48
17:K:251:PHE:HD2	17:K:295:GLN:OE1	1.96	0.48
18:L:99:ALA:N	18:L:109:ARG:O	2.40	0.48
18:L:172:LEU:HD13	18:L:180:LYS:CA	2.43	0.48
18:L:252:GLU:HA	18:L:255:ARG:NH2	2.29	0.48
18:L:264:MET:HG2	18:L:275:MET:HE1	1.89	0.48
19:M:97:LEU:O	19:M:121:CYS:O	2.32	0.48
19:M:96:LEU:HD11	19:M:145:LEU:HB3	1.88	0.48
20:N:109:THR:O	20:N:113:VAL:N	2.36	0.48
20:N:470:ASN:N	20:N:474:ARG:CG	2.77	0.48
20:N:482:GLY:O	20:N:486:MET:N	2.47	0.48
20:N:624:PHE:CE1	20:N:658:ILE:HG21	2.49	0.48
20:N:725:MET:O	20:N:728:PHE:HB3	2.13	0.48
22:O:304:VAL:O	22:O:304:VAL:HG23	2.13	0.48
25:R:286:TRP:CD1	25:R:287:LEU:N	2.81	0.48
27:T:228:HIS:O	27:T:232:LEU:CB	2.62	0.48
29:V:212:LEU:O	29:V:215:LYS:N	2.46	0.48
2:B:165:ALA:HB3	4:C:55:LEU:HD22	1.95	0.48
14:H:143:ASP:O	14:H:147:TYR:N	2.46	0.48
14:H:247:GLN:OE1	14:H:256:MET:CE	2.61	0.48
14:H:313:GLY:C	14:H:315:ILE:HD12	2.34	0.48
15:I:95:GLU:O	15:I:99:VAL:HG23	2.13	0.48
16:J:133:PRO:CB	16:J:237:MET:HE1	2.41	0.48
16:J:199:LEU:HD22	16:J:317:PHE:CE2	2.49	0.48
16:J:41:ASN:O	16:J:45:LEU:N	2.47	0.48
17:K:119:ILE:HD12	17:K:119:ILE:N	2.28	0.48
18:L:109:ARG:CB	18:L:109:ARG:HH11	2.23	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:L:111:LEU:HB3	18:L:112:PRO:CD	2.44	0.48
18:L:153:LEU:C	18:L:156:PRO:CD	2.82	0.48
18:L:298:LYS:H	18:L:298:LYS:HD2	1.79	0.48
19:M:237:ALA:HB3	19:M:284:PHE:HE2	1.78	0.48
19:M:387:CYS:SG	19:M:424:ILE:HD13	2.53	0.48
23:P:365:ILE:O	23:P:368:LYS:N	2.41	0.48
23:P:453:HIS:O	23:P:454:ASN:HB2	2.12	0.48
25:R:127:THR:O	25:R:131:THR:N	2.46	0.48
16:J:334:ARG:O	25:R:173:ASP:CB	2.62	0.48
25:R:300:ARG:O	25:R:304:TYR:HD1	1.93	0.48
30:W:169:HIS:CD2	30:W:187:PRO:CA	2.97	0.48
2:B:14:THR:O	4:C:127:ARG:HD3	2.13	0.48
14:H:245:LEU:C	14:H:247:GLN:HE22	2.17	0.48
14:H:413:VAL:O	14:H:417:ILE:HB	2.13	0.48
15:I:180:PRO:HG3	15:I:240:ALA:CB	2.44	0.48
15:I:275:GLU:CB	15:I:322:ARG:NH1	2.76	0.48
15:I:329:MET:SD	15:I:347:ILE:HD11	2.53	0.48
16:J:155:ASP:HA	16:J:158:ILE:HD12	1.95	0.48
16:J:162:LYS:CE	16:J:166:GLU:OE1	2.54	0.48
16:J:232:ARG:HE	16:J:279:GLN:CD	2.17	0.48
17:K:200:ARG:HH12	17:K:303:VAL:HB	1.79	0.48
17:K:230:VAL:HG11	17:K:235:PHE:HE1	1.75	0.48
17:K:273:LYS:CG	17:K:274:ARG:H	2.16	0.48
17:K:322:LEU:HD13	17:K:330:LYS:CE	2.44	0.48
18:L:116:ASP:OD1	18:L:117:PRO:HD2	2.14	0.48
18:L:141:GLN:HA	18:L:144:GLU:HB3	1.96	0.48
18:L:150:GLU:O	18:L:153:LEU:CD2	2.59	0.48
20:N:71:LEU:HD23	26:S:273:LYS:CB	2.44	0.48
24:Q:106:GLU:O	24:Q:110:CYS:SG	2.72	0.48
25:R:307:LEU:O	25:R:307:LEU:HD12	2.13	0.48
27:T:224:VAL:CG1	27:T:225:TYR:N	2.72	0.48
29:V:160:PHE:CB	29:V:202:SER:HA	2.44	0.48
28:U:259:VAL:HG13	29:V:291:LEU:HD22	1.96	0.48
29:V:304:LEU:O	29:V:308:VAL:HG23	2.14	0.48
32:Z:216:MET:O	32:Z:219:LYS:N	2.46	0.48
32:Z:706:ILE:O	32:Z:709:THR:N	2.47	0.48
14:H:130:ALA:HB1	14:H:131:PRO:CD	2.42	0.48
14:H:295:VAL:HG11	15:I:307:ARG:HH12	1.78	0.48
15:I:103:ARG:HG3	15:I:136:LEU:HD12	1.96	0.48
15:I:111:THR:O	15:I:124:SER:N	2.47	0.48
16:J:72:TYR:O	16:J:116:LEU:HB3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:232:ARG:HG3	16:J:232:ARG:HH11	1.79	0.48
16:J:189:TYR:HB2	16:J:298:ILE:HG13	1.96	0.48
16:J:374:ARG:NH2	17:K:183:LEU:HD13	2.29	0.48
18:L:327:ASP:OD1	18:L:330:ALA:N	2.46	0.48
18:L:353:PHE:C	18:L:356:ARG:HB2	2.34	0.48
19:M:351:LYS:O	19:M:352:ILE:HD13	2.14	0.48
20:N:366:HIS:NE2	20:N:392:TRP:CD2	2.82	0.48
20:N:749:GLN:HB2	20:N:755:THR:HA	1.96	0.48
22:O:35:HIS:CA	30:W:14:GLU:OE2	2.61	0.48
24:Q:190:LEU:CD2	24:Q:214:SER:HA	2.44	0.48
26:S:235:LEU:CA	26:S:250:LEU:HD23	2.43	0.48
26:S:356:SER:O	26:S:359:PRO:HD2	2.14	0.48
27:T:346:LEU:HA	27:T:349:ILE:CD1	2.41	0.48
28:U:173:GLU:HG2	29:V:152:LYS:HG2	1.95	0.48
26:S:476:PHE:CD1	28:U:261:TYR:HD1	2.23	0.48
14:H:283:ALA:HB3	14:H:285:PHE:CE1	2.48	0.48
15:I:200:SER:HA	15:I:219:PRO:HG3	1.85	0.48
15:I:225:TYR:CB	15:I:334:ILE:CG1	2.91	0.48
15:I:287:ILE:HD13	15:I:337:LEU:HD21	1.94	0.48
15:I:388:ASP:OD1	15:I:389:ASP:N	2.47	0.48
16:J:189:TYR:CB	16:J:298:ILE:HG13	2.43	0.48
16:J:246:ILE:O	16:J:291:VAL:HA	2.14	0.48
17:K:88:VAL:HG12	18:L:79:TYR:HE1	1.78	0.48
18:L:40:TYR:O	18:L:44:GLU:CB	2.62	0.48
19:M:220:PRO:HB3	19:M:349:ASP:OD2	2.14	0.48
19:M:258:GLN:HG3	19:M:263:ASP:HB3	1.96	0.48
19:M:380:ASN:HB3	19:M:383:GLU:OE1	2.14	0.48
19:M:397:LYS:O	19:M:401:VAL:N	2.32	0.48
19:M:378:ASP:O	19:M:417:HIS:HB2	2.13	0.48
17:K:41:TYR:CD1	20:N:152:GLY:O	2.66	0.48
20:N:650:TYR:CD1	20:N:650:TYR:C	2.87	0.48
28:U:116:CYS:SG	28:U:117:PRO:HD3	2.54	0.48
30:W:10:VAL:HG12	30:W:112:PHE:CD2	2.49	0.48
21:X:119:VAL:O	21:X:119:VAL:HG12	2.70	0.48
32:Z:209:MET:O	32:Z:241:PRO:HA	2.14	0.48
8:E:43:LEU:HD22	8:E:134:VAL:HG21	1.96	0.47
14:H:368:ILE:CD1	14:H:409:PHE:CD2	2.97	0.47
15:I:306:GLN:O	15:I:309:MET:HB2	2.14	0.47
15:I:390:LEU:CD1	15:I:395:ILE:HD11	2.44	0.47
16:J:128:PRO:O	16:J:129:ASN:HB2	2.13	0.47
16:J:157:GLN:O	16:J:160:GLU:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:222:LYS:C	16:J:222:LYS:HD3	2.35	0.47
16:J:371:LEU:HD13	17:K:196:ILE:CD1	2.44	0.47
16:J:75:GLU:HB3	16:J:88:LYS:O	2.14	0.47
17:K:105:SER:HB3	17:K:109:SER:OG	2.13	0.47
17:K:173:GLN:HE21	17:K:333:PHE:HA	1.74	0.47
17:K:284:GLU:O	17:K:288:ILE:HG13	2.14	0.47
17:K:345:PHE:CD1	17:K:375:ILE:CG2	2.97	0.47
18:L:282:PRO:HD2	18:L:386:TYR:O	2.14	0.47
18:L:317:ALA:HA	18:L:320:ILE:HD11	1.07	0.47
19:M:124:ILE:CD1	19:M:160:ILE:HD11	2.44	0.47
19:M:274:LEU:HD22	19:M:274:LEU:O	2.14	0.47
19:M:91:SER:HB3	19:M:126:THR:HA	1.96	0.47
20:N:160:LEU:HA	20:N:163:PHE:HB2	1.96	0.47
20:N:413:LYS:CA	20:N:449:ILE:HG12	2.42	0.47
22:O:268:LEU:O	22:O:272:ILE:HG12	2.14	0.47
23:P:173:THR:HG1	23:P:176:SER:HG	1.50	0.47
24:Q:137:TYR:CE2	24:Q:145:GLU:OE1	2.67	0.47
24:Q:245:PRO:HD2	24:Q:246:LYS:H	1.78	0.47
25:R:168:ILE:HG21	25:R:177:ARG:HG3	1.96	0.47
30:W:16:MET:CG	30:W:29:GLN:HE22	2.25	0.47
14:H:148:GLN:HE22	14:H:150:HIS:CE1	2.32	0.47
14:H:397:ILE:HD11	15:I:214:MET:HE2	1.97	0.47
15:I:238:ALA:O	15:I:241:ASN:HB3	2.14	0.47
15:I:387:LYS:HA	15:I:387:LYS:HD2	1.67	0.47
15:I:402:ALA:HB1	15:I:414:VAL:CB	2.44	0.47
17:K:296:MET:CE	17:K:326:ARG:O	2.62	0.47
19:M:88:TYR:CZ	19:M:161:LEU:HB2	2.48	0.47
20:N:403:THR:O	20:N:407:SER:N	2.46	0.47
20:N:460:TYR:O	20:N:463:ASN:HB2	2.14	0.47
20:N:885:MET:HB3	20:N:888:GLN:CB	2.44	0.47
24:Q:134:VAL:HG22	24:Q:149:LEU:CG	2.45	0.47
25:R:191:ILE:C	25:R:291:HIS:HE1	2.17	0.47
25:R:286:TRP:NE1	25:R:287:LEU:HD13	2.29	0.47
25:R:268:TYR:HE2	25:R:307:LEU:CB	2.28	0.47
26:S:299:GLN:O	26:S:300:LEU:CB	2.62	0.47
27:T:230:VAL:O	27:T:233:GLU:N	2.47	0.47
27:T:258:PHE:CG	27:T:259:PHE:N	2.83	0.47
29:V:114:SER:HA	29:V:145:VAL:O	2.15	0.47
29:V:98:MET:HA	29:V:98:MET:HE3	1.92	0.47
30:W:124:LEU:HA	30:W:127:LEU:HD12	1.96	0.47
14:H:139:ARG:O	14:H:153:LEU:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:H:224:LEU:HA	14:H:227:ARG:HD3	1.96	0.47
14:H:94:GLN:HB3	14:H:95:VAL:H	1.54	0.47
15:I:109:VAL:HG13	15:I:149:SER:OG	2.14	0.47
15:I:237:LYS:HG2	16:J:282:GLY:O	2.15	0.47
15:I:257:GLN:CG	15:I:262:ASP:HB3	2.38	0.47
15:I:293:LYS:HD3	15:I:293:LYS:HA	1.58	0.47
15:I:342:ILE:O	15:I:343:ARG:C	2.52	0.47
16:J:167:LEU:N	16:J:168:PRO:CD	2.77	0.47
16:J:161:ILE:CG2	16:J:203:VAL:HG21	2.44	0.47
17:K:151:ILE:CG2	17:K:152:MET:H	2.20	0.47
17:K:322:LEU:HB3	17:K:330:LYS:HE3	1.97	0.47
17:K:394:VAL:CG1	17:K:398:ASP:OD2	2.62	0.47
18:L:255:ARG:H	18:L:255:ARG:HG2	1.47	0.47
18:L:353:PHE:HA	18:L:356:ARG:CB	2.40	0.47
18:L:354:ALA:CB	18:L:362:VAL:HG22	2.44	0.47
19:M:233:LYS:HG2	19:M:354:PHE:CE2	2.49	0.47
19:M:169:ASP:OD2	19:M:267:LEU:HD12	2.15	0.47
19:M:435:LEU:CD2	19:M:438:TYR:CZ	2.85	0.47
19:M:393:GLY:HA3	35:M:501:ADP:C8	2.49	0.47
19:M:76:ASN:O	19:M:80:ILE:HG13	2.15	0.47
20:N:612:ASP:HB3	20:N:647:HIS:CG	2.49	0.47
20:N:613:ASP:O	20:N:617:ALA:N	2.35	0.47
20:N:901:GLN:N	20:N:915:LYS:O	2.47	0.47
22:O:245:VAL:N	22:O:276:CYS:SG	2.87	0.47
23:P:243:ILE:CG1	23:P:247:TYR:CD2	2.95	0.47
23:P:449:GLU:OE2	28:U:226:ILE:HD12	2.14	0.47
24:Q:271:VAL:HG11	24:Q:288:LYS:CG	2.44	0.47
32:Z:336:GLU:O	32:Z:339:ILE:N	2.47	0.47
14:H:297:ARG:O	14:H:300:LEU:N	2.46	0.47
15:I:246:THR:HG1	15:I:280:SER:CB	2.24	0.47
16:J:347:ILE:HD13	16:J:383:PHE:CB	2.45	0.47
17:K:149:SER:O	17:K:230:VAL:HG21	2.14	0.47
17:K:303:VAL:HG12	17:K:305:VAL:CG2	2.44	0.47
17:K:313:ARG:O	17:K:315:ASP:N	2.47	0.47
17:K:397:LYS:HA	17:K:400:GLU:HB2	1.96	0.47
18:L:270:LEU:HD23	18:L:270:LEU:HA	1.69	0.47
18:L:345:ASN:O	18:L:349:GLU:N	2.33	0.47
19:M:196:GLN:O	19:M:200:GLU:HG2	2.14	0.47
18:L:253:ILE:HG13	19:M:308:ARG:NH1	2.28	0.47
20:N:119:PRO:O	20:N:120:GLU:HG2	2.13	0.47
20:N:152:GLY:O	20:N:155:LEU:HB3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:N:451:ALA:O	20:N:452:ASN:CB	2.61	0.47
20:N:497:LEU:CD1	20:N:515:ALA:CB	2.83	0.47
20:N:583:MET:O	20:N:587:ALA:N	2.40	0.47
22:O:172:TYR:CD1	22:O:172:TYR:C	2.87	0.47
23:P:243:ILE:O	23:P:247:TYR:HD2	1.98	0.47
23:P:396:LEU:O	23:P:400:LYS:CA	2.63	0.47
24:Q:183:LEU:HD11	24:Q:220:ALA:CB	2.44	0.47
26:S:490:SER:O	26:S:494:MET:CB	2.62	0.47
28:U:96:HIS:CE1	28:U:100:LYS:O	2.65	0.47
29:V:130:GLN:HG3	29:V:162:LEU:HD23	1.97	0.47
29:V:214:GLN:CG	29:V:215:LYS:N	2.78	0.47
21:X:19:ARG:NH2	21:X:24:GLU:OE1	2.48	0.47
14:H:124:ASP:OD1	14:H:125:LEU:N	2.43	0.47
15:I:269:GLU:O	15:I:273:VAL:CG2	2.57	0.47
16:J:69:GLN:HE21	16:J:69:GLN:HA	1.79	0.47
17:K:244:PRO:CB	17:K:291:GLU:HG3	2.44	0.47
15:I:259:TYR:OH	17:K:276:ASP:CG	2.53	0.47
17:K:344:ILE:O	17:K:348:ILE:HG13	2.14	0.47
17:K:65:GLN:OE1	17:K:69:LYS:NZ	2.46	0.47
18:L:72:LYS:HA	18:L:78:ARG:HA	1.95	0.47
19:M:172:VAL:HG21	19:M:270:ASP:HB3	1.96	0.47
19:M:399:VAL:N	19:M:427:VAL:CG2	2.72	0.47
20:N:26:LYS:O	20:N:30:VAL:HG22	2.14	0.47
20:N:360:VAL:CG2	20:N:361:ARG:H	2.20	0.47
20:N:528:ALA:O	20:N:532:MET:N	2.31	0.47
20:N:624:PHE:CE1	20:N:658:ILE:HD13	2.49	0.47
20:N:6:ALA:HB1	27:T:170:GLN:N	2.29	0.47
20:N:99:THR:OG1	26:S:240:LEU:HD13	1.98	0.47
23:P:145:LEU:O	23:P:149:LEU:HB3	2.14	0.47
24:Q:57:LEU:O	24:Q:60:THR:CA	2.62	0.47
30:W:113:VAL:HB	30:W:142:ASN:HA	1.96	0.47
30:W:97:LEU:HD11	30:W:109:ILE:HG13	1.97	0.47
31:Y:51:ASP:O	31:Y:54:ASN:HB2	2.15	0.47
32:Z:216:MET:O	32:Z:220:ASP:N	2.47	0.47
32:Z:661:ALA:HB3	32:Z:693:ALA:HB1	1.96	0.47
2:B:182:LYS:HD3	2:B:197:THR:HG23	1.97	0.47
14:H:207:GLU:HB3	14:H:210:LYS:HE3	1.96	0.47
15:I:354:PRO:HD2	15:I:354:PRO:O	2.14	0.47
16:J:309:GLY:O	16:J:310:ARG:HB2	2.14	0.47
18:L:132:TYR:CE2	18:L:146:ARG:NE	2.82	0.47
18:L:191:LEU:CD1	18:L:195:PHE:HZ	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:L:338:PHE:CE1	18:L:375:ALA:CA	2.97	0.47
19:M:215:LEU:CD2	19:M:217:ILE:HG21	2.33	0.47
18:L:234:GLU:HB3	19:M:311:LEU:HD13	1.96	0.47
20:N:235:LYS:O	20:N:239:GLU:N	2.41	0.47
20:N:474:ARG:O	20:N:478:SER:N	2.45	0.47
22:O:341:LEU:HB2	22:O:345:GLN:HB2	1.97	0.47
23:P:317:TRP:HZ2	23:P:351:TRP:CH2	2.20	0.47
24:Q:203:PRO:CG	24:Q:204:PRO:CD	2.92	0.47
24:Q:245:PRO:CD	24:Q:246:LYS:H	2.28	0.47
24:Q:63:ALA:HB2	24:Q:105:GLN:NE2	2.29	0.47
25:R:263:LEU:N	25:R:271:PHE:CD2	2.83	0.47
26:S:476:PHE:C	26:S:480:ILE:HD13	2.33	0.47
8:E:119:THR:O	10:F:135:ARG:NH1	2.47	0.47
14:H:143:ASP:CB	14:H:150:HIS:NE2	2.74	0.47
14:H:284:ARG:CG	14:H:296:GLN:OE1	2.62	0.47
15:I:163:LEU:HG	15:I:164:MET:H	1.79	0.47
15:I:268:ARG:O	15:I:272:ARG:CB	2.62	0.47
14:H:237:PHE:CE2	15:I:319:PHE:HZ	2.32	0.47
16:J:380:GLN:HG2	16:J:384:GLU:OE2	2.15	0.47
17:K:96:VAL:HG21	17:K:112:TYR:CE1	2.49	0.47
17:K:162:VAL:HB	17:K:217:LYS:HB3	1.97	0.47
18:L:144:GLU:HA	18:L:147:GLU:OE1	2.15	0.47
18:L:322:LYS:HZ2	18:L:326:ILE:HD12	1.77	0.47
20:N:573:ASP:CB	20:N:578:LEU:HB2	2.43	0.47
20:N:68:PHE:HA	20:N:71:LEU:HB2	1.97	0.47
22:O:44:PHE:O	22:O:47:ASP:N	2.48	0.47
24:Q:370:LEU:HG	25:R:233:ARG:CD	2.45	0.47
25:R:289:ALA:CB	25:R:290:PRO:CD	2.87	0.47
25:R:379:ARG:HH11	25:R:379:ARG:HG3	1.79	0.47
27:T:251:ILE:C	27:T:253:ALA:H	2.17	0.47
27:T:302:TYR:O	27:T:306:ARG:HG2	2.14	0.47
28:U:259:VAL:CG2	29:V:241:ASN:HB3	2.45	0.47
28:U:167:ALA:CB	29:V:43:LYS:HA	2.45	0.47
30:W:29:GLN:HG2	30:W:112:PHE:CD1	2.49	0.47
32:Z:271:MET:C	32:Z:273:ASN:N	2.67	0.47
32:Z:485:LEU:HA	32:Z:488:ALA:CB	2.44	0.47
14:H:119:ALA:HB1	19:M:127:SER:CB	2.45	0.47
15:I:187:ILE:CD1	15:I:194:ILE:HD12	2.37	0.47
15:I:227:PRO:CB	15:I:228:PRO:HD2	2.45	0.47
16:J:156:LYS:O	16:J:160:GLU:HG2	2.15	0.47
16:J:231:VAL:HG12	16:J:231:VAL:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:263:PHE:C	17:K:263:PHE:CD1	2.88	0.47
18:L:61:LEU:CD1	18:L:78:ARG:NE	2.77	0.47
18:L:202:SER:HB3	19:M:269:ARG:NH2	2.30	0.47
19:M:304:ARG:HG3	19:M:308:ARG:HH21	1.79	0.47
19:M:432:LYS:O	19:M:433:ALA:HB2	2.13	0.47
20:N:18:GLN:O	20:N:21:GLU:HB3	2.15	0.47
20:N:408:LEU:O	20:N:411:ILE:N	2.48	0.47
20:N:546:ARG:HD3	20:N:768:GLN:CD	2.34	0.47
20:N:573:ASP:CG	20:N:575:ASP:H	2.18	0.47
20:N:616:ARG:HD3	20:N:650:TYR:CD2	2.49	0.47
22:O:42:LEU:O	22:O:46:GLN:CG	2.63	0.47
23:P:300:PRO:CG	23:P:301:LYS:H	2.28	0.47
25:R:17:LEU:HD12	25:R:213:LEU:HA	1.97	0.47
26:S:348:PHE:CE2	26:S:361:PHE:CA	2.84	0.47
27:T:250:ASN:O	27:T:253:ALA:CA	2.61	0.47
28:U:94:TRP:CZ2	28:U:109:ASN:ND2	2.82	0.47
28:U:252:LYS:HA	28:U:252:LYS:CE	2.41	0.47
30:W:54:LEU:CA	30:W:58:CYS:HA	2.41	0.47
16:J:154:LEU:HD21	16:J:317:PHE:CE2	2.50	0.47
16:J:43:ARG:NE	17:K:57:GLN:CB	2.78	0.47
17:K:160:PRO:HB3	17:K:217:LYS:CG	2.45	0.47
17:K:175:GLN:HG2	17:K:179:GLU:HG3	1.96	0.47
17:K:303:VAL:O	17:K:305:VAL:N	2.46	0.47
17:K:341:LYS:HA	17:K:344:ILE:HD12	1.96	0.47
17:K:79:VAL:HG12	17:K:79:VAL:O	2.14	0.47
19:M:230:GLY:HA2	35:M:501:ADP:O1A	2.14	0.47
20:N:577:ILE:O	20:N:580:ARG:HB3	2.15	0.47
22:O:57:ILE:CG1	22:O:83:VAL:HG11	2.45	0.47
24:Q:137:TYR:CZ	24:Q:145:GLU:OE1	2.67	0.47
24:Q:155:ARG:HA	24:Q:158:LYS:CD	2.45	0.47
24:Q:239:TYR:C	24:Q:242:ILE:HG22	2.35	0.47
25:R:21:GLN:HB2	25:R:286:TRP:HZ3	1.80	0.47
27:T:332:SER:HB3	29:V:307:VAL:CG1	2.45	0.47
32:Z:201:GLU:O	32:Z:202:HIS:CB	2.62	0.47
6:D:163:CYS:SG	6:D:164:ILE:N	2.88	0.47
14:H:176:ASP:O	35:H:501:ADP:N1	2.48	0.47
14:H:215:PHE:CB	14:H:324:PRO:HB3	2.45	0.47
14:H:328:ASP:OD1	14:H:329:PRO:HD2	2.14	0.47
14:H:86:THR:O	14:H:89:SER:OG	2.33	0.47
15:I:193:GLN:HG3	15:I:351:ILE:CG2	2.44	0.47
15:I:393:ALA:O	15:I:394:ASP:C	2.53	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:345:PHE:CB	17:K:360:LEU:HD23	2.44	0.47
17:K:363:TYR:HB3	17:K:403:TYR:CE1	2.49	0.47
19:M:152:GLY:O	19:M:161:LEU:N	2.48	0.47
19:M:204:LEU:HB2	19:M:205:PRO:HD3	1.97	0.47
19:M:249:LEU:O	19:M:283:ILE:CA	2.59	0.47
20:N:381:THR:N	20:N:411:ILE:O	2.45	0.47
20:N:558:GLY:N	20:N:588:MET:O	2.38	0.47
17:K:56:VAL:HG11	20:N:603:LEU:HD11	1.92	0.47
22:O:4:VAL:HG12	22:O:26:GLU:OE2	2.09	0.47
23:P:453:HIS:O	23:P:454:ASN:CG	2.52	0.47
24:Q:122:ARG:C	24:Q:124:PHE:H	2.18	0.47
24:Q:412:ASP:O	24:Q:416:ASN:CG	2.52	0.47
24:Q:61:GLY:O	24:Q:64:ALA:HB3	2.15	0.47
25:R:381:GLN:NE2	26:S:482:PHE:CZ	2.83	0.47
29:V:150:SER:OG	29:V:156:VAL:CG1	2.58	0.47
29:V:248:MET:HE3	29:V:284:LEU:O	2.15	0.47
14:H:247:GLN:HB2	14:H:248:LYS:H	1.62	0.47
15:I:290:ILE:HG22	15:I:290:ILE:O	2.15	0.47
15:I:401:GLU:HB3	15:I:422:SER:OG	2.15	0.47
16:J:138:MET:CE	16:J:143:VAL:CG2	2.92	0.47
16:J:47:ALA:O	16:J:48:GLN:C	2.51	0.47
17:K:116:LEU:HD23	17:K:116:LEU:HA	1.74	0.47
17:K:119:ILE:CD1	17:K:119:ILE:H	2.28	0.47
18:L:132:TYR:CD2	18:L:146:ARG:NH2	2.83	0.47
18:L:251:ARG:O	18:L:255:ARG:CG	2.61	0.47
19:M:192:ASP:HA	19:M:195:ILE:HD12	1.97	0.47
19:M:223:VAL:CG1	19:M:224:LEU:H	2.28	0.47
20:N:544:ILE:O	20:N:548:LEU:HG	2.15	0.47
22:O:149:THR:C	22:O:151:VAL:N	2.69	0.47
23:P:82:LEU:O	23:P:86:ASN:CB	2.63	0.47
28:U:223:ASN:C	28:U:225:GLN:N	2.66	0.47
2:B:126:THR:CG2	4:C:127:ARG:HH21	2.29	0.46
6:D:154:GLY:O	8:E:81:ARG:NH2	2.46	0.46
8:E:155:ALA:H	10:F:63:SER:CB	2.28	0.46
14:H:102:ILE:O	14:H:103:ASN:CB	2.63	0.46
14:H:386:ARG:NH2	15:I:345:GLY:HA2	2.30	0.46
15:I:170:LEU:HD11	15:I:269:GLU:CG	2.45	0.46
