



wwPDB EM Map/Model Validation Report ⓘ

Apr 10, 2016 – 02:20 PM BST

PDB ID : 4CR2
EMDB ID: : EMD-2594
Title : Deep classification of a large cryo-EM dataset defines the conformational landscape of the 26S proteasome
Authors : Unverdorben, P.; Beck, F.; Sledz, P.; Schweitzer, A.; Pfeifer, G.; Plitzko, J.M.; Baumeister, W.; Foerster, F.
Deposited on : 2014-02-25
Resolution : 7.70 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

A user guide is available at

<http://wwpdb.org/validation/2016/EMValidationReportHelp>

MolProbity : 4.02b-467
Mogul : unknown
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) : trunk27241

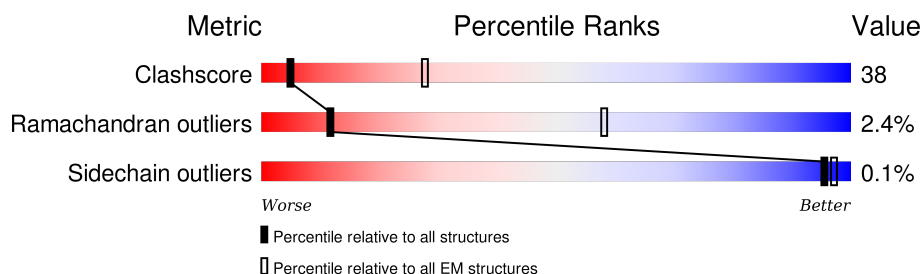
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 7.70 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.












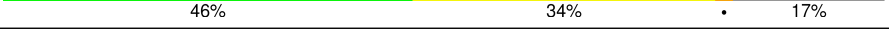



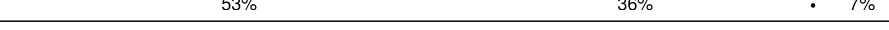


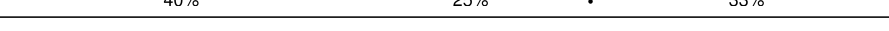




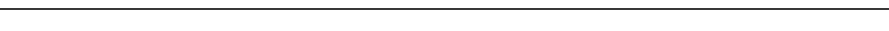


Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686

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 ≥ 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	1	215	45% 47% • 5%
2	2	261	54% 30% • 15%
3	3	205	55% 41% •
4	4	198	56% 42% •
5	5	287	45% 27% • 26%
6	6	241	58% 33% • 8%
7	7	266	51% 35% • 12%
8	A	252	54% 39% • •
9	B	250	63% 34% •

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Mol	Chain	Length	Quality of chain
10	C	258	
11	D	254	
12	E	260	
13	F	234	
14	G	288	
15	H	467	
16	I	437	
17	J	405	
18	K	428	
19	L	437	
20	M	434	
21	N	945	
22	O	393	
23	P	445	
24	Q	434	
25	R	429	
26	S	523	
27	T	274	
28	U	338	
29	V	306	
30	W	268	
31	X	156	
32	Y	89	
33	Z	993	

2 Entry composition

There are 33 unique types of molecules in this entry. The entry contains 80139 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 COMPONENT PRE3.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	1	205	Total	C	N	O	S	0	0
			1576	996	261	312	7		

- Molecule 2 is a protein called PROTEASOME COMPONENT PUP1.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	2	223	Total	C	N	O	S	0	0
			1692	1067	294	324	7		

- Molecule 3 is a protein called PROTEASOME COMPONENT PUP3.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	3	204	Total	C	N	O	S	0	0
			1581	1010	258	305	8		

- Molecule 4 is a protein called PROTEASOME COMPONENT C11.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	4	198	Total	C	N	O	S	0	0
			1585	1005	269	305	6		

- Molecule 5 is a protein called PROTEASOME COMPONENT PRE2.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	5	212	Total	C	N	O	S	0	0
			1646	1045	282	312	7		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
5	33	ARG	LYS	SEE REMARK 999	UNP P30656

- Molecule 6 is a protein called PROTEASOME COMPONENT C5.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	6	222	Total	C	N	O	S	0	0
			1757	1115	303	335	4		

- Molecule 7 is a protein called PROTEASOME COMPONENT PRE4.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	7	233	Total	C	N	O	S	0	0
			1824	1154	312	351	7		

- Molecule 8 is a protein called PROTEASOME COMPONENT C7-ALPHA.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	A	243	Total	C	N	O	S	0	0
			1921	1221	322	370	8		

- Molecule 9 is a protein called PROTEASOME COMPONENT Y7.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	B	250	Total	C	N	O	S	0	0
			1915	1219	315	377	4		

- Molecule 10 is a protein called PROTEASOME COMPONENT Y13.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	C	245	Total	C	N	O	S	0	0
			1913	1207	323	380	3		

- Molecule 11 is a protein called PROTEASOME COMPONENT PRE6.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	D	242	Total	C	N	O	S	0	0
			1899	1186	333	376	4		

- Molecule 12 is a protein called PROTEASOME COMPONENT PUP2.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	E	243	Total	C	N	O	S	0	0
			1867	1165	315	380	7		

- Molecule 13 is a protein called PROTEASOME COMPONENT PRE5.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	F	233	Total	C	N	O	S	0	0
			1795	1129	312	350	4		

- Molecule 14 is a protein called PROTEASOME COMPONENT C1.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	G	245	Total	C	N	O	S	0	0
			1900	1207	331	358	4		

- Molecule 15 is a protein called 26S PROTEASE REGULATORY SUBUNIT 7 HOMOLOG.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	H	359	Total	C	N	O	S	0	0
			2792	1755	499	523	15		

- Molecule 16 is a protein called 26S PROTEASE REGULATORY SUBUNIT 4 HOMOLOG.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	I	362	Total	C	N	O	S	0	0
			2822	1773	471	563	15		

- Molecule 17 is a protein called 26S PROTEASE REGULATORY SUBUNIT 8 HOMOLOG.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	J	373	Total	C	N	O	S	0	0
			2928	1837	527	547	17		

- Molecule 18 is a protein called 26S PROTEASE REGULATORY SUBUNIT 6B HOMOLOG.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	K	381	Total	C	N	O	S	0	0
			3019	1898	530	581	10		

- Molecule 19 is a protein called 26S PROTEASE SUBUNIT RPT4.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	L	361	Total	C	N	O	S	0	0
			2853	1798	507	536	12		

- Molecule 20 is a protein called 26S PROTEASE REGULATORY SUBUNIT 6A.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	M	367	Total	C	N	O	S	0	0
			2866	1799	503	553	11		

- Molecule 21 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN2.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	N	849	Total	C	N	O	S	0	0
			6562	4174	1099	1261	28		

- Molecule 22 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN9.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	O	387	Total	C	N	O	S	0	0
			3182	2047	520	606	9		

- Molecule 23 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN5.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	P	415	Total	C	N	O	S	0	0
			3401	2166	571	655	9		

- Molecule 24 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN6.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	Q	431	Total	C	N	O	S	0	0
			3471	2205	574	676	16		

- Molecule 25 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN7.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	R	400	Total	C	N	O	S	0	0
			3218	2051	527	630	10		

- Molecule 26 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN3.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	S	353	Total	C	N	O	S	0	0
			2893	1857	482	541	13		

- Molecule 27 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN12.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	T	272	Total	C	N	O	S	0	0
			2235	1432	355	441	7		

- Molecule 28 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN8.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	U	255	Total	C	N	O	S	0	0
			2061	1312	352	391	6		

- Molecule 29 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN11.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	V	247	Total	C	N	O	S	0	0
			1942	1225	328	376	13		

- Molecule 30 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN10.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	W	197	Total	C	N	O	S	0	0
			1534	962	269	300	3		

- Molecule 31 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN13.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	X	127	Total	C	N	O	S	0	0
			1032	664	169	195	4		

- Molecule 32 is a protein called 26S PROTEASOME COMPLEX SUBUNIT SEM1.

Mol	Chain	Residues	Atoms				AltConf	Trace
32	Y	19	Total	C	N	O	0	0
			168	101	30	37		

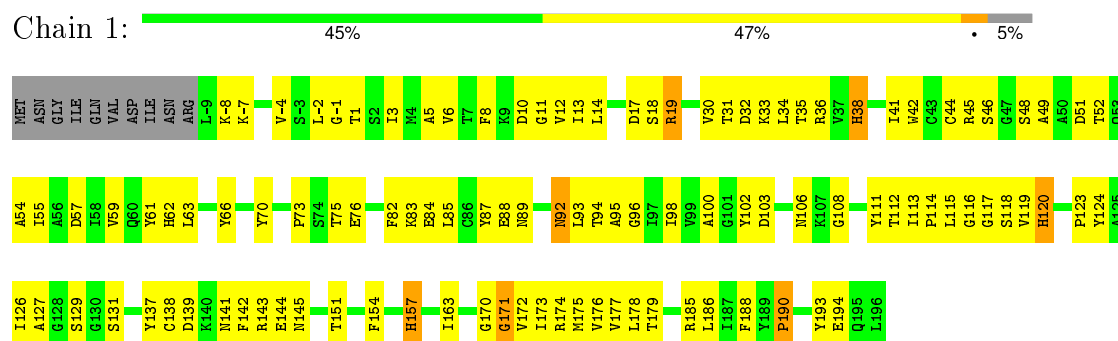
- Molecule 33 is a protein called 26S PROTEASOME REGULATORY SUBUNIT RPN1.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	Z	813	Total	C	N	O	S	0	0
			6289	3995	1029	1236	29		

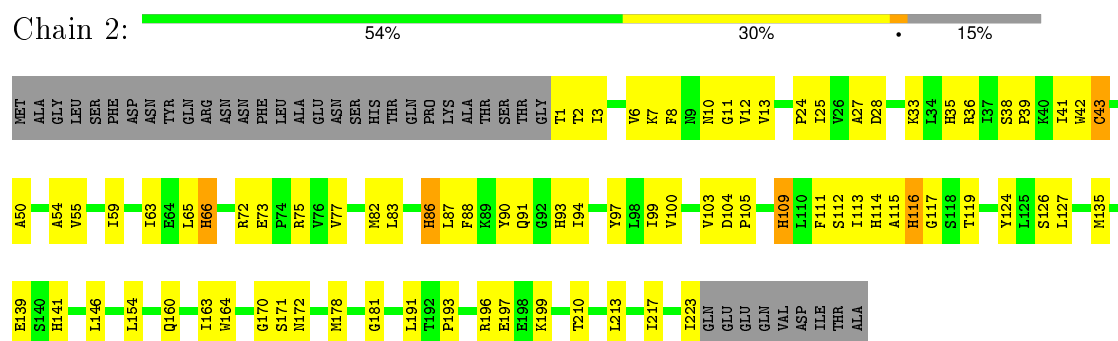
3 Residue-property plots

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.

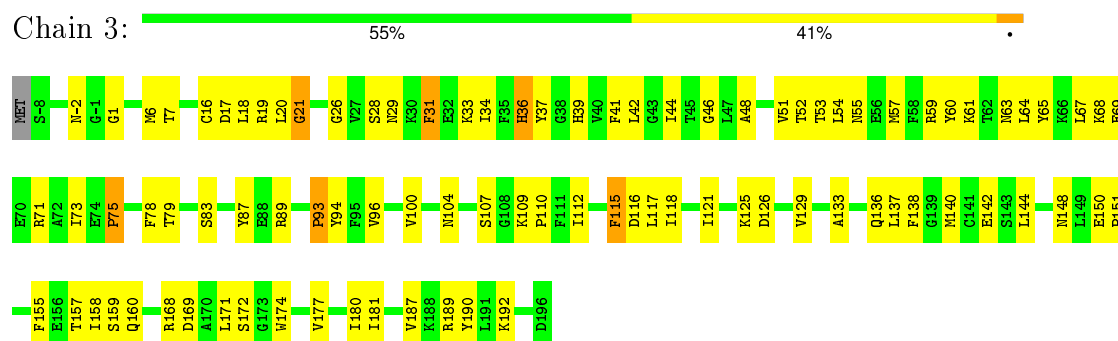
• Molecule 1: PROTEASOME COMPONENT PRE3



• Molecule 2: PROTEASOME COMPONENT PUP1



• Molecule 3: PROTEASOME COMPONENT PUP3



• Molecule 4: PROTEASOME COMPONENT C11

- Molecule 5: PROTEASOME COMPONENT PRE2

- Molecule 6: PROTEASOME COMPONENT C5

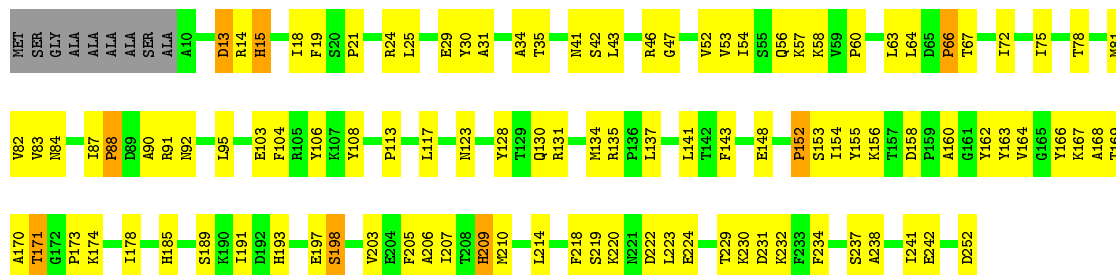
- Molecule 7: PROTEASOME COMPONENT PRE4

[illegible]