16:J:99:VAL:HG23	16:J:100:ASP:O	2.14	0.46
16:J:104:ASP:HB3	16:J:106:ASN:H	1.80	0.46
16:J:142:LYS:NZ	17:K:325:GLY:HA3	2.29	0.46
17:K:168:GLY:O	35:K:501:ADP:N6	2.36	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:267:ILE:HG12	17:K:311:THR:CG2	2.45	0.46
18:L:172:LEU:HD12	18:L:180:LYS:HB3	1.96	0.46
18:L:226:GLN:HA	18:L:227:PRO:C	2.36	0.46
18:L:281:ARG:O	18:L:284:THR:HG22	2.15	0.46
19:M:90:VAL:HG22	19:M:127:SER:OG	2.12	0.46
20:N:97:VAL:HA	20:N:100:ILE:HG12	1.96	0.46
20:N:459:ASP:O	20:N:463:ASN:N	2.41	0.46
23:P:326:MET:O	23:P:330:LYS:N	2.38	0.46
23:P:419:LYS:HA	23:P:423:ASN:HD22	1.80	0.46
23:P:73:MET:O	23:P:76:GLU:CG	2.64	0.46
24:Q:183:LEU:O	24:Q:187:ARG:HB2	2.14	0.46
24:Q:239:TYR:CE2	24:Q:246:LYS:CB	2.98	0.46
27:T:221:GLN:O	27:T:222:THR:C	2.54	0.46
29:V:251:LEU:HD13	29:V:283:HIS:HB2	1.95	0.46
30:W:52:ILE:HA	30:W:60:VAL:HA	1.97	0.46
4:C:73:LEU:HA	4:C:73:LEU:HD23	2.03	0.46
14:H:183:GLN:HE21	14:H:343:PHE:HA	1.79	0.46
14:H:224:LEU:CD2	14:H:227:ARG:HH11	2.26	0.46
15:I:250:VAL:HG11	15:I:270:LEU:HD22	1.98	0.46
14:H:243:SER:CB	15:I:311:GLU:OE1	2.63	0.46
17:K:147:ALA:HB1	17:K:249:ASP:OD2	2.15	0.46
17:K:194:ILE:O	17:K:194:ILE:HG22	2.14	0.46
17:K:214:MET:SD	35:K:501:ADP:H2'	2.54	0.46
18:L:111:LEU:HD22	19:M:97:LEU:HD13	1.96	0.46
19:M:139:LEU:O	19:M:140:VAL:CB	2.62	0.46
20:N:32:ASN:O	20:N:35:TRP:CD1	2.68	0.46
22:O:297:ALA:O	22:O:301:LYS:N	2.47	0.46
23:P:317:TRP:CE3	23:P:320:LEU:HB3	2.50	0.46
23:P:44:ILE:O	23:P:48:LEU:HD12	2.16	0.46
24:Q:239:TYR:HB2	24:Q:247:ALA:CA	2.45	0.46
25:R:19:ILE:HD13	25:R:50:MET:CE	2.44	0.46
25:R:24:PHE:O	25:R:27:SER:OG	2.15	0.46
25:R:307:LEU:CD1	25:R:308:LEU:CD2	2.85	0.46
20:N:99:THR:HG23	26:S:240:LEU:HD21	1.97	0.46
27:T:148:LEU:HB2	27:T:171:LEU:HD21	1.97	0.46
22:O:349:MET:SD	28:U:234:PHE:HE2	2.38	0.46
28:U:46:LYS:O	28:U:46:LYS:CG	2.63	0.46
28:U:252:LYS:HG2	29:V:234:TYR:HD2	1.81	0.46
21:X:186:CYS:O	21:X:190:VAL:HG23	2.15	0.46
14:H:126:SER:HB3	14:H:149:ILE:O	2.15	0.46
14:H:177:VAL:CB	14:H:184:ILE:HD11	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:H:274:PHE:CG	14:H:319:MET:SD	3.07	0.46
14:H:365:GLU:CB	14:H:404:ALA:O	2.60	0.46
15:I:108:SER:N	15:I:152:LEU:O	2.48	0.46
15:I:193:GLN:H	15:I:193:GLN:HE21	1.62	0.46
15:I:294:ARG:HE	15:I:294:ARG:HB3	1.65	0.46
16:J:130:LYS:CD	16:J:130:LYS:N	2.76	0.46
16:J:189:TYR:CG	16:J:298:ILE:CG1	2.98	0.46
16:J:184:LYS:CE	16:J:281:ASP:OD1	2.60	0.46
16:J:67:GLN:O	16:J:68:GLU:C	2.53	0.46
17:K:93:LEU:HD22	17:K:110:ASN:HD21	1.81	0.46
17:K:149:SER:O	17:K:230:VAL:CG2	2.63	0.46
17:K:71:GLU:O	17:K:74:HIS:HB2	2.16	0.46
17:K:83:GLN:HG2	17:K:140:VAL:HG13	1.95	0.46
18:L:117:PRO:HA	19:M:147:PRO:HB3	1.97	0.46
18:L:351:GLY:O	18:L:354:ALA:HB3	2.16	0.46
19:M:343:LEU:HB3	19:M:351:LYS:NZ	2.30	0.46
20:N:347:ASN:ND2	20:N:883:ARG:HH12	2.14	0.46
20:N:356:THR:O	20:N:359:ALA:HB3	2.15	0.46
20:N:428:PRO:C	20:N:430:ASP:H	2.18	0.46
20:N:540:GLN:O	20:N:541:HIS:CG	2.68	0.46
20:N:808:PRO:HB3	20:N:811:PHE:HD1	1.80	0.46
22:O:115:LYS:HA	22:O:118:ILE:HD12	1.96	0.46
24:Q:179:ALA:C	24:Q:181:SER:H	2.18	0.46
24:Q:56:LEU:C	24:Q:62:GLN:N	2.69	0.46
25:R:234:PRO:CD	25:R:235:ASP:N	2.78	0.46
27:T:346:LEU:CD1	29:V:296:ILE:HD11	2.44	0.46
28:U:38:VAL:HA	28:U:94:TRP:HA	1.97	0.46
28:U:58:PHE:C	28:U:58:PHE:CD1	2.89	0.46
30:W:131:LEU:HD11	30:W:156:PHE:CZ	2.50	0.46
30:W:169:HIS:CG	30:W:187:PRO:CB	2.97	0.46
2:B:153:LYS:O	2:B:160:TYR:HA	2.16	0.46
2:B:67:THR:HG23	2:B:216:GLU:OE2	2.15	0.46
14:H:111:TYR:CE2	14:H:125:LEU:CB	2.97	0.46
16:J:147:THR:CG2	16:J:150:MET:CE	2.93	0.46
17:K:121:ARG:C	17:K:123:LEU:N	2.61	0.46
17:K:211:GLY:HA2	35:K:501:ADP:H5'1	1.97	0.46
17:K:93:LEU:CG	17:K:94:GLU:N	2.78	0.46
18:L:197:LYS:HG3	18:L:231:PHE:HB3	1.96	0.46
19:M:258:GLN:HB2	19:M:263:ASP:HB2	1.96	0.46
20:N:128:GLN:HA	20:N:131:GLU:HB3	1.98	0.46
20:N:482:GLY:HA3	20:N:515:ALA:CB	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:N:647:HIS:O	20:N:650:TYR:HB3	2.15	0.46
22:O:291:LEU:O	22:O:330:ARG:HA	2.15	0.46
23:P:51:GLU:OE2	23:P:66:ILE:CB	2.64	0.46
24:Q:202:CYS:CB	24:Q:203:PRO:CA	2.91	0.46
25:R:210:SER:C	25:R:212:GLU:H	2.19	0.46
29:V:64:ASP:CA	29:V:139:ARG:HH12	2.28	0.46
29:V:248:MET:HG2	29:V:284:LEU:HD23	1.97	0.46
30:W:16:MET:C	30:W:18:ASN:H	2.18	0.46
2:B:132:ARG:CZ	21:X:124:LEU:HD23	2.45	0.46
10:F:24:VAL:O	10:F:28:ILE:HG12	2.15	0.46
14:H:277:ILE:HD12	14:H:278:ASP:N	2.31	0.46
15:I:230:THR:HG21	15:I:353:PHE:HB2	1.84	0.46
16:J:149:GLU:OE2	25:R:133:ALA:HB1	2.15	0.46
16:J:222:LYS:HD3	16:J:222:LYS:O	2.16	0.46
16:J:28:ILE:O	16:J:31:LEU:HB2	2.15	0.46
16:J:320:PRO:HD2	16:J:354:ALA:O	2.15	0.46
17:K:147:ALA:HB3	17:K:249:ASP:OD2	2.16	0.46
17:K:171:ASP:OD1	17:K:171:ASP:N	2.49	0.46
17:K:151:ILE:HD11	17:K:229:ARG:HH11	1.80	0.46
19:M:88:TYR:CE1	19:M:161:LEU:HB2	2.51	0.46
20:N:497:LEU:HB3	20:N:512:ALA:HB1	1.98	0.46
25:R:228:MET:SD	25:R:260:LEU:HD23	2.56	0.46
25:R:263:LEU:CG	25:R:271:PHE:CE2	2.86	0.46
27:T:119:LEU:O	27:T:123:LEU:N	2.46	0.46
27:T:191:LEU:O	27:T:194:LEU:HB3	2.14	0.46
12:G:15:PRO:CG	21:X:25:TYR:CE2	2.95	0.46
14:H:425:ALA:C	14:H:427:PRO:CD	2.84	0.46
15:I:168:ASP:HB2	15:I:169:PRO:CD	2.45	0.46
15:I:283:PHE:CD1	15:I:328:ILE:CB	2.88	0.46
17:K:205:TYR:C	17:K:205:TYR:HD1	2.18	0.46
17:K:377:SER:O	17:K:381:GLU:CB	2.63	0.46
17:K:51:LEU:HA	17:K:54:LEU:HD23	1.97	0.46
18:L:132:TYR:CD1	18:L:133:SER:N	2.84	0.46
18:L:244:SER:N	18:L:245:GLU:CA	2.79	0.46
18:L:354:ALA:HB1	18:L:362:VAL:HG22	1.98	0.46
18:L:99:ALA:HB3	18:L:109:ARG:O	2.16	0.46
19:M:137:ILE:CG2	19:M:145:LEU:HD11	2.32	0.46
19:M:172:VAL:CG2	19:M:267:LEU:HD12	2.46	0.46
20:N:200:VAL:O	20:N:204:ILE:N	2.32	0.46
20:N:437:TYR:O	20:N:440:GLY:N	2.48	0.46
20:N:813:TYR:CB	20:N:883:ARG:HE	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:O:274:LEU:HD23	22:O:275:LEU:HA	1.97	0.46
22:O:290:GLN:HA	22:O:331:VAL:O	2.15	0.46
23:P:301:LYS:CG	23:P:324:TYR:HD1	2.25	0.46
23:P:438:LEU:O	23:P:442:THR:CB	2.63	0.46
25:R:218:THR:OG1	25:R:219:PHE:N	2.48	0.46
25:R:219:PHE:CE1	25:R:223:THR:HG23	2.49	0.46
26:S:289:LEU:HB3	26:S:308:THR:O	2.16	0.46
28:U:264:SER:N	29:V:292:MET:SD	2.88	0.46
28:U:94:TRP:O	28:U:121:LEU:HD12	2.16	0.46
29:V:254:ASN:HB3	29:V:280:PRO:CB	2.46	0.46
30:W:12:ASN:HA	30:W:16:MET:HB2	1.96	0.46
32:Z:792:ALA:O	32:Z:795:GLY:N	2.41	0.46
2:B:96:TYR:CE2	2:B:100:ASN:OD1	2.69	0.46
15:I:203:LEU:CB	15:I:204:PRO:CD	2.94	0.46
15:I:223:ILE:HG13	15:I:347:ILE:HD13	1.97	0.46
15:I:406:ALA:O	15:I:410:ARG:N	2.49	0.46
17:K:103:VAL:C	17:K:110:ASN:OD1	2.42	0.46
17:K:188:PHE:HE2	17:K:304:ASN:OD1	1.98	0.46
17:K:93:LEU:HD11	17:K:94:GLU:OE1	2.15	0.46
18:L:64:LEU:N	18:L:68:LYS:O	2.48	0.46
19:M:175:MET:HE2	19:M:251:LEU:HD13	1.97	0.46
19:M:360:GLU:O	19:M:364:ARG:HB2	2.15	0.46
20:N:475:HIS:O	20:N:479:LEU:HG	2.15	0.46
20:N:63:VAL:O	20:N:67:VAL:HG23	2.15	0.46
20:N:616:ARG:NH2	20:N:647:HIS:HA	2.27	0.46
20:N:729:GLY:O	20:N:733:ALA:N	2.26	0.46
22:O:203:ALA:O	22:O:207:GLY:N	2.47	0.46
22:O:248:PHE:O	22:O:251:LEU:N	2.49	0.46
23:P:142:ARG:O	23:P:146:THR:HG23	2.16	0.46
23:P:150:ALA:CB	23:P:166:LEU:HD23	2.45	0.46
23:P:390:GLU:CD	23:P:408:ARG:NH2	2.69	0.46
24:Q:411:VAL:HG12	24:Q:415:TYR:CE2	2.49	0.46
26:S:487:HIS:CE1	26:S:491:VAL:HG21	2.50	0.46
28:U:283:ARG:HG2	28:U:283:ARG:HH11	1.81	0.46
32:Z:397:LYS:O	32:Z:401:LYS:CB	2.64	0.46
32:Z:408:LEU:HA	32:Z:443:GLY:CA	2.45	0.46
32:Z:541:THR:O	32:Z:545:LYS:N	2.49	0.46
14:H:109:PRO:CG	14:H:110:LYS:H	2.29	0.46
14:H:109:PRO:HG2	14:H:110:LYS:H	1.80	0.46
14:H:213:LEU:CD2	14:H:214:LEU:N	2.79	0.46
14:H:160:THR:HG21	14:H:256:MET:SD	2.56	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:H:402:LYS:HG3	14:H:403:ILE:H	1.81	0.46
15:I:193:GLN:HG3	15:I:351:ILE:HG23	1.96	0.46
17:K:115:ILE:CD1	17:K:121:ARG:HH11	2.10	0.46
17:K:293:LEU:O	17:K:296:MET:HB3	2.16	0.46
17:K:77:GLU:O	17:K:80:LYS:HB2	2.16	0.46
17:K:85:ILE:CG2	17:K:86:PRO:HD3	2.45	0.46
18:L:234:GLU:CB	19:M:311:LEU:HD13	2.46	0.46
19:M:175:MET:HE2	19:M:251:LEU:CD1	2.46	0.46
20:N:336:GLU:O	20:N:340:GLN:N	2.23	0.46
20:N:534:GLY:O	20:N:538:GLU:N	2.29	0.46
20:N:757:MET:O	20:N:761:VAL:HG23	2.16	0.46
23:P:187:LEU:O	23:P:190:MET:HB2	2.16	0.46
24:Q:134:VAL:CG2	24:Q:149:LEU:CD2	2.94	0.46
25:R:151:TYR:O	25:R:152:MET:CB	2.64	0.46
26:S:411:SER:HB3	26:S:447:ILE:HD12	1.98	0.46
26:S:467:TYR:CG	28:U:254:ASN:ND2	2.84	0.46
29:V:101:GLN:NE2	30:W:101:GLN:CD	2.69	0.46
29:V:59:GLY:HA3	29:V:68:ARG:O	2.15	0.46
29:V:89:PRO:CD	29:V:90:VAL:N	2.77	0.46
30:W:19:GLY:HA2	30:W:25:ARG:N	2.30	0.46
8:E:36:ARG:HA	8:E:41:VAL:HG12	1.97	0.46
14:H:154:PRO:HB2	14:H:155:PRO:CD	2.46	0.46
14:H:166:VAL:HG22	14:H:168:GLU:O	2.14	0.46
16:J:320:PRO:CG	16:J:354:ALA:O	2.64	0.46
16:J:79:ALA:O	16:J:80:MET:HG3	2.16	0.46
17:K:236:VAL:O	17:K:236:VAL:HG23	2.15	0.46
17:K:240:LEU:CD2	17:K:240:LEU:N	2.78	0.46
17:K:266:GLU:HG2	18:L:258:MET:SD	2.55	0.46
18:L:110:TYR:CD1	18:L:110:TYR:C	2.88	0.46
18:L:52:SER:C	18:L:53:VAL:HG23	2.36	0.46
19:M:231:THR:CG2	19:M:356:MET:HA	2.46	0.46
19:M:284:PHE:C	19:M:284:PHE:CD1	2.85	0.46
16:J:25:LEU:HD21	20:N:102:ALA:O	2.16	0.46
20:N:556:MET:HB2	20:N:585:THR:HG23	1.98	0.46
20:N:616:ARG:NE	20:N:650:TYR:CG	2.74	0.46
22:O:321:LYS:HD2	22:O:335:TRP:HE1	1.80	0.46
23:P:212:LYS:HA	23:P:212:LYS:HD3	1.72	0.46
23:P:285:ASP:OD1	23:P:285:ASP:N	2.49	0.46
23:P:439:VAL:O	23:P:443:THR:HG23	2.16	0.46
24:Q:239:TYR:HB2	24:Q:247:ALA:CB	2.44	0.46
24:Q:97:LEU:HD13	24:Q:132:ARG:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:T:164:PHE:HA	27:T:167:TYR:CD2	2.51	0.46
32:Z:275:MET:O	32:Z:278:VAL:N	2.44	0.46
2:B:84:THR:HB	21:X:156:VAL:HG22	1.98	0.46
6:D:12:PHE:CE1	8:E:22:ALA:HA	2.51	0.46
10:F:91:LYS:HE3	10:F:119:LEU:HD21	1.98	0.46
14:H:222:LYS:NZ	14:H:322:ASN:HD22	2.14	0.46
15:I:307:ARG:O	15:I:310:LEU:N	2.49	0.46
16:J:173:GLU:O	16:J:177:ALA:N	2.44	0.46
16:J:84:LYS:HA	16:J:98:ASP:HA	1.98	0.46
17:K:91:GLN:OE1	17:K:127:ASN:CG	2.54	0.46
17:K:95:ALA:HA	17:K:101:ALA:CB	2.46	0.46
18:L:132:TYR:HD1	18:L:133:SER:H	1.65	0.46
18:L:241:ARG:CG	18:L:241:ARG:HH11	2.29	0.46
18:L:141:GLN:NE2	18:L:301:ILE:HA	2.30	0.46
18:L:55:GLN:NE2	18:L:108:MET:SD	2.89	0.46
19:M:250:LYS:HA	19:M:284:PHE:HB3	1.98	0.46
20:N:132:GLY:O	20:N:136:LYS:N	2.30	0.46
20:N:616:ARG:NH1	20:N:650:TYR:HE2	2.14	0.46
20:N:7:GLY:N	27:T:170:GLN:CG	2.67	0.46
23:P:361:HIS:O	23:P:364:ARG:HB3	2.16	0.46
23:P:51:GLU:CD	23:P:66:ILE:CB	2.85	0.46
25:R:53:TYR:O	25:R:54:TYR:C	2.54	0.46
26:S:183:GLU:HA	26:S:186:LYS:HB3	1.98	0.46
26:S:372:LEU:O	26:S:375:PHE:HB3	2.16	0.46
27:T:336:ALA:O	27:T:340:ILE:N	2.24	0.46
28:U:174:HIS:O	28:U:174:HIS:ND1	2.48	0.46
28:U:259:VAL:CG1	29:V:291:LEU:HD22	2.46	0.46
28:U:263:ALA:CB	29:V:288:VAL:HG13	2.44	0.46
18:L:106:THR:OG1	29:V:50:PRO:HG3	2.16	0.46
32:Z:227:ALA:C	32:Z:229:VAL:H	2.20	0.46
12:G:40:SER:OG	12:G:41:LYS:N	2.48	0.45
14:H:173:THR:CG2	14:H:174:TYR:H	2.25	0.45
15:I:254:GLU:OE2	16:J:232:ARG:NH1	2.50	0.45
16:J:149:GLU:HG2	25:R:133:ALA:CB	2.40	0.45
16:J:276:LEU:O	16:J:280:LEU:HG	2.17	0.45
16:J:188:LEU:HD22	16:J:317:PHE:CE1	2.51	0.45
16:J:193:GLY:O	16:J:356:GLY:N	2.49	0.45
17:K:237:GLN:O	18:L:208:ILE:CB	2.64	0.45
17:K:147:ALA:HB3	17:K:249:ASP:CG	2.37	0.45
17:K:267:ILE:HG13	17:K:311:THR:HG21	1.98	0.45
17:K:296:MET:HE2	17:K:326:ARG:O	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:320:ALA:O	17:K:326:ARG:HD3	2.17	0.45
17:K:70:LYS:CA	17:K:73:LEU:HD12	2.45	0.45
18:L:145:LEU:HA	18:L:148:VAL:HG12	1.97	0.45
18:L:202:SER:HB2	19:M:269:ARG:HH22	1.80	0.45
18:L:202:SER:HB3	19:M:269:ARG:CZ	2.47	0.45
18:L:226:GLN:HB2	18:L:272:ARG:CB	2.45	0.45
18:L:255:ARG:HH21	18:L:255:ARG:CG	2.23	0.45
19:M:124:ILE:O	19:M:131:THR:HA	2.16	0.45
18:L:205:ASP:O	19:M:261:ILE:O	2.34	0.45
19:M:317:LEU:HD12	19:M:317:LEU:HA	1.69	0.45
20:N:135:ASN:HA	20:N:138:PHE:HB2	1.97	0.45
20:N:415:HIS:O	20:N:449:ILE:HG21	2.15	0.45
20:N:541:HIS:CG	20:N:544:ILE:HD12	2.51	0.45
20:N:549:ALA:HB3	20:N:581:SER:CB	2.41	0.45
20:N:660:CYS:C	20:N:694:ILE:HG12	2.35	0.45
24:Q:191:THR:HG22	24:Q:192:SER:N	2.31	0.45
25:R:17:LEU:HD11	25:R:213:LEU:HG	1.98	0.45
26:S:487:HIS:C	26:S:487:HIS:HD1	2.18	0.45
30:W:157:VAL:O	30:W:161:ASN:HB2	2.15	0.45
30:W:37:CYS:HA	30:W:40:LYS:HB2	1.97	0.45
32:Z:498:LEU:O	32:Z:501:LEU:N	2.49	0.45
6:D:42:GLY:HA2	6:D:145:PHE:CE1	2.52	0.45
14:H:236:CYS:O	14:H:271:LEU:N	2.45	0.45
14:H:243:SER:HB3	15:I:311:GLU:OE1	2.15	0.45
14:H:258:ARG:O	14:H:262:GLU:HG2	2.17	0.45
14:H:269:ALA:H	14:H:314:ASN:HB3	1.81	0.45
14:H:306:LEU:O	14:H:307:ASP:HB2	2.15	0.45
14:H:330:ALA:C	14:H:336:ARG:HH11	2.19	0.45
15:I:303:ARG:O	15:I:307:ARG:CD	2.63	0.45
15:I:426:VAL:CG1	16:J:308:PRO:HB3	2.46	0.45
16:J:130:LYS:O	16:J:131:VAL:HB	2.16	0.45
16:J:371:LEU:HD21	17:K:191:TYR:CE2	2.51	0.45
17:K:123:LEU:HD22	17:K:125:LYS:NZ	2.30	0.45
17:K:146:GLU:HG3	17:K:147:ALA:N	2.32	0.45
17:K:394:VAL:HG11	17:K:398:ASP:HB3	1.94	0.45
18:L:205:ASP:OD2	18:L:210:GLU:CD	2.54	0.45
18:L:309:ARG:NE	18:L:335:SER:O	2.49	0.45
18:L:52:SER:C	18:L:53:VAL:CG2	2.83	0.45
19:M:94:ILE:O	19:M:147:PRO:HG3	2.17	0.45
19:M:383:GLU:OE1	19:M:417:HIS:CE1	2.69	0.45
14:H:339:ARG:NH1	19:M:426:GLU:OE2	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:122:ARG:C	24:Q:124:PHE:N	2.69	0.45
24:Q:276:ALA:O	24:Q:277:LEU:C	2.49	0.45
24:Q:222:GLU:OE1	24:Q:325:LYS:NZ	2.49	0.45
24:Q:93:LEU:HD23	24:Q:93:LEU:HA	1.86	0.45
25:R:366:TYR:CE1	25:R:370:ILE:CG1	2.95	0.45
26:S:213:TYR:O	26:S:216:ARG:HB3	2.17	0.45
28:U:43:TRP:CA	28:U:48:LEU:HD21	2.42	0.45
29:V:255:TYR:HA	29:V:280:PRO:CG	2.44	0.45
30:W:147:GLU:OE1	30:W:172:THR:HG22	2.16	0.45
30:W:22:LEU:HA	30:W:23:PRO:HA	1.70	0.45
10:F:51:GLU:HA	10:F:215:ILE:HG22	1.97	0.45
14:H:208:PRO:O	14:H:210:LYS:HG3	2.16	0.45
14:H:299:MET:O	14:H:303:ILE:HG13	2.16	0.45
14:H:332:MET:O	14:H:333:ARG:C	2.55	0.45
16:J:172:PRO:O	16:J:176:GLU:HG3	2.15	0.45
16:J:273:MET:HB3	16:J:273:MET:HE2	1.72	0.45
16:J:376:VAL:HG23	16:J:377:HIS:N	2.32	0.45
16:J:42:LEU:O	16:J:45:LEU:N	2.48	0.45
17:K:205:TYR:CD1	17:K:332:GLU:HA	2.51	0.45
18:L:254:GLN:HG2	18:L:254:GLN:H	1.48	0.45
18:L:338:PHE:HA	18:L:378:LYS:HZ3	1.77	0.45
18:L:65:THR:HG23	18:L:68:LYS:HD2	1.98	0.45
19:M:143:GLU:C	19:M:145:LEU:N	2.68	0.45
19:M:215:LEU:HD22	19:M:217:ILE:CG2	2.33	0.45
20:N:138:PHE:O	20:N:141:CYS:HB2	2.17	0.45
22:O:35:HIS:O	22:O:38:THR:OG1	2.22	0.45
24:Q:233:TYR:CD1	24:Q:233:TYR:C	2.90	0.45
26:S:328:VAL:O	26:S:329:HIS:C	2.54	0.45
26:S:431:PRO:O	26:S:434:ALA:N	2.50	0.45
28:U:61:ASP:N	28:U:65:ASP:CG	2.69	0.45
2:B:21:ARG:NH2	2:B:26:GLU:OE1	2.47	0.45
2:B:123:GLN:HG3	4:C:80:PRO:HB3	1.97	0.45
6:D:155:ASN:CG	8:E:77:THR:OG1	2.54	0.45
14:H:111:TYR:CZ	14:H:125:LEU:CD2	2.60	0.45
15:I:232:LYS:HZ2	15:I:332:ASN:HD22	1.59	0.45
15:I:338:ASP:OD1	15:I:339:PRO:HD2	2.17	0.45
16:J:210:THR:O	16:J:244:SER:HA	2.17	0.45
16:J:320:PRO:O	16:J:325:ARG:CZ	2.57	0.45
16:J:35:VAL:O	16:J:38:LYS:HE2	2.16	0.45
17:K:211:GLY:CA	35:K:501:ADP:O1A	2.63	0.45
17:K:217:LYS:HG3	18:L:267:PHE:CE1	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:244:PRO:HB3	17:K:248:ARG:NH1	2.32	0.45
16:J:43:ARG:HE	17:K:57:GLN:HB3	1.81	0.45
18:L:198:VAL:HG12	18:L:200:SER:H	1.82	0.45
18:L:235:ILE:CG1	18:L:278:ALA:O	2.63	0.45
19:M:205:PRO:HA	19:M:212:PHE:CE2	2.51	0.45
19:M:237:ALA:HB1	19:M:284:PHE:HD2	1.76	0.45
18:L:236:ASP:HB2	19:M:311:LEU:HD11	1.99	0.45
20:N:385:PHE:HE2	20:N:392:TRP:CE3	2.35	0.45
20:N:597:LYS:HA	20:N:600:ARG:HB3	1.99	0.45
23:P:125:ILE:O	23:P:129:ARG:HB3	2.17	0.45
23:P:420:ASP:HB3	23:P:421:PRO:CD	2.34	0.45
24:Q:194:ARG:HH12	24:Q:214:SER:CB	2.28	0.45
25:R:117:LYS:HG2	25:R:121:LEU:HD11	1.98	0.45
25:R:366:TYR:C	25:R:366:TYR:CD1	2.89	0.45
29:V:251:LEU:O	29:V:254:ASN:N	2.50	0.45
29:V:267:PRO:CD	29:V:268:GLU:N	2.78	0.45
30:W:139:ASP:HA	30:W:169:HIS:O	2.16	0.45
30:W:60:VAL:CG1	30:W:63:THR:HG21	2.15	0.45
32:Z:193:PRO:O	32:Z:197:ALA:N	2.29	0.45
32:Z:200:ALA:CA	32:Z:201:GLU:CB	2.91	0.45
32:Z:309:GLU:O	32:Z:312:GLU:N	2.50	0.45
6:D:49:ARG:NH2	6:D:58:GLU:OE2	2.30	0.45
12:G:47:VAL:HG12	12:G:195:LEU:HD22	1.99	0.45
14:H:114:ASN:HA	14:H:120:LYS:HA	1.98	0.45
14:H:327:LEU:HD12	14:H:331:LEU:HD12	1.97	0.45
15:I:114:GLU:C	15:I:115:ILE:HG13	2.37	0.45
15:I:225:TYR:CA	15:I:331:THR:O	2.57	0.45
15:I:401:GLU:CB	15:I:422:SER:OG	2.65	0.45
16:J:114:VAL:CG1	16:J:126:ILE:CG1	2.92	0.45
16:J:154:LEU:HD22	16:J:317:PHE:CE2	2.51	0.45
16:J:365:GLU:O	16:J:369:TYR:N	2.32	0.45
16:J:86:LEU:HA	16:J:96:VAL:HA	1.97	0.45
16:J:66:LEU:HD23	17:K:114:ARG:HD3	1.98	0.45
16:J:66:LEU:C	17:K:136:SER:OG	2.54	0.45
14:H:249:TYR:OH	17:K:278:GLN:HB3	2.16	0.45
16:J:27:LYS:HD3	17:K:40:LEU:CD2	2.46	0.45
18:L:257:LEU:CD1	18:L:261:LEU:HD11	2.47	0.45
18:L:265:ASP:O	18:L:266:GLY:O	2.34	0.45
19:M:375:VAL:C	19:M:414:GLU:HG2	2.35	0.45
20:N:250:PHE:O	20:N:254:GLU:CG	2.64	0.45
20:N:634:PRO:O	20:N:638:SER:N	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:N:86:ASP:CG	20:N:87:LEU:H	2.13	0.45
23:P:417:ARG:CG	23:P:418:PRO:HD2	2.47	0.45
24:Q:239:TYR:CB	24:Q:247:ALA:N	2.79	0.45
24:Q:293:ALA:HA	24:Q:301:ASP:OD2	2.15	0.45
25:R:33:GLY:N	25:R:34:ASP:HB3	2.23	0.45
26:S:267:ALA:O	26:S:270:LEU:HB3	2.16	0.45
27:T:269:ASP:N	27:T:269:ASP:OD1	2.48	0.45
27:T:335:LEU:O	27:T:338:GLN:HB2	2.17	0.45
28:U:116:CYS:SG	28:U:117:PRO:CD	3.04	0.45
29:V:122:LEU:HD22	29:V:126:ASP:HB3	1.98	0.45
29:V:145:VAL:HG22	29:V:157:ILE:CD1	2.46	0.45
29:V:255:TYR:CA	29:V:280:PRO:CG	2.91	0.45
29:V:85:GLU:OE1	29:V:85:GLU:N	2.35	0.45
30:W:171:VAL:CB	30:W:186:SER:CB	2.94	0.45
30:W:2:VAL:C	30:W:44:ASN:HD22	2.17	0.45
32:Z:668:ALA:CB	32:Z:701:ASN:CB	2.87	0.45
14:H:143:ASP:HB2	14:H:150:HIS:CD2	2.51	0.45
14:H:60:ASN:CB	32:Z:592:ASN:CB	2.95	0.45
15:I:199:GLU:O	15:I:203:LEU:HB3	2.16	0.45
15:I:387:LYS:CB	15:I:390:LEU:HB3	2.47	0.45
16:J:326:LEU:CD1	16:J:345:ARG:HG3	2.47	0.45
18:L:213:ARG:HB3	18:L:213:ARG:NH1	2.32	0.45
19:M:91:SER:OG	19:M:151:VAL:HG23	2.15	0.45
19:M:369:HIS:HD2	19:M:397:LYS:HG3	1.82	0.45
20:N:114:GLU:O	20:N:117:ASP:HB3	2.16	0.45
20:N:402:PHE:HZ	20:N:479:LEU:CD1	2.30	0.45
20:N:545:LEU:HA	20:N:548:LEU:HD12	1.97	0.45
22:O:44:PHE:O	22:O:48:PRO:N	2.50	0.45
23:P:214:PHE:CE1	23:P:223:LYS:HB3	2.52	0.45
23:P:67:LEU:HA	23:P:70:VAL:HG12	1.99	0.45
16:J:385:MET:HA	24:Q:195:THR:HG22	1.99	0.45
24:Q:193:ALA:C	24:Q:196:THR:HG22	2.37	0.45
26:S:235:LEU:HB2	26:S:250:LEU:CD2	2.47	0.45
26:S:300:LEU:HG	26:S:301:GLU:N	2.31	0.45
26:S:476:PHE:HD1	28:U:261:TYR:CE1	2.35	0.45
28:U:211:TYR:O	28:U:214:LYS:N	2.50	0.45
29:V:31:VAL:HA	29:V:67:VAL:O	2.16	0.45
30:W:48:ASN:HB3	30:W:64:LEU:O	2.17	0.45
32:Z:388:ASP:O	32:Z:391:LEU:N	2.49	0.45
2:B:103:TYR:CD1	2:B:103:TYR:C	2.90	0.45
14:H:277:ILE:CD1	14:H:278:ASP:N	2.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:I:117:ASP:N	15:I:117:ASP:OD1	2.48	0.45
15:I:150:VAL:HG23	15:I:152:LEU:HD21	1.97	0.45
15:I:190:LEU:HB3	15:I:194:ILE:HG12	1.98	0.45
16:J:26:SER:HG	17:K:40:LEU:HD12	1.78	0.45
16:J:248:MET:CE	16:J:291:VAL:HB	2.47	0.45
16:J:328:ILE:HD11	35:J:501:ADP:N6	2.32	0.45
17:K:368:ASP:O	17:K:369:LYS:CB	2.63	0.45
17:K:407:ILE:CD1	17:K:407:ILE:H	2.28	0.45
17:K:411:GLU:O	17:K:412:GLN:CB	2.51	0.45
18:L:210:GLU:OE1	18:L:213:ARG:NH2	2.49	0.45
18:L:255:ARG:O	18:L:259:GLU:N	2.40	0.45
18:L:342:ASP:OD2	18:L:378:LYS:NZ	2.48	0.45
19:M:275:ALA:HB1	19:M:281:SER:OG	2.15	0.45
20:N:901:GLN:O	20:N:915:LYS:HB3	2.17	0.45
23:P:146:THR:HA	23:P:149:LEU:CD2	2.47	0.45
23:P:171:VAL:HG13	23:P:172:GLU:H	1.81	0.45
28:U:122:VAL:HG13	28:U:136:GLU:C	2.37	0.45
28:U:74:TYR:CD1	29:V:98:MET:CE	2.99	0.45
14:H:108:ASP:HB3	14:H:109:PRO:CD	2.46	0.45
14:H:114:ASN:HB3	14:H:120:LYS:HG3	1.98	0.45
14:H:327:LEU:CB	14:H:332:MET:SD	3.03	0.45
14:H:420:TYR:HE1	15:I:350:LYS:HB2	1.81	0.45
15:I:140:ASP:OD2	15:I:142:ASP:HB2	2.17	0.45
15:I:278:ALA:HB1	15:I:279:PRO:HD3	1.96	0.45
16:J:365:GLU:HA	16:J:368:MET:HB3	1.97	0.45
17:K:130:VAL:C	17:K:143:LEU:HD23	2.37	0.45
17:K:171:ASP:O	17:K:175:GLN:HB3	2.17	0.45
17:K:212:LYS:H	35:K:501:ADP:PA	2.39	0.45
18:L:132:TYR:N	18:L:132:TYR:HD1	2.15	0.45
18:L:18:GLU:O	18:L:22:ILE:N	2.40	0.45
18:L:204:VAL:HA	18:L:211:SER:OG	2.17	0.45
18:L:257:LEU:HD13	18:L:261:LEU:CD1	2.47	0.45
19:M:264:GLY:O	19:M:268:VAL:HG23	2.17	0.45
19:M:426:GLU:C	19:M:428:GLN:N	2.70	0.45
20:N:261:LEU:HD11	20:N:329:LEU:HD22	1.99	0.45
20:N:418:GLU:CD	20:N:418:GLU:H	2.19	0.45
20:N:427:LEU:HD22	20:N:428:PRO:HD3	1.99	0.45
23:P:240:TYR:O	23:P:243:ILE:N	2.50	0.45
23:P:304:ASP:CB	23:P:324:TYR:OH	2.65	0.45
24:Q:23:SER:HA	24:Q:26:ILE:CB	2.47	0.45
24:Q:259:ILE:HG22	24:Q:326:LEU:CD1	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:294:SER:CA	24:Q:330:LEU:HD21	2.39	0.45
24:Q:32:LYS:CB	24:Q:33:ARG:CB	2.94	0.45
24:Q:56:LEU:CB	24:Q:61:GLY:C	2.85	0.45
25:R:366:TYR:HA	25:R:369:THR:HG22	1.99	0.45
27:T:337:LYS:HA	27:T:340:ILE:HB	1.99	0.45
27:T:341:GLU:O	27:T:344:ARG:HB3	2.16	0.45
22:O:376:THR:CG2	28:U:183:THR:OG1	2.65	0.45
28:U:34:ARG:NH1	28:U:104:ASN:HD21	2.15	0.45
28:U:39:LEU:N	28:U:93:GLY:O	2.50	0.45
29:V:255:TYR:N	29:V:280:PRO:HG3	2.32	0.45
32:Z:255:VAL:O	32:Z:257:ARG:N	2.49	0.45
12:G:36:VAL:HG13	12:G:172:LEU:HD11	1.98	0.45
14:H:300:LEU:HD23	14:H:303:ILE:CD1	2.45	0.45
14:H:369:ARG:O	14:H:369:ARG:HG2	2.16	0.45
15:I:379:THR:C	15:I:381:ASP:N	2.70	0.45
15:I:266:LEU:HG	16:J:229:ARG:HD3	1.98	0.45
16:J:99:VAL:HA	16:J:123:LEU:HG	1.98	0.45
17:K:210:CYS:SG	17:K:335:LEU:CD2	3.04	0.45
17:K:167:ILE:CG1	17:K:214:MET:HE1	2.46	0.45
17:K:268:ASP:O	17:K:272:THR:CG2	2.58	0.45
17:K:300:ASP:C	17:K:302:ASN:H	2.20	0.45
17:K:93:LEU:HG	17:K:94:GLU:H	1.81	0.45
18:L:338:PHE:HZ	18:L:375:ALA:N	2.14	0.45
18:L:57:VAL:O	18:L:74:THR:OG1	2.34	0.45
20:N:699:THR:HA	20:N:706:VAL:HG11	1.99	0.45
20:N:788:VAL:HG23	20:N:884:VAL:HG11	1.99	0.45
23:P:200:ILE:O	23:P:203:GLN:N	2.50	0.45
26:S:307:ARG:HG3	26:S:307:ARG:HH11	1.82	0.45
26:S:451:ILE:HG12	26:S:458:VAL:HG22	1.99	0.45
28:U:54:PHE:CD2	28:U:82:PHE:CE2	3.05	0.45
21:X:77:VAL:HG11	21:X:84:ALA:HB1	1.99	0.45
31:Y:52:PHE:O	31:Y:56:LEU:N	2.31	0.45
2:B:101:TRP:O	2:B:101:TRP:CE3	2.70	0.45
6:D:12:PHE:HB3	8:E:21:TYR:HB3	1.96	0.45
14:H:133:ASP:C	14:H:134:ILE:CG1	2.85	0.45
14:H:143:ASP:CG	14:H:146:LYS:HD2	2.37	0.45
14:H:276:GLU:HG2	15:I:310:LEU:CG	2.46	0.45
14:H:220:THR:HG21	14:H:343:PHE:C	2.38	0.45
14:H:397:ILE:HG13	15:I:214:MET:CE	2.46	0.45
15:I:218:PRO:CB	15:I:219:PRO:HD2	2.47	0.45
15:I:183:THR:HG23	15:I:241:ASN:HD21	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:I:284:ILE:HG21	15:I:287:ILE:HG22	1.98	0.45
17:K:293:LEU:CD2	17:K:326:ARG:HH12	2.06	0.45
17:K:381:GLU:HG3	17:K:405:THR:HG21	1.98	0.45
18:L:132:TYR:CE2	18:L:146:ARG:NH2	2.85	0.45
18:L:215:ILE:HG21	18:L:260:LEU:HD23	1.98	0.45
18:L:74:THR:HG1	19:M:131:THR:HG1	1.57	0.45
19:M:121:CYS:O	19:M:122:ALA:HB2	2.17	0.45
18:L:241:ARG:CD	19:M:297:ASP:OD1	2.63	0.45
20:N:141:CYS:HB3	20:N:150:ALA:HB2	1.99	0.45
20:N:191:LYS:CB	20:N:194:ARG:HH21	2.30	0.45
20:N:370:VAL:HG11	20:N:404:ALA:HA	1.98	0.45
20:N:420:LEU:O	20:N:424:ALA:N	2.50	0.45
20:N:735:GLY:O	20:N:739:ALA:N	2.50	0.45
20:N:7:GLY:O	27:T:170:GLN:NE2	2.49	0.45
23:P:260:SER:HA	23:P:263:TRP:NE1	2.32	0.45
23:P:390:GLU:O	23:P:394:SER:OG	2.25	0.45
24:Q:126:ARG:O	24:Q:130:GLU:HG2	2.17	0.45
24:Q:93:LEU:HD11	24:Q:129:LEU:HD11	1.95	0.45
24:Q:163:LYS:HD2	24:Q:200:ILE:HG22	1.83	0.45
24:Q:239:TYR:HB3	24:Q:247:ALA:N	2.31	0.45
24:Q:302:PHE:CD1	24:Q:330:LEU:HD12	2.49	0.45
25:R:183:TYR:CE1	25:R:213:LEU:HD21	2.51	0.45
25:R:186:LEU:N	25:R:201:PHE:CE1	2.71	0.45
25:R:387:ILE:HD13	28:U:276:ILE:HG12	1.99	0.45
26:S:101:LEU:O	26:S:105:SER:CA	2.64	0.45
26:S:473:GLN:HA	26:S:476:PHE:HD2	1.83	0.45
27:T:96:GLU:O	27:T:99:LYS:HB3	2.17	0.45
31:Y:51:ASP:N	31:Y:51:ASP:OD1	2.50	0.45
32:Z:662:MET:C	32:Z:664:GLU:CB	2.86	0.45
14:H:261:PHE:HB3	14:H:265:ARG:NH2	2.32	0.44
14:H:373:LEU:HD22	14:H:413:VAL:HG21	1.98	0.44
15:I:160:ILE:CG2	15:I:160:ILE:O	2.64	0.44
15:I:187:ILE:HD11	15:I:194:ILE:HD12	1.99	0.44
14:H:226:ALA:HB3	15:I:319:PHE:HE1	1.81	0.44
15:I:390:LEU:CD1	15:I:395:ILE:CD1	2.94	0.44
15:I:390:LEU:HD11	15:I:395:ILE:CD1	2.48	0.44
16:J:165:ILE:HG12	16:J:290:LYS:HD3	1.99	0.44
16:J:151:ILE:HG13	16:J:198:LEU:HD22	1.83	0.44
16:J:311:ILE:CG2	16:J:314:LYS:HG3	2.47	0.44
16:J:91:PRO:C	16:J:92:GLU:O	2.56	0.44
17:K:267:ILE:CG1	17:K:311:THR:HG21	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:M:320:PHE:O	19:M:321:GLN:CB	2.63	0.44
20:N:113:VAL:O	20:N:117:ASP:N	2.48	0.44
20:N:505:ASP:C	20:N:544:ILE:HD11	2.37	0.44
20:N:643:SER:O	20:N:649:ARG:CZ	2.65	0.44
20:N:64:ALA:O	20:N:68:PHE:N	2.48	0.44
20:N:70:HIS:O	26:S:273:LYS:CG	2.60	0.44
20:N:769:PHE:HA	20:N:772:TRP:O	2.17	0.44
23:P:342:GLY:CA	23:P:347:GLY:HA3	2.47	0.44
26:S:372:LEU:HD11	26:S:399:ARG:NH1	2.32	0.44
26:S:398:LEU:O	26:S:401:ASN:N	2.50	0.44
20:N:6:ALA:CB	27:T:169:ALA:HB1	2.46	0.44
27:T:330:ILE:HG21	27:T:334:GLU:CD	2.30	0.44
29:V:224:SER:OG	29:V:225:TRP:N	2.50	0.44
29:V:226:MET:SD	29:V:230:THR:HG21	2.56	0.44
12:G:62:LYS:HB3	12:G:62:LYS:HE3	1.81	0.44
14:H:88:GLN:HA	14:H:91:GLN:CG	2.47	0.44
15:I:192:ASN:O	15:I:196:GLU:HB2	2.17	0.44
16:J:332:HIS:CE1	16:J:360:LYS:HD2	2.52	0.44
16:J:41:ASN:HA	16:J:44:ARG:CB	2.44	0.44
16:J:78:ARG:HH11	16:J:80:MET:CG	2.30	0.44
17:K:151:ILE:CD1	17:K:229:ARG:HH11	2.30	0.44
17:K:211:GLY:HA2	35:K:501:ADP:C5'	2.48	0.44
17:K:321:LEU:HD23	17:K:321:LEU:HA	1.80	0.44
18:L:304:PRO:CA	18:L:308:ALA:HB3	2.47	0.44
19:M:134:LEU:HG	19:M:134:LEU:H	1.51	0.44
19:M:284:PHE:HD1	19:M:285:ILE:H	1.57	0.44
19:M:435:LEU:CD2	19:M:438:TYR:CD1	3.01	0.44
20:N:764:LEU:O	20:N:767:THR:OG1	2.28	0.44
22:O:213:PHE:CE2	22:O:240:PHE:CG	3.05	0.44
24:Q:296:ASN:HA	24:Q:337:ARG:NH2	2.32	0.44
25:R:197:ALA:HB1	25:R:201:PHE:HD2	1.75	0.44
28:U:255:ASP:O	28:U:259:VAL:HG23	2.17	0.44
2:B:202:LEU:CA	2:B:205:VAL:HG12	2.47	0.44
6:D:80:THR:O	6:D:83:ALA:HB3	2.17	0.44
12:G:121:GLN:O	21:X:128:VAL:CA	2.60	0.44
14:H:213:LEU:HD22	14:H:214:LEU:N	2.33	0.44
14:H:156:LYS:CE	15:I:113:GLU:OE2	2.63	0.44
15:I:313:LEU:HD11	15:I:340:ALA:CB	2.22	0.44
15:I:375:ALA:C	15:I:377:ASP:H	2.20	0.44
16:J:35:VAL:O	16:J:38:LYS:HG2	2.17	0.44
16:J:37:ASP:O	16:J:40:GLN:HB3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:170:MET:HB2	17:K:174:LYS:HD2	1.98	0.44
16:J:66:LEU:CD1	17:K:82:ILE:HG13	2.47	0.44
18:L:114:GLU:C	18:L:115:VAL:HG13	2.37	0.44
18:L:235:ILE:CD1	18:L:277:MET:SD	3.06	0.44
18:L:242:ARG:NH1	18:L:242:ARG:HG3	2.33	0.44
23:P:421:PRO:HB3	28:U:248:ALA:HA	2.00	0.44
24:Q:413:SER:C	29:V:259:VAL:HG12	2.38	0.44
25:R:228:MET:HE1	25:R:263:LEU:CB	2.45	0.44
26:S:472:PRO:CD	26:S:473:GLN:N	2.80	0.44
27:T:284:PHE:H	27:T:313:ASN:CG	2.21	0.44
29:V:234:TYR:O	29:V:235:SER:C	2.55	0.44
30:W:12:ASN:HA	30:W:16:MET:CB	2.47	0.44
12:G:121:GLN:HA	21:X:129:ARG:HG2	1.99	0.44
2:B:203:SER:O	2:B:207:SER:HA	2.17	0.44
6:D:14:PRO:HA	8:E:21:TYR:CG	2.52	0.44
14:H:224:LEU:CD1	35:H:501:ADP:N3	2.79	0.44
15:I:107:MET:CE	15:I:160:ILE:CB	2.93	0.44
14:H:429:TYR:OH	15:I:338:ASP:OD1	2.30	0.44
16:J:320:PRO:HG3	16:J:355:SER:CA	2.39	0.44
16:J:85:VAL:HG21	16:J:123:LEU:HD11	2.00	0.44
17:K:106:THR:HB	18:L:77:PRO:CB	2.48	0.44
17:K:133:HIS:HB3	17:K:138:ALA:H	1.83	0.44
17:K:200:ARG:HB2	17:K:325:GLY:O	2.18	0.44
17:K:106:THR:HB	17:K:245:ARG:NH2	2.30	0.44
17:K:299:PHE:CD1	17:K:303:VAL:CG1	2.98	0.44
18:L:87:LEU:CD2	18:L:110:TYR:HD2	2.30	0.44
18:L:150:GLU:O	18:L:153:LEU:HD11	2.18	0.44
18:L:221:TYR:CD1	18:L:222:ALA:N	2.85	0.44
18:L:56:ILE:HB	18:L:100:LEU:CB	2.47	0.44
20:N:421:GLN:HA	20:N:424:ALA:HB2	1.97	0.44
20:N:443:LEU:HB3	20:N:477:GLY:HA2	2.00	0.44
20:N:768:GLN:HB3	20:N:771:PHE:HB2	1.98	0.44
24:Q:146:ALA:O	24:Q:147:LEU:C	2.55	0.44
25:R:168:ILE:HG21	25:R:177:ARG:HG2	2.00	0.44
26:S:115:LYS:O	26:S:116:ALA:HB2	2.16	0.44
28:U:234:PHE:O	28:U:237:LEU:HB2	2.18	0.44
29:V:231:LEU:HA	29:V:231:LEU:HD23	1.74	0.44
29:V:49:VAL:HA	29:V:50:PRO:HA	1.59	0.44
4:C:74:VAL:HG23	4:C:134:LEU:HB2	2.00	0.44
8:E:7:ILE:HG22	8:E:18:GLN:HG3	1.99	0.44
14:H:102:ILE:O	14:H:103:ASN:HB3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:H:365:GLU:CD	14:H:368:ILE:HG23	2.37	0.44
15:I:118:ASP:C	15:I:120:HIS:N	2.69	0.44
15:I:398:ILE:C	15:I:419:PHE:HE1	2.21	0.44
16:J:121:TYR:HD1	16:J:121:TYR:HA	1.70	0.44
16:J:134:LEU:HD13	16:J:134:LEU:C	2.38	0.44
16:J:189:TYR:CG	16:J:298:ILE:CD1	3.00	0.44
16:J:323:GLU:O	16:J:326:LEU:HB3	2.17	0.44
18:L:61:LEU:HB2	18:L:70:ILE:HG22	1.99	0.44
18:L:354:ALA:CB	19:M:215:LEU:HD11	2.44	0.44
19:M:243:GLN:O	19:M:245:LYS:N	2.51	0.44
19:M:376:SER:N	19:M:414:GLU:HG2	2.32	0.44
17:K:41:TYR:CE1	20:N:156:GLU:CD	2.89	0.44
20:N:342:LEU:O	20:N:346:ASN:N	2.38	0.44
20:N:49:TYR:HA	20:N:57:ARG:HB2	1.99	0.44
20:N:536:ALA:HB1	20:N:578:LEU:HD21	2.00	0.44
20:N:601:ARG:CG	20:N:601:ARG:HH11	2.30	0.44
23:P:199:TYR:O	23:P:203:GLN:CG	2.66	0.44
23:P:417:ARG:CG	23:P:418:PRO:CD	2.96	0.44
24:Q:89:VAL:HG12	24:Q:89:VAL:O	2.18	0.44
26:S:363:LEU:HD23	26:S:363:LEU:HA	1.85	0.44
26:S:447:ILE:HG22	26:S:449:ALA:HB2	1.99	0.44
27:T:342:TYR:O	27:T:346:LEU:N	2.47	0.44
28:U:173:GLU:OE2	28:U:173:GLU:HA	2.17	0.44
28:U:19:VAL:O	28:U:22:HIS:HB3	2.17	0.44
28:U:275:LEU:HD11	28:U:279:LYS:CD	2.47	0.44
29:V:205:ILE:O	29:V:206:ASN:OD1	2.35	0.44
32:Z:519:ALA:O	32:Z:523:GLY:N	2.40	0.44
32:Z:776:LEU:HA	32:Z:827:PRO:C	2.38	0.44
4:C:87:HIS:HD1	4:C:87:HIS:C	2.21	0.44
14:H:415:LYS:O	14:H:419:SER:HB2	2.17	0.44
15:I:118:ASP:CB	15:I:120:HIS:NE2	2.80	0.44
14:H:94:GLN:O	15:I:156:VAL:HG11	2.18	0.44
15:I:271:PHE:CB	15:I:315:GLN:CD	2.86	0.44
15:I:404:LEU:O	15:I:408:ARG:N	2.50	0.44
17:K:160:PRO:HB2	17:K:217:LYS:O	2.18	0.44
17:K:381:GLU:HG3	17:K:405:THR:CG2	2.47	0.44
19:M:304:ARG:HB3	19:M:308:ARG:NH2	2.33	0.44
19:M:323:ASN:HD22	19:M:323:ASN:N	2.16	0.44
19:M:80:ILE:HG21	19:M:84:LYS:NZ	2.32	0.44
20:N:236:LEU:O	20:N:240:ASP:N	2.50	0.44
20:N:535:TYR:HD1	20:N:539:THR:CG2	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:N:684:ARG:O	20:N:688:LEU:N	2.29	0.44
20:N:802:TYR:N	20:N:879:ASP:HB2	2.32	0.44
24:Q:168:GLU:O	24:Q:172:LEU:CB	2.66	0.44
25:R:14:ASN:HB3	25:R:16:ASP:N	2.33	0.44
25:R:191:ILE:CG2	25:R:192:ARG:H	2.27	0.44
25:R:241:ILE:HD11	25:R:260:LEU:HD22	1.92	0.44
25:R:268:TYR:HE2	25:R:307:LEU:HB2	1.82	0.44
25:R:268:TYR:CB	25:R:323:PHE:HE1	2.29	0.44
29:V:162:LEU:HA	29:V:200:TYR:CB	2.47	0.44
30:W:26:LEU:O	30:W:29:GLN:HB2	2.18	0.44
32:Z:567:LEU:CB	32:Z:598:CYS:O	2.65	0.44
14:H:209:PRO:HG2	14:H:339:ARG:CG	2.37	0.44
14:H:219:GLY:HA2	35:H:501:ADP:H5'2	2.00	0.44
14:H:284:ARG:O	14:H:285:PHE:C	2.55	0.44
14:H:88:GLN:HA	14:H:91:GLN:CD	2.38	0.44
15:I:120:HIS:CB	15:I:133:VAL:O	2.66	0.44
14:H:396:ALA:HB3	15:I:214:MET:SD	2.57	0.44
15:I:405:MET:O	15:I:409:GLU:HG3	2.17	0.44
16:J:218:GLU:HG3	17:K:275:PHE:N	2.33	0.44
17:K:332:GLU:C	17:K:333:PHE:HD1	2.21	0.44
17:K:92:PHE:O	17:K:127:ASN:CA	2.56	0.44
18:L:361:PHE:HD1	18:L:361:PHE:H	1.65	0.44
20:N:233:LEU:CA	20:N:236:LEU:HB3	2.47	0.44
20:N:341:PHE:HB2	20:N:787:CYS:SG	2.58	0.44
20:N:82:LEU:HD22	20:N:129:ARG:HB2	2.00	0.44
22:O:286:ALA:O	22:O:288:HIS:N	2.49	0.44
23:P:47:LEU:O	23:P:51:GLU:HG3	2.18	0.44
24:Q:212:MET:SD	24:Q:239:TYR:HE2	2.40	0.44
24:Q:71:LYS:O	24:Q:75:PRO:N	2.51	0.44
25:R:165:LYS:O	25:R:169:GLU:HG3	2.17	0.44
25:R:263:LEU:HA	25:R:271:PHE:HD2	1.83	0.44
26:S:325:LYS:HA	26:S:328:VAL:HG12	1.99	0.44
26:S:482:PHE:CD1	26:S:486:ILE:HD11	2.51	0.44
28:U:266:ILE:HD11	29:V:284:LEU:CD2	2.34	0.44
28:U:249:PHE:CZ	29:V:302:ALA:HB1	2.53	0.44
30:W:25:ARG:NH2	30:W:143:PHE:H	2.10	0.44
32:Z:411:ALA:HB3	32:Z:443:GLY:HA3	2.00	0.44
2:B:101:TRP:CZ3	2:B:107:TYR:HB3	2.52	0.44
2:B:164:LYS:N	4:C:55:LEU:O	2.50	0.44