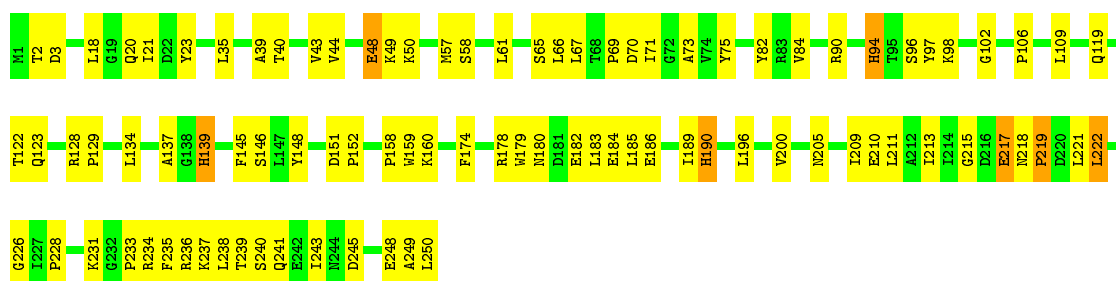
• Molecule 8: PROTEASOME COMPONENT C7-ALPHA

Chain A: 54% 39%



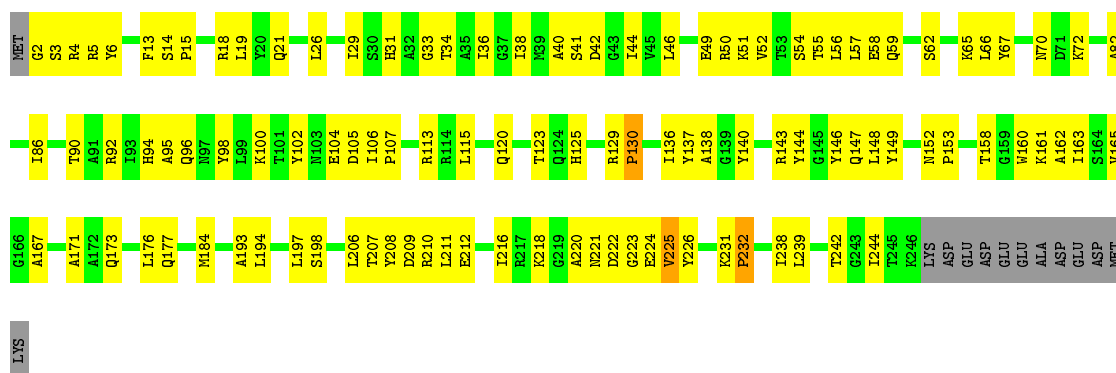
• Molecule 9: PROTEASOME COMPONENT Y7

Chain B: 63% 34%



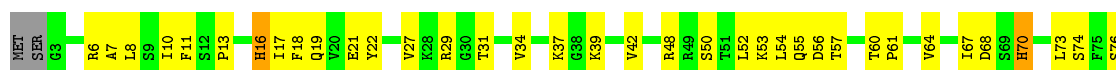
• Molecule 10: PROTEASOME COMPONENT Y13

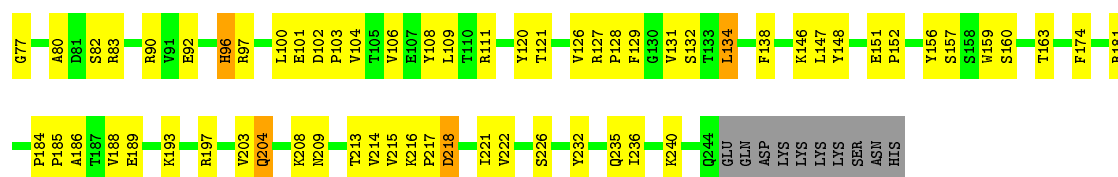
Chain C: 52% 41% 5%



• Molecule 11: PROTEASOME COMPONENT PRE6

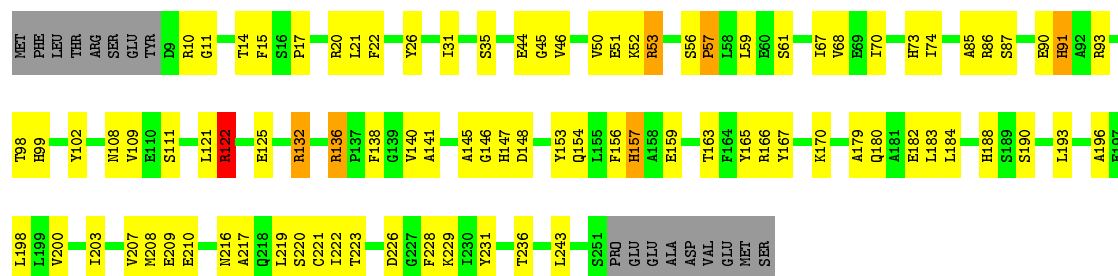
Chain D: 56% 37% 5%





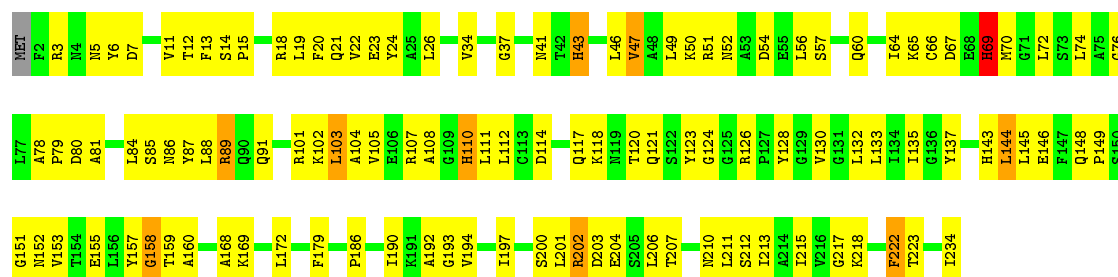
• Molecule 12: PROTEASOME COMPONENT PUP2

Chain E: 59% 32% 7%



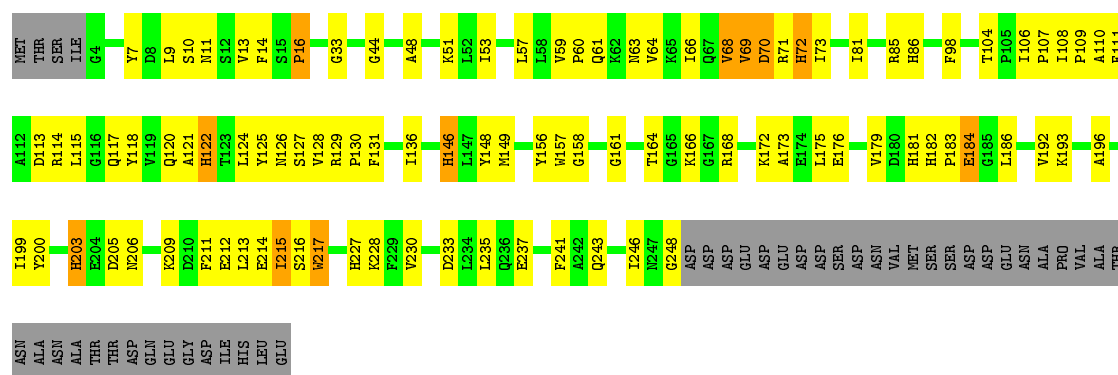
• Molecule 13: PROTEASOME COMPONENT PRE5

Chain F: 50% 45%



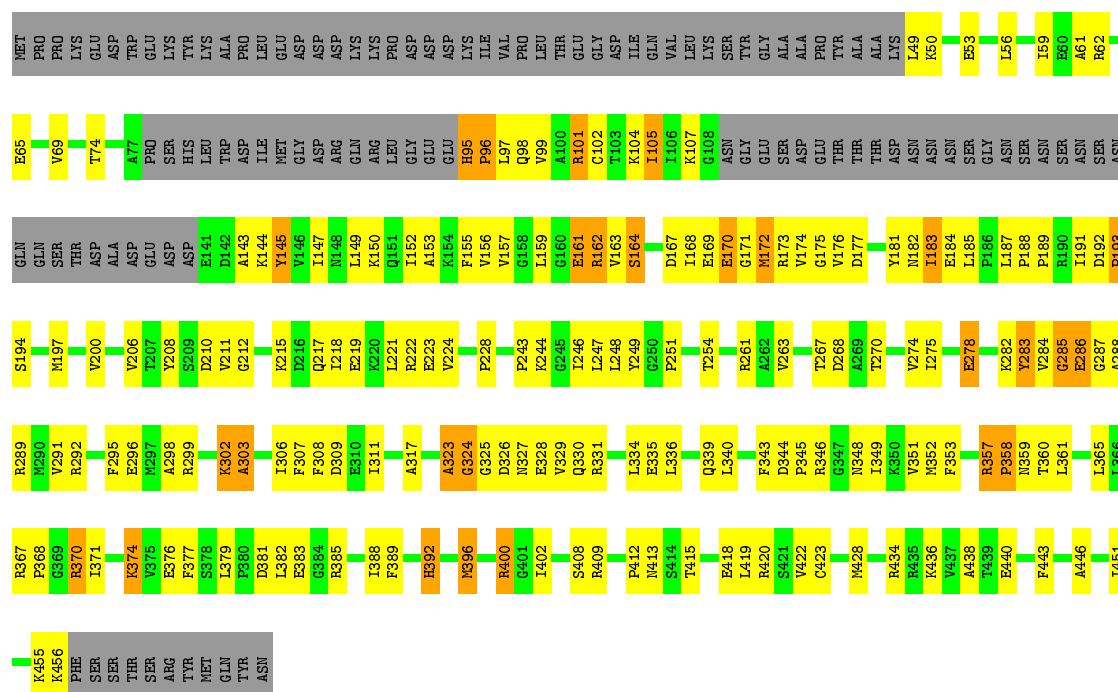
• Molecule 14: PROTEASOME COMPONENT C1

Chain G: 51% 31% 15%



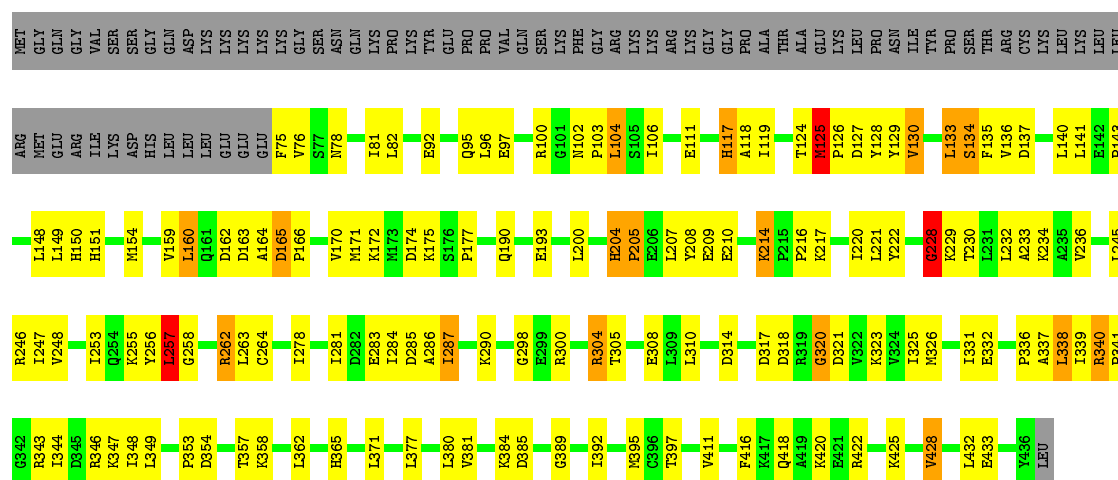
• Molecule 15: 26S PROTEASE REGULATORY SUBUNIT 7 HOMOLOG