10:F:166:ASP:HB3	10:F:185:TYR:CE2	2.52	0.44
14:H:206:ILE:CG1	14:H:207:GLU:N	2.72	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:H:276:GLU:HG2	15:I:310:LEU:CD1	2.47	0.44
14:H:280:ILE:O	14:H:295:VAL:HG13	2.05	0.44
14:H:424:SER:C	14:H:426:THR:N	2.69	0.44
16:J:167:LEU:HD21	16:J:174:LEU:CD1	2.44	0.44
16:J:25:LEU:HD11	20:N:105:ILE:CG2	2.44	0.44
16:J:232:ARG:CZ	16:J:279:GLN:HE22	2.30	0.44
16:J:43:ARG:CD	17:K:57:GLN:HB2	2.47	0.44
17:K:188:PHE:CE2	17:K:304:ASN:OD1	2.70	0.44
18:L:194:ASN:CG	18:L:228:CYS:SG	2.97	0.44
18:L:264:MET:CG	18:L:275:MET:CE	2.83	0.44
18:L:96:THR:O	18:L:96:THR:HG22	2.17	0.44
19:M:194:GLN:O	19:M:198:LEU:N	2.30	0.44
18:L:243:PHE:CD1	19:M:301:ALA:HA	2.52	0.44
19:M:416:THR:O	19:M:420:TYR:CD2	2.71	0.44
20:N:168:LEU:HD21	20:N:204:ILE:CB	2.48	0.44
20:N:492:ASP:HA	20:N:495:ASP:HB3	1.99	0.44
20:N:753:GLY:O	20:N:754:HIS:CG	2.71	0.44
22:O:242:SER:CA	22:O:279:GLU:OE2	2.66	0.44
25:R:286:TRP:CD1	25:R:287:LEU:HD13	2.53	0.44
25:R:320:ALA:HB1	25:R:325:VAL:O	2.17	0.44
28:U:223:ASN:C	28:U:225:GLN:H	2.21	0.44
28:U:6:VAL:HG23	28:U:7:GLN:N	2.33	0.44
29:V:226:MET:O	29:V:230:THR:HG23	2.18	0.44
29:V:255:TYR:O	29:V:259:VAL:HG23	2.17	0.44
30:W:169:HIS:CG	30:W:170:LEU:N	2.86	0.44
6:D:160:LYS:HB2	8:E:53:LEU:O	2.17	0.44
14:H:237:PHE:CD1	14:H:271:LEU:HD12	2.53	0.44
15:I:115:ILE:HD11	15:I:146:PRO:HG3	1.99	0.44
15:I:112:LEU:CB	15:I:148:CYS:H	2.29	0.44
15:I:272:ARG:O	15:I:276:GLU:HG3	2.17	0.44
15:I:362:LYS:HG3	15:I:384:ILE:HD12	1.95	0.44
16:J:160:GLU:OE1	16:J:313:ARG:CD	2.62	0.44
16:J:72:TYR:CD1	16:J:72:TYR:N	2.86	0.44
17:K:272:THR:O	17:K:274:ARG:N	2.50	0.44
17:K:322:LEU:HD13	17:K:330:LYS:HE3	1.98	0.44
20:N:397:THR:O	20:N:400:ALA:N	2.51	0.44
20:N:497:LEU:HD13	20:N:512:ALA:HA	2.00	0.44
20:N:615:ARG:O	20:N:619:VAL:HG23	2.18	0.44
23:P:126:ASP:HA	23:P:129:ARG:HB3	2.00	0.44
23:P:74:CYS:O	23:P:78:LYS:CB	2.54	0.44
24:Q:211:ASP:O	24:Q:214:SER:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:84:LYS:HZ1	24:Q:88:LEU:HD21	1.78	0.44
25:R:176:ARG:HA	25:R:179:ARG:CD	2.48	0.44
25:R:286:TRP:NE1	25:R:287:LEU:CD1	2.80	0.44
23:P:428:TRP:CD2	28:U:245:PHE:HZ	2.36	0.44
29:V:122:LEU:HG	29:V:160:PHE:CE2	2.53	0.44
27:T:346:LEU:HD11	29:V:296:ILE:HD11	1.97	0.44
30:W:97:LEU:HB3	30:W:107:MET:CG	2.48	0.44
21:X:186:CYS:HB3	21:X:215:TRP:HZ3	1.83	0.44
32:Z:602:GLY:HA2	32:Z:665:GLU:CB	2.48	0.44
2:B:101:TRP:HZ3	2:B:107:TYR:HB3	1.83	0.43
2:B:132:ARG:HG2	21:X:12:SER:HA	1.99	0.43
2:B:138:MET:HB3	2:B:154:CYS:SG	2.58	0.43
2:B:16:PHE:HB3	4:C:23:TYR:HB3	2.00	0.43
12:G:40:SER:HB3	12:G:187:LEU:HD22	2.00	0.43
14:H:272:ILE:CG2	14:H:274:PHE:CZ	3.01	0.43
16:J:165:ILE:O	16:J:168:PRO:HD2	2.17	0.43
16:J:137:LEU:CD2	16:J:224:ILE:HD13	2.27	0.43
16:J:134:LEU:H	16:J:237:MET:HE2	1.83	0.43
17:K:345:PHE:CE1	17:K:360:LEU:HD21	2.51	0.43
17:K:213:THR:CB	35:K:501:ADP:O2A	2.66	0.43
17:K:70:LYS:HA	17:K:73:LEU:HD11	1.99	0.43
18:L:155:ASN:N	18:L:156:PRO:HD2	2.30	0.43
18:L:385:ASP:O	18:L:386:TYR:CG	2.71	0.43
19:M:347:ARG:HH11	19:M:347:ARG:CG	2.28	0.43
19:M:354:PHE:HA	19:M:355:PRO:HD2	1.90	0.43
20:N:644:TYR:CG	20:N:645:ASN:N	2.86	0.43
20:N:696:ILE:O	20:N:698:GLN:HG3	2.18	0.43
20:N:347:ASN:ND2	20:N:883:ARG:HH22	2.14	0.43
20:N:92:ASP:O	20:N:97:VAL:HG11	2.17	0.43
22:O:192:GLU:O	22:O:195:GLU:N	2.51	0.43
23:P:342:GLY:HA3	23:P:347:GLY:CA	2.47	0.43
24:Q:234:GLU:HA	24:Q:237:GLU:OE2	2.18	0.43
24:Q:238:GLY:O	24:Q:242:ILE:CG2	2.60	0.43
24:Q:298:SER:OG	24:Q:301:ASP:HB3	2.17	0.43
24:Q:48:GLN:O	24:Q:51:LEU:N	2.51	0.43
25:R:214:MET:HE3	25:R:219:PHE:HA	2.00	0.43
25:R:348:ASP:HB3	25:R:353:ILE:CG2	2.45	0.43
25:R:369:THR:CG2	25:R:370:ILE:N	2.81	0.43
26:S:61:GLU:O	26:S:65:ARG:N	2.33	0.43
28:U:106:ILE:CG1	28:U:155:PHE:CZ	3.01	0.43
28:U:237:LEU:HA	28:U:237:LEU:HD23	1.88	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:U:264:SER:HB3	29:V:292:MET:CE	2.48	0.43
28:U:84:LYS:O	29:V:76:PRO:HB3	2.18	0.43
29:V:239:LYS:O	29:V:243:SER:CB	2.66	0.43
14:H:122:VAL:O	19:M:88:TYR:HB2	2.18	0.43
15:I:207:HIS:HB3	15:I:210:TYR:HE1	1.83	0.43
15:I:66:GLU:O	15:I:70:ASP:N	2.42	0.43
16:J:118:ASN:ND2	16:J:119:ASP:N	2.21	0.43
16:J:72:TYR:CG	16:J:121:TYR:HE1	2.36	0.43
16:J:373:GLU:O	16:J:373:GLU:HG3	2.18	0.43
16:J:71:SER:HB2	17:K:112:TYR:HB3	2.00	0.43
17:K:80:LYS:HA	17:K:80:LYS:HD3	1.70	0.43
18:L:183:LEU:O	18:L:187:VAL:HG23	2.18	0.43
18:L:269:THR:O	18:L:270:LEU:C	2.52	0.43
19:M:288:LEU:HB3	19:M:332:THR:HG21	2.00	0.43
22:O:248:PHE:CG	22:O:272:ILE:HD12	2.53	0.43
24:Q:218:HIS:CB	24:Q:228:ALA:HB2	2.49	0.43
24:Q:236:PHE:CZ	24:Q:240:ASP:OD2	2.69	0.43
24:Q:276:ALA:O	24:Q:279:TYR:N	2.47	0.43
24:Q:74:ARG:HA	24:Q:77:LEU:CB	2.48	0.43
25:R:139:ASP:O	25:R:142:PHE:HB2	2.17	0.43
26:S:400:HIS:CG	26:S:401:ASN:H	2.35	0.43
28:U:106:ILE:HG12	28:U:155:PHE:CE1	2.53	0.43
29:V:97:ASP:HA	29:V:100:LYS:HD3	2.00	0.43
30:W:25:ARG:O	30:W:29:GLN:HG3	2.19	0.43
2:B:120:ASP:CG	4:C:83:ARG:NH1	2.71	0.43
14:H:130:ALA:O	14:H:134:ILE:HD11	2.18	0.43
17:K:170:MET:O	17:K:174:LYS:CD	2.64	0.43
17:K:251:PHE:CD2	17:K:295:GLN:CB	3.01	0.43
17:K:352:MET:SD	18:L:164:ILE:HD11	2.59	0.43
18:L:72:LYS:HB2	18:L:78:ARG:HG3	2.01	0.43
19:M:254:PRO:O	19:M:257:VAL:HB	2.18	0.43
22:O:189:PRO:HB2	22:O:192:GLU:HG3	2.00	0.43
23:P:153:LYS:HE3	23:P:162:ALA:CA	2.46	0.43
23:P:300:PRO:O	23:P:303:LYS:HB3	2.18	0.43
23:P:79:GLU:O	23:P:79:GLU:CG	2.66	0.43
24:Q:260:MET:CE	24:Q:322:HIS:HA	2.47	0.43
24:Q:406:ASN:O	24:Q:410:VAL:HG23	2.18	0.43
24:Q:84:LYS:HZ2	24:Q:88:LEU:CD2	2.29	0.43
25:R:192:ARG:HG2	25:R:192:ARG:HH11	1.83	0.43
25:R:362:LYS:HA	25:R:362:LYS:CE	2.48	0.43
28:U:175:LEU:C	28:U:177:ARG:N	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:V:97:ASP:O	29:V:100:LYS:HB2	2.17	0.43
32:Z:192:VAL:HA	32:Z:204:ALA:HB3	2.01	0.43
32:Z:734:SER:HA	32:Z:768:LEU:O	2.19	0.43
10:F:186:HIS:O	10:F:189:MET:HG3	2.18	0.43
14:H:101:ILE:HA	14:H:113:ILE:HG12	1.98	0.43
14:H:125:LEU:HD12	14:H:126:SER:N	2.33	0.43
14:H:337:LEU:HD23	14:H:337:LEU:HA	1.89	0.43
14:H:388:VAL:HG13	14:H:412:ALA:CB	2.48	0.43
17:K:205:TYR:CB	17:K:314:ALA:HB2	2.49	0.43
18:L:87:LEU:CD1	18:L:107:ILE:CG2	2.97	0.43
18:L:151:LEU:C	18:L:153:LEU:N	2.68	0.43
18:L:335:SER:HB3	18:L:338:PHE:HD2	1.83	0.43
18:L:56:ILE:HG22	18:L:57:VAL:N	2.33	0.43
18:L:58:GLY:O	18:L:98:VAL:N	2.27	0.43
20:N:377:HIS:HA	20:N:380:THR:HB	2.00	0.43
22:O:361:LYS:O	22:O:365:MET:HB2	2.18	0.43
24:Q:225:TRP:HE1	24:Q:322:HIS:CD2	2.35	0.43
25:R:146:ARG:HH12	25:R:213:LEU:CD1	2.19	0.43
25:R:288:PHE:O	25:R:290:PRO:CD	2.67	0.43
28:U:277:ASN:O	28:U:280:ILE:HB	2.17	0.43
29:V:254:ASN:HB3	29:V:280:PRO:CG	2.49	0.43
29:V:267:PRO:HA	29:V:270:LEU:HB3	1.99	0.43
23:P:428:TRP:CH2	29:V:305:ASP:CB	3.01	0.43
30:W:97:LEU:HD11	30:W:108:ARG:O	2.18	0.43
30:W:54:LEU:HA	30:W:58:CYS:HB3	1.99	0.43
12:G:176:MET:SD	21:X:57:LEU:HD23	2.59	0.43
14:H:193:THR:OG1	14:H:194:PRO:CD	2.66	0.43
14:H:246:VAL:CG2	14:H:295:VAL:HG13	2.48	0.43
15:I:220:LYS:N	15:I:348:ASP:OD2	2.52	0.43
15:I:252:GLY:CA	15:I:255:LEU:HB2	2.47	0.43
15:I:271:PHE:CB	15:I:315:GLN:OE1	2.67	0.43
15:I:399:CYS:HA	15:I:419:PHE:CZ	2.53	0.43
16:J:27:LYS:HG2	17:K:40:LEU:HD21	2.01	0.43
18:L:198:VAL:C	18:L:200:SER:H	2.21	0.43
19:M:82:VAL:O	19:M:161:LEU:HD11	2.19	0.43
20:N:634:PRO:HG3	20:N:668:ALA:HB2	1.99	0.43
22:O:225:LEU:CG	22:O:230:ARG:CB	2.96	0.43
23:P:217:GLU:HA	23:P:220:GLU:OE1	2.19	0.43
25:R:134:LEU:HD11	25:R:138:LEU:CG	2.48	0.43
25:R:237:ARG:HA	25:R:241:ILE:HB	2.01	0.43
25:R:273:GLN:O	25:R:277:VAL:HG23	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:R:304:TYR:N	25:R:304:TYR:HD1	2.13	0.43
20:N:35:TRP:CH2	26:S:273:LYS:HD3	2.27	0.43
26:S:417:ILE:HG22	26:S:418:SER:O	2.18	0.43
26:S:446:VAL:HG12	26:S:447:ILE:HD13	2.00	0.43
26:S:448:GLU:CB	26:S:461:LYS:HB2	2.49	0.43
27:T:271:ILE:O	27:T:274:CYS:HB2	2.18	0.43
28:U:72:HIS:HB3	28:U:115:TYR:OH	2.18	0.43
29:V:148:ILE:HD12	29:V:149:GLN:N	2.33	0.43
29:V:248:MET:CE	29:V:288:VAL:HG23	2.48	0.43
28:U:256:GLN:CG	29:V:295:ASN:ND2	2.80	0.43
6:D:122:THR:O	8:E:125:ARG:NH1	2.52	0.43
12:G:56:LEU:HD23	12:G:56:LEU:HA	1.83	0.43
14:H:224:LEU:HD23	14:H:227:ARG:NH1	2.28	0.43
14:H:333:ARG:HD3	14:H:334:PRO:O	2.18	0.43
15:I:118:ASP:OD1	15:I:120:HIS:O	2.36	0.43
15:I:196:GLU:HB3	15:I:351:ILE:CD1	2.49	0.43
14:H:226:ALA:HB1	15:I:319:PHE:HE1	1.82	0.43
16:J:187:LEU:HD22	16:J:311:ILE:CD1	2.42	0.43
16:J:274:LEU:HD23	16:J:274:LEU:HA	1.84	0.43
16:J:28:ILE:HD11	26:S:241:ARG:HA	2.00	0.43
15:I:259:TYR:HH	17:K:276:ASP:CG	2.22	0.43
17:K:236:VAL:CG1	17:K:288:ILE:CD1	2.97	0.43
17:K:337:ASP:CG	17:K:338:ARG:H	2.22	0.43
17:K:339:ARG:O	17:K:342:ARG:HB2	2.18	0.43
18:L:172:LEU:HD13	18:L:180:LYS:CB	2.48	0.43
17:K:236:VAL:HB	18:L:208:ILE:HG22	2.00	0.43
18:L:242:ARG:HH11	18:L:242:ARG:HG3	1.83	0.43
19:M:426:GLU:C	19:M:428:GLN:H	2.22	0.43
20:N:441:GLY:O	20:N:444:TYR:HD1	2.01	0.43
20:N:792:ASN:CG	20:N:916:ASP:HB2	2.39	0.43
22:O:38:THR:O	22:O:42:LEU:HB2	2.18	0.43
23:P:317:TRP:CH2	23:P:354:LEU:HD23	2.53	0.43
24:Q:225:TRP:CZ2	24:Q:260:MET:HE3	2.53	0.43
24:Q:282:ARG:O	24:Q:282:ARG:HG3	2.17	0.43
25:R:118:GLU:O	25:R:121:LEU:HB2	2.19	0.43
16:J:45:LEU:CD2	26:S:491:VAL:O	2.64	0.43
28:U:201:LEU:HA	29:V:225:TRP:CH2	2.54	0.43
30:W:78:VAL:HG12	30:W:79:GLN:N	2.33	0.43
32:Z:266:LEU:HA	32:Z:269:ALA:HB3	2.00	0.43
6:D:3:ARG:CZ	12:G:123:TYR:OH	2.66	0.43
4:C:12:PHE:CE1	6:D:79:ILE:HD11	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:H:99:THR:N	14:H:140:VAL:O	2.52	0.43
14:H:99:THR:CG2	14:H:142:VAL:HG23	2.41	0.43
16:J:151:ILE:HD13	16:J:198:LEU:CB	2.38	0.43
16:J:80:MET:HE3	16:J:86:LEU:HB2	2.01	0.43
17:K:160:PRO:CD	17:K:220:ALA:CB	2.97	0.43
17:K:393:ILE:CG2	17:K:394:VAL:N	2.82	0.43
17:K:71:GLU:OE2	17:K:74:HIS:HD2	2.02	0.43
18:L:59:GLU:HA	18:L:96:THR:O	2.18	0.43
19:M:376:SER:N	19:M:414:GLU:CG	2.82	0.43
20:N:235:LYS:O	20:N:239:GLU:HG2	2.18	0.43
20:N:457:ILE:O	20:N:460:TYR:HB3	2.19	0.43
20:N:470:ASN:C	20:N:474:ARG:HB3	2.38	0.43
20:N:616:ARG:HE	20:N:650:TYR:HB3	1.82	0.43
20:N:656:LEU:HD11	20:N:668:ALA:HB1	2.00	0.43
24:Q:335:LEU:HD23	24:Q:335:LEU:HA	1.81	0.43
24:Q:84:LYS:HZ2	24:Q:87:ARG:HD2	1.84	0.43
28:U:101:LEU:HG	28:U:101:LEU:H	1.54	0.43
28:U:142:GLU:HA	28:U:153:LYS:H	1.83	0.43
28:U:176:LEU:HG	29:V:217:LEU:CB	2.48	0.43
28:U:184:VAL:HG23	28:U:185:GLY:H	1.83	0.43
28:U:259:VAL:HG12	29:V:291:LEU:HB3	2.00	0.43
28:U:170:VAL:HG12	29:V:155:VAL:CG2	2.49	0.43
30:W:25:ARG:NH2	30:W:113:VAL:O	2.45	0.43
30:W:125:VAL:HA	30:W:128:ALA:HB3	2.01	0.43
30:W:6:THR:O	30:W:49:VAL:HA	2.19	0.43
12:G:120:THR:O	21:X:129:ARG:HD3	2.19	0.43
2:B:202:LEU:HA	2:B:205:VAL:HG12	2.01	0.43
10:F:66:LYS:N	10:F:216:GLU:OE2	2.45	0.43
14:H:315:ILE:HD12	14:H:315:ILE:H	1.79	0.43
14:H:388:VAL:HG13	14:H:412:ALA:HB1	2.00	0.43
15:I:120:HIS:CD2	15:I:120:HIS:O	2.72	0.43
16:J:247:PHE:C	16:J:248:MET:CG	2.85	0.43
16:J:43:ARG:HD2	17:K:57:GLN:HB2	1.99	0.43
16:J:64:GLN:O	16:J:67:GLN:HB2	2.18	0.43
16:J:115:ALA:HB2	17:K:112:TYR:CD2	2.54	0.43
17:K:276:ASP:N	17:K:282:ASP:OD2	2.51	0.43
18:L:138:LEU:C	18:L:140:GLU:N	2.41	0.43
20:N:355:ASN:HA	20:N:358:ASP:CG	2.39	0.43
20:N:902:PRO:HD3	20:N:914:LEU:CD1	2.48	0.43
23:P:190:MET:HA	23:P:193:CYS:SG	2.59	0.43
23:P:74:CYS:SG	23:P:75:TYR:N	2.92	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:243:ASP:C	24:Q:245:PRO:HD3	2.39	0.43
25:R:190:ALA:HA	25:R:287:LEU:O	2.19	0.43
25:R:286:TRP:HE1	25:R:287:LEU:CD1	2.31	0.43
25:R:33:GLY:HA2	25:R:34:ASP:C	2.39	0.43
25:R:45:VAL:O	25:R:49:ASN:N	2.52	0.43
20:N:99:THR:HG21	26:S:240:LEU:HD21	2.00	0.43
28:U:32:GLN:O	28:U:33:LYS:HB2	2.19	0.43
30:W:161:ASN:HB2	30:W:168:SER:OG	2.19	0.43
32:Z:246:SER:O	32:Z:249:LEU:N	2.44	0.43
2:B:141:ILE:HG13	2:B:141:ILE:O	2.18	0.43
8:E:212:ARG:O	8:E:215:GLN:HB2	2.18	0.43
14:H:153:LEU:HD23	14:H:154:PRO:HD3	2.01	0.43
14:H:246:VAL:HG21	14:H:295:VAL:HG13	2.01	0.43
14:H:257:VAL:O	14:H:261:PHE:HD2	2.01	0.43
14:H:284:ARG:CB	14:H:296:GLN:OE1	2.66	0.43
15:I:219:PRO:O	15:I:220:LYS:C	2.56	0.43
15:I:419:PHE:O	15:I:423:LYS:HG3	2.19	0.43
16:J:154:LEU:HD22	16:J:157:GLN:HG3	2.00	0.43
16:J:373:GLU:HB3	16:J:375:ARG:HD3	2.00	0.43
16:J:41:ASN:HA	16:J:44:ARG:HG3	2.01	0.43
17:K:204:MET:O	17:K:310:ALA:HA	2.19	0.43
17:K:228:ILE:HD12	17:K:262:ILE:HG12	2.01	0.43
17:K:51:LEU:O	17:K:54:LEU:CD2	2.67	0.43
18:L:130:VAL:O	18:L:189:SER:HB2	2.17	0.43
18:L:243:PHE:HB2	18:L:245:GLU:HG3	2.01	0.43
18:L:258:MET:HA	18:L:261:LEU:HD13	1.87	0.43
18:L:60:VAL:HB	18:L:93:LYS:O	2.18	0.43
19:M:212:PHE:O	19:M:217:ILE:HG12	2.18	0.43
20:N:377:HIS:O	20:N:380:THR:N	2.50	0.43
20:N:450:HIS:O	20:N:454:GLY:N	2.52	0.43
16:J:54:ALA:HB1	20:N:644:TYR:H	1.83	0.43
20:N:645:ASN:ND2	20:N:647:HIS:HB2	2.34	0.43
23:P:421:PRO:CD	23:P:422:ASN:N	2.80	0.43
25:R:228:MET:HE2	25:R:271:PHE:HZ	1.55	0.43
26:S:195:ILE:O	26:S:198:GLN:CB	2.67	0.43
27:T:168:MET:O	27:T:172:LYS:HG3	2.19	0.43
30:W:5:SER:N	30:W:106:LYS:O	2.48	0.43
32:Z:383:ALA:O	32:Z:384:ALA:CB	2.65	0.43
4:C:73:LEU:CD2	4:C:135:ILE:HG12	2.49	0.43
14:H:154:PRO:HB2	14:H:155:PRO:HD3	2.00	0.43
14:H:237:PHE:HE2	15:I:319:PHE:CZ	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:H:306:LEU:HA	14:H:306:LEU:HD12	1.84	0.43
14:H:428:ARG:HD3	14:H:433:ASN:HD22	1.84	0.43
15:I:152:LEU:HD23	15:I:159:VAL:HA	2.00	0.43
15:I:369:THR:CG2	15:I:374:LEU:CD1	2.96	0.43
16:J:116:LEU:HD21	16:J:121:TYR:CG	2.50	0.43
16:J:303:SER:C	16:J:305:LEU:N	2.71	0.43
17:K:128:ALA:HB3	17:K:142:VAL:HG13	1.89	0.43
18:L:109:ARG:CB	18:L:109:ARG:NH1	2.81	0.43
18:L:365:GLU:C	18:L:367:PHE:N	2.72	0.43
17:K:238:LYS:CE	19:M:129:ARG:HE	2.32	0.43
19:M:68:ALA:O	19:M:72:LYS:HB2	2.18	0.43
20:N:441:GLY:O	20:N:444:TYR:CD1	2.72	0.43
20:N:470:ASN:H	20:N:474:ARG:HB3	1.66	0.43
20:N:553:ALA:HA	20:N:585:THR:HA	2.01	0.43
20:N:560:MET:CA	20:N:589:ALA:HB1	2.44	0.43
20:N:701:ILE:HA	20:N:704:PRO:HG3	2.01	0.43
22:O:34:TRP:H	30:W:18:ASN:ND2	2.17	0.43
23:P:146:THR:HA	23:P:149:LEU:HD23	2.00	0.43
23:P:317:TRP:CE3	23:P:317:TRP:CA	3.01	0.43
24:Q:63:ALA:HB2	24:Q:105:GLN:HE22	1.83	0.43
25:R:104:MET:O	25:R:107:LYS:N	2.51	0.43
25:R:263:LEU:CD1	25:R:271:PHE:CE2	3.02	0.43
25:R:192:ARG:HG2	25:R:291:HIS:NE2	2.34	0.43
25:R:19:ILE:HD13	25:R:50:MET:HE3	2.00	0.43
27:T:336:ALA:O	27:T:340:ILE:HG13	2.18	0.43
28:U:240:VAL:CB	28:U:242:LEU:CD1	2.97	0.43
29:V:123:SER:O	29:V:126:ASP:HB2	2.19	0.43
29:V:248:MET:HE1	29:V:288:VAL:HG23	2.00	0.43
29:V:90:VAL:O	29:V:94:LYS:HB2	2.19	0.43
2:B:101:TRP:CG	2:B:109:ILE:HB	2.53	0.42
14:H:215:PHE:HB2	14:H:324:PRO:HG3	2.00	0.42
14:H:284:ARG:C	14:H:285:PHE:O	2.57	0.42
14:H:306:LEU:HD12	14:H:312:ARG:HH21	1.82	0.42
15:I:309:MET:HE2	15:I:341:LEU:HD11	2.01	0.42
15:I:365:PHE:HA	15:I:365:PHE:HD1	1.67	0.42
17:K:151:ILE:C	17:K:152:MET:SD	2.98	0.42
17:K:408:LYS:C	17:K:410:ASP:H	2.15	0.42
18:L:281:ARG:HA	18:L:282:PRO:HD2	1.78	0.42
18:L:363:VAL:O	18:L:367:PHE:HD2	2.02	0.42
19:M:258:GLN:CG	19:M:263:ASP:HB3	2.48	0.42
19:M:376:SER:CB	19:M:377:PRO:CD	2.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:N:133:ILE:HA	20:N:136:LYS:HB2	2.01	0.42
23:P:373:ILE:HG21	23:P:415:PHE:HE2	1.80	0.42
23:P:373:ILE:O	23:P:412:ILE:HG23	2.19	0.42
24:Q:244:SER:N	24:Q:245:PRO:CD	2.82	0.42
24:Q:369:ILE:HD12	24:Q:376:GLY:O	2.19	0.42
26:S:480:ILE:CD1	26:S:480:ILE:H	2.27	0.42
27:T:135:LYS:O	27:T:137:THR:N	2.49	0.42
27:T:344:ARG:HG2	27:T:348:MET:HG2	1.94	0.42
28:U:34:ARG:NH2	28:U:102:HIS:CD2	2.76	0.42
8:E:66:ASP:OD1	8:E:67:ASP:N	2.45	0.42
14:H:150:HIS:C	14:H:151:ILE:HG13	2.39	0.42
15:I:184:TYR:HE1	15:I:238:ALA:C	2.23	0.42
15:I:240:ALA:O	15:I:243:THR:HG22	2.19	0.42
16:J:147:THR:HG22	16:J:150:MET:HE3	2.01	0.42
15:I:164:MET:HE3	16:J:78:ARG:NH2	2.34	0.42
17:K:93:LEU:CD2	17:K:102:ILE:CG2	2.95	0.42
17:K:85:ILE:H	17:K:86:PRO:CD	2.31	0.42
18:L:210:GLU:HG3	18:L:210:GLU:O	2.19	0.42
18:L:232:MET:O	18:L:278:ALA:CB	2.66	0.42
17:K:89:ILE:HD11	18:L:70:ILE:HG23	1.98	0.42
17:K:89:ILE:HD12	18:L:78:ARG:HB3	2.00	0.42
19:M:153:VAL:HG13	19:M:158:TYR:C	2.39	0.42
19:M:289:ASP:HA	19:M:292:GLY:O	2.18	0.42
20:N:185:MET:HA	20:N:194:ARG:HD2	2.01	0.42
20:N:423:MET:C	20:N:427:LEU:HG	2.39	0.42
17:K:67:ASN:ND2	20:N:615:ARG:NH2	2.66	0.42
20:N:733:ALA:O	20:N:736:ILE:HB	2.19	0.42
20:N:763:VAL:O	20:N:767:THR:N	2.50	0.42
22:O:4:VAL:HA	22:O:7:PHE:HB2	2.01	0.42
23:P:209:ILE:HD13	23:P:226:TYR:CE1	2.54	0.42
23:P:279:PHE:HA	23:P:283:GLN:OE1	2.19	0.42
23:P:342:GLY:CA	23:P:347:GLY:HA2	2.47	0.42
23:P:317:TRP:CH2	23:P:351:TRP:HZ3	2.34	0.42
23:P:78:LYS:CA	23:P:79:GLU:HB3	2.46	0.42
24:Q:85:ALA:C	24:Q:89:VAL:HG23	2.40	0.42
25:R:108:ALA:CB	25:R:123:ALA:HB3	2.39	0.42
26:S:200:ARG:HB2	26:S:203:LEU:HB2	2.01	0.42
26:S:469:THR:C	26:S:472:PRO:HD2	2.39	0.42
28:U:173:GLU:CB	29:V:152:LYS:O	2.67	0.42
30:W:4:GLU:OE2	30:W:108:ARG:NH2	2.52	0.42
14:H:148:GLN:O	14:H:149:ILE:C	2.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:H:223:THR:HG22	14:H:227:ARG:HD2	2.01	0.42
15:I:203:LEU:HD23	15:I:211:TYR:OH	2.19	0.42
15:I:287:ILE:HD12	15:I:288:ASP:H	1.84	0.42
17:K:353:ASN:O	17:K:354:LEU:CB	2.67	0.42
17:K:391:ARG:HH22	17:K:395:LEU:HD12	1.83	0.42
17:K:70:LYS:C	17:K:73:LEU:HD12	2.39	0.42
19:M:221:LYS:O	19:M:222:GLY:O	2.37	0.42
20:N:900:TYR:HB3	20:N:915:LYS:O	2.19	0.42
25:R:133:ALA:CB	25:R:136:HIS:CD2	2.85	0.42
28:U:23:PHE:HD2	28:U:126:VAL:CG2	2.27	0.42
29:V:309:PHE:O	29:V:310:LYS:HG2	2.19	0.42
14:H:59:ILE:O	14:H:63:THR:N	2.33	0.42
15:I:132:TYR:C	15:I:133:VAL:HG13	2.40	0.42
15:I:174:MET:O	15:I:248:LEU:HD23	2.20	0.42
15:I:317:ASP:CG	15:I:318:GLY:N	2.73	0.42
15:I:223:ILE:CG1	15:I:347:ILE:HD13	2.50	0.42
16:J:112:CYS:HA	16:J:130:LYS:CB	2.48	0.42
17:K:273:LYS:O	17:K:275:PHE:CD2	2.72	0.42
17:K:212:LYS:CA	17:K:333:PHE:CE2	3.00	0.42
18:L:205:ASP:OD2	18:L:210:GLU:HG2	2.20	0.42
19:M:169:ASP:O	19:M:170:SER:C	2.57	0.42
19:M:244:THR:HG21	19:M:282:ILE:CD1	2.49	0.42
20:N:603:LEU:O	20:N:607:VAL:N	2.32	0.42
20:N:61:ALA:HB1	20:N:80:TYR:HB3	2.00	0.42
20:N:681:ASN:HA	20:N:684:ARG:HH11	1.85	0.42
22:O:149:THR:C	22:O:151:VAL:H	2.22	0.42
23:P:90:LEU:C	23:P:90:LEU:CD2	2.88	0.42
24:Q:97:LEU:CD2	24:Q:106:GLU:CG	2.94	0.42
24:Q:233:TYR:HD1	24:Q:233:TYR:C	2.23	0.42
24:Q:259:ILE:CG2	24:Q:326:LEU:HD11	2.50	0.42
24:Q:76:PHE:CA	24:Q:80:ILE:CB	2.97	0.42
24:Q:92:LEU:HD13	24:Q:92:LEU:C	2.39	0.42
25:R:237:ARG:HB2	25:R:264:TYR:HH	1.83	0.42
16:J:28:ILE:CD1	26:S:241:ARG:HA	2.49	0.42
28:U:81:MET:O	29:V:91:PHE:CE1	2.71	0.42
30:W:68:THR:HA	30:W:71:ILE:HD12	2.01	0.42
32:Z:457:ASN:O	32:Z:459:CYS:N	2.52	0.42
4:C:12:PHE:HE1	6:D:79:ILE:HD11	1.84	0.42
14:H:153:LEU:HB3	14:H:154:PRO:CD	2.49	0.42
14:H:391:GLU:OE1	14:H:391:GLU:HA	2.19	0.42
15:I:210:TYR:CD1	15:I:210:TYR:N	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:111:ASN:N	16:J:111:ASN:OD1	2.52	0.42
16:J:113:ARG:O	16:J:114:VAL:HG13	2.19	0.42
17:K:230:VAL:CG1	17:K:235:PHE:CZ	3.03	0.42
17:K:239:TYR:C	17:K:240:LEU:HD23	2.39	0.42
17:K:392:TYR:HE2	23:P:132:THR:O	2.02	0.42
18:L:141:GLN:HB3	18:L:299:ILE:CG2	2.50	0.42
18:L:211:SER:HB3	18:L:256:THR:HG23	2.01	0.42
18:L:358:ASP:O	18:L:359:HIS:CG	2.69	0.42
18:L:344:ARG:NH2	35:L:401:ADP:O2'	2.52	0.42
19:M:121:CYS:HB3	19:M:133:PHE:HE1	1.79	0.42
19:M:86:LEU:HA	19:M:86:LEU:HD23	1.63	0.42
23:P:384:LEU:CD1	23:P:388:GLU:HB3	2.42	0.42
24:Q:167:VAL:O	24:Q:171:LEU:HB2	2.19	0.42
26:S:389:ASP:OD1	26:S:389:ASP:N	2.49	0.42
28:U:213:GLU:O	28:U:217:THR:N	2.52	0.42
28:U:223:ASN:O	28:U:226:ILE:N	2.44	0.42
29:V:130:GLN:OE1	29:V:142:ALA:HB2	2.19	0.42
30:W:4:GLU:HB2	30:W:106:LYS:C	2.40	0.42
30:W:49:VAL:HG12	30:W:50:GLY:O	2.19	0.42
21:X:179:LEU:HD11	21:X:192:GLU:HB3	2.02	0.42
32:Z:696:LEU:O	32:Z:700:SER:CB	2.67	0.42
2:B:16:PHE:CE2	4:C:24:ALA:HB2	2.55	0.42
6:D:171:ALA:HB2	6:D:200:THR:HG21	2.02	0.42
14:H:291:GLY:C	14:H:293:ASN:N	2.73	0.42
14:H:422:LYS:HG2	14:H:422:LYS:H	1.74	0.42
15:I:116:ILE:HB	15:I:118:ASP:CG	2.40	0.42
15:I:144:LEU:HD11	15:I:162:VAL:CA	2.43	0.42
16:J:189:TYR:HH	16:J:316:GLU:HG2	1.67	0.42
16:J:154:LEU:CD2	16:J:317:PHE:CD2	3.00	0.42
16:J:43:ARG:HG3	17:K:61:ILE:CG1	2.46	0.42
17:K:88:VAL:HG23	17:K:132:LEU:HB2	2.01	0.42
17:K:377:SER:HB3	18:L:292:PRO:CG	2.50	0.42
17:K:354:LEU:CD2	17:K:399:PHE:HZ	2.33	0.42
17:K:41:TYR:CZ	20:N:155:LEU:CG	2.98	0.42
17:K:387:VAL:CG2	18:L:162:VAL:HG21	2.49	0.42
18:L:227:PRO:CG	18:L:272:ARG:HG2	2.39	0.42
18:L:50:LEU:HD13	19:M:82:VAL:HG23	2.00	0.42
19:M:140:VAL:HG11	19:M:160:ILE:HG21	2.02	0.42
20:N:11:LEU:HA	20:N:14:GLU:OE1	2.19	0.42
20:N:360:VAL:CG2	20:N:361:ARG:N	2.77	0.42
23:P:63:THR:CB	23:P:102:ALA:CB	2.98	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:P:286:LEU:HD23	23:P:286:LEU:HA	1.84	0.42
24:Q:66:LEU:CB	24:Q:109:LEU:HD13	2.48	0.42
26:S:448:GLU:HB3	26:S:461:LYS:CB	2.49	0.42
27:T:114:GLU:O	27:T:117:GLY:N	2.50	0.42
32:Z:205:CYS:O	32:Z:208:LEU:N	2.52	0.42
32:Z:247:ALA:O	32:Z:250:ARG:N	2.52	0.42
32:Z:738:ASN:O	32:Z:740:ARG:N	2.53	0.42
8:E:38:ARG:CZ	8:E:38:ARG:H	2.33	0.42
14:H:306:LEU:CD1	14:H:312:ARG:HH21	2.32	0.42
14:H:312:ARG:NH2	14:H:317:VAL:HG21	2.35	0.42
14:H:353:HIS:C	14:H:357:ILE:HD12	2.40	0.42
15:I:135:ILE:N	15:I:141:LYS:HZ3	2.17	0.42
15:I:232:LYS:N	15:I:353:PHE:CD2	2.87	0.42
15:I:285:ASP:OD1	15:I:330:ALA:HB1	2.18	0.42
14:H:394:MET:HG3	15:I:349:ARG:NH2	2.35	0.42
15:I:423:LYS:O	15:I:427:LEU:HB2	2.20	0.42
16:J:133:PRO:HD2	16:J:134:LEU:H	1.84	0.42
16:J:153:GLY:O	16:J:154:LEU:HG	2.20	0.42
16:J:40:GLN:O	16:J:44:ARG:HG3	2.19	0.42
16:J:72:TYR:N	16:J:72:TYR:HD1	2.18	0.42
16:J:77:VAL:O	16:J:78:ARG:HB3	2.20	0.42
17:K:41:TYR:CE1	20:N:152:GLY:O	2.72	0.42
17:K:91:GLN:NE2	17:K:91:GLN:O	2.53	0.42
18:L:140:GLU:O	18:L:144:GLU:CB	2.68	0.42
18:L:64:LEU:HG	18:L:65:THR:HG23	2.02	0.42
20:N:205:TYR:O	20:N:208:LEU:N	2.50	0.42
20:N:360:VAL:CB	20:N:727:LYS:HZ1	2.33	0.42
20:N:801:GLN:HG2	20:N:880:ASN:H	1.85	0.42
22:O:153:SER:O	22:O:157:ASP:HB2	2.20	0.42
23:P:353:ASP:O	23:P:356:ASN:N	2.52	0.42
24:Q:114:ILE:HG13	24:Q:129:LEU:HD22	1.96	0.42
24:Q:218:HIS:CD2	24:Q:231:TYR:HE2	2.38	0.42
25:R:267:ARG:CG	25:R:270:VAL:HG11	2.50	0.42
29:V:212:LEU:HD12	29:V:215:LYS:HD2	2.00	0.42
28:U:267:ARG:CB	29:V:288:VAL:HG11	2.43	0.42
12:G:173:GLU:HG3	21:X:56:LYS:HB2	2.02	0.42
32:Z:226:TYR:O	32:Z:229:VAL:CB	2.68	0.42
14:H:101:ILE:HD11	14:H:140:VAL:HG11	2.00	0.42
14:H:143:ASP:OD1	14:H:150:HIS:NE2	2.53	0.42
14:H:362:MET:HG2	14:H:364:VAL:HG13	2.00	0.42
14:H:362:MET:HG3	14:H:364:VAL:HG13	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:H:366:ARG:HD3	14:H:366:ARG:HA	1.78	0.42
15:I:134:SER:O	15:I:159:VAL:HB	2.19	0.42
15:I:152:LEU:HD13	15:I:157:HIS:HB3	2.02	0.42
15:I:257:GLN:HE22	15:I:266:LEU:CG	2.16	0.42
15:I:316:LEU:HD21	15:I:327:VAL:HG11	2.01	0.42
16:J:243:PRO:HA	16:J:288:ASN:O	2.19	0.42
16:J:77:VAL:O	16:J:78:ARG:CB	2.67	0.42
17:K:342:ARG:CG	17:K:364:VAL:HG11	2.50	0.42
18:L:205:ASP:CG	18:L:210:GLU:HG2	2.38	0.42
18:L:185:ARG:HG2	19:M:320:PHE:CE1	2.54	0.42
20:N:399:TRP:HH2	20:N:507:VAL:HG23	1.85	0.42
20:N:541:HIS:CD2	20:N:544:ILE:HD12	2.55	0.42
20:N:699:THR:HG22	20:N:706:VAL:HG11	2.01	0.42
20:N:7:GLY:O	20:N:11:LEU:N	2.31	0.42
20:N:94:SER:OG	20:N:97:VAL:HG23	2.20	0.42
23:P:406:VAL:HG12	23:P:407:ASP:C	2.40	0.42
23:P:436:MET:O	23:P:440:ASN:N	2.48	0.42
24:Q:127:GLN:O	24:Q:130:GLU:HB2	2.19	0.42
25:R:228:MET:HB3	25:R:259:TYR:OH	2.20	0.42
25:R:347:ILE:O	26:S:414:TYR:CA	2.67	0.42
26:S:188:SER:O	26:S:192:MET:CB	2.67	0.42
29:V:96:LEU:HD22	29:V:100:LYS:HZ1	1.84	0.42
2:B:130:GLU:HG2	4:C:4:GLY:HA2	2.02	0.42
10:F:197:SER:O	10:F:201:ILE:HG13	2.20	0.42
14:H:183:GLN:HB3	14:H:343:PHE:CE1	2.54	0.42
14:H:333:ARG:CD	14:H:334:PRO:O	2.68	0.42
16:J:149:GLU:O	16:J:150:MET:HB3	2.19	0.42
17:K:41:TYR:CZ	20:N:155:LEU:HD21	2.36	0.42
18:L:100:LEU:HD23	18:L:100:LEU:HA	1.84	0.42
18:L:101:ASP:HB3	18:L:106:THR:N	2.35	0.42
18:L:173:TYR:O	18:L:173:TYR:CD1	2.72	0.42
18:L:173:TYR:CE1	18:L:300:HIS:ND1	2.84	0.42
18:L:196:LEU:HD12	18:L:230:ILE:HD11	1.97	0.42
18:L:254:GLN:O	18:L:258:MET:N	2.49	0.42
18:L:257:LEU:HD13	18:L:261:LEU:HD11	2.02	0.42
18:L:264:MET:CE	18:L:277:MET:CE	2.97	0.42
18:L:234:GLU:HB3	19:M:311:LEU:CD1	2.50	0.42
19:M:380:ASN:O	19:M:383:GLU:HB2	2.20	0.42
22:O:284:ARG:HH11	22:O:291:LEU:CD2	2.21	0.42
22:O:342:ASP:CG	22:O:343:LEU:N	2.71	0.42
24:Q:299:LEU:HD11	24:Q:331:LEU:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:97:LEU:HD23	24:Q:106:GLU:HG3	2.01	0.42
28:U:273:HIS:CE1	28:U:277:ASN:HD21	2.38	0.42
28:U:57:PRO:HG3	29:V:102:THR:HG22	2.01	0.42
30:W:20:ASP:OD1	30:W:25:ARG:HA	2.19	0.42
30:W:93:ALA:O	30:W:96:ALA:HB3	2.19	0.42
32:Z:719:PRO:O	32:Z:723:TYR:N	2.41	0.42
32:Z:761:MET:O	32:Z:765:ALA:N	2.39	0.42
4:C:173:LEU:HD21	4:C:193:THR:HG21	2.01	0.42
4:C:67:ILE:HG21	4:C:109:LEU:HD21	2.02	0.42
6:D:164:ILE:HD13	6:D:164:ILE:HA	1.88	0.42
12:G:225:ASP:CA	12:G:229:VAL:HG23	2.50	0.42
14:H:110:LYS:HG2	19:M:86:LEU:HD22	2.02	0.42
14:H:351:ARG:NE	14:H:377:CYS:O	2.51	0.42
16:J:151:ILE:CD1	16:J:198:LEU:CG	2.83	0.42
16:J:273:MET:HA	16:J:276:LEU:HD12	2.01	0.42
17:K:293:LEU:HD23	17:K:293:LEU:HA	1.85	0.42
19:M:192:ASP:HA	19:M:195:ILE:HB	2.01	0.42
19:M:296:PHE:CD1	19:M:296:PHE:N	2.79	0.42
19:M:344:ARG:O	19:M:345:SER:HB3	2.19	0.42
18:L:111:LEU:CD2	19:M:97:LEU:HD13	2.50	0.42
20:N:191:LYS:HB2	20:N:194:ARG:HH21	1.85	0.42
20:N:390:LEU:HA	20:N:390:LEU:HD23	1.82	0.42
20:N:447:GLY:O	20:N:451:ALA:N	2.53	0.42
20:N:462:LEU:O	20:N:465:LEU:HB2	2.19	0.42
20:N:680:VAL:HB	20:N:683:VAL:CG2	2.48	0.42
20:N:775:LEU:HA	20:N:775:LEU:HD23	1.88	0.42
22:O:246:GLU:O	22:O:249:GLN:HB3	2.20	0.42
23:P:141:GLU:O	23:P:144:ARG:HG2	2.20	0.42
24:Q:216:ILE:HG23	24:Q:318:ILE:HD12	2.00	0.42
24:Q:332:GLU:OE2	24:Q:332:GLU:HA	2.20	0.42
24:Q:2:ALA:HB2	24:Q:34:ASP:CB	2.50	0.42
25:R:250:LEU:HD23	25:R:250:LEU:HA	1.80	0.42
25:R:259:TYR:C	25:R:259:TYR:CD1	2.91	0.42
25:R:366:TYR:HE1	25:R:370:ILE:CG1	2.28	0.42
26:S:227:VAL:O	26:S:230:PHE:CG	2.73	0.42
26:S:477:HIS:HB2	27:T:342:TYR:CZ	2.55	0.42
28:U:131:LEU:CD1	28:U:199:LYS:HD2	2.49	0.42
23:P:444:HIS:HE1	28:U:138:TYR:CZ	2.33	0.42
29:V:207:TYR:HE2	29:V:209:LYS:HD2	1.85	0.42
21:X:186:CYS:HB3	21:X:215:TRP:CZ3	2.54	0.42
4:C:102:GLU:HA	4:C:103:PRO:HD3	1.90	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C:190:ALA:HA	4:C:193:THR:HG22	2.02	0.41
15:I:144:LEU:HD11	15:I:162:VAL:HG23	1.67	0.41
15:I:228:PRO:C	16:J:307:ARG:HD3	2.41	0.41
15:I:225:TYR:CA	15:I:232:LYS:HD3	2.49	0.41
16:J:134:LEU:H	16:J:237:MET:CE	2.33	0.41
16:J:134:LEU:N	16:J:237:MET:CE	2.83	0.41
16:J:228:ALA:O	16:J:229:ARG:HB2	2.20	0.41
16:J:36:ASN:C	16:J:38:LYS:N	2.74	0.41
16:J:194:THR:O	35:J:501:ADP:N7	2.53	0.41
17:K:121:ARG:O	17:K:123:LEU:CA	2.66	0.41
17:K:247:VAL:HG12	17:K:251:PHE:HD2	1.83	0.41
17:K:383:GLY:O	17:K:387:VAL:CG2	2.59	0.41
18:L:208:ILE:HD13	18:L:208:ILE:N	2.35	0.41
17:K:380:GLN:OE1	18:L:296:ASP:OD1	2.38	0.41
18:L:178:THR:CB	18:L:301:ILE:O	2.65	0.41
19:M:123:VAL:HG12	19:M:124:ILE:N	2.35	0.41
19:M:91:SER:OG	19:M:151:VAL:CG2	2.68	0.41
20:N:136:LYS:O	20:N:139:GLN:HB2	2.20	0.41
20:N:14:GLU:OE2	27:T:167:TYR:HE1	2.04	0.41
20:N:158:ARG:HA	20:N:193:PHE:CZ	2.55	0.41
20:N:60:ALA:O	20:N:64:ALA:N	2.30	0.41
20:N:715:LYS:O	20:N:719:ASP:N	2.44	0.41
20:N:739:ALA:O	20:N:744:VAL:HG22	2.20	0.41
23:P:406:VAL:HG12	23:P:407:ASP:N	2.34	0.41
24:Q:239:TYR:HA	24:Q:242:ILE:HG21	1.99	0.41
24:Q:46:LYS:HA	24:Q:49:SER:CB	2.51	0.41
26:S:477:HIS:HA	26:S:480:ILE:HD13	2.02	0.41
28:U:170:VAL:CG1	29:V:155:VAL:CG2	2.96	0.41
28:U:275:LEU:HD13	28:U:275:LEU:O	2.20	0.41
32:Z:792:ALA:HB1	32:Z:824:ALA:CB	2.45	0.41
6:D:115:CYS:HB3	6:D:154:GLY:O	2.21	0.41
14:H:301:GLU:OE1	19:M:254:PRO:CG	2.67	0.41
14:H:347:ASP:CG	14:H:348:LEU:N	2.74	0.41
15:I:180:PRO:HG2	15:I:241:ASN:HA	1.88	0.41
15:I:175:LYS:HE3	15:I:277:HIS:CG	2.55	0.41
16:J:33:LEU:CD2	17:K:47:LEU:HD13	2.50	0.41
16:J:27:LYS:N	17:K:40:LEU:HD22	2.35	0.41
16:J:43:ARG:NE	17:K:57:GLN:HB3	2.36	0.41
17:K:80:LYS:O	17:K:83:GLN:HB2	2.21	0.41
17:K:98:GLN:OE1	17:K:99:ASN:N	2.53	0.41
18:L:264:MET:CE	18:L:277:MET:HE2	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:M:397:LYS:O	19:M:400:CYS:HB3	2.20	0.41
22:O:36:GLN:O	22:O:40:GLN:CG	2.69	0.41
23:P:131:VAL:HG11	23:P:142:ARG:HB2	2.02	0.41
24:Q:205:LYS:O	24:Q:206:LEU:C	2.59	0.41
23:P:398:VAL:HG11	24:Q:337:ARG:HD3	2.01	0.41
25:R:204:THR:HG1	25:R:219:PHE:HZ	0.68	0.41
25:R:223:THR:O	25:R:227:SER:HB3	2.20	0.41
25:R:227:SER:HB2	25:R:231:LEU:HD11	2.01	0.41
25:R:362:LYS:HE2	25:R:362:LYS:CA	2.50	0.41
28:U:122:VAL:HG22	28:U:137:ALA:CA	2.35	0.41
32:Z:414:LEU:O	32:Z:418:LEU:N	2.44	0.41
32:Z:598:CYS:O	32:Z:599:ALA:CB	2.66	0.41
14:H:201:PHE:N	14:H:201:PHE:CD1	2.86	0.41
14:H:210:LYS:HB3	14:H:312:ARG:NH1	2.35	0.41
15:I:234:LEU:HD11	35:I:501:ADP:C4	2.56	0.41
15:I:291:GLY:C	15:I:293:LYS:N	2.73	0.41
15:I:337:LEU:HD12	15:I:341:LEU:HD13	2.01	0.41
15:I:371:ARG:O	16:J:179:GLY:HA3	2.20	0.41
15:I:414:VAL:HG12	15:I:415:THR:O	2.21	0.41
16:J:52:LEU:O	16:J:56:VAL:HG23	2.20	0.41
17:K:98:GLN:C	17:K:99:ASN:ND2	2.74	0.41
19:M:236:LEU:HA	19:M:236:LEU:HD23	2.09	0.41
19:M:171:ARG:NH1	19:M:263:ASP:OD1	2.53	0.41
19:M:272:PHE:HZ	19:M:317:LEU:CD1	2.32	0.41
19:M:223:VAL:HG13	19:M:352:ILE:HG12	2.02	0.41
20:N:217:CYS:O	20:N:221:ILE:N	2.29	0.41
24:Q:153:LEU:HA	24:Q:156:GLU:HG2	2.02	0.41
24:Q:394:ASP:OD1	24:Q:395:LYS:N	2.53	0.41
24:Q:401:LEU:HD21	25:R:369:THR:CA	2.49	0.41
25:R:197:ALA:HB1	25:R:201:PHE:HE2	1.79	0.41
25:R:48:ASN:HB3	25:R:50:MET:SD	2.59	0.41
28:U:125:ASP:HB3	28:U:134:PRO:HB3	2.02	0.41
29:V:246:LYS:O	29:V:249:LEU:HB3	2.21	0.41
30:W:147:GLU:OE2	30:W:174:PRO:HA	2.21	0.41
21:X:49:VAL:HG11	21:X:65:ARG:HB2	2.01	0.41
32:Z:387:GLN:O	32:Z:389:LYS:N	2.53	0.41
32:Z:381:VAL:HA	32:Z:771:LEU:HA	2.01	0.41
6:D:130:PHE:O	6:D:152:PRO:HB3	2.21	0.41
14:H:202:VAL:C	14:H:204:LEU:N	2.71	0.41
14:H:215:PHE:HB3	14:H:324:PRO:HB3	2.02	0.41
15:I:120:HIS:HD2	15:I:120:HIS:O	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:I:317:ASP:OD2	15:I:346:ARG:NH2	2.53	0.41
15:I:355:LEU:HD23	15:I:355:LEU:N	2.35	0.41
16:J:209:CYS:CB	16:J:243:PRO:O	2.69	0.41
16:J:25:LEU:HD23	20:N:102:ALA:CA	2.51	0.41
16:J:369:TYR:OH	16:J:389:LYS:HD2	2.20	0.41
17:K:149:SER:OG	17:K:250:VAL:HG23	2.19	0.41
17:K:160:PRO:CB	17:K:217:LYS:HA	2.50	0.41
17:K:319:PRO:HB2	17:K:323:ARG:NH2	2.35	0.41
17:K:382:SER:HB2	17:K:394:VAL:HG11	2.03	0.41
17:K:99:ASN:O	17:K:100:THR:OG1	2.31	0.41
18:L:356:ARG:HG3	18:L:356:ARG:HH11	1.84	0.41
18:L:117:PRO:HB3	19:M:147:PRO:HB3	2.02	0.41
19:M:409:ARG:O	19:M:411:GLY:N	2.53	0.41
20:N:613:ASP:HA	20:N:616:ARG:HB3	2.00	0.41
22:O:58:LYS:CG	22:O:59:LEU:N	2.83	0.41
22:O:9:GLN:O	22:O:13:ASN:HB2	2.17	0.41
23:P:404:ALA:HB2	23:P:415:PHE:HD1	1.85	0.41
24:Q:110:CYS:O	24:Q:111:LEU:C	2.59	0.41
24:Q:137:TYR:O	24:Q:142:ARG:O	2.39	0.41
25:R:314:LEU:C	25:R:314:LEU:HD12	2.41	0.41
20:N:71:LEU:C	26:S:273:LYS:HB2	2.40	0.41
28:U:263:ALA:C	29:V:288:VAL:HG13	2.41	0.41
29:V:142:ALA:O	29:V:159:ALA:HA	2.20	0.41
23:P:425:LEU:HD13	29:V:234:TYR:CD2	2.55	0.41
28:U:259:VAL:HG21	29:V:241:ASN:HB3	2.02	0.41
29:V:255:TYR:CB	29:V:280:PRO:HG2	2.50	0.41
30:W:7:MET:HB3	30:W:109:ILE:HG12	2.03	0.41
21:X:215:TRP:CD1	21:X:227:VAL:HA	2.56	0.41
14:H:91:GLN:NE2	15:I:102:LEU:CD2	2.83	0.41
15:I:144:LEU:CD2	15:I:162:VAL:CG2	2.91	0.41
15:I:191:ASP:O	15:I:192:ASN:C	2.57	0.41
15:I:204:PRO:O	15:I:208:PRO:HG3	2.20	0.41
15:I:298:ASN:O	15:I:299:SER:CB	2.67	0.41
16:J:248:MET:HE3	16:J:291:VAL:HB	2.03	0.41
18:L:87:LEU:HD11	18:L:107:ILE:CG2	2.49	0.41
19:M:137:ILE:HG21	19:M:145:LEU:CD1	2.33	0.41
19:M:282:ILE:CG2	19:M:329:ILE:HD12	2.50	0.41
19:M:359:GLU:O	19:M:362:ARG:CA	2.68	0.41
19:M:378:ASP:C	19:M:379:VAL:HG23	2.40	0.41
20:N:31:VAL:O	20:N:35:TRP:HD1	2.03	0.41