Chain H: 38% 33% 6% 23%



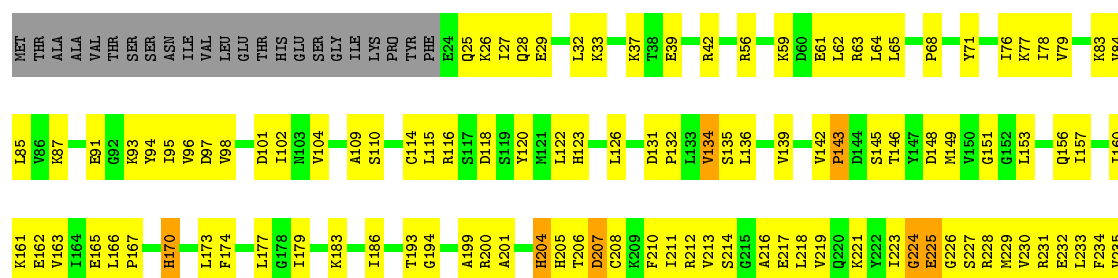
• Molecule 16: 26S PROTEASE REGULATORY SUBUNIT 4 HOMOLOG

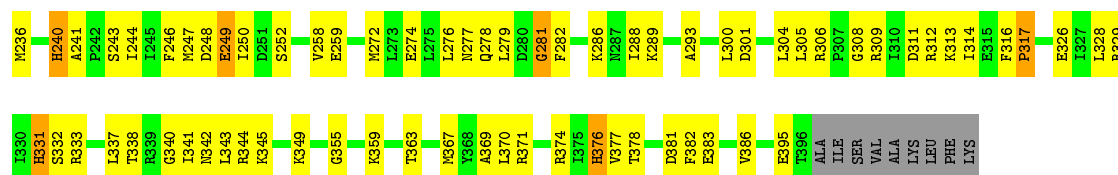
Chain I: 49% 29% 17%



• Molecule 17: 26S PROTEASE REGULATORY SUBUNIT 8 HOMOLOG

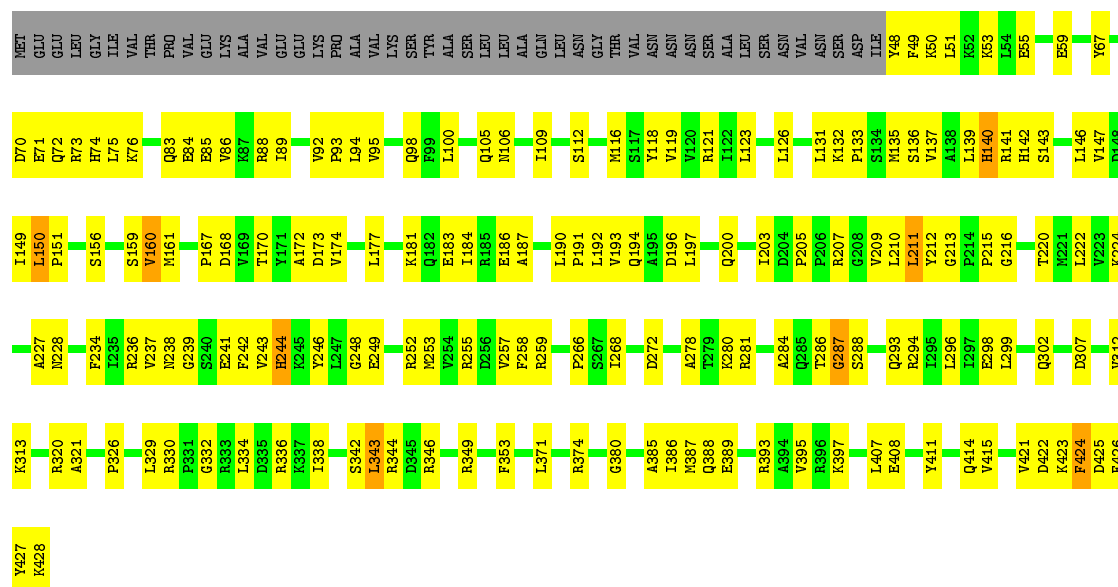
Chain J: 48% 41% 8%





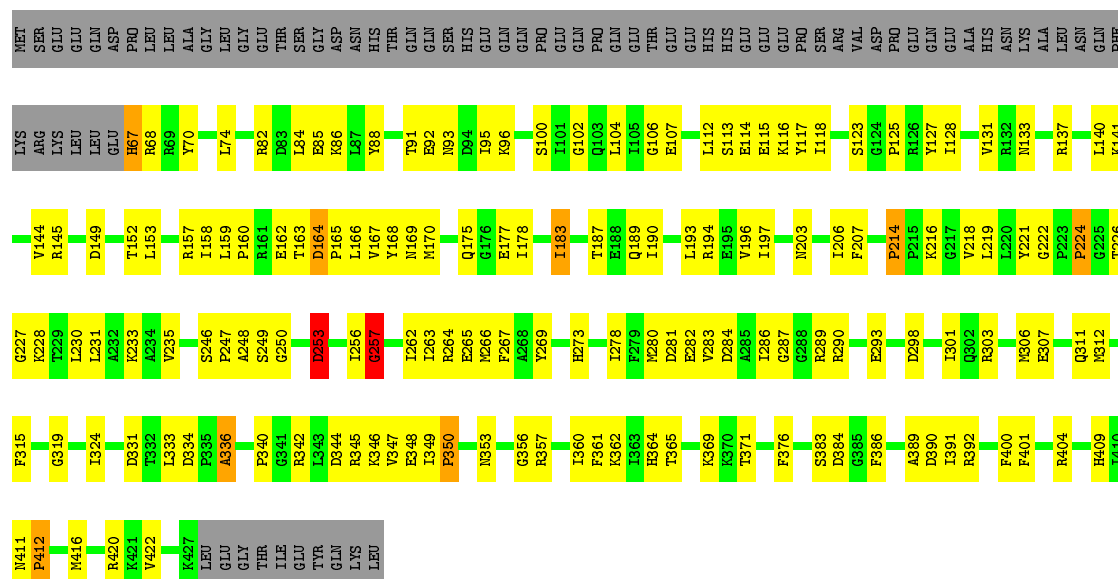
• Molecule 18: 26S PROTEASE REGULATORY SUBUNIT 6B HOMOLOG

Chain K: 50% 37% 11%



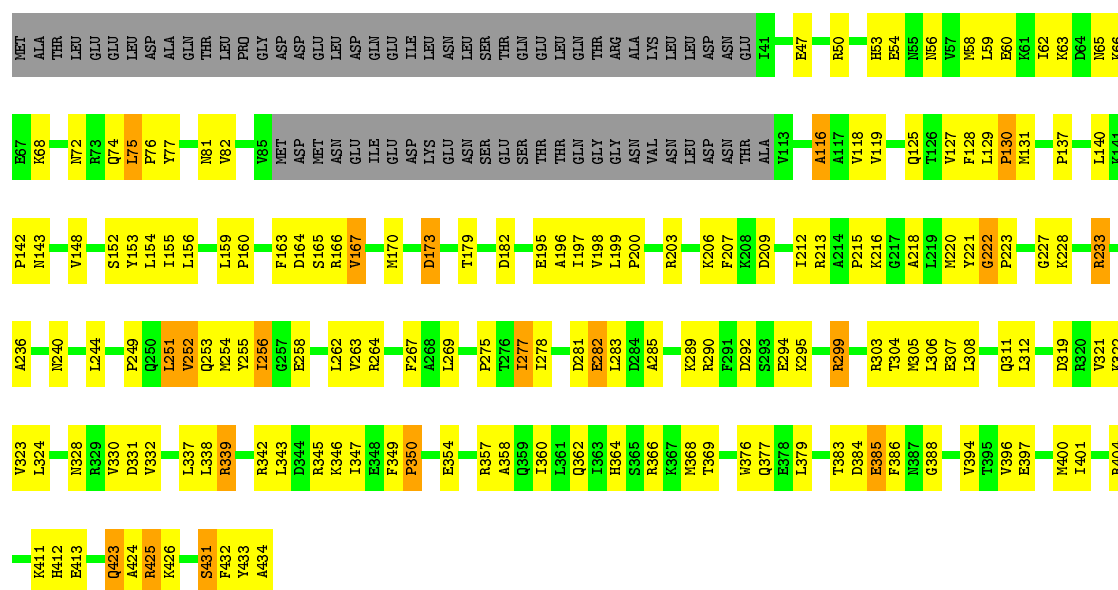
• Molecule 19: 26S PROTEASE SUBUNIT RPT4

Chain L: 46% 34% 17%



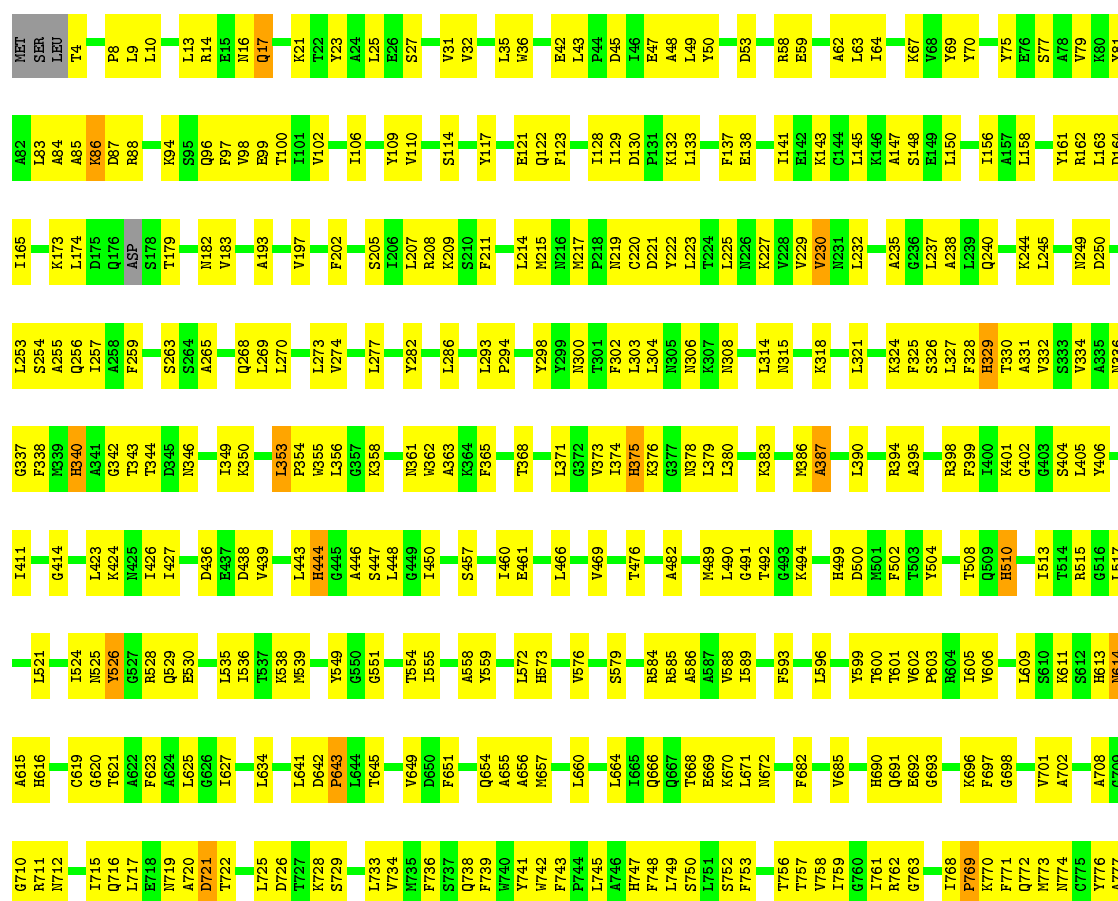
• Molecule 20: 26S PROTEASE REGULATORY SUBUNIT 6A