20:N:631:GLU:O	20:N:634:PRO:HD2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:N:741:GLY:C	20:N:743:ASN:H	2.23	0.41
20:N:793:LYS:C	20:N:795:LEU:N	2.73	0.41
20:N:810:THR:HA	20:N:883:ARG:HB2	2.02	0.41
20:N:84:ALA:HB1	20:N:87:LEU:HB2	2.01	0.41
22:O:283:THR:O	22:O:285:PRO:N	2.53	0.41
24:Q:249:THR:O	24:Q:252:LYS:HB2	2.20	0.41
24:Q:251:LEU:HA	24:Q:251:LEU:HD23	1.92	0.41
24:Q:341:PRO:O	24:Q:342:PHE:CB	2.68	0.41
25:R:220:VAL:HG11	25:R:249:VAL:CG1	2.50	0.41
25:R:48:ASN:O	25:R:50:MET:N	2.54	0.41
27:T:223:ASN:HB3	27:T:227:LYS:N	2.35	0.41
28:U:245:PHE:O	28:U:246:VAL:C	2.59	0.41
28:U:252:LYS:HE2	29:V:238:CYS:SG	2.61	0.41
29:V:259:VAL:O	29:V:263:ASP:CB	2.55	0.41
30:W:2:VAL:O	30:W:44:ASN:ND2	2.35	0.41
32:Z:317:LEU:C	32:Z:321:MET:CB	2.79	0.41
4:C:169:GLY:O	4:C:173:LEU:HG	2.21	0.41
6:D:139:TRP:CE2	6:D:218:ARG:HD3	2.56	0.41
8:E:33:VAL:CG1	8:E:168:VAL:HG11	2.46	0.41
14:H:257:VAL:O	14:H:260:LEU:HB2	2.20	0.41
14:H:372:LEU:HA	14:H:372:LEU:HD22	1.78	0.41
14:H:413:VAL:CG1	14:H:417:ILE:HD12	2.39	0.41
14:H:87:LEU:O	14:H:91:GLN:CB	2.69	0.41
15:I:181:GLN:O	15:I:241:ASN:HB2	2.21	0.41
16:J:247:PHE:HD1	16:J:292:ILE:HB	1.85	0.41
16:J:36:ASN:O	16:J:38:LYS:N	2.53	0.41
16:J:50:ASN:OD1	17:K:64:GLU:HB3	2.21	0.41
17:K:119:ILE:CD1	17:K:119:ILE:N	2.84	0.41
17:K:126:PRO:HD2	17:K:127:ASN:H	1.86	0.41
17:K:285:VAL:O	17:K:286:GLN:C	2.58	0.41
17:K:312:ASN:ND2	17:K:312:ASN:N	2.68	0.41
17:K:47:LEU:O	17:K:50:GLU:HB2	2.20	0.41
18:L:125:GLU:O	18:L:127:PRO:N	2.54	0.41
18:L:172:LEU:CD1	18:L:180:LYS:HB3	2.51	0.41
18:L:238:ILE:CG1	18:L:257:LEU:HA	2.38	0.41
18:L:257:LEU:HD13	18:L:258:MET:N	2.35	0.41
18:L:322:LYS:CD	18:L:326:ILE:CD1	2.86	0.41
18:L:368:MET:O	18:L:369:LYS:C	2.58	0.41
20:N:523:SER:HA	20:N:559:ARG:CD	2.48	0.41
20:N:564:ASP:CA	20:N:567:ILE:HB	2.51	0.41
22:O:374:ILE:O	22:O:374:ILE:HG22	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:O:374:ILE:O	22:O:375:LEU:CG	2.68	0.41
23:P:190:MET:C	23:P:193:CYS:SG	2.94	0.41
24:Q:2:ALA:N	24:Q:33:ARG:CB	2.83	0.41
24:Q:76:PHE:HA	24:Q:80:ILE:H	1.86	0.41
25:R:349:LYS:HB3	26:S:417:ILE:CD1	2.50	0.41
26:S:217:VAL:O	26:S:218:TYR:O	2.38	0.41
26:S:220:PHE:O	26:S:221:LEU:C	2.58	0.41
26:S:307:ARG:HA	26:S:307:ARG:HD3	1.90	0.41
27:T:336:ALA:O	27:T:339:VAL:HB	2.21	0.41
28:U:15:VAL:HG11	28:U:50:VAL:HG12	2.03	0.41
28:U:43:TRP:CB	28:U:48:LEU:HD21	2.51	0.41
28:U:94:TRP:CZ3	28:U:121:LEU:CG	3.01	0.41
29:V:160:PHE:HA	29:V:203:ILE:HD12	2.02	0.41
30:W:39:SER:HA	30:W:42:ARG:HB2	2.03	0.41
32:Z:309:GLU:O	32:Z:313:GLU:CB	2.69	0.41
10:F:85:ALA:O	10:F:89:ILE:HG12	2.20	0.41
14:H:161:VAL:CB	14:H:263:MET:SD	3.00	0.41
15:I:105:THR:HA	15:I:106:PRO:HA	1.76	0.41
15:I:108:SER:HB3	15:I:154:HIS:ND1	2.36	0.41
18:L:153:LEU:H	18:L:153:LEU:HG	1.82	0.41
18:L:172:LEU:CD1	18:L:180:LYS:CA	2.98	0.41
19:M:268:VAL:O	19:M:272:PHE:N	2.42	0.41
20:N:504:ASP:HB3	20:N:541:HIS:HE1	1.85	0.41
20:N:801:GLN:HG2	20:N:880:ASN:N	2.36	0.41
22:O:346:ILE:O	22:O:349:MET:N	2.54	0.41
22:O:3:ASP:O	22:O:6:GLY:N	2.53	0.41
23:P:123:ARG:CG	23:P:124:LEU:N	2.84	0.41
23:P:209:ILE:CG2	23:P:226:TYR:HH	2.26	0.41
25:R:192:ARG:NH1	25:R:294:TYR:CD2	2.89	0.41
2:B:123:GLN:HG3	4:C:80:PRO:CB	2.50	0.41
14:H:200:ARG:O	14:H:202:VAL:N	2.54	0.41
15:I:188:GLY:O	15:I:364:ILE:CG1	2.68	0.41
15:I:394:ASP:HB3	15:I:427:LEU:HD21	2.01	0.41
16:J:100:ASP:N	16:J:123:LEU:HB2	2.35	0.41
16:J:180:ILE:HG13	16:J:180:ILE:O	2.20	0.41
17:K:212:LYS:HG2	17:K:333:PHE:CE2	2.55	0.41
16:J:43:ARG:CD	17:K:57:GLN:CB	2.99	0.41
17:K:90:GLY:C	17:K:130:VAL:HG23	2.38	0.41
18:L:265:ASP:HB3	18:L:266:GLY:H	1.69	0.41
19:M:212:PHE:CB	19:M:217:ILE:HD11	2.51	0.41
19:M:249:LEU:N	19:M:282:ILE:O	2.43	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:N:150:ALA:O	20:N:153:ILE:HB	2.20	0.41
20:N:162:VAL:O	20:N:164:GLU:N	2.54	0.41
23:P:247:TYR:HA	23:P:250:ILE:HG22	2.03	0.41
23:P:317:TRP:CH2	23:P:354:LEU:CD2	3.04	0.41
24:Q:239:TYR:O	24:Q:244:SER:CA	2.64	0.41
24:Q:277:LEU:C	24:Q:279:TYR:N	2.73	0.41
25:R:14:ASN:HB3	25:R:15:PRO:HA	2.02	0.41
25:R:192:ARG:HG2	25:R:192:ARG:NH1	2.35	0.41
26:S:217:VAL:O	26:S:218:TYR:C	2.59	0.41
26:S:472:PRO:C	26:S:476:PHE:CE2	2.94	0.41
27:T:312:PRO:O	27:T:313:ASN:HB3	2.21	0.41
29:V:240:HIS:C	29:V:244:VAL:HG23	2.38	0.41
29:V:96:LEU:HD22	29:V:100:LYS:HZ2	1.84	0.41
30:W:169:HIS:NE2	30:W:170:LEU:O	2.53	0.41
30:W:65:THR:O	30:W:66:PRO:CB	2.69	0.41
30:W:85:THR:O	30:W:89:GLY:N	2.29	0.41
2:B:109:ILE:HG12	2:B:110:PRO:O	2.20	0.41
14:H:286:ASP:CG	19:M:337:ILE:HG12	2.41	0.41
14:H:306:LEU:O	14:H:307:ASP:CB	2.69	0.41
14:H:60:ASN:O	14:H:64:GLY:N	2.31	0.41
15:I:197:ILE:CG2	15:I:198:LYS:H	2.33	0.41
15:I:266:LEU:HA	15:I:266:LEU:HD23	1.80	0.41
16:J:114:VAL:HG12	16:J:126:ILE:CG1	2.49	0.41
16:J:85:VAL:HG22	16:J:99:VAL:HG13	1.95	0.41
18:L:132:TYR:CE2	18:L:146:ARG:CZ	3.03	0.41
18:L:322:LYS:HZ2	18:L:326:ILE:CD1	2.34	0.41
19:M:253:GLY:HA3	19:M:290:ALA:HB3	2.01	0.41
19:M:347:ARG:CG	19:M:347:ARG:NH1	2.84	0.41
19:M:348:LEU:HD12	19:M:348:LEU:N	2.36	0.41
19:M:436:GLN:HG2	19:M:436:GLN:O	2.21	0.41
20:N:232:ILE:HA	20:N:235:LYS:HE3	2.03	0.41
20:N:368:ALA:HB2	20:N:728:PHE:CE2	2.56	0.41
20:N:372:ALA:HA	20:N:375:PHE:CD2	2.56	0.41
20:N:49:TYR:HA	20:N:57:ARG:HD2	2.03	0.41
20:N:56:SER:O	20:N:58:GLN:N	2.53	0.41
22:O:248:PHE:O	22:O:249:GLN:C	2.60	0.41
24:Q:204:PRO:O	24:Q:207:GLN:N	2.52	0.41
24:Q:271:VAL:CB	24:Q:288:LYS:HE2	2.48	0.41
24:Q:57:LEU:O	24:Q:60:THR:HA	2.21	0.41
25:R:349:LYS:HB3	26:S:417:ILE:HD12	2.01	0.41
30:W:64:LEU:CG	30:W:101:GLN:CG	2.98	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:W:142:ASN:HD21	30:W:148:VAL:N	2.19	0.41
21:X:49:VAL:HB	21:X:212:GLU:HB2	2.02	0.41
32:Z:196:MET:O	32:Z:199:ASN:N	2.54	0.41
32:Z:505:MET:HA	32:Z:515:ALA:HB1	2.03	0.41
32:Z:747:GLN:O	32:Z:750:GLN:CA	2.69	0.41
6:D:160:LYS:N	8:E:53:LEU:O	2.50	0.41
14:H:112:ILE:HG23	14:H:122:VAL:HG22	2.02	0.41
15:I:247:PHE:CD1	15:I:281:ILE:HB	2.56	0.41
15:I:247:PHE:CE2	16:J:283:PHE:CZ	3.08	0.41
15:I:247:PHE:HE1	15:I:281:ILE:HG21	1.84	0.41
16:J:151:ILE:HG22	16:J:154:LEU:HB2	2.03	0.41
16:J:168:PRO:O	16:J:172:PRO:HG3	2.21	0.41
17:K:154:LEU:C	17:K:155:THR:CG2	2.80	0.41
17:K:190:LEU:O	17:K:194:ILE:HG13	2.21	0.41
18:L:109:ARG:NH1	18:L:109:ARG:HB3	2.29	0.41
18:L:153:LEU:CD1	18:L:154:THR:HG23	2.41	0.41
18:L:251:ARG:HA	18:L:254:GLN:HG3	2.02	0.41
18:L:325:GLU:OE1	18:L:364:GLN:CB	2.68	0.41
18:L:126:ASP:OD2	19:M:320:PHE:CE2	2.74	0.41
20:N:11:LEU:HD11	27:T:120:LYS:CG	2.51	0.41
20:N:198:LEU:C	20:N:201:LEU:CG	2.86	0.41
20:N:604:HIS:O	20:N:607:VAL:HB	2.21	0.41
20:N:804:SER:HB2	20:N:893:THR:H	1.85	0.41
22:O:122:LYS:O	22:O:125:ILE:N	2.54	0.41
23:P:229:LEU:O	23:P:232:GLN:N	2.53	0.41
23:P:354:LEU:O	23:P:358:VAL:HG23	2.21	0.41
24:Q:159:LYS:HB3	24:Q:159:LYS:HE2	1.89	0.41
25:R:314:LEU:HD11	25:R:319:MET:HG3	2.03	0.41
25:R:30:GLU:CA	25:R:31:HIS:CG	2.95	0.41
26:S:319:HIS:CG	26:S:320:THR:N	2.88	0.41
26:S:417:ILE:O	26:S:457:TYR:HA	2.21	0.41
16:J:45:LEU:CD1	26:S:492:LYS:HA	2.51	0.41
23:P:444:HIS:CD2	28:U:155:PHE:O	2.74	0.41
29:V:217:LEU:O	29:V:220:LEU:CB	2.69	0.41
30:W:138:VAL:O	30:W:168:SER:HA	2.21	0.41
32:Z:198:HIS:C	32:Z:200:ALA:H	2.24	0.41
14:H:114:ASN:H	14:H:114:ASN:ND2	2.13	0.41
14:H:190:VAL:HG13	14:H:209:PRO:O	2.20	0.41
14:H:424:SER:O	14:H:425:ALA:HB3	2.21	0.41
15:I:171:VAL:CG1	15:I:277:HIS:NE2	2.84	0.41
15:I:379:THR:O	15:I:380:LEU:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:175:PHE:O	16:J:180:ILE:HG13	2.21	0.41
16:J:199:LEU:HD12	16:J:199:LEU:HA	1.89	0.41
16:J:326:LEU:CD1	16:J:345:ARG:CG	2.97	0.41
17:K:299:PHE:CD1	17:K:303:VAL:HG21	2.52	0.41
18:L:253:ILE:HG13	19:M:308:ARG:HH12	1.86	0.41
19:M:359:GLU:O	19:M:360:GLU:C	2.60	0.41
20:N:793:LYS:H	20:N:916:ASP:CB	2.33	0.41
22:O:184:ASP:C	22:O:186:LYS:H	2.23	0.41
22:O:346:ILE:O	22:O:349:MET:HB2	2.21	0.41
22:O:359:ASP:O	22:O:363:MET:HB2	2.21	0.41
23:P:315:MET:O	23:P:316:ARG:O	2.38	0.41
24:Q:134:VAL:HG22	24:Q:149:LEU:HG	2.02	0.41
24:Q:196:THR:HG23	24:Q:197:ALA:N	2.36	0.41
25:R:31:HIS:O	25:R:32:ARG:HB2	2.21	0.41
27:T:325:PRO:C	27:T:327:ASP:N	2.74	0.41
28:U:270:VAL:CG1	29:V:285:GLU:HG3	2.39	0.41
32:Z:784:ASP:CB	32:Z:894:LEU:CB	2.99	0.41
2:B:202:LEU:O	2:B:205:VAL:HG13	2.20	0.40
6:D:86:LEU:HD22	6:D:114:LEU:HD11	2.03	0.40
10:F:239:LYS:HB3	10:F:239:LYS:HE2	1.88	0.40
14:H:205:GLY:C	14:H:206:ILE:HG23	2.41	0.40
14:H:238:ILE:HG22	14:H:240:VAL:HG23	2.02	0.40
14:H:368:ILE:HG21	14:H:406:GLU:N	2.36	0.40
15:I:112:LEU:HD23	15:I:112:LEU:HA	1.79	0.40
15:I:135:ILE:HG12	15:I:136:LEU:O	2.22	0.40
15:I:326:LYS:HA	15:I:326:LYS:HD3	1.83	0.40
16:J:274:LEU:HG	16:J:305:LEU:HD12	2.01	0.40
16:J:326:LEU:HG	16:J:330:LYS:HE3	2.03	0.40
16:J:371:LEU:HD21	17:K:191:TYR:CZ	2.57	0.40
17:K:160:PRO:HB3	17:K:217:LYS:HA	2.02	0.40
17:K:291:GLU:OE2	17:K:295:GLN:NE2	2.54	0.40
17:K:336:PRO:HD2	17:K:371:SER:HA	2.03	0.40
18:L:101:ASP:HB3	18:L:105:LEU:N	2.35	0.40
18:L:147:GLU:HA	18:L:151:LEU:HD12	2.04	0.40
18:L:152:PRO:O	18:L:156:PRO:HB3	2.21	0.40
18:L:368:MET:O	18:L:371:VAL:N	2.54	0.40
18:L:58:GLY:N	18:L:74:THR:HG23	2.32	0.40
19:M:416:THR:O	19:M:420:TYR:HD2	2.04	0.40
19:M:437:TYR:CE1	19:M:438:TYR:CE1	3.08	0.40
20:N:42:VAL:O	20:N:46:GLU:HG2	2.21	0.40
20:N:472:ILE:C	20:N:474:ARG:N	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:N:634:PRO:HA	20:N:637:VAL:HG22	2.03	0.40
22:O:180:LEU:HD23	22:O:180:LEU:HA	1.84	0.40
23:P:120:ILE:O	23:P:123:ARG:CG	2.70	0.40
23:P:184:GLU:O	23:P:187:LEU:HB2	2.20	0.40
24:Q:82:LYS:CG	24:Q:120:GLU:OE2	2.64	0.40
24:Q:204:PRO:O	24:Q:205:LYS:C	2.60	0.40
24:Q:205:LYS:O	24:Q:208:ALA:HB3	2.20	0.40
25:R:210:SER:C	25:R:212:GLU:N	2.75	0.40
25:R:317:GLY:O	25:R:321:GLU:HB3	2.21	0.40
26:S:487:HIS:ND1	26:S:487:HIS:C	2.73	0.40
23:P:441:LYS:HA	28:U:157:HIS:NE2	2.36	0.40
28:U:253:THR:HG23	28:U:254:ASN:N	2.35	0.40
29:V:271:ALA:O	29:V:275:VAL:HB	2.21	0.40
4:C:149:ASP:HB2	4:C:150:PRO:HD2	2.03	0.40
4:C:79:GLY:O	4:C:82:TYR:HB3	2.20	0.40
8:E:6:ALA:CB	10:F:134:SER:HB2	2.51	0.40
12:G:121:GLN:O	21:X:128:VAL:CG1	2.64	0.40
14:H:102:ILE:HD13	14:H:120:LYS:HD3	2.00	0.40
14:H:355:PHE:HA	14:H:355:PHE:HD1	1.70	0.40
15:I:189:GLY:CA	15:I:360:THR:CB	2.95	0.40
16:J:33:LEU:CD2	17:K:47:LEU:CD1	2.99	0.40
16:J:80:MET:SD	16:J:86:LEU:HB2	2.62	0.40
17:K:287:ARG:H	17:K:287:ARG:HG3	1.62	0.40
17:K:289:LEU:O	17:K:293:LEU:N	2.40	0.40
17:K:40:LEU:O	17:K:44:TYR:N	2.55	0.40
18:L:141:GLN:HG2	18:L:299:ILE:CG2	2.52	0.40
18:L:241:ARG:HB2	18:L:284:THR:O	2.22	0.40
18:L:336:ASP:C	18:L:338:PHE:N	2.74	0.40
18:L:181:THR:CB	35:L:401:ADP:O2A	2.68	0.40
18:L:43:SER:CB	19:M:75:GLU:HG2	2.51	0.40
18:L:96:THR:HG22	18:L:98:VAL:HG13	2.03	0.40
19:M:139:LEU:O	19:M:140:VAL:HG22	2.22	0.40
20:N:405:THR:HG21	20:N:438:GLN:O	2.22	0.40
20:N:42:VAL:HA	20:N:45:ILE:HB	2.04	0.40
20:N:35:TRP:CH2	20:N:70:HIS:HB3	2.56	0.40
20:N:765:VAL:HG11	20:N:778:PHE:CD1	2.56	0.40
20:N:776:SER:O	20:N:779:LEU:N	2.36	0.40
22:O:287:ASN:HB2	28:U:239:ASP:CB	2.51	0.40
23:P:220:GLU:O	23:P:223:LYS:HG2	2.22	0.40
24:Q:339:ILE:HG21	24:Q:385:LEU:CD2	2.51	0.40
27:T:141:LEU:HD12	27:T:142:ILE:N	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:T:195:ASN:O	27:T:198:PHE:HB2	2.21	0.40
27:T:211:GLU:O	27:T:215:LEU:HG	2.22	0.40
28:U:120:VAL:HG12	28:U:121:LEU:N	2.37	0.40
29:V:71:ASP:CG	29:V:104:ARG:HH11	2.23	0.40
29:V:225:TRP:CE3	29:V:226:MET:N	2.85	0.40
2:B:32:ILE:HD13	2:B:137:CYS:HB2	2.03	0.40
12:G:215:VAL:HB	12:G:221:PHE:HD1	1.86	0.40
14:H:295:VAL:O	14:H:298:THR:HB	2.21	0.40
14:H:83:ASP:O	14:H:84:LYS:C	2.59	0.40
15:I:109:VAL:HG11	16:J:94:LYS:HE2	2.04	0.40
15:I:190:LEU:HA	15:I:190:LEU:HD23	1.92	0.40
15:I:207:HIS:HB3	15:I:210:TYR:CE1	2.57	0.40
15:I:287:ILE:CD1	15:I:288:ASP:N	2.84	0.40
16:J:235:PHE:CD1	16:J:276:LEU:CD2	3.00	0.40
17:K:269:ALA:HA	18:L:255:ARG:HD3	2.03	0.40
17:K:287:ARG:O	17:K:291:GLU:N	2.35	0.40
18:L:194:ASN:OD1	18:L:196:LEU:HD21	2.21	0.40
18:L:329:GLU:O	18:L:333:LYS:HB2	2.22	0.40
19:M:90:VAL:CG1	19:M:164:LEU:CD1	3.00	0.40
20:N:17:PRO:HB3	20:N:54:PHE:HD2	1.87	0.40
20:N:383:ASP:O	20:N:386:LEU:HB2	2.21	0.40
20:N:423:MET:HE3	20:N:445:ALA:C	2.40	0.40
20:N:616:ARG:HB2	20:N:647:HIS:HB3	2.03	0.40
20:N:660:CYS:O	20:N:694:ILE:HG23	2.21	0.40
22:O:142:LEU:HD22	22:O:155:PHE:CD2	2.56	0.40
24:Q:295:LYS:C	24:Q:297:ARG:H	2.24	0.40
25:R:205:VAL:HG11	25:R:245:GLU:HB2	2.03	0.40
25:R:28:LEU:HB2	25:R:31:HIS:CG	2.57	0.40
25:R:371:LYS:O	25:R:375:LEU:HD23	2.20	0.40
26:S:161:PRO:HA	26:S:164:GLU:HB2	2.03	0.40
26:S:432:GLU:HA	26:S:435:GLU:OE2	2.21	0.40
27:T:192:LEU:O	27:T:195:ASN:N	2.55	0.40
29:V:303:MET:O	29:V:307:VAL:HG22	2.21	0.40
29:V:48:GLY:O	29:V:49:VAL:O	2.39	0.40
30:W:7:MET:HA	30:W:50:GLY:N	2.32	0.40
32:Z:140:LEU:O	32:Z:143:ARG:N	2.52	0.40
32:Z:412:ALA:CA	32:Z:447:ALA:HB2	2.32	0.40
4:C:73:LEU:HD21	4:C:135:ILE:HG12	2.03	0.40
15:I:114:GLU:C	15:I:115:ILE:CG1	2.89	0.40
15:I:288:ASP:C	15:I:292:THR:HG22	2.41	0.40
15:I:369:THR:OG1	15:I:380:LEU:HD21	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:J:30:GLU:C	16:J:34:ILE:HD11	2.42	0.40
16:J:71:SER:O	17:K:111:TYR:CD1	2.74	0.40
15:I:164:MET:HE3	16:J:78:ARG:HH22	1.86	0.40
17:K:395:LEU:HD23	17:K:395:LEU:HA	1.87	0.40
18:L:172:LEU:HD13	18:L:180:LYS:HG2	2.03	0.40
18:L:57:VAL:HG12	18:L:58:GLY:N	2.35	0.40
18:L:59:GLU:HA	18:L:97:ARG:HA	2.02	0.40
19:M:206:MET:C	19:M:206:MET:SD	2.99	0.40
19:M:398:ALA:HB3	19:M:427:VAL:CG1	2.51	0.40
19:M:74:LYS:C	19:M:77:SER:HG	2.25	0.40
20:N:119:PRO:C	20:N:120:GLU:CG	2.88	0.40
20:N:44:LYS:O	20:N:48:LEU:N	2.46	0.40
20:N:462:LEU:HA	20:N:465:LEU:HB2	2.02	0.40
20:N:592:GLY:HA2	20:N:628:ARG:HG3	2.03	0.40
20:N:672:LEU:O	20:N:676:THR:HG23	2.21	0.40
20:N:486:MET:SD	20:N:761:VAL:HG21	2.61	0.40
23:P:317:TRP:CZ3	23:P:320:LEU:CG	3.02	0.40
23:P:373:ILE:HG13	23:P:374:THR:N	2.35	0.40
24:Q:345:VAL:HG13	24:Q:350:ILE:HD11	2.03	0.40
24:Q:418:ALA:CB	25:R:387:ILE:CD1	2.99	0.40
25:R:114:ILE:HG22	25:R:114:ILE:O	2.22	0.40
25:R:163:LYS:O	25:R:166:SER:OG	2.27	0.40
28:U:230:LEU:O	28:U:233:VAL:HB	2.22	0.40
29:V:207:TYR:CE2	29:V:209:LYS:HD2	2.55	0.40
29:V:248:MET:CE	29:V:284:LEU:HA	2.49	0.40
29:V:299:CYS:O	29:V:303:MET:HG2	2.20	0.40
30:W:62:THR:C	30:W:63:THR:HG23	2.41	0.40
32:Z:117:GLU:O	32:Z:120:ARG:N	2.39	0.40
32:Z:661:ALA:C	32:Z:662:MET:O	2.51	0.40
2:B:143:ILE:HG12	2:B:220:VAL:HG22	2.03	0.40
12:G:26:MET:SD	12:G:148:CYS:HB3	2.62	0.40
14:H:159:PRO:O	14:H:163:MET:HG2	2.21	0.40
14:H:165:GLN:O	14:H:166:VAL:HG13	2.21	0.40
14:H:226:ALA:HB1	15:I:319:PHE:CE1	2.56	0.40
14:H:384:GLU:C	14:H:386:ARG:N	2.74	0.40
15:I:108:SER:HB3	15:I:154:HIS:CE1	2.56	0.40
15:I:259:TYR:OH	17:K:276:ASP:HB2	2.21	0.40
16:J:157:GLN:O	16:J:158:ILE:C	2.60	0.40
16:J:189:TYR:CG	16:J:189:TYR:O	2.74	0.40
16:J:300:ILE:CG1	16:J:301:LEU:N	2.82	0.40
16:J:373:GLU:HB3	16:J:375:ARG:CD	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:K:190:LEU:O	17:K:194:ILE:CB	2.69	0.40
17:K:289:LEU:HA	17:K:289:LEU:HD23	1.90	0.40
16:J:26:SER:H	17:K:40:LEU:HD13	1.86	0.40
18:L:166:PRO:HB2	18:L:274:LYS:HZ1	1.79	0.40
19:M:196:GLN:O	19:M:200:GLU:N	2.40	0.40
19:M:207:ASN:O	19:M:208:HIS:CG	2.74	0.40
20:N:352:ILE:O	20:N:356:THR:N	2.54	0.40
20:N:366:HIS:CE1	20:N:392:TRP:CE2	3.10	0.40
20:N:424:ALA:HA	20:N:427:LEU:HD12	2.03	0.40
20:N:429:LYS:C	20:N:431:THR:H	2.25	0.40
20:N:748:LEU:HB2	20:N:759:SER:CB	2.51	0.40
20:N:79:ASN:HA	20:N:82:LEU:HD12	2.03	0.40
22:O:6:GLY:O	22:O:9:GLN:N	2.54	0.40
24:Q:225:TRP:HD1	24:Q:257:CYS:HA	1.83	0.40
25:R:186:LEU:HD11	25:R:287:LEU:CD1	2.50	0.40
25:R:208:PHE:O	25:R:208:PHE:CG	2.74	0.40
25:R:280:GLN:OE1	25:R:280:GLN:HA	2.19	0.40
25:R:362:LYS:HE2	25:R:362:LYS:N	2.36	0.40
27:T:183:PRO:O	27:T:183:PRO:CG	2.70	0.40
28:U:188:SER:O	28:U:192:THR:OG1	2.35	0.40
32:Z:192:VAL:O	32:Z:196:MET:N	2.53	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

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

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	a	200/239 (84%)	195 (98%)	4 (2%)	1 (0%)	34	77
1	o	200/239 (84%)	195 (98%)	4 (2%)	1 (0%)	34	77
2	B	242/246 (98%)	228 (94%)	9 (4%)	5 (2%)	9	52
2	h	242/246 (98%)	230 (95%)	12 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	b	218/277 (79%)	210 (96%)	7 (3%)	1 (0%)	34	77
3	p	218/277 (79%)	207 (95%)	9 (4%)	2 (1%)	21	67
4	C	231/234 (99%)	204 (88%)	24 (10%)	3 (1%)	15	60
4	i	229/234 (98%)	202 (88%)	24 (10%)	3 (1%)	15	60
5	c	202/205 (98%)	189 (94%)	11 (5%)	2 (1%)	19	65
5	q	202/205 (98%)	188 (93%)	11 (5%)	3 (2%)	13	58
6	D	248/261 (95%)	236 (95%)	11 (4%)	1 (0%)	39	80
6	j	248/261 (95%)	233 (94%)	12 (5%)	3 (1%)	16	62
7	d	197/201 (98%)	186 (94%)	10 (5%)	1 (0%)	34	77
7	r	197/201 (98%)	186 (94%)	9 (5%)	2 (1%)	19	65
8	E	241/248 (97%)	223 (92%)	12 (5%)	6 (2%)	7	48
8	k	241/248 (97%)	224 (93%)	11 (5%)	6 (2%)	7	48
9	e	199/263 (76%)	195 (98%)	4 (2%)	0	100	100
9	s	199/263 (76%)	191 (96%)	8 (4%)	0	100	100
10	F	232/241 (96%)	216 (93%)	14 (6%)	2 (1%)	21	67
10	l	232/241 (96%)	215 (93%)	15 (6%)	2 (1%)	21	67
11	f	211/241 (88%)	205 (97%)	6 (3%)	0	100	100
11	t	211/241 (88%)	202 (96%)	9 (4%)	0	100	100
12	G	236/263 (90%)	223 (94%)	10 (4%)	3 (1%)	15	60
12	m	236/263 (90%)	222 (94%)	10 (4%)	4 (2%)	11	56
13	g	214/264 (81%)	203 (95%)	10 (5%)	1 (0%)	34	77
13	u	215/264 (81%)	205 (95%)	9 (4%)	1 (0%)	34	77
14	H	376/433 (87%)	254 (68%)	81 (22%)	41 (11%)	0	11
15	I	355/440 (81%)	264 (74%)	63 (18%)	28 (8%)	1	19
16	J	354/406 (87%)	253 (72%)	68 (19%)	33 (9%)	1	16
17	K	378/418 (90%)	260 (69%)	73 (19%)	45 (12%)	0	9
18	L	373/389 (96%)	268 (72%)	69 (18%)	36 (10%)	1	14
19	M	372/439 (85%)	257 (69%)	72 (19%)	43 (12%)	0	9
20	N	815/953 (86%)	610 (75%)	176 (22%)	29 (4%)	4	40
21	X	241/255 (94%)	233 (97%)	5 (2%)	3 (1%)	16	62
21	n	241/255 (94%)	232 (96%)	7 (3%)	2 (1%)	24	70

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
22	O	368/376 (98%)	292 (79%)	55 (15%)	21 (6%)	2	28
23	P	401/456 (88%)	333 (83%)	55 (14%)	13 (3%)	5	43
24	Q	419/422 (99%)	324 (77%)	67 (16%)	28 (7%)	1	24
25	R	374/389 (96%)	292 (78%)	60 (16%)	22 (6%)	2	27
26	S	389/534 (73%)	332 (85%)	42 (11%)	15 (4%)	4	37
27	T	254/350 (73%)	191 (75%)	44 (17%)	19 (8%)	1	21
28	U	279/324 (86%)	224 (80%)	42 (15%)	13 (5%)	3	32
29	V	253/310 (82%)	210 (83%)	32 (13%)	11 (4%)	3	35
30	W	191/377 (51%)	143 (75%)	38 (20%)	10 (5%)	2	30
31	Y	55/70 (79%)	36 (66%)	12 (22%)	7 (13%)	0	8
32	Z	722/908 (80%)	560 (78%)	113 (16%)	49 (7%)	1	24
33	x	349/494 (71%)	245 (70%)	62 (18%)	42 (12%)	0	9
34	y	74/76 (97%)	71 (96%)	3 (4%)	0	100	100
All	All	13374/15440 (87%)	11297 (84%)	1514 (11%)	563 (4%)	6	35

All (563) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
10	F	120	ALA
12	G	238	GLU
14	H	95	VAL
14	H	108	ASP
14	H	109	PRO
14	H	115	VAL
14	H	116	LYS
14	H	133	ASP
14	H	154	PRO
14	H	167	GLU
14	H	234	ASP
14	H	285	PHE
14	H	307	ASP
14	H	346	PRO
14	H	424	SER
15	I	207	HIS
15	I	220	LYS
15	I	277	HIS
15	I	278	ALA

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Mol	Chain	Res	Type
15	I	292	THR
15	I	300	GLY
15	I	321	SER
15	I	356	PRO
15	I	357	ASP
15	I	380	LEU
15	I	416	ASN
4	i	40	ALA
16	J	84	LYS
16	J	89	VAL
16	J	90	HIS
16	J	92	GLU
16	J	131	VAL
16	J	133	PRO
16	J	149	GLU
16	J	150	MET
16	J	151	ILE
16	J	152	GLY
16	J	229	ARG
16	J	284	GLU
16	J	288	ASN
16	J	310	ARG
16	J	352	PRO
17	K	85	ILE
17	K	97	ASP
17	K	119	ILE
17	K	120	ASP
17	K	122	GLU
17	K	125	LYS
17	K	126	PRO
17	K	149	SER
17	K	152	MET
17	K	155	THR
17	K	162	VAL
17	K	223	THR
17	K	258	ALA
17	K	273	LYS
17	K	274	ARG
17	K	278	GLN
17	K	300	ASP
17	K	303	VAL
17	K	336	PRO

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Mol	Chain	Res	Type
17	K	360	LEU
17	K	367	PRO
17	K	391	ARG
17	K	409	LYS
17	K	411	GLU
8	k	50	VAL
18	L	85	ARG
18	L	88	ASP
18	L	109	ARG
18	L	114	GLU
18	L	116	ASP
18	L	127	PRO
18	L	139	SER
18	L	206	LYS
18	L	237	ALA
18	L	247	THR
18	L	324	GLY
18	L	358	ASP
19	M	137	ILE
19	M	140	VAL
19	M	184	GLN
19	M	218	GLN
19	M	244	THR
19	M	261	ILE
19	M	345	SER
19	M	378	ASP
19	M	379	VAL
19	M	413	THR
19	M	433	ALA
20	N	164	GLU
20	N	170	SER
20	N	701	ILE
20	N	752	THR
20	N	792	ASN
20	N	793	LYS
20	N	881	PRO
20	N	905	PRO
20	N	933	PRO
22	O	104	VAL
22	O	109	GLU
22	O	146	PRO
22	O	284	ARG

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Mol	Chain	Res	Type
22	O	285	PRO
22	O	369	HIS
22	O	371	ALA
23	P	169	LEU
23	P	300	PRO
23	P	409	LEU
24	Q	121	LYS
24	Q	141	LYS
24	Q	201	TYR
24	Q	204	PRO
24	Q	277	LEU
24	Q	280	ALA
24	Q	391	PRO
24	Q	393	VAL
5	q	156	PRO
25	R	28	LEU
25	R	31	HIS
25	R	34	ASP
25	R	37	VAL
25	R	131	THR
25	R	254	PRO
25	R	268	TYR
25	R	269	SER
25	R	289	ALA
26	S	180	ARG
26	S	218	TYR
26	S	279	GLN
26	S	321	ALA
26	S	346	LEU
26	S	351	PRO
26	S	464	ILE
26	S	466	ILE
27	T	129	LEU
27	T	216	PRO
27	T	312	PRO
27	T	319	ALA
27	T	323	GLN
27	T	325	PRO
28	U	117	PRO
28	U	128	PRO
28	U	186	THR
28	U	222	ILE

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Mol	Chain	Res	Type
28	U	224	HIS
28	U	240	VAL
28	U	241	SER
29	V	52	GLU
29	V	226	MET
30	W	62	THR
30	W	65	THR
30	W	66	PRO
30	W	67	ASP
30	W	78	VAL
21	X	207	LYS
31	Y	38	VAL
31	Y	40	GLU
31	Y	45	ASP
31	Y	48	VAL
32	Z	203	GLU
32	Z	228	LYS
32	Z	256	PHE
32	Z	257	ARG
32	Z	258	LYS
32	Z	272	LEU
32	Z	273	ASN
32	Z	324	VAL
32	Z	404	ASP
32	Z	457	ASN
32	Z	662	MET
32	Z	666	ILE
32	Z	701	ASN
32	Z	705	ASN
32	Z	810	ILE
32	Z	815	HIS
32	Z	837	LEU
32	Z	892	PRO
33	x	146	ALA
33	x	167	SER
33	x	168	SER
33	x	173	ILE
33	x	181	ALA
33	x	190	GLU
33	x	259	SER
33	x	260	GLU
33	x	261	GLU

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Mol	Chain	Res	Type
33	x	291	LEU
33	x	337	SER
33	x	376	LEU
33	x	409	ILE
33	x	443	GLN
33	x	449	PHE
33	x	451	ASP
33	x	481	PRO
3	b	188	PRO
4	C	40	ALA
4	C	198	PHE
5	c	117	PHE
5	c	156	PRO
8	E	46	GLU
8	E	50	VAL
8	E	101	PRO
13	g	46	ASN
14	H	93	LEU
14	H	110	LYS
14	H	134	ILE
14	H	197	HIS
14	H	205	GLY
14	H	206	ILE
14	H	292	ASP
14	H	378	PRO
14	H	399	ALA
14	H	417	ILE
15	I	103	ARG
15	I	106	PRO
15	I	119	ASN
15	I	191	ASP
15	I	296	ASP
15	I	297	SER
15	I	301	GLY
15	I	427	LEU
16	J	37	ASP
16	J	78	ARG
16	J	148	TYR
16	J	287	LYS
6	j	131	GLY
17	K	121	ARG
17	K	151	ILE

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Mol	Chain	Res	Type
17	K	156	SER
17	K	304	ASN
17	K	320	ALA
17	K	393	ILE
17	K	410	ASP
17	K	412	GLN
8	k	101	PRO
18	L	192	ASP
18	L	193	CYS
18	L	208	ILE
18	L	241	ARG
18	L	244	SER
18	L	266	GLY
18	L	337	GLY
18	L	357	ALA
10	l	120	ALA
10	l	187	LYS
19	M	85	THR
19	M	165	PRO
19	M	168	TYR
19	M	216	GLY
19	M	280	PRO
19	M	300	LYS
19	M	372	LYS
19	M	409	ARG
12	m	197	GLU
12	m	238	GLU
20	N	120	GLU
20	N	174	PRO
20	N	175	GLY
20	N	427	LEU
20	N	776	SER
20	N	908	ILE
21	n	207	LYS
22	O	107	SER
22	O	148	VAL
22	O	150	SER
22	O	258	GLN
22	O	260	ASP
22	O	287	ASN
23	P	79	GLU
23	P	316	ARG

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Mol	Chain	Res	Type
23	P	342	GLY
24	Q	6	VAL
24	Q	37	GLU
24	Q	38	ASN
24	Q	123	THR
24	Q	203	PRO
24	Q	221	GLU
24	Q	242	ILE
24	Q	392	PRO
5	q	117	PHE
25	R	32	ARG
25	R	133	ALA
26	S	179	LYS
26	S	182	LYS
26	S	319	HIS
27	T	179	LYS
27	T	318	PHE
27	T	324	LYS
28	U	99	PRO
28	U	101	LEU
28	U	218	GLY
29	V	49	VAL
29	V	53	VAL
29	V	104	ARG
29	V	153	GLY
29	V	263	ASP
21	X	4	GLY
31	Y	46	ASP
32	Z	333	LEU
32	Z	365	VAL
32	Z	455	VAL
32	Z	514	VAL
32	Z	599	ALA
32	Z	600	TYR
33	x	102	LEU
33	x	142	SER
33	x	184	GLN
33	x	186	ALA
33	x	304	LEU
33	x	327	MET
33	x	335	LYS
33	x	356	GLU

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Mol	Chain	Res	Type
33	x	402	PRO
33	x	429	SER
33	x	431	SER
33	x	444	ASP
2	B	210	PHE
8	E	201	SER
8	E	243	LYS
10	F	187	LYS
12	G	226	ASP
12	G	235	GLY
14	H	94	GLN
14	H	103	ASN
14	H	209	PRO
14	H	235	ALA
14	H	309	PHE
14	H	310	ASP
14	H	347	ASP
15	I	167	THR
15	I	172	THR
15	I	182	GLU
16	J	27	LYS
16	J	283	PHE
16	J	304	ALA
16	J	308	PRO
17	K	207	PRO
17	K	390	ASN
17	K	392	TYR
8	k	46	GLU
8	k	201	SER
8	k	202	GLY
18	L	138	LEU
18	L	157	GLU
18	L	194	ASN
18	L	254	GLN
18	L	339	ASN
18	L	366	ASP
19	M	122	ALA
19	M	180	ARG
19	M	217	ILE
19	M	222	GLY
19	M	287	GLU
19	M	344	ARG

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Mol	Chain	Res	Type
19	M	371	ARG
19	M	377	PRO
19	M	410	ARG
19	M	411	GLY
19	M	415	LEU
19	M	432	LYS
12	m	235	GLY
20	N	119	PRO
20	N	163	PHE
20	N	771	PHE
20	N	884	VAL
20	N	907	SER
22	O	259	PRO
23	P	56	THR
23	P	76	GLU
23	P	345	GLU
24	Q	17	SER
24	Q	81	SER
24	Q	202	CYS
24	Q	245	PRO
25	R	30	GLU
25	R	49	ASN
25	R	51	ALA
25	R	65	ILE
25	R	156	LEU
26	S	354	LYS
27	T	237	MET
27	T	238	GLU
27	T	326	GLU
28	U	185	GLY
29	V	150	SER
30	W	77	THR
31	Y	18	GLU
31	Y	39	TRP
32	Z	227	ALA
32	Z	397	LYS
32	Z	420	TRP
32	Z	458	GLU
32	Z	472	HIS
32	Z	598	CYS
32	Z	738	ASN
32	Z	739	ALA

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Mol	Chain	Res	Type
32	Z	811	LEU
33	x	144	GLU
33	x	187	GLU
33	x	240	SER
33	x	280	GLN
33	x	463	LEU
2	B	207	SER
4	C	232	ILE
6	D	206	LEU
14	H	85	GLN
14	H	139	ARG
14	H	286	ASP
15	I	217	LYS
15	I	299	SER
15	I	320	ASP
15	I	428	TYR
4	i	202	MET
16	J	25	LEU
16	J	69	GLN
16	J	132	ASP
16	J	228	ALA
16	J	297	ARG
6	j	204	SER
17	K	161	ASP
17	K	208	PRO
17	K	266	GLU
17	K	328	ASP
17	K	368	ASP
17	K	417	TYR
18	L	360	ASP
19	M	77	SER
19	M	321	GLN
19	M	347	ARG
19	M	373	MET
19	M	392	ASN
20	N	470	ASN
20	N	912	ILE
20	N	927	PRO
22	O	108	ASP
22	O	288	HIS
23	P	385	SER
23	P	418	PRO

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Mol	Chain	Res	Type
3	p	187	ARG
24	Q	60	THR
24	Q	225	TRP
24	Q	344	ARG
25	R	53	TYR
25	R	152	MET
25	R	153	ASP
26	S	300	LEU
26	S	350	GLN
27	T	136	LEU
27	T	178	TYR
27	T	239	GLY
28	U	179	ILE
13	u	46	ASN
29	V	292	MET
30	W	22	LEU
30	W	164	ASP
32	Z	202	HIS
32	Z	262	PHE
32	Z	331	LEU
32	Z	475	ASN
32	Z	597	VAL
32	Z	716	ASP
32	Z	783	SER
32	Z	842	VAL
33	x	285	LEU
33	x	303	THR
33	x	306	ARG
2	B	189	TRP
7	d	197	PRO
8	E	200	GLN
14	H	96	ALA
14	H	144	ARG
14	H	158	ASP
14	H	192	GLU
15	I	169	PRO
4	i	53	SER
16	J	243	PRO
16	J	285	ALA
16	J	312	ASP
6	j	206	LEU
17	K	257	ASN

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Mol	Chain	Res	Type
8	k	243	LYS
18	L	112	PRO
18	L	152	PRO
18	L	234	GLU
18	L	319	PRO
19	M	186	SER
19	M	376	SER
20	N	904	LYS
20	N	928	VAL
21	n	216	VAL
22	O	186	LYS
23	P	421	PRO
24	Q	244	SER
25	R	255	ALA
7	r	198	LYS
27	T	219	ASP
27	T	299	MET
28	U	119	SER
32	Z	114	ALA
32	Z	602	GLY
33	x	103	PRO
33	x	117	ALA
2	B	188	ASP
14	H	166	VAL
15	I	287	ILE
16	J	216	GLY
17	K	86	PRO
17	K	197	ASP
17	K	407	ILE
18	L	115	VAL
18	L	126	ASP
18	L	292	PRO
19	M	188	ILE
19	M	296	PHE
12	m	53	GLN
20	N	84	ALA
22	O	26	GLU
22	O	263	ALA
23	P	171	VAL
3	p	188	PRO
24	Q	340	GLU
5	q	17	LYS

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Mol	Chain	Res	Type
25	R	192	ARG
25	R	253	LEU
7	r	197	PRO
30	W	177	PRO
32	Z	263	PRO
32	Z	380	PHE
32	Z	559	PRO
33	x	194	TYR
33	x	471	TRP
14	H	172	VAL
14	H	198	PRO
14	H	333	ARG
19	M	148	GLY
19	M	335	VAL
26	S	70	VAL
27	T	330	ILE
29	V	79	GLY
32	Z	604	GLY
18	L	130	VAL
24	Q	341	PRO
24	Q	361	VAL
27	T	230	VAL
30	W	117	VAL
2	B	208	ILE
19	M	181	PRO
20	N	913	ILE
22	O	185	ILE
1	o	30	VAL
16	J	320	PRO
18	L	240	GLY
20	N	507	VAL
22	O	18	GLN
24	Q	50	ILE
21	X	216	VAL
32	Z	702	PRO
32	Z	872	VAL
33	x	346	VAL
1	a	30	VAL
20	N	124	LYS
29	V	267	PRO

### 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	155/181 (86%)	148 (96%)	7 (4%)	34	70
1	o	155/181 (86%)	148 (96%)	7 (4%)	34	70
2	B	193/210 (92%)	182 (94%)	11 (6%)	25	65
2	h	195/210 (93%)	183 (94%)	12 (6%)	23	62
3	b	177/228 (78%)	170 (96%)	7 (4%)	38	73
3	p	177/228 (78%)	168 (95%)	9 (5%)	29	67
4	C	163/191 (85%)	155 (95%)	8 (5%)	31	68
4	i	177/191 (93%)	163 (92%)	14 (8%)	15	53
5	c	172/174 (99%)	163 (95%)	9 (5%)	29	67
5	q	172/174 (99%)	163 (95%)	9 (5%)	29	67
6	D	193/221 (87%)	182 (94%)	11 (6%)	25	65
6	j	193/221 (87%)	183 (95%)	10 (5%)	29	67
7	d	164/171 (96%)	156 (95%)	8 (5%)	31	68
7	r	164/171 (96%)	157 (96%)	7 (4%)	35	71
8	E	152/211 (72%)	142 (93%)	10 (7%)	21	60
8	k	142/211 (67%)	134 (94%)	8 (6%)	26	65
9	e	153/202 (76%)	149 (97%)	4 (3%)	54	81
9	s	154/202 (76%)	148 (96%)	6 (4%)	39	73
10	F	190/203 (94%)	185 (97%)	5 (3%)	54	81
10	l	191/203 (94%)	185 (97%)	6 (3%)	47	78
11	f	174/199 (87%)	166 (95%)	8 (5%)	33	70
11	t	175/199 (88%)	168 (96%)	7 (4%)	38	73
12	G	198/224 (88%)	191 (96%)	7 (4%)	43	76
12	m	198/224 (88%)	183 (92%)	15 (8%)	16	55
13	g	175/215 (81%)	166 (95%)	9 (5%)	29	67
13	u	175/215 (81%)	164 (94%)	11 (6%)	22	61

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
14	H	292/372 (78%)	238 (82%)	54 (18%)	2	15
15	I	291/385 (76%)	231 (79%)	60 (21%)	1	11
16	J	310/352 (88%)	246 (79%)	64 (21%)	1	11
17	K	333/366 (91%)	268 (80%)	65 (20%)	2	14
18	L	298/341 (87%)	239 (80%)	59 (20%)	1	13
19	M	296/379 (78%)	240 (81%)	56 (19%)	2	14
20	N	377/816 (46%)	345 (92%)	32 (8%)	13	50
21	X	193/212 (91%)	186 (96%)	7 (4%)	42	75
21	n	193/212 (91%)	184 (95%)	9 (5%)	32	69
22	O	144/336 (43%)	119 (83%)	25 (17%)	2	18
23	P	202/416 (49%)	182 (90%)	20 (10%)	10	42
24	Q	249/362 (69%)	207 (83%)	42 (17%)	2	20
25	R	226/344 (66%)	196 (87%)	30 (13%)	5	30
26	S	163/460 (35%)	153 (94%)	10 (6%)	23	62
27	T	109/294 (37%)	92 (84%)	17 (16%)	3	23
28	U	212/295 (72%)	184 (87%)	28 (13%)	5	30
29	V	219/268 (82%)	188 (86%)	31 (14%)	4	28
30	W	109/312 (35%)	102 (94%)	7 (6%)	22	61
31	Y	4/63 (6%)	4 (100%)	0	100	100
33	x	305/439 (70%)	254 (83%)	51 (17%)	3	20
34	y	68/68 (100%)	64 (94%)	4 (6%)	24	63
All	All	9120/12352 (74%)	8224 (90%)	896 (10%)	14	42

All (896) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	a	22	THR
1	a	46	SER
1	a	86	MET
1	a	89	ARG
1	a	139	VAL
1	a	150	GLU
1	a	153	LEU
2	B	73	THR
2	B	78	CYS

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Mol	Chain	Res	Type
2	B	102	LYS
2	B	114	LEU
2	B	131	MET
2	B	132	ARG
2	B	166	THR
2	B	209	ASP
2	B	221	THR
2	B	231	THR
2	B	234	GLU
3	b	56	THR
3	b	77	VAL
3	b	86	MET
3	b	187	ARG
3	b	198	ARG
3	b	201	ARG
3	b	215	LYS
4	C	2	GLU
4	C	58	GLU
4	C	74	VAL
4	C	87	HIS
4	C	132	SER
4	C	167	VAL
4	C	178	ASN
4	C	189	THR
5	c	34	MET
5	c	36	THR
5	c	49	LEU
5	c	115	LYS
5	c	126	LEU
5	c	175	VAL
5	c	189	ILE
5	c	191	GLU
5	c	193	ASP
6	D	11	ILE
6	D	44	LEU
6	D	70	GLU
6	D	76	VAL
6	D	100	GLN
6	D	164	ILE
6	D	180	LYS
6	D	192	LEU
6	D	197	LEU

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Mol	Chain	Res	Type
6	D	218	ARG
6	D	220	ASN
7	d	18	ASP
7	d	27	GLN
7	d	45	LEU
7	d	47	VAL
7	d	84	THR
7	d	85	ARG
7	d	102	LEU
7	d	171	PHE
8	E	15	HIS
8	E	38	ARG
8	E	41	VAL
8	E	43	LEU
8	E	56	GLU
8	E	99	GLU
8	E	103	THR
8	E	139	ASP
8	E	146	GLN
8	E	184	ASP
9	e	8	PHE
9	e	10	HIS
9	e	115	ASP
9	e	138	VAL
10	F	36	THR
10	F	129	ASP
10	F	135	ARG
10	F	148	GLU
10	F	222	PRO
11	f	65	THR
11	f	66	LYS
11	f	76	LYS
11	f	99	ARG
11	f	102	PHE
11	f	125	ASP
11	f	160	ASN
11	f	174	LEU
12	G	38	LEU
12	G	83	LEU
12	G	101	ARG
12	G	202	GLU
12	G	225	ASP

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Mol	Chain	Res	Type
12	G	226	ASP
12	G	239	ARG
13	g	49	THR
13	g	86	ARG
13	g	94	ARG
13	g	99	ARG
13	g	141	TYR
13	g	168	LEU
13	g	192	VAL
13	g	194	GLU
13	g	205	THR
14	H	94	GLN
14	H	103	ASN
14	H	110	LYS
14	H	114	ASN
14	H	148	GLN
14	H	150	HIS
14	H	153	LEU
14	H	158	ASP
14	H	164	MET
14	H	166	VAL
14	H	180	CYS
14	H	183	GLN
14	H	187	LEU
14	H	188	ARG
14	H	199	GLU
14	H	200	ARG
14	H	204	LEU
14	H	213	LEU
14	H	217	PRO
14	H	220	THR
14	H	234	ASP
14	H	247	GLN
14	H	265	ARG
14	H	276	GLU
14	H	277	ILE
14	H	278	ASP
14	H	284	ARG
14	H	285	PHE
14	H	287	ASP
14	H	294	GLU
14	H	299	MET