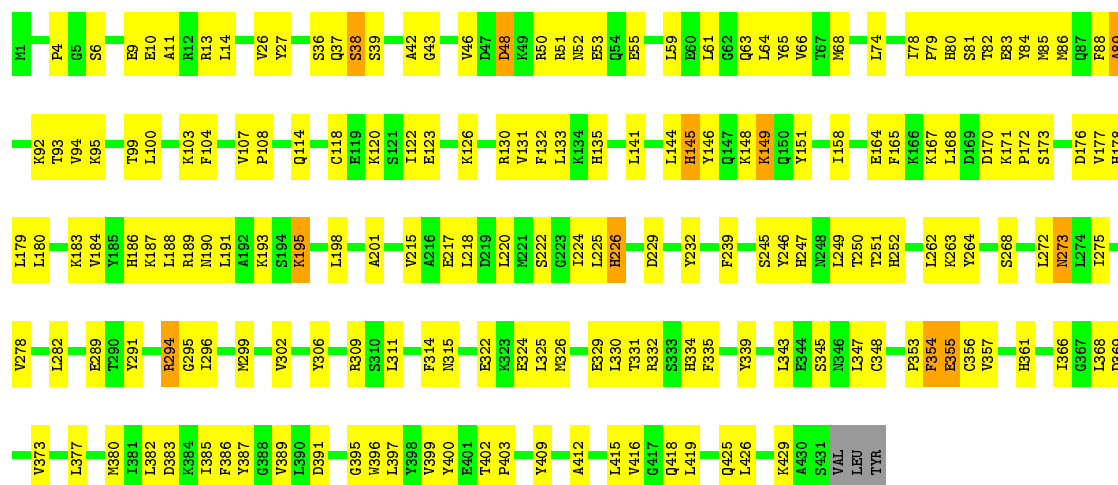
Chain M:  47% 33% 15%



• Molecule 21: 26S PROTEASOME REGULATORY SUBUNIT RPN2

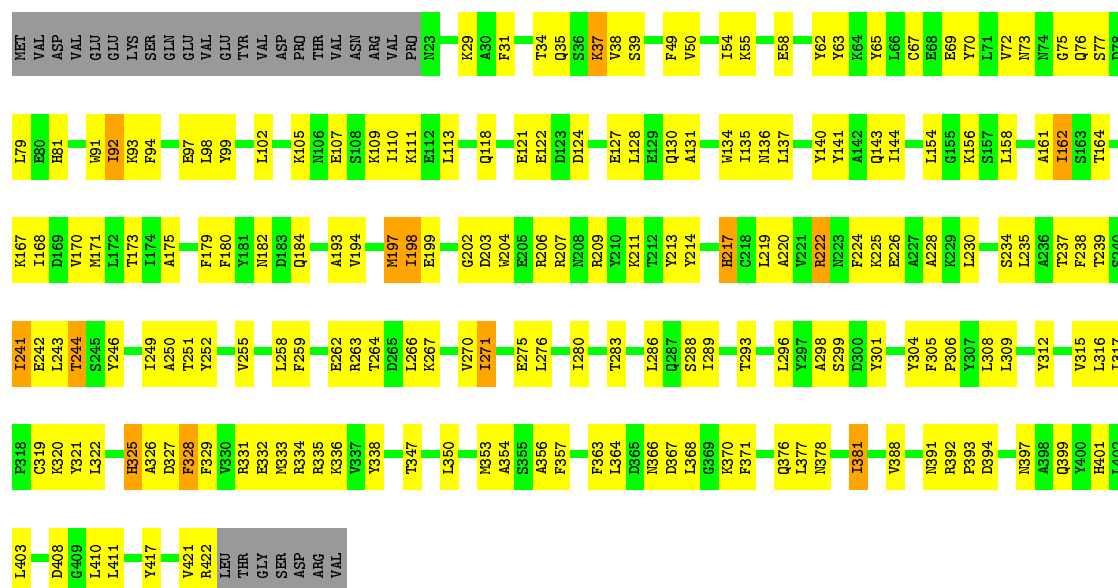
Chain N:  50% 38% 10%





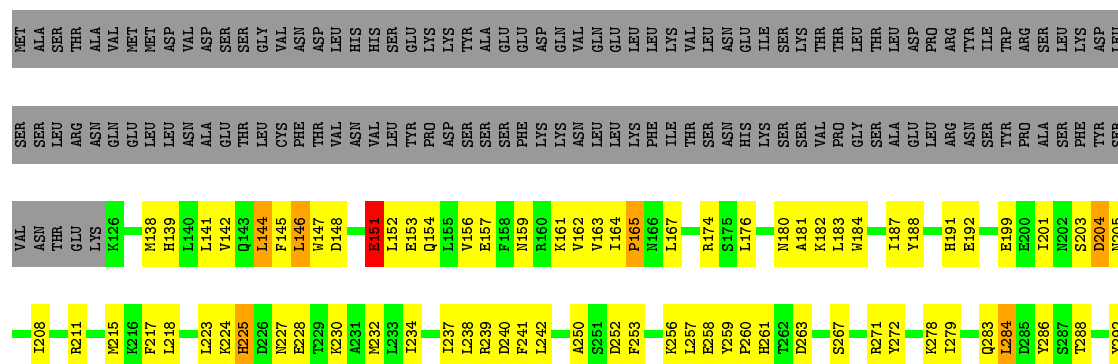
• Molecule 25: 26S PROTEASOME REGULATORY SUBUNIT RPN7

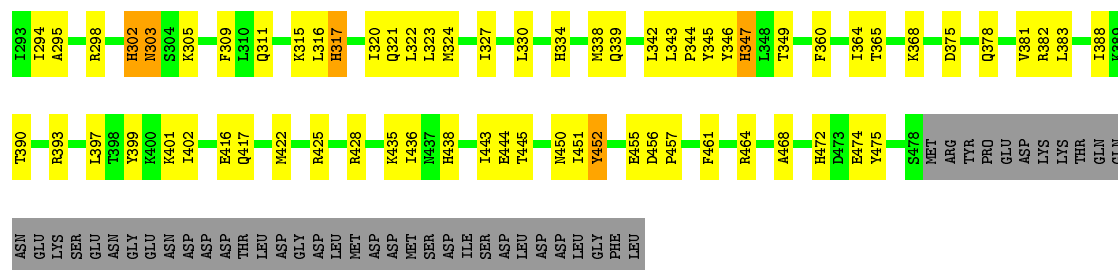
Chain R: 50% 41% 7%



• Molecule 26: 26S PROTEASOME REGULATORY SUBUNIT RPN3

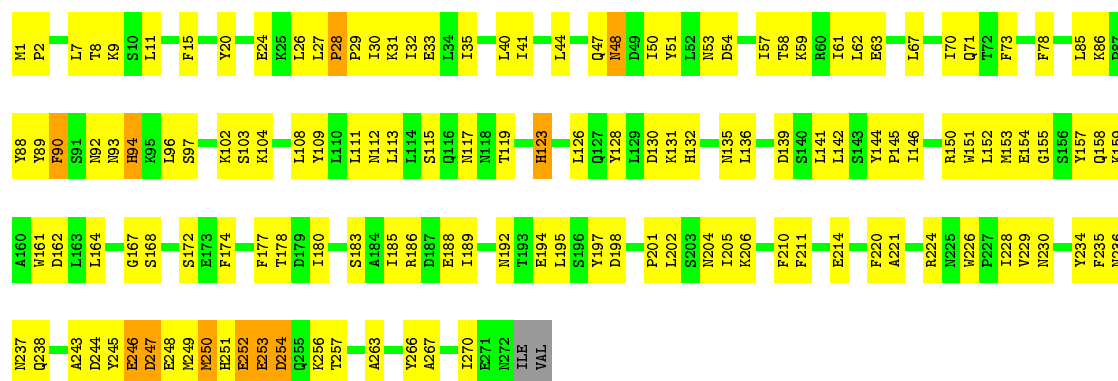
Chain S: 40% 25% 33%





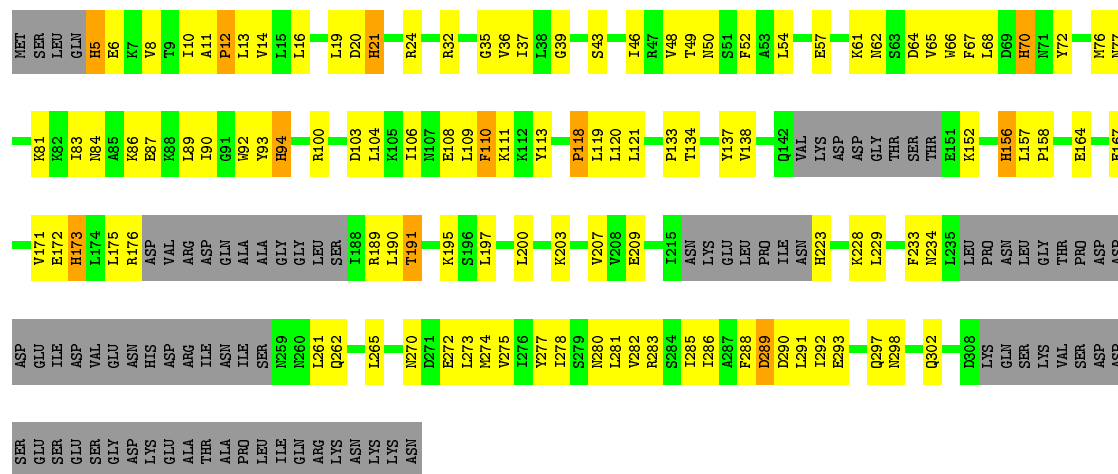
• Molecule 27: 26S PROTEASOME REGULATORY SUBUNIT RPN12

Chain T: 48% 47%



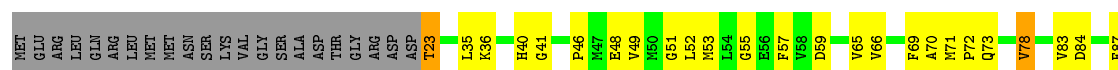
• Molecule 28: 26S PROTEASOME REGULATORY SUBUNIT RPN8

Chain U: 42% 30% 25%



• Molecule 29: 26S PROTEASOME REGULATORY SUBUNIT RPN11

Chain V: 47% 31% 19%



TRP	L878	T795	ASP	ASN	P594	L440	K366	I294	P211	G130	S61	VAL	MET
ILE	A879	F799	ASP	GLU	M595	Y441	S567	R295	L212	K131	Y64	ASP	ASP
THR	S880	S800	GLU	ALA	A598	V442	V368	S296	H214	H132	E65	GLU	GLU
GLN	T884	H801	GLU	ILE	I599	D443	F369	F297	E217	L135	L68	SER	SER
SER	A885	L805	GLU	GLU	E600	E446	S370	D299	E217	R136	L71	LYS	LYS
THR	V886	E806	LYS	VAL	V601	V447	A372	A300	V221	Y137	L71	LYS	LYS
P354	G887	M809	GLU	ASP	G604	K448	S376	S302	D222	R138	S74	GLN	GLN
V955	L888	M809	ALA	ASP	G604	A449	S376	D303	L223	L139	I75	THR	THR
L956	V889	M809	ILE	MET	Y608	L452	Q379	P304	L224	S141	K76	ILE	ILE
L957	S890	M812	VAL	GLU	T609	L455	A382	V305	L227	D142	K77	ASP	ASP
N958	P891	F813	ASP	VAL	G610	L456	S383	M306	E228	W149	N77	GLU	GLU
G960	S892	C818	ASP	ASP	T611	G456	S383	H307	E228	W149	S78	GLN	GLN
F961	F893	C818	ALA	ALA	G612	I457	S384	K308	S229	H150	T79	SER	SER
R962	M894	C818	GLU	GLU	L616	G461	F385	Q309	K232	H151	S81	GLN	GLN
E963	H897	G821	GLY	GLY	L620	V462	V386	A311	L233	Y153	N82	ILE	ILE
E964	T822	V740	GLU	GLU	L621	H463	N387	Y312	P234	L154	P86	SER	SER
L965	N823	A744	VAL	VAL	H622	D464	F389	I313	Q236	R155	K87	PRO	PRO
D968	L827	L745	GLU	GLU	H623	G465	L392	A315	F236	H156	K87	GLU	GLU
I971	A828	I746	VAL	VAL	L624	E466	G393	A316	N240	L157	P88	LYS	LYS
S972	Q829	A747	LYS	LYS	L625	V467	G394	K317	T241	A158	L89	GLN	GLN
Y973	L748	L748	ALA	ALA	PRD	E468	Y394	K318	F242	L159	K90	THR	THR
T974	R832	G749	GLU	GLU	LYS	P469	G395	T319	Q243	E160	F91	PRO	PRO
S975	Q833	E750	ILE	ILE	LYS	L472	N396	S320	Q243	L164	L92	ASN	ASN
H976	L834	D751	THR	THR	ASN	L473	K397	S320	R244	V164	T95	LYS	LYS
I977	A835	I752	GLU	GLU	VAL	L474	K398	F321	R244	Y165	Y96	LYS	LYS
V980	S836	G753	LYS	LYS	LYS	L474	L399	E322	C246	L167	P97	ASP	ASP
K911	Y837	P510	LYS	LYS	GLY	Y477	L400	G325	Q247	Q168	D98	LYS	LYS
F912	V838	M756	ASN	ASN	GLU	V478	V401	V326	N249	V169	L99	LYS	LYS
A915	E841	S757	GLY	GLY	GLU	P481	D402	Q327	N249	D172	L102	GLU	GLU
E919	F846	L758	SER	SER	ASP	E557	D404	D328	P258	T177	S101	GLU	GLU
G920	R847	H760	LEU	LEU	ASP	T483	M405	I329	P259	S178	Y103	GLU	GLU
I923	L848	F761	GLU	GLU	GLU	K494	V407	I330	P259	S178	Y103	GLU	GLU
K924	L850	G762	GLY	GLY	GLU	I485	Y408	I330	P259	S178	Y103	GLU	GLU
V929	A851	H763	THR	THR	THR	S486	K409	R338	A263	S182	W106	LEU	LEU
G930	L854	L764	ILE	ILE	ALA	L491	L410	F339	T267	R183	T107	SER	SER
Q931	H856	M765	LYS	LYS	ALA	L492	G414	L340	A268	S194	D108	GLU	GLU
ALA	L857	Y767	LYS	LYS	LYS	L493	M415	L342	Y269	S187	P109	GLU	GLU
VAL	G858	G768	GLU	GLU	GLU	G494	L411	L342	Y269	A188	N110	ALA	ALA
THR	R859	N769	LYS	LYS	ASN	L495	Y419	L346	T271	A189	K112	LYS	LYS
VAL	T863	E770	LYS	LYS	ASN	L496	Y419	R357	Y272	T190	L115	LEU	LEU
GLY	M864	H771	LYS	LYS	SER	G497	L422	L348	Q275	E194	A116	LYS	LYS
GLN	D865	I772	LYS	LYS	ILE	A496	G423	T349	Q275	F195	D117	ASP	ASP
ALA	V866	R773	LYS	LYS	SER	E579	G423	G350	L278	S196	V118	LYS	LYS
ARG	F867	R774	SER	SER	PHE	E580	S424	P351	T279	K197	L119	LYS	LYS
PRO	M868	M775	ASP	ASP	LEU	K501	I425	V353	L284	E198	S120	LEU	LEU
LYS	D871	V776	LYS	LYS	GLY	M502	Y426	P354	L284	L201	I121	LEU	LEU
ILE	V872	P777	ASP	ASP	GLY	V505	Q427	P354	L284	L201	I121	LEU	LEU
THR	M780	G781	THR	THR	ALA	L506	N428	I357	V286	L205	A123	LEU	LEU
LYS	G781	I782	THR	THR	VAL	L506	N428	I357	V286	L205	A123	LEU	LEU
LYS	V783	V783	ASP	ASP	ASN	L509	L433	H361	R287	L206	M124	LEU	LEU
THR	K791	K791	GLY	GLY	GLU	L510	L436	L362	G289	I207	T125	LEU	LEU
GLY	N874	N874	LYS	LYS	PRO	P511	L436	D363	E290	P208	S127	LEU	LEU
			ASN	ASN	LYS	H593	Y439	S365	M293	Y210	N129	LEU	LEU

4 Experimental information ⓘ

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of images	Not provided	Depositor
Resolution determination method	Not provided	Depositor
CTF correction method	MICROGRAPH	Depositor
Microscope	OTHER	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	25	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	3500	Depositor
Magnification	Not provided	Depositor
Image detector	TVIPS TEMCAM-F816 (8K X 8K)	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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	1	1.19	7/1605 (0.4%)	1.18	2/2171 (0.1%)
10	C	1.14	6/1943 (0.3%)	1.20	0/2629
11	D	1.16	6/1928 (0.3%)	1.21	2/2610 (0.1%)
12	E	1.23	11/1892 (0.6%)	1.23	4/2549 (0.2%)
13	F	1.17	8/1823 (0.4%)	1.21	4/2463 (0.2%)
14	G	1.24	12/1940 (0.6%)	1.20	3/2619 (0.1%)
15	H	1.12	8/2831 (0.3%)	1.23	13/3808 (0.3%)
16	I	1.14	11/2859 (0.4%)	1.16	10/3853 (0.3%)
17	J	1.19	13/2963 (0.4%)	1.17	4/3978 (0.1%)
18	K	1.15	12/3061 (0.4%)	1.19	7/4129 (0.2%)
19	L	1.18	11/2896 (0.4%)	1.27	9/3895 (0.2%)
2	2	1.20	10/1723 (0.6%)	1.23	3/2337 (0.1%)
20	M	1.18	12/2903 (0.4%)	1.26	15/3909 (0.4%)
21	N	1.12	19/6670 (0.3%)	1.13	12/9023 (0.1%)
22	O	1.09	13/3243 (0.4%)	1.10	1/4374 (0.0%)
23	P	1.04	12/3452 (0.3%)	1.11	1/4657 (0.0%)
24	Q	1.09	14/3527 (0.4%)	1.09	4/4748 (0.1%)
25	R	1.06	6/3272 (0.2%)	1.07	1/4412 (0.0%)
26	S	1.08	13/2945 (0.4%)	1.07	2/3976 (0.1%)
27	T	1.03	5/2279 (0.2%)	1.11	5/3077 (0.2%)
28	U	1.16	11/2087 (0.5%)	1.10	3/2811 (0.1%)
29	V	1.19	14/1969 (0.7%)	1.17	1/2652 (0.0%)
3	3	1.17	7/1611 (0.4%)	1.16	0/2174
30	W	1.19	9/1557 (0.6%)	1.24	7/2111 (0.3%)
31	X	1.16	5/1058 (0.5%)	1.18	3/1432 (0.2%)
32	Y	1.04	0/169	1.14	0/223
33	Z	1.11	31/6403 (0.5%)	1.11	10/8686 (0.1%)
4	4	1.17	7/1613 (0.4%)	1.17	1/2173 (0.0%)
5	5	1.18	9/1683 (0.5%)	1.13	2/2277 (0.1%)
6	6	1.16	7/1795 (0.4%)	1.17	2/2420 (0.1%)
7	7	1.16	7/1855 (0.4%)	1.17	3/2514 (0.1%)
8	A	1.20	10/1959 (0.5%)	1.16	1/2652 (0.0%)
9	B	1.23	9/1952 (0.5%)	1.17	3/2642 (0.1%)
All	All	1.14	335/81466 (0.4%)	1.16	138/109984 (0.1%)

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
11	D	0	1
12	E	0	3
13	F	0	1
15	H	0	8
16	I	0	4
18	K	0	2
19	L	0	4
20	M	0	2
21	N	0	1
22	O	0	4
23	P	0	2
24	Q	0	1
25	R	0	2
27	T	0	4
29	V	0	1
30	W	0	1
33	Z	0	2
7	7	0	1
All	All	0	44