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Mol	Chain	Res	Type
14	H	307	ASP
14	H	312	ARG
14	H	315	ILE
14	H	322	ASN
14	H	327	LEU
14	H	332	MET
14	H	334	PRO
14	H	338	ASP
14	H	340	LYS
14	H	342	GLU
14	H	345	LEU
14	H	353	HIS
14	H	355	PHE
14	H	358	HIS
14	H	369	ARG
14	H	377	CYS
14	H	389	CYS
14	H	400	ARG
14	H	403	ILE
14	H	415	LYS
14	H	419	SER
14	H	422	LYS
14	H	431	THR
2	h	59	LYS
2	h	73	THR
2	h	78	CYS
2	h	114	LEU
2	h	132	ARG
2	h	159	TYR
2	h	166	THR
2	h	205	VAL
2	h	209	ASP
2	h	221	THR
2	h	231	THR
2	h	234	GLU
15	I	103	ARG
15	I	105	THR
15	I	113	GLU
15	I	117	ASP
15	I	118	ASP
15	I	120	HIS
15	I	125	THR

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Mol	Chain	Res	Type
15	I	126	SER
15	I	129	SER
15	I	156	VAL
15	I	162	VAL
15	I	164	MET
15	I	178	LYS
15	I	182	GLU
15	I	183	THR
15	I	193	GLN
15	I	195	GLN
15	I	207	HIS
15	I	210	TYR
15	I	220	LYS
15	I	235	LEU
15	I	237	LYS
15	I	242	GLN
15	I	255	LEU
15	I	257	GLN
15	I	258	LYS
15	I	259	TYR
15	I	260	LEU
15	I	262	ASP
15	I	272	ARG
15	I	286	GLU
15	I	287	ILE
15	I	294	ARG
15	I	299	SER
15	I	302	GLU
15	I	303	ARG
15	I	309	MET
15	I	312	LEU
15	I	313	LEU
15	I	315	GLN
15	I	319	PHE
15	I	322	ARG
15	I	324	ASP
15	I	329	MET
15	I	333	ARG
15	I	337	LEU
15	I	339	PRO
15	I	343	ARG
15	I	346	ARG

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Mol	Chain	Res	Type
15	I	348	ASP
15	I	350	LYS
15	I	365	PHE
15	I	366	GLN
15	I	373	THR
15	I	385	MET
15	I	388	ASP
15	I	399	CYS
15	I	408	ARG
15	I	410	ARG
15	I	420	LYS
4	i	51	GLN
4	i	52	LYS
4	i	74	VAL
4	i	87	HIS
4	i	91	LYS
4	i	132	SER
4	i	178	ASN
4	i	182	GLU
4	i	183	LEU
4	i	192	LEU
4	i	195	LYS
4	i	198	PHE
4	i	199	GLU
4	i	201	GLN
16	J	25	LEU
16	J	30	GLU
16	J	33	LEU
16	J	38	LYS
16	J	39	SER
16	J	44	ARG
16	J	49	ARG
16	J	51	GLU
16	J	57	ARG
16	J	58	LEU
16	J	60	ARG
16	J	61	GLU
16	J	62	GLU
16	J	69	GLN
16	J	78	ARG
16	J	80	MET
16	J	82	LYS

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Mol	Chain	Res	Type
16	J	84	LYS
16	J	85	VAL
16	J	111	ASN
16	J	113	ARG
16	J	118	ASN
16	J	130	LYS
16	J	139	MET
16	J	142	LYS
16	J	143	VAL
16	J	147	THR
16	J	149	GLU
16	J	155	ASP
16	J	157	GLN
16	J	174	LEU
16	J	178	LEU
16	J	184	LYS
16	J	198	LEU
16	J	199	LEU
16	J	201	ARG
16	J	207	THR
16	J	210	THR
16	J	226	GLU
16	J	229	ARG
16	J	230	MET
16	J	232	ARG
16	J	248	MET
16	J	249	ASP
16	J	271	ARG
16	J	273	MET
16	J	274	LEU
16	J	279	GLN
16	J	280	LEU
16	J	283	PHE
16	J	284	GLU
16	J	286	THR
16	J	287	LYS
16	J	293	MET
16	J	303	SER
16	J	305	LEU
16	J	307	ARG
16	J	308	PRO
16	J	313	ARG

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Mol	Chain	Res	Type
16	J	316	GLU
16	J	321	ASN
16	J	336	MET
16	J	340	ARG
16	J	392	GLN
6	j	44	LEU
6	j	76	VAL
6	j	100	GLN
6	j	164	ILE
6	j	180	LYS
6	j	192	LEU
6	j	213	ILE
6	j	218	ARG
6	j	220	ASN
6	j	239	LYS
17	K	40	LEU
17	K	51	LEU
17	K	53	PHE
17	K	54	LEU
17	K	55	GLU
17	K	58	GLU
17	K	65	GLN
17	K	66	LYS
17	K	72	PHE
17	K	73	LEU
17	K	74	HIS
17	K	82	ILE
17	K	87	LEU
17	K	93	LEU
17	K	94	GLU
17	K	98	GLN
17	K	115	ILE
17	K	124	LEU
17	K	125	LYS
17	K	139	LEU
17	K	143	LEU
17	K	152	MET
17	K	154	LEU
17	K	159	LYS
17	K	163	MET
17	K	164	TYR
17	K	167	ILE

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Mol	Chain	Res	Type
17	K	171	ASP
17	K	185	LEU
17	K	188	PHE
17	K	193	GLN
17	K	202	VAL
17	K	203	LEU
17	K	205	TYR
17	K	212	LYS
17	K	229	ARG
17	K	233	SER
17	K	237	GLN
17	K	238	LYS
17	K	240	LEU
17	K	242	GLU
17	K	245	ARG
17	K	266	GLU
17	K	274	ARG
17	K	297	ASP
17	K	301	GLN
17	K	302	ASN
17	K	312	ASN
17	K	322	LEU
17	K	323	ARG
17	K	328	ASP
17	K	329	ARG
17	K	330	LYS
17	K	339	ARG
17	K	345	PHE
17	K	357	GLU
17	K	359	ASP
17	K	361	GLU
17	K	384	MET
17	K	388	ARG
17	K	391	ARG
17	K	392	TYR
17	K	403	TYR
17	K	405	THR
17	K	418	LYS
8	k	15	HIS
8	k	38	ARG
8	k	41	VAL
8	k	99	GLU

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Mol	Chain	Res	Type
8	k	103	THR
8	k	139	ASP
8	k	146	GLN
8	k	184	ASP
18	L	86	GLN
18	L	87	LEU
18	L	96	THR
18	L	97	ARG
18	L	102	MET
18	L	105	LEU
18	L	108	MET
18	L	114	GLU
18	L	116	ASP
18	L	118	LEU
18	L	120	TYR
18	L	122	MET
18	L	129	ASN
18	L	132	TYR
18	L	134	GLU
18	L	138	LEU
18	L	153	LEU
18	L	183	LEU
18	L	193	CYS
18	L	196	LEU
18	L	197	LYS
18	L	202	SER
18	L	206	LYS
18	L	213	ARG
18	L	216	ARG
18	L	225	HIS
18	L	226	GLN
18	L	234	GLU
18	L	235	ILE
18	L	238	ILE
18	L	241	ARG
18	L	242	ARG
18	L	244	SER
18	L	245	GLU
18	L	247	THR
18	L	251	ARG
18	L	254	GLN
18	L	255	ARG

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Mol	Chain	Res	Type
18	L	257	LEU
18	L	260	LEU
18	L	268	ASP
18	L	271	HIS
18	L	281	ARG
18	L	283	ASP
18	L	302	ASP
18	L	307	GLN
18	L	316	HIS
18	L	320	ILE
18	L	322	LYS
18	L	334	LEU
18	L	344	ARG
18	L	356	ARG
18	L	358	ASP
18	L	361	PHE
18	L	363	VAL
18	L	364	GLN
18	L	367	PHE
18	L	368	MET
18	L	383	LYS
10	l	36	THR
10	l	135	ARG
10	l	148	GLU
10	l	156	MET
10	l	168	ARG
10	l	208	GLU
19	M	89	LEU
19	M	95	GLU
19	M	96	LEU
19	M	134	LEU
19	M	149	ASP
19	M	163	THR
19	M	166	THR
19	M	168	TYR
19	M	170	SER
19	M	178	ASP
19	M	182	THR
19	M	183	GLU
19	M	187	ASP
19	M	206	MET
19	M	209	LYS

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Mol	Chain	Res	Type
19	M	221	LYS
19	M	225	MET
19	M	231	THR
19	M	250	LYS
19	M	261	ILE
19	M	266	LYS
19	M	272	PHE
19	M	284	PHE
19	M	289	ASP
19	M	295	ARG
19	M	296	PHE
19	M	299	GLU
19	M	303	ASP
19	M	304	ARG
19	M	305	GLU
19	M	310	MET
19	M	317	LEU
19	M	318	ASP
19	M	320	PHE
19	M	323	ASN
19	M	327	LYS
19	M	334	ARG
19	M	339	ASP
19	M	344	ARG
19	M	348	LEU
19	M	351	LYS
19	M	364	ARG
19	M	366	MET
19	M	367	GLN
19	M	369	HIS
19	M	372	LYS
19	M	373	MET
19	M	378	ASP
19	M	386	ARG
19	M	388	THR
19	M	409	ARG
19	M	415	LEU
19	M	416	THR
19	M	425	LEU
19	M	430	LYS
19	M	435	LEU
12	m	26	MET

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Mol	Chain	Res	Type
12	m	27	GLU
12	m	38	LEU
12	m	51	ARG
12	m	77	LEU
12	m	83	LEU
12	m	101	ARG
12	m	139	ASP
12	m	157	ARG
12	m	174	ARG
12	m	196	ARG
12	m	202	GLU
12	m	211	SER
12	m	236	LEU
12	m	239	ARG
20	N	17	PRO
20	N	119	PRO
20	N	125	PRO
20	N	165	LYS
20	N	168	LEU
20	N	170	SER
20	N	174	PRO
20	N	179	TYR
20	N	211	PRO
20	N	271	VAL
20	N	363	SER
20	N	364	VAL
20	N	402	PHE
20	N	425	THR
20	N	431	THR
20	N	433	PRO
20	N	444	TYR
20	N	469	SER
20	N	471	ASP
20	N	576	PRO
20	N	601	ARG
20	N	630	PRO
20	N	650	TYR
20	N	758	PRO
20	N	794	ASP
20	N	808	PRO
20	N	816	PRO
20	N	881	PRO

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Mol	Chain	Res	Type
20	N	895	PRO
20	N	905	PRO
20	N	928	VAL
20	N	933	PRO
21	n	17	ASP
21	n	39	ILE
21	n	41	CYS
21	n	42	LYS
21	n	129	ARG
21	n	144	ASP
21	n	174	THR
21	n	181	MET
21	n	200	VAL
22	O	5	PRO
22	O	11	SER
22	O	19	PRO
22	O	45	VAL
22	O	49	CYS
22	O	65	SER
22	O	73	PRO
22	O	90	PRO
22	O	146	PRO
22	O	151	VAL
22	O	172	TYR
22	O	189	PRO
22	O	274	LEU
22	O	279	GLU
22	O	281	THR
22	O	303	THR
22	O	339	ARG
22	O	349	MET
22	O	353	LEU
22	O	354	GLU
22	O	358	THR
22	O	362	SER
22	O	363	MET
22	O	364	GLU
22	O	368	GLU
1	o	17	ASP
1	o	22	THR
1	o	89	ARG
1	o	139	VAL

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Mol	Chain	Res	Type
1	o	145	GLU
1	o	150	GLU
1	o	153	LEU
23	P	48	LEU
23	P	49	SER
23	P	52	LYS
23	P	55	ARG
23	P	70	VAL
23	P	119	PRO
23	P	149	LEU
23	P	159	VAL
23	P	169	LEU
23	P	254	PRO
23	P	300	PRO
23	P	317	TRP
23	P	318	SER
23	P	351	TRP
23	P	373	ILE
23	P	383	ASP
23	P	398	VAL
23	P	401	THR
23	P	436	MET
23	P	451	MET
3	p	22	GLU
3	p	56	THR
3	p	77	VAL
3	p	86	MET
3	p	132	LEU
3	p	194	LYS
3	p	198	ARG
3	p	201	ARG
3	p	215	LYS
24	Q	82	LYS
24	Q	90	ARG
24	Q	111	LEU
24	Q	120	GLU
24	Q	125	LEU
24	Q	126	ARG
24	Q	145	GLU
24	Q	154	LEU
24	Q	155	ARG
24	Q	158	LYS

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Mol	Chain	Res	Type
24	Q	166	LEU
24	Q	168	GLU
24	Q	171	LEU
24	Q	177	TYR
24	Q	185	LYS
24	Q	187	ARG
24	Q	191	THR
24	Q	207	GLN
24	Q	222	GLU
24	Q	223	LYS
24	Q	224	ASP
24	Q	230	SER
24	Q	233	TYR
24	Q	241	SER
24	Q	242	ILE
24	Q	244	SER
24	Q	249	THR
24	Q	264	PRO
24	Q	283	GLN
24	Q	296	ASN
24	Q	316	ASP
24	Q	317	PRO
24	Q	318	ILE
24	Q	325	LYS
24	Q	326	LEU
24	Q	333	GLN
24	Q	337	ARG
24	Q	392	PRO
24	Q	393	VAL
24	Q	403	THR
24	Q	416	ASN
24	Q	417	LYS
5	q	34	MET
5	q	36	THR
5	q	49	LEU
5	q	115	LYS
5	q	116	THR
5	q	126	LEU
5	q	132	VAL
5	q	189	ILE
5	q	191	GLU
25	R	15	PRO

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Mol	Chain	Res	Type
25	R	23	ARG
25	R	50	MET
25	R	92	GLU
25	R	97	GLU
25	R	134	LEU
25	R	173	ASP
25	R	179	ARG
25	R	202	LEU
25	R	203	ASP
25	R	212	GLU
25	R	214	MET
25	R	250	LEU
25	R	254	PRO
25	R	259	TYR
25	R	260	LEU
25	R	270	VAL
25	R	271	PHE
25	R	292	TYR
25	R	302	HIS
25	R	304	TYR
25	R	307	LEU
25	R	362	LYS
25	R	363	ASN
25	R	366	TYR
25	R	367	GLN
25	R	371	LYS
25	R	372	LYS
25	R	379	ARG
25	R	385	ARG
7	r	25	ILE
7	r	27	GLN
7	r	38	MET
7	r	45	LEU
7	r	84	THR
7	r	85	ARG
7	r	170	ARG
26	S	300	LEU
26	S	307	ARG
26	S	320	THR
26	S	351	PRO
26	S	431	PRO
26	S	467	TYR

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Mol	Chain	Res	Type
26	S	469	THR
26	S	477	HIS
26	S	479	ARG
26	S	482	PHE
9	s	8	PHE
9	s	32	LYS
9	s	73	ARG
9	s	87	VAL
9	s	115	ASP
9	s	138	VAL
27	T	107	PRO
27	T	110	SER
27	T	126	LEU
27	T	130	PRO
27	T	137	THR
27	T	162	PRO
27	T	173	CYS
27	T	182	LEU
27	T	183	PRO
27	T	216	PRO
27	T	237	MET
27	T	296	PRO
27	T	309	VAL
27	T	312	PRO
27	T	333	THR
27	T	337	LYS
27	T	342	TYR
11	t	6	VAL
11	t	65	THR
11	t	99	ARG
11	t	102	PHE
11	t	125	ASP
11	t	163	HIS
11	t	174	LEU
28	U	23	PHE
28	U	32	GLN
28	U	33	LYS
28	U	58	PHE
28	U	88	ARG
28	U	101	LEU
28	U	116	CYS
28	U	128	PRO

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Mol	Chain	Res	Type
28	U	157	HIS
28	U	159	THR
28	U	166	GLU
28	U	173	GLU
28	U	175	LEU
28	U	176	LEU
28	U	177	ARG
28	U	178	ASP
28	U	184	VAL
28	U	196	HIS
28	U	201	LEU
28	U	202	ASN
28	U	209	ARG
28	U	245	PHE
28	U	249	PHE
28	U	252	LYS
28	U	267	ARG
28	U	273	HIS
28	U	279	LYS
28	U	282	ASN
13	u	49	THR
13	u	70	MET
13	u	85	PRO
13	u	86	ARG
13	u	94	ARG
13	u	99	ARG
13	u	100	ARG
13	u	168	LEU
13	u	186	ARG
13	u	192	VAL
13	u	205	THR
29	V	46	ARG
29	V	50	PRO
29	V	96	LEU
29	V	98	MET
29	V	104	ARG
29	V	105	PRO
29	V	118	PHE
29	V	136	LEU
29	V	150	SER
29	V	208	ARG
29	V	209	LYS

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Mol	Chain	Res	Type
29	V	212	LEU
29	V	226	MET
29	V	227	GLU
29	V	229	LEU
29	V	236	GLU
29	V	237	HIS
29	V	240	HIS
29	V	248	MET
29	V	254	ASN
29	V	261	GLU
29	V	262	GLU
29	V	264	LYS
29	V	265	MET
29	V	277	LYS
29	V	281	LYS
29	V	285	GLU
29	V	287	HIS
29	V	295	ASN
29	V	298	GLN
29	V	299	CYS
30	W	23	PRO
30	W	37	CYS
30	W	58	CYS
30	W	61	LEU
30	W	80	PRO
30	W	174	PRO
30	W	178	SER
21	X	5	THR
21	X	39	ILE
21	X	129	ARG
21	X	144	ASP
21	X	181	MET
21	X	187	ARG
21	X	200	VAL
33	x	98	SER
33	x	101	GLU
33	x	102	LEU
33	x	104	CYS
33	x	111	ASN
33	x	114	TYR
33	x	115	MET
33	x	134	ARG

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Mol	Chain	Res	Type
33	x	147	SER
33	x	150	TYR
33	x	155	LEU
33	x	156	ARG
33	x	163	ASP
33	x	172	ILE
33	x	173	ILE
33	x	174	LEU
33	x	175	LEU
33	x	177	PHE
33	x	182	PHE
33	x	188	LYS
33	x	198	ASP
33	x	202	CYS
33	x	205	GLN
33	x	207	MET
33	x	208	ARG
33	x	217	ILE
33	x	241	LEU
33	x	252	THR
33	x	282	VAL
33	x	286	PHE
33	x	307	ASN
33	x	324	THR
33	x	327	MET
33	x	329	ARG
33	x	331	PHE
33	x	332	TYR
33	x	337	SER
33	x	346	VAL
33	x	347	LYS
33	x	348	PHE
33	x	357	LEU
33	x	358	CYS
33	x	418	ASP
33	x	423	LEU
33	x	426	GLN
33	x	431	SER
33	x	444	ASP
33	x	452	ASP
33	x	455	SER
33	x	456	ILE

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Mol	Chain	Res	Type
33	x	471	TRP
34	y	18	GLU
34	y	40	GLN
34	y	60	ASN
34	y	71	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (134) such sidechains are listed below:

Mol	Chain	Res	Type
2	B	100	ASN
6	D	100	GLN
6	D	155	ASN
8	E	54	GLN
8	E	92	GLN
9	e	38	ASN
10	F	182	GLN
11	f	146	GLN
11	f	157	ASN
12	G	5	GLN
13	g	81	HIS
14	H	114	ASN
14	H	117	GLN
14	H	148	GLN
14	H	203	ASN
14	H	247	GLN
14	H	293	ASN
14	H	305	GLN
14	H	322	ASN
14	H	433	ASN
2	h	53	GLN
15	I	120	HIS
15	I	181	GLN
15	I	193	GLN
15	I	207	HIS
15	I	241	ASN
15	I	298	ASN
15	I	315	GLN
15	I	332	ASN
4	i	94	GLN
16	J	36	ASN
16	J	69	GLN
16	J	118	ASN

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Mol	Chain	Res	Type
16	J	206	HIS
16	J	337	ASN
16	J	380	GLN
6	j	142	HIS
17	K	67	ASN
17	K	74	HIS
17	K	99	ASN
17	K	110	ASN
17	K	173	GLN
17	K	175	GLN
17	K	221	HIS
17	K	222	HIS
17	K	237	GLN
17	K	257	ASN
17	K	286	GLN
17	K	302	ASN
17	K	304	ASN
17	K	312	ASN
18	L	51	GLN
18	L	75	ASN
18	L	226	GLN
18	L	339	ASN
10	l	182	GLN
19	M	321	GLN
19	M	333	ASN
20	N	259	GLN
20	N	345	ASN
20	N	347	ASN
20	N	596	ASN
20	N	645	ASN
20	N	697	GLN
20	N	880	ASN
22	O	273	GLN
22	O	287	ASN
22	O	369	HIS
1	o	71	ASN
23	P	288	HIS
23	P	361	HIS
23	P	423	ASN
23	P	444	HIS
23	P	454	ASN
24	Q	105	GLN

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Mol	Chain	Res	Type
24	Q	127	GLN
24	Q	148	HIS
24	Q	152	GLN
24	Q	170	GLN
24	Q	207	GLN
24	Q	218	HIS
24	Q	334	ASN
5	q	93	ASN
25	R	136	HIS
25	R	178	ASN
25	R	280	GLN
25	R	291	HIS
25	R	344	HIS
25	R	381	GLN
26	S	242	HIS
26	S	299	GLN
26	S	326	GLN
26	S	477	HIS
27	T	170	GLN
11	t	146	GLN
28	U	12	HIS
28	U	22	HIS
28	U	72	HIS
28	U	96	HIS
28	U	102	HIS
28	U	189	GLN
28	U	194	GLN
28	U	256	GLN
28	U	273	HIS
13	u	81	HIS
29	V	77	GLN
29	V	101	GLN
29	V	149	GLN
29	V	221	HIS
29	V	241	ASN
29	V	295	ASN
29	V	298	GLN
30	W	44	ASN
30	W	101	GLN
30	W	142	ASN
30	W	169	HIS
33	x	111	ASN

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Mol	Chain	Res	Type
33	x	116	ASN
33	x	149	GLN
33	x	197	GLN
33	x	205	GLN
33	x	211	GLN
33	x	280	GLN
33	x	307	ASN
33	x	326	GLN
33	x	339	ASN
33	x	363	GLN
33	x	412	ASN
33	x	426	GLN
33	x	443	GLN
34	y	25	ASN
34	y	40	GLN
34	y	60	ASN
34	y	68	HIS

### 5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

1 non-standard protein/DNA/RNA residue is modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
34	GLZ	y	76	34	3,3,3	0.83	0	0,2,2	0.00	-

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
34	GLZ	y	76	34	-	0/0/1/1	0/0/0/0

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.

No monomer is involved in short contacts.

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

6 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# $ Z  > 2$	Counts	RMSZ	# $ Z  > 2$
35	ADP	H	501	-	24,29,29	1.51	4 (16%)	23,45,45	2.93	7 (30%)
35	ADP	I	501	-	24,29,29	1.54	3 (12%)	23,45,45	2.20	7 (30%)
35	ADP	J	501	-	24,29,29	1.29	4 (16%)	23,45,45	2.59	6 (26%)
35	ADP	K	501	-	24,29,29	1.33	3 (12%)	23,45,45	2.44	9 (39%)
35	ADP	L	401	-	24,29,29	1.06	1 (4%)	23,45,45	2.60	5 (21%)
35	ADP	M	501	-	24,29,29	1.17	1 (4%)	23,45,45	2.06	6 (26%)

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
35	ADP	H	501	-	-	0/12/32/32	0/3/3/3
35	ADP	I	501	-	-	0/12/32/32	0/3/3/3
35	ADP	J	501	-	-	0/12/32/32	0/3/3/3
35	ADP	K	501	-	-	0/12/32/32	0/3/3/3
35	ADP	L	401	-	-	0/12/32/32	0/3/3/3
35	ADP	M	501	-	-	0/12/32/32	0/3/3/3

All (16) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	J	501	ADP	C2'-C1'	-2.70	1.49	1.53
35	J	501	ADP	O4'-C4'	-2.35	1.39	1.45
35	K	501	ADP	C2-N3	2.09	1.35	1.32
35	I	501	ADP	C8-N7	2.14	1.38	1.34
35	H	501	ADP	C2-N1	2.15	1.38	1.33
35	H	501	ADP	C6-C5	2.19	1.54	1.42
35	J	501	ADP	O4'-C1'	2.39	1.44	1.41
35	J	501	ADP	C2-N3	2.46	1.36	1.32
35	I	501	ADP	C2-N3	2.48	1.36	1.32
35	K	501	ADP	O4'-C1'	2.62	1.45	1.41
35	H	501	ADP	C5-C4	2.68	1.46	1.40
35	K	501	ADP	C5-C4	3.15	1.47	1.40
35	M	501	ADP	C5-C4	3.30	1.47	1.40
35	L	401	ADP	C5-C4	3.39	1.48	1.40
35	H	501	ADP	O4'-C1'	4.54	1.47	1.41
35	I	501	ADP	C5-C4	5.35	1.52	1.40

All (40) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	J	501	ADP	N3-C2-N1	-9.38	121.50	128.87
35	L	401	ADP	N3-C2-N1	-9.24	121.62	128.87
35	H	501	ADP	N3-C2-N1	-7.23	123.19	128.87
35	M	501	ADP	N3-C2-N1	-6.92	123.43	128.87
35	I	501	ADP	N3-C2-N1	-6.84	123.50	128.87
35	K	501	ADP	N3-C2-N1	-6.14	124.05	128.87
35	L	401	ADP	C1'-N9-C4	-5.80	120.34	126.81
35	I	501	ADP	C1'-N9-C4	-2.97	123.50	126.81
35	J	501	ADP	O2'-C2'-C3'	-2.74	102.99	111.86
35	K	501	ADP	C2'-C1'-N9	-2.55	106.63	113.47
35	J	501	ADP	C4'-O4'-C1'	-2.26	107.24	109.64
35	I	501	ADP	O3'-C3'-C2'	-2.02	105.33	111.86
35	L	401	ADP	C2'-C3'-C4'	2.06	106.84	102.64

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	M	501	ADP	O4'-C1'-N9	2.13	112.12	108.11
35	K	501	ADP	O2A-PA-O1A	2.23	124.16	112.56
35	H	501	ADP	O5'-C5'-C4'	2.26	117.24	109.09
35	K	501	ADP	O4'-C1'-N9	2.30	112.45	108.11
35	L	401	ADP	C2-N1-C6	2.32	122.91	118.77
35	K	501	ADP	O3B-PB-O2B	2.37	116.14	107.44
35	I	501	ADP	O5'-C5'-C4'	2.43	117.86	109.09
35	K	501	ADP	O5'-C5'-C4'	2.46	117.96	109.09
35	I	501	ADP	C2-N1-C6	2.46	123.16	118.77
35	I	501	ADP	N6-C6-N1	2.47	122.66	118.52
35	M	501	ADP	O2A-PA-O1A	2.53	125.72	112.56
35	J	501	ADP	O5'-C5'-C4'	2.62	118.54	109.09
35	L	401	ADP	N6-C6-N1	2.66	122.98	118.52
35	M	501	ADP	C2'-C3'-C4'	2.75	108.25	102.64
35	M	501	ADP	O3B-PB-O1B	2.76	119.63	110.63
35	I	501	ADP	C4'-O4'-C1'	3.03	112.86	109.64
35	M	501	ADP	N6-C6-N1	3.08	123.68	118.52
35	K	501	ADP	N6-C6-N1	3.19	123.87	118.52
35	J	501	ADP	O3B-PB-O2B	3.25	119.38	107.44
35	H	501	ADP	O3B-PB-O2B	3.26	119.42	107.44
35	J	501	ADP	C2'-C3'-C4'	3.37	109.53	102.64
35	H	501	ADP	O4'-C1'-N9	3.46	114.65	108.11
35	H	501	ADP	O3B-PB-O1B	3.64	122.50	110.63
35	K	501	ADP	O3B-PB-O1B	4.43	125.08	110.63
35	H	501	ADP	C1'-N9-C4	5.21	132.62	126.81
35	K	501	ADP	C4'-O4'-C1'	5.26	115.22	109.64
35	H	501	ADP	C4'-O4'-C1'	7.62	117.72	109.64

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

6 monomers are involved in 52 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
35	H	501	ADP	9	0
35	I	501	ADP	6	0
35	J	501	ADP	8	0
35	K	501	ADP	20	0
35	L	401	ADP	5	0
35	M	501	ADP	4	0

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

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

There are no chain breaks in this entry.