All (335) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	M	251	LEU	C-N	-21.72	0.84	1.34
17	J	224	GLY	C-N	17.02	1.73	1.34
19	L	257	GLY	C-N	-8.59	1.14	1.34
25	R	306	PRO	N-CD	8.54	1.59	1.47
22	O	201	PRO	N-CD	8.22	1.59	1.47
3	3	75	PRO	N-CD	8.16	1.59	1.47
8	A	60	PRO	N-CD	8.14	1.59	1.47
29	V	143	PRO	N-CD	8.11	1.59	1.47
15	H	358	PRO	N-CD	7.78	1.58	1.47
13	F	149	PRO	N-CD	7.70	1.58	1.47
33	Z	891	PRO	N-CD	7.64	1.58	1.47
21	N	8	PRO	N-CD	7.63	1.58	1.47
31	X	37	PRO	N-CD	7.42	1.58	1.47
33	Z	354	PRO	N-CD	7.41	1.58	1.47
31	X	70	PRO	N-CD	7.33	1.58	1.47
20	M	255	TYR	CG-CD2	7.30	1.48	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	7	-5	PRO	N-CD	7.24	1.57	1.47
21	N	643	PRO	N-CD	7.23	1.57	1.47
8	A	47	GLY	N-CA	-7.16	1.35	1.46
29	V	46	PRO	N-CD	7.12	1.57	1.47
9	B	69	PRO	N-CD	7.06	1.57	1.47
28	U	133	PRO	N-CD	6.99	1.57	1.47
1	1	190	PRO	N-CD	6.94	1.57	1.47
14	G	44	GLY	CA-C	-6.92	1.40	1.51
26	S	260	PRO	N-CD	6.86	1.57	1.47
14	G	16	PRO	N-CD	6.80	1.57	1.47
12	E	136	ARG	CD-NE	6.78	1.57	1.46
24	Q	403	PRO	N-CD	6.73	1.57	1.47
31	X	26	PRO	N-CD	6.68	1.57	1.47
18	K	252	ARG	CD-NE	6.65	1.57	1.46
18	K	215	PRO	N-CD	6.64	1.57	1.47
21	N	620	GLY	CA-C	-6.58	1.41	1.51
20	M	350	PRO	N-CD	6.54	1.57	1.47
22	O	339	GLY	CA-C	6.53	1.62	1.51
18	K	287	GLY	CA-C	-6.49	1.41	1.51
5	5	212	GLY	N-CA	-6.48	1.36	1.46
18	K	93	PRO	N-CD	6.48	1.56	1.47
10	C	130	PRO	N-CD	6.44	1.56	1.47
17	J	68	PRO	N-CD	6.42	1.56	1.47
12	E	146	GLY	N-CA	-6.33	1.36	1.46
15	H	324	GLY	N-CA	-6.31	1.36	1.46
28	U	118	PRO	N-CD	6.30	1.56	1.47
4	4	76	PRO	N-CD	6.25	1.56	1.47
17	J	281	GLY	CA-C	-6.24	1.41	1.51
10	C	223	GLY	CA-C	-6.24	1.41	1.51
31	X	52	PRO	N-CD	6.20	1.56	1.47
13	F	151	GLY	CA-C	-6.20	1.42	1.51
4	4	172	PRO	N-CD	6.18	1.56	1.47
13	F	76	GLY	N-CA	-6.18	1.36	1.46
8	A	152	PRO	N-CD	6.17	1.56	1.47
18	K	151	PRO	N-CD	6.17	1.56	1.47
17	J	143	PRO	N-CD	6.17	1.56	1.47
33	Z	351	PRO	N-CD	6.13	1.56	1.47
9	B	233	PRO	N-CD	6.12	1.56	1.47
16	I	143	PRO	C-N	6.11	1.44	1.33
24	Q	80	HIS	CG-CD2	6.11	1.46	1.35
16	I	117	HIS	CG-CD2	6.10	1.46	1.35
19	L	214	PRO	N-CD	6.10	1.56	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	F	186	PRO	N-CD	6.09	1.56	1.47
14	G	146	HIS	CG-CD2	6.09	1.46	1.35
16	I	150	HIS	CG-CD2	6.09	1.46	1.35
6	6	67	HIS	CG-CD2	6.09	1.46	1.35
22	O	236	HIS	CG-CD2	6.09	1.46	1.35
28	U	173	HIS	CG-CD2	6.09	1.46	1.35
29	V	109	HIS	CG-CD2	6.09	1.46	1.35
14	G	122	HIS	CG-CD2	6.09	1.46	1.35
1	1	157	HIS	CG-CD2	6.09	1.46	1.35
12	E	73	HIS	CG-CD2	6.09	1.46	1.35
24	Q	334	HIS	CG-CD2	6.08	1.46	1.35
33	Z	898	HIS	CG-CD2	6.08	1.46	1.35
1	1	62	HIS	CG-CD2	6.08	1.46	1.35
14	G	72	HIS	CG-CD2	6.08	1.46	1.35
20	M	364	HIS	CG-CD2	6.08	1.46	1.35
23	P	282	HIS	CG-CD2	6.08	1.46	1.35
27	T	251	HIS	CG-CD2	6.08	1.46	1.35
28	U	21	HIS	CG-CD2	6.08	1.46	1.35
11	D	16	HIS	CG-CD2	6.08	1.46	1.35
26	S	334	HIS	CG-CD2	6.08	1.46	1.35
12	E	147	HIS	CG-CD2	6.08	1.46	1.35
23	P	417	HIS	CG-CD2	6.08	1.46	1.35
9	B	94	HIS	CG-CD2	6.08	1.46	1.35
10	C	125	HIS	CG-CD2	6.08	1.46	1.35
23	P	440	HIS	CG-CD2	6.08	1.46	1.35
24	Q	135	HIS	CG-CD2	6.08	1.46	1.35
25	R	81	HIS	CG-CD2	6.08	1.46	1.35
33	Z	132	HIS	CG-CD2	6.08	1.46	1.35
1	1	38	HIS	CG-CD2	6.08	1.46	1.35
3	3	36	HIS	CG-CD2	6.08	1.46	1.35
6	6	99	HIS	CG-CD2	6.08	1.46	1.35
22	O	5	HIS	CG-CD2	6.08	1.46	1.35
24	Q	247	HIS	CG-CD2	6.08	1.46	1.35
26	S	438	HIS	CG-CD2	6.08	1.46	1.35
9	B	139	HIS	CG-CD2	6.07	1.46	1.35
15	H	95	HIS	CG-CD2	6.07	1.46	1.35
24	Q	186	HIS	CG-CD2	6.07	1.46	1.35
33	Z	214	HIS	CG-CD2	6.07	1.46	1.35
4	4	40	HIS	CG-CD2	6.07	1.46	1.35
5	5	188	HIS	CG-CD2	6.07	1.46	1.35
9	B	190	HIS	CG-CD2	6.07	1.46	1.35
20	M	53	HIS	CG-CD2	6.07	1.46	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	R	325	HIS	CG-CD2	6.07	1.46	1.35
29	V	190	HIS	CG-CD2	6.07	1.46	1.35
29	V	195	HIS	CG-CD2	6.07	1.46	1.35
33	Z	760	HIS	CG-CD2	6.07	1.46	1.35
33	Z	871	HIS	CG-CD2	6.07	1.46	1.35
33	Z	463	HIS	CG-CD2	6.07	1.46	1.35
6	6	86	HIS	CG-CD2	6.07	1.46	1.35
8	A	193	HIS	CG-CD2	6.07	1.46	1.35
12	E	99	HIS	CG-CD2	6.07	1.46	1.35
14	G	182	HIS	CG-CD2	6.07	1.46	1.35
23	P	336	HIS	CG-CD2	6.07	1.46	1.35
33	Z	771	HIS	CG-CD2	6.07	1.46	1.35
33	Z	856	HIS	CG-CD2	6.07	1.46	1.35
33	Z	976	HIS	CG-CD2	6.07	1.46	1.35
5	5	179	HIS	CG-CD2	6.07	1.46	1.35
14	G	227	HIS	CG-CD2	6.07	1.46	1.35
17	J	123	HIS	CG-CD2	6.07	1.46	1.35
17	J	376	HIS	CG-CD2	6.07	1.46	1.35
21	N	573	HIS	CG-CD2	6.07	1.46	1.35
27	T	123	HIS	CG-CD2	6.07	1.46	1.35
13	F	110	HIS	CG-CD2	6.06	1.46	1.35
21	N	616	HIS	CG-CD2	6.06	1.46	1.35
26	S	261	HIS	CG-CD2	6.06	1.46	1.35
26	S	472	HIS	CG-CD2	6.06	1.46	1.35
13	F	69	HIS	CG-CD2	6.06	1.46	1.35
14	G	86	HIS	CG-CD2	6.06	1.46	1.35
23	P	425	HIS	CG-CD2	6.06	1.46	1.35
26	S	317	HIS	CG-CD2	6.06	1.46	1.35
5	5	66	HIS	CG-CD2	6.06	1.46	1.35
7	7	141	HIS	CG-CD2	6.06	1.46	1.35
22	O	235	HIS	CG-CD2	6.06	1.46	1.35
30	W	86	HIS	CG-CD2	6.06	1.46	1.35
14	G	203	HIS	CG-CD2	6.06	1.46	1.35
17	J	331	HIS	CG-CD2	6.06	1.46	1.35
18	K	142	HIS	CG-CD2	6.06	1.46	1.35
19	L	364	HIS	CG-CD2	6.06	1.46	1.35
21	N	690	HIS	CG-CD2	6.06	1.46	1.35
29	V	204	HIS	CG-CD2	6.06	1.46	1.35
30	W	170	HIS	CG-CD2	6.06	1.46	1.35
7	7	54	HIS	CG-CD2	6.06	1.46	1.35
24	Q	178	HIS	CG-CD2	6.06	1.46	1.35
26	S	191	HIS	CG-CD2	6.06	1.46	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	U	70	HIS	CG-CD2	6.06	1.46	1.35
33	Z	361	HIS	CG-CD2	6.06	1.46	1.35
8	A	15	HIS	CG-CD2	6.06	1.46	1.35
12	E	157	HIS	CG-CD2	6.06	1.46	1.35
21	N	340	HIS	CG-CD2	6.06	1.46	1.35
33	Z	593	HIS	CG-CD2	6.06	1.46	1.35
13	F	43	HIS	CG-CD2	6.05	1.46	1.35
16	I	204	HIS	CG-CD2	6.05	1.46	1.35
21	N	375	HIS	CG-CD2	6.05	1.46	1.35
22	O	122	HIS	CG-CD2	6.05	1.46	1.35
33	Z	801	HIS	CG-CD2	6.05	1.46	1.35
2	2	109	HIS	CG-CD2	6.05	1.46	1.35
16	I	151	HIS	CG-CD2	6.05	1.46	1.35
18	K	140	HIS	CG-CD2	6.05	1.46	1.35
22	O	23	HIS	CG-CD2	6.05	1.46	1.35
18	K	244	HIS	CG-CD2	6.05	1.46	1.35
26	S	347	HIS	CG-CD2	6.05	1.46	1.35
27	T	132	HIS	CG-CD2	6.05	1.46	1.35
28	U	5	HIS	CG-CD2	6.05	1.46	1.35
28	U	94	HIS	CG-CD2	6.05	1.46	1.35
29	V	111	HIS	CG-CD2	6.05	1.46	1.35
33	Z	151	HIS	CG-CD2	6.05	1.46	1.35
33	Z	959	HIS	CG-CD2	6.05	1.46	1.35
11	D	96	HIS	CG-CD2	6.05	1.46	1.35
14	G	181	HIS	CG-CD2	6.05	1.46	1.35
16	I	365	HIS	CG-CD2	6.05	1.46	1.35
23	P	263	HIS	CG-CD2	6.05	1.46	1.35
29	V	40	HIS	CG-CD2	6.05	1.46	1.35
33	Z	338	HIS	CG-CD2	6.05	1.46	1.35
2	2	66	HIS	CG-CD2	6.04	1.46	1.35
24	Q	108	PRO	N-CD	6.04	1.56	1.47
25	R	401	HIS	CG-CD2	6.04	1.46	1.35
33	Z	307	HIS	CG-CD2	6.04	1.46	1.35
5	5	166	HIS	CG-CD2	6.04	1.46	1.35
6	6	70	HIS	CG-CD2	6.04	1.46	1.35
19	L	409	HIS	CG-CD2	6.04	1.46	1.35
26	S	302	HIS	CG-CD2	6.04	1.46	1.35
2	2	35	HIS	CG-CD2	6.04	1.46	1.35
2	2	116	HIS	CG-CD2	6.04	1.46	1.35
2	2	141	HIS	CG-CD2	6.04	1.46	1.35
18	K	74	HIS	CG-CD2	6.04	1.46	1.35
19	L	106	GLY	CA-C	-6.04	1.42	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	N	329	HIS	CG-CD2	6.04	1.46	1.35
22	O	326	HIS	CG-CD2	6.04	1.46	1.35
24	Q	226	HIS	CG-CD2	6.04	1.46	1.35
28	U	223	HIS	CG-CD2	6.04	1.46	1.35
33	Z	532	HIS	CG-CD2	6.04	1.46	1.35
8	A	209	HIS	CG-CD2	6.04	1.46	1.35
30	W	77	HIS	CG-CD2	6.04	1.46	1.35
30	W	100	HIS	CG-CD2	6.04	1.46	1.35
11	D	70	HIS	CG-CD2	6.04	1.46	1.35
12	E	91	HIS	CG-CD2	6.04	1.46	1.35
17	J	170	HIS	CG-CD2	6.04	1.46	1.35
17	J	205	HIS	CG-CD2	6.04	1.46	1.35
29	V	217	HIS	CG-CD2	6.04	1.46	1.35
29	V	279	HIS	CG-CD2	6.04	1.46	1.35
22	O	283	HIS	CG-CD2	6.04	1.46	1.35
1	1	120	HIS	CG-CD2	6.04	1.46	1.35
2	2	93	HIS	CG-CD2	6.04	1.46	1.35
21	N	444	HIS	CG-CD2	6.04	1.46	1.35
2	2	114	HIS	CG-CD2	6.03	1.46	1.35
12	E	188	HIS	CG-CD2	6.03	1.46	1.35
24	Q	145	HIS	CG-CD2	6.03	1.46	1.35
4	4	132	HIS	CG-CD2	6.03	1.46	1.35
4	4	145	HIS	CG-CD2	6.03	1.46	1.35
10	C	31	HIS	CG-CD2	6.03	1.46	1.35
15	H	392	HIS	CG-CD2	6.03	1.46	1.35
19	L	67	HIS	CG-CD2	6.03	1.46	1.35
23	P	431	HIS	CG-CD2	6.03	1.46	1.35
21	N	613	HIS	CG-CD2	6.03	1.46	1.35
5	5	191	HIS	CG-CD2	6.03	1.46	1.35
8	A	185	HIS	CG-CD2	6.03	1.46	1.35
13	F	143	HIS	CG-CD2	6.03	1.46	1.35
21	N	510	HIS	CG-CD2	6.03	1.46	1.35
26	S	139	HIS	CG-CD2	6.03	1.46	1.35
27	T	94	HIS	CG-CD2	6.03	1.46	1.35
2	2	86	HIS	CG-CD2	6.02	1.46	1.35
20	M	130	PRO	N-CD	6.02	1.56	1.47
21	N	747	HIS	CG-CD2	6.02	1.46	1.35
33	Z	766	HIS	CG-CD2	6.02	1.46	1.35
6	6	186	HIS	CG-CD2	6.02	1.46	1.35
26	S	225	HIS	CG-CD2	6.02	1.46	1.35
33	Z	763	HIS	CG-CD2	6.02	1.46	1.35
19	L	273	HIS	CG-CD2	6.02	1.46	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	4	146	HIS	CG-CD2	6.02	1.46	1.35
23	P	230	HIS	CG-CD2	6.02	1.46	1.35
24	Q	361	HIS	CG-CD2	6.02	1.46	1.35
33	Z	622	HIS	CG-CD2	6.02	1.46	1.35
6	6	153	PRO	N-CD	6.02	1.56	1.47
30	W	107	HIS	CG-CD2	6.02	1.46	1.35
33	Z	156	HIS	CG-CD2	6.02	1.46	1.35
33	Z	897	HIS	CG-CD2	6.02	1.46	1.35
10	C	94	HIS	CG-CD2	6.01	1.46	1.35
17	J	240	HIS	CG-CD2	6.01	1.46	1.35
20	M	412	HIS	CG-CD2	6.01	1.46	1.35
21	N	499	HIS	CG-CD2	6.01	1.46	1.35
28	U	156	HIS	CG-CD2	6.01	1.46	1.35
23	P	348	HIS	CG-CD2	6.01	1.46	1.35
25	R	217	HIS	CG-CD2	6.01	1.46	1.35
22	O	318	HIS	CG-CD2	6.00	1.46	1.35
24	Q	252	HIS	CG-CD2	6.00	1.46	1.35
23	P	337	HIS	CG-CD2	6.00	1.46	1.35
18	K	298	GLU	CG-CD	6.00	1.60	1.51
3	3	39	HIS	CG-CD2	6.00	1.46	1.35
17	J	204	HIS	CG-CD2	6.00	1.46	1.35
4	4	96	PRO	N-CD	5.99	1.56	1.47
2	2	24	PRO	N-CD	5.98	1.56	1.47
27	T	28	PRO	N-CD	5.97	1.56	1.47
20	M	220	MET	N-CA	-5.96	1.34	1.46
21	N	294	PRO	N-CD	5.93	1.56	1.47
33	Z	289	GLY	CA-C	-5.92	1.42	1.51
21	N	785	PRO	CA-C	-5.91	1.41	1.52
21	N	600	THR	N-CA	-5.90	1.34	1.46
20	M	275	PRO	N-CD	5.86	1.56	1.47
15	H	278	GLU	CG-CD	5.86	1.60	1.51
28	U	12	PRO	N-CD	5.85	1.56	1.47
30	W	176	PRO	N-CD	5.85	1.56	1.47
26	S	165	PRO	N-CD	5.84	1.56	1.47
33	Z	604	GLY	CA-C	5.84	1.61	1.51
10	C	232	PRO	N-CD	5.84	1.56	1.47
9	B	219	PRO	N-CD	5.81	1.55	1.47
11	D	185	PRO	N-CD	5.70	1.55	1.47
9	B	222	LEU	C-N	5.66	1.43	1.33
21	N	763	GLY	CA-C	-5.66	1.42	1.51
33	Z	494	GLY	CA-C	-5.66	1.42	1.51
5	5	47	GLY	CA-C	-5.64	1.42	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
16	I	216	PRO	N-CD	5.59	1.55	1.47
33	Z	97	PRO	N-CD	5.59	1.55	1.47
22	O	230	PHE	C-N	5.58	1.43	1.33
3	3	46	GLY	CA-C	-5.57	1.43	1.51
18	K	332	GLY	CA-C	-5.57	1.43	1.51
19	L	350	PRO	N-CD	5.57	1.55	1.47
8	A	66	PRO	N-CD	5.57	1.55	1.47
21	N	250	ASP	N-CA	-5.57	1.35	1.46
5	5	138	GLY	CA-C	5.54	1.60	1.51
29	V	276	PRO	N-CD	5.53	1.55	1.47
23	P	276	LEU	N-CA	-5.53	1.35	1.46
26	S	468	ALA	C-N	5.52	1.46	1.34
30	W	75	GLY	N-CA	-5.49	1.37	1.46
6	6	112	ALA	N-CA	-5.48	1.35	1.46
14	G	216	SER	N-CA	-5.48	1.35	1.46
23	P	396	PRO	N-CD	5.47	1.55	1.47
20	M	222	GLY	CA-C	-5.46	1.43	1.51
12	E	44	GLU	C-N	5.41	1.42	1.33
18	K	294	ARG	CA-CB	5.39	1.65	1.53
7	7	158	PRO	CA-C	-5.36	1.42	1.52
19	L	412	PRO	N-CD	5.35	1.55	1.47
25	R	143	GLN	N-CA	-5.35	1.35	1.46
31	X	71	GLY	CA-C	-5.35	1.43	1.51
3	3	21	GLY	N-CA	-5.34	1.38	1.46
15	H	96	PRO	N-CD	5.34	1.55	1.47
15	H	368	PRO	N-CD	5.34	1.55	1.47
14	G	68	VAL	N-CA	-5.33	1.35	1.46
17	J	306	ARG	C-N	-5.33	1.24	1.34
1	1	108	GLY	CA-C	-5.31	1.43	1.51
16	I	287	ILE	C-N	5.29	1.42	1.33
19	L	224	PRO	C-N	5.29	1.42	1.33
33	Z	116	ALA	N-CA	-5.29	1.35	1.46
9	B	226	GLY	N-CA	-5.28	1.38	1.46
17	J	131	ASP	C-N	5.26	1.44	1.34
8	A	171	THR	C-N	5.24	1.42	1.33
3	3	115	PHE	N-CA	-5.23	1.35	1.46
20	M	388	GLY	CA-C	5.23	1.60	1.51
8	A	88	PRO	N-CD	5.22	1.55	1.47
22	O	122	HIS	N-CA	-5.19	1.35	1.46
12	E	148	ASP	CA-C	-5.18	1.39	1.52
22	O	278	PRO	CA-C	-5.18	1.42	1.52
7	7	144	ASN	N-CA	-5.18	1.35	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	Z	414	GLY	CA-C	5.16	1.60	1.51
16	I	353	PRO	N-CD	5.16	1.55	1.47
29	V	99	GLY	CA-C	-5.15	1.43	1.51
15	H	212	GLY	N-CA	-5.14	1.38	1.46
9	B	228	PRO	N-CA	-5.13	1.38	1.47
16	I	133	LEU	N-CA	-5.13	1.36	1.46
11	D	77	GLY	CA-C	-5.13	1.43	1.51
11	D	184	PRO	N-CD	5.12	1.55	1.47
16	I	166	PRO	N-CD	5.12	1.55	1.47
1	1	171	GLY	CA-C	-5.10	1.43	1.51
30	W	53	SER	C-N	5.10	1.42	1.33
5	5	157	GLY	N-CA	-5.09	1.38	1.46
24	Q	195	LYS	C-N	5.08	1.45	1.34
29	V	55	GLY	N-CA	-5.08	1.38	1.46
19	L	319	GLY	N-CA	-5.08	1.38	1.46
7	7	162	VAL	N-CA	5.08	1.56	1.46
24	Q	43	GLY	N-CA	-5.07	1.38	1.46
30	W	69	PHE	C-N	5.06	1.42	1.33
7	7	81	PRO	N-CD	5.05	1.54	1.47
20	M	360	ILE	N-CA	-5.05	1.36	1.46
12	E	57	PRO	N-CD	5.05	1.54	1.47
3	3	93	PRO	N-CD	5.03	1.54	1.47
2	2	181	GLY	CA-C	-5.02	1.43	1.51
28	U	191	THR	N-CA	5.01	1.56	1.46
29	V	23	THR	N-CA	5.01	1.56	1.46

All (138) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	L	257	GLY	O-C-N	-21.29	88.64	122.70
20	M	299	ARG	NE-CZ-NH1	14.99	127.79	120.30
19	L	257	GLY	CA-C-N	13.23	146.30	117.20
19	L	257	GLY	C-N-CA	12.51	152.97	121.70
18	K	252	ARG	NE-CZ-NH2	-11.18	114.71	120.30
20	M	251	LEU	O-C-N	-11.13	104.89	122.70
18	K	294	ARG	NE-CZ-NH2	-9.74	115.43	120.30
16	I	262	ARG	NE-CZ-NH1	9.70	125.15	120.30
20	M	251	LEU	CA-C-N	9.57	138.25	117.20
18	K	294	ARG	NE-CZ-NH1	9.06	124.83	120.30
20	M	251	LEU	C-N-CA	9.03	144.27	121.70
20	M	255	TYR	CB-CG-CD2	8.36	126.02	121.00
12	E	132	ARG	NE-CZ-NH1	8.16	124.38	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	I	257	LEU	CB-CG-CD1	7.98	124.57	111.00
15	H	162	ARG	NE-CZ-NH1	7.59	124.09	120.30
19	L	248	ALA	N-CA-CB	-7.14	100.10	110.10
16	I	304	ARG	NE-CZ-NH2	-7.12	116.74	120.30
20	M	255	TYR	CB-CG-CD1	-7.10	116.74	121.00
17	J	224	GLY	C-N-CA	-7.01	104.17	121.70
11	D	50	SER	N-CA-C	-6.80	92.65	111.00
18	K	249	GLU	OE1-CD-OE2	-6.79	115.16	123.30
28	U	164	GLU	N-CA-C	-6.63	93.11	111.00
9	B	217	GLU	N-CA-C	-6.60	93.17	111.00
23	P	322	LEU	C-N-CA	6.51	137.97	121.70
2	2	41	ILE	N-CA-C	-6.36	93.83	111.00
14	G	209	LYS	N-CA-C	-6.28	94.03	111.00
33	Z	486	SER	C-N-CA	6.28	137.40	121.70
31	X	28	PRO	O-C-N	6.21	132.63	122.70
33	Z	77	ASN	N-CA-C	-6.21	94.24	111.00
19	L	84	LEU	O-C-N	6.19	132.60	122.70
20	M	256	ILE	CA-CB-CG2	-6.18	98.54	110.90
12	E	222	ILE	N-CA-C	-6.17	94.35	111.00
20	M	299	ARG	NH1-CZ-NH2	-6.11	112.68	119.40
7	7	35	ILE	N-CA-C	-6.09	94.56	111.00
20	M	233	ARG	O-C-N	-6.03	113.05	122.70
21	N	249	ASN	O-C-N	6.00	132.31	122.70
8	A	224	GLU	N-CA-C	-5.98	94.84	111.00
16	I	160	LEU	N-CA-C	-5.95	94.94	111.00
30	W	24	THR	N-CA-C	-5.95	94.94	111.00
20	M	277	ILE	N-CA-C	-5.93	94.98	111.00
33	Z	240	ASN	O-C-N	-5.92	113.22	122.70
20	M	426	LYS	N-CA-C	-5.92	95.03	111.00
15	H	193	PRO	C-N-CA	5.90	136.45	121.70
21	N	250	ASP	O-C-N	-5.90	113.26	122.70
15	H	145	TYR	CG-CD2-CE2	-5.89	116.59	121.30
19	L	250	GLY	O-C-N	-5.85	113.34	122.70
30	W	163	ASN	N-CA-C	-5.83	95.27	111.00
21	N	387	ALA	CA-C-N	5.82	133.38	117.10
27	T	168	SER	C-N-CA	5.80	136.19	121.70
33	Z	599	ILE	O-C-N	-5.79	113.43	122.70
18	K	211	LEU	N-CA-C	-5.73	95.52	111.00
27	T	97	SER	C-N-CA	5.72	136.00	121.70
18	K	213	GLY	N-CA-C	-5.72	98.81	113.10
30	W	162	ASN	C-N-CA	5.68	135.91	121.70
19	L	336	ALA	O-C-N	-5.67	113.62	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	W	19	GLY	O-C-N	5.67	131.77	122.70
20	M	240	ASN	C-N-CA	5.66	135.85	121.70
33	Z	131	LYS	N-CA-C	-5.62	95.83	111.00
33	Z	611	THR	CA-CB-CG2	-5.61	104.55	112.40
33	Z	258	PRO	CA-C-N	5.60	132.79	117.10
16	I	130	VAL	N-CA-C	5.59	126.09	111.00
24	Q	226	HIS	O-C-N	-5.59	113.75	122.70
13	F	144	LEU	N-CA-C	-5.55	96.01	111.00
21	N	526	TYR	N-CA-C	-5.55	96.02	111.00
12	E	122	ARG	NE-CZ-NH1	-5.54	117.53	120.30
16	I	338	LEU	C-N-CA	5.51	135.47	121.70
15	H	383	GLU	O-C-N	-5.50	113.84	123.20
21	N	708	ALA	C-N-CA	5.50	133.85	122.30
30	W	5	ALA	N-CA-C	-5.47	96.22	111.00
21	N	716	GLN	N-CA-C	-5.46	96.26	111.00
16	I	130	VAL	CB-CA-C	-5.46	101.04	111.40
15	H	163	VAL	CA-CB-CG2	-5.45	102.72	110.90
12	E	61	SER	C-N-CA	5.45	135.32	121.70
13	F	158	GLY	N-CA-C	-5.44	99.50	113.10
6	6	129	ALA	N-CA-C	-5.44	96.32	111.00
17	J	224	GLY	CA-C-N	-5.43	105.25	117.20
20	M	173	ASP	O-C-N	-5.43	114.01	122.70
15	H	286	GLU	CA-C-N	-5.42	105.35	116.20
1	1	35	THR	N-CA-C	-5.39	96.43	111.00
31	X	114	LEU	C-N-CA	5.37	135.13	121.70
21	N	378	ASN	N-CA-C	-5.37	96.50	111.00
26	S	151	GLU	N-CA-C	-5.34	96.57	111.00
24	Q	355	GLU	C-N-CA	5.34	135.05	121.70
27	T	93	ASN	C-N-CA	5.33	135.03	121.70
19	L	187	THR	N-CA-C	5.32	125.37	111.00
28	U	289	ASP	O-C-N	-5.32	114.19	122.70
21	N	128	ILE	O-C-N	5.32	131.21	122.70
18	K	252	ARG	NH1-CZ-NH2	5.31	125.24	119.40
5	5	152	ASP	O-C-N	5.30	131.19	122.70
17	J	395	GLU	C-N-CA	5.30	134.95	121.70
6	6	98	VAL	O-C-N	5.29	131.17	122.70
4	4	1	ASP	N-CA-C	-5.28	96.74	111.00
24	Q	294	ARG	C-N-CA	5.28	133.38	122.30
11	D	134	LEU	N-CA-C	-5.27	96.78	111.00
21	N	715	ILE	N-CA-C	-5.27	96.78	111.00
28	U	110	PHE	C-N-CA	5.25	134.81	121.70
15	H	278	GLU	N-CA-CB	5.24	120.04	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	N	230	VAL	O-C-N	5.24	131.09	122.70
15	H	197	MET	O-C-N	5.24	131.08	122.70
21	N	885	ILE	O-C-N	-5.23	114.33	122.70
30	W	22	PRO	C-N-CA	5.20	134.71	121.70
20	M	233	ARG	CA-C-O	5.18	130.99	120.10
15	H	303	ALA	N-CA-C	-5.17	97.03	111.00
14	G	215	ILE	N-CA-C	-5.17	97.05	111.00
7	7	27	ARG	O-C-N	5.16	130.95	122.70
33	Z	51	LEU	N-CA-C	-5.15	97.11	111.00
33	Z	178	SER	O-C-N	-5.13	114.49	122.70
2	2	2	THR	N-CA-C	-5.13	97.15	111.00
33	Z	502	ASN	C-N-CA	5.13	134.52	121.70
29	V	111	HIS	CA-C-N	5.13	131.46	117.10
17	J	131	ASP	CA-C-O	-5.12	109.34	120.10
16	I	104	LEU	N-CA-C	-5.12	97.18	111.00
15	H	374	LYS	O-C-N	-5.11	114.52	122.70
19	L	100	SER	C-N-CA	5.10	134.46	121.70
13	F	89	ARG	O-C-N	-5.10	114.54	122.70
14	G	69	VAL	N-CA-C	-5.10	97.23	111.00
27	T	28	PRO	CA-C-N	5.10	131.38	117.10
15	H	162	ARG	NH1-CZ-NH2	-5.09	113.80	119.40
15	H	283	TYR	CG-CD1-CE1	-5.09	117.22	121.30
2	2	43	CYS	N-CA-C	-5.09	97.25	111.00
5	5	99	THR	O-C-N	5.09	130.84	122.70
27	T	28	PRO	CA-C-O	-5.08	108.00	120.20
9	B	48	GLU	O-C-N	5.08	130.82	122.70
16	I	228	GLY	N-CA-C	-5.07	100.42	113.10
30	W	179	ARG	N-CA-C	-5.07	97.31	111.00
16	I	134	SER	C-N-CA	5.07	134.37	121.70
31	X	73	THR	N-CA-C	-5.06	97.34	111.00
7	7	106	ILE	O-C-N	5.06	130.79	122.70
13	F	133	LEU	N-CA-C	-5.06	97.34	111.00
24	Q	118	CYS	O-C-N	-5.05	114.62	122.70
15	H	302	LYS	C-N-CA	5.05	134.32	121.70
21	N	257	ILE	O-C-N	-5.04	114.63	122.70
20	M	116	ALA	N-CA-C	-5.03	97.42	111.00
22	O	271	LYS	N-CA-C	-5.03	97.42	111.00
9	B	94	HIS	O-C-N	-5.03	114.66	122.70
1	1	76	GLU	O-C-N	-5.02	114.67	122.70
25	R	328	PHE	C-N-CA	5.01	134.22	121.70
26	S	144	LEU	O-C-N	-5.00	114.70	122.70

There are no chirality outliers.

All (44) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
7	7	100	ASN	Peptide
11	D	104	VAL	Peptide
12	E	122	ARG	Sidechain
12	E	132	ARG	Sidechain
12	E	136	ARG	Sidechain
13	F	47	VAL	Mainchain
15	H	101	ARG	Peptide
15	H	145	TYR	Sidechain
15	H	162	ARG	Peptide
15	H	170	GLU	Peptide
15	H	283	TYR	Sidechain
15	H	285	GLY	Mainchain
15	H	400	ARG	Peptide
15	H	95	HIS	Peptide
16	I	125	MET	Peptide
16	I	214	LYS	Peptide
16	I	256	TYR	Sidechain
16	I	340	ARG	Peptide
18	K	150	LEU	Peptide
18	K	255	ARG	Sidechain
19	L	203	ASN	Peptide
19	L	249	SER	Peptide
19	L	253	ASP	Peptide
19	L	257	GLY	Mainchain
20	M	299	ARG	Sidechain
20	M	75	LEU	Peptide
21	N	774	ASN	Peptide
22	O	125	GLY	Peptide
22	O	140	LYS	Peptide
22	O	19	ASP	Peptide
22	O	240	GLU	Peptide
23	P	53	ALA	Peptide
23	P	69	ARG	Sidechain
24	Q	402	THR	Peptide
25	R	184	GLN	Peptide
25	R	381	ILE	Peptide
27	T	237	ASN	Peptide
27	T	247	ASP	Peptide
27	T	252	GLU	Peptide
27	T	253	GLU	Peptide
29	V	110	SER	Peptide
30	W	164	PRO	Peptide

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Mol	Chain	Res	Type	Group
33	Z	317	GLN	Peptide
33	Z	350	GLY	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1	1576	0	1555	171	0
2	2	1692	0	1699	108	0
3	3	1581	0	1574	135	0
4	4	1585	0	1590	109	0
5	5	1646	0	1595	95	0
6	6	1757	0	1708	104	0
7	7	1824	0	1832	109	0
8	A	1921	0	1910	162	0
9	B	1915	0	1929	115	0
10	C	1913	0	1914	145	0
11	D	1899	0	1908	141	0
12	E	1867	0	1840	134	0
13	F	1795	0	1797	190	0
14	G	1900	0	1888	161	0
15	H	2792	0	2879	337	0
16	I	2822	0	2868	285	0
17	J	2928	0	3054	250	0
18	K	3019	0	3082	222	0
19	L	2853	0	2925	248	0
20	M	2866	0	2936	262	0
21	N	6562	0	6625	493	0
22	O	3182	0	3207	254	0
23	P	3401	0	3482	280	0
24	Q	3471	0	3494	277	0
25	R	3218	0	3216	296	0
26	S	2893	0	2937	218	0
27	T	2235	0	2207	174	0
28	U	2061	0	2115	247	0
29	V	1942	0	1954	186	0
30	W	1534	0	1542	145	0
31	X	1032	0	1017	103	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
32	Y	168	0	153	12	0
33	Z	6289	0	6235	798	0
All	All	80139	0	80667	6086	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 38.

All (6086) 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)
33:Z:574:TYR:CE2	33:Z:584:VAL:HG11	1.29	1.68
23:P:131:PHE:CZ	23:P:167:THR:HG22	1.24	1.65
15:H:172:MET:HB2	16:I:129:TYR:CD2	1.26	1.62
15:H:396:MET:CE	15:H:438:ALA:CB	1.78	1.57
15:H:172:MET:CB	16:I:129:TYR:CE2	1.82	1.57
33:Z:64:TYR:HD2	33:Z:111:LEU:CD1	0.97	1.56
15:H:172:MET:CB	16:I:129:TYR:CD2	1.75	1.55
33:Z:89:LEU:CD2	33:Z:125:THR:HG21	1.08	1.52
28:U:277:TYR:CE1	29:V:295:VAL:HG11	1.45	1.51
12:E:15:PHE:CE1	12:E:21:LEU:HD11	1.46	1.51
31:X:79:LYS:HE2	31:X:98:PHE:CE2	1.44	1.51
23:P:267:PHE:CE1	23:P:329:PHE:HE2	1.25	1.51
30:W:21:PHE:CE1	30:W:25:ARG:NH1	1.79	1.49
31:X:75:TRP:CZ2	31:X:125:MET:HG3	0.99	1.49
23:P:308:LEU:HD11	23:P:349:ASN:CB	1.37	1.49
30:W:21:PHE:HE1	30:W:25:ARG:NH1	1.03	1.48
15:H:324:GLY:CA	20:M:290:ARG:NH2	1.76	1.48
1:1:14:LEU:HD21	1:1:100:ALA:CB	1.43	1.48
31:X:75:TRP:CZ3	31:X:125:MET:CE	1.91	1.47
18:K:272:ASP:CB	19:L:306:MET:HE1	1.45	1.47
16:I:204:HIS:CD2	16:I:207:LEU:CD1	1.98	1.46
33:Z:64:TYR:CD2	33:Z:111:LEU:HD13	0.94	1.46
26:S:184:TRP:CZ2	26:S:217:PHE:HE2	1.28	1.46
21:N:329:HIS:CB	29:V:182:LYS:HZ1	1.28	1.45
33:Z:188:ALA:H	33:Z:201:LEU:CD1	1.29	1.44
30:W:186:ALA:HA	30:W:191:ILE:CG2	1.43	1.44
31:X:75:TRP:CZ2	31:X:125:MET:CG	1.95	1.44
23:P:267:PHE:CE1	23:P:329:PHE:CE2	2.06	1.44
23:P:308:LEU:HD13	23:P:349:ASN:CG	1.20	1.43
1:1:14:LEU:CD2	1:1:100:ALA:HB3	1.48	1.43
3:3:129:VAL:HG22	3:3:138:PHE:CE1	1.54	1.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:A:252:ASP:CG	23:P:85:LYS:NZ	1.73	1.42
23:P:308:LEU:CD1	23:P:349:ASN:CG	1.87	1.42
30:W:25:ARG:NH1	30:W:144:PHE:HE2	1.13	1.42
18:K:272:ASP:CB	19:L:306:MET:CE	1.98	1.42
17:J:224:GLY:C	17:J:225:GLU:N	1.73	1.41
18:K:272:ASP:HB3	19:L:306:MET:CE	1.48	1.40
8:A:252:ASP:OD1	23:P:85:LYS:CE	1.68	1.40
16:I:126:PRO:HB3	16:I:128:TYR:CE2	1.54	1.40
15:H:324:GLY:N	20:M:290:ARG:HH21	1.07	1.40
33:Z:53:VAL:HG13	33:Z:95:THR:CG2	1.51	1.40
24:Q:309:ARG:HH21	24:Q:345:SER:CB	1.35	1.40
1:1:83:LYS:NZ	1:1:118:SER:HA	1.34	1.40
15:H:173:ARG:CA	16:I:129:TYR:OH	1.67	1.40
26:S:461:PHE:CZ	28:U:274:MET:O	1.75	1.39
15:H:396:MET:HE3	15:H:438:ALA:CB	1.42	1.39
1:1:19:ARG:NH2	1:1:171:GLY:N	1.68	1.39
33:Z:474:LEU:CD2	33:Z:493:LEU:HD22	1.51	1.39
33:Z:493:LEU:HD11	33:Z:497:PHE:CZ	1.54	1.37
24:Q:309:ARG:HH21	24:Q:345:SER:CA	1.36	1.37
26:S:461:PHE:CE2	28:U:274:MET:O	1.77	1.37
15:H:172:MET:HB2	16:I:129:TYR:CE2	1.47	1.36
33:Z:89:LEU:CD2	33:Z:125:THR:CG2	2.03	1.36
29:V:135:ARG:NE	29:V:157:ARG:HH12	1.23	1.35
22:O:69:PHE:HE2	22:O:74:ASN:O	1.06	1.35
17:J:337:LEU:HD22	17:J:382:PHE:CZ	1.58	1.35
16:I:126:PRO:CB	16:I:128:TYR:HE2	1.40	1.35
1:1:19:ARG:HH21	1:1:171:GLY:N	1.20	1.35
30:W:21:PHE:HE1	30:W:25:ARG:CZ	1.36	1.35
31:X:75:TRP:CZ3	31:X:125:MET:HE2	1.56	1.34
25:R:209:ARG:NH2	25:R:243:LEU:HD11	1.35	1.34
16:I:204:HIS:HD2	16:I:207:LEU:CD1	1.33	1.34
30:W:186:ALA:CA	30:W:191:ILE:HG22	1.56	1.34
30:W:186:ALA:CA	30:W:191:ILE:CG2	2.06	1.34
20:M:47:GLU:OE2	20:M:50:ARG:NH2	1.61	1.34
8:A:252:ASP:CG	23:P:85:LYS:HZ1	1.25	1.33
29:V:135:ARG:HE	29:V:157:ARG:NH1	1.27	1.33
28:U:203:LYS:CE	28:U:229:LEU:HD21	1.59	1.33
26:S:184:TRP:HZ2	26:S:217:PHE:CE2	1.46	1.32
23:P:308:LEU:CD1	23:P:349:ASN:CB	2.05	1.32
31:X:75:TRP:CE3	31:X:125:MET:HE3	1.62	1.32
30:W:25:ARG:NH1	30:W:144:PHE:CE2	1.96	1.32

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:S:184:TRP:CZ2	26:S:217:PHE:CE2	2.15	1.31
15:H:284:VAL:HB	20:M:254:MET:CA	1.60	1.31
33:Z:474:LEU:HD23	33:Z:493:LEU:CD2	1.60	1.31
21:N:424:LYS:NZ	21:N:461:GLU:HB3	1.43	1.31
16:I:204:HIS:CD2	16:I:207:LEU:HD13	1.60	1.31
23:P:308:LEU:CD1	23:P:349:ASN:HB2	1.61	1.30
1:1:19:ARG:NH2	1:1:171:GLY:H	1.18	1.30
15:H:156:VAL:HG22	15:H:181:TYR:OH	1.13	1.30
28:U:277:TYR:CE1	29:V:295:VAL:CG1	2.14	1.30
21:N:329:HIS:CB	29:V:182:LYS:NZ	1.94	1.30
3:3:52:THR:OG1	4:4:84:ARG:NH2	1.63	1.30
29:V:135:ARG:HD2	29:V:157:ARG:NH2	1.47	1.29
33:Z:562:TRP:CE2	33:Z:566:LEU:HD11	1.67	1.29
24:Q:418:GLN:HB3	29:V:262:THR:CG2	1.60	1.29
27:T:86:LYS:CE	27:T:128:TYR:HE2	1.43	1.29
14:G:122:HIS:CD2	14:G:128:VAL:HG11	1.68	1.29
15:H:173:ARG:N	16:I:129:TYR:OH	1.66	1.28
20:M:251:LEU:O	20:M:252:VAL:N	1.66	1.28
33:Z:443:ASP:OD2	33:Z:447:VAL:HG11	1.26	1.28
22:O:15:ARG:CZ	22:O:73:ILE:HD11	1.63	1.27
15:H:284:VAL:HG11	20:M:253:GLN:C	1.54	1.27
8:A:205:PHE:CZ	8:A:209:HIS:CE1	2.22	1.27
18:K:212:TYR:CE1	18:K:320:ARG:HA	1.67	1.27
8:A:220:LYS:CD	8:A:242:GLU:HB2	1.64	1.27
16:I:175:LYS:O	17:J:282:PHE:CE1	1.88	1.26
33:Z:865:ASP:CG	33:Z:909:ARG:HH21	1.34	1.26
24:Q:146:TYR:CE1	24:Q:184:VAL:HA	1.70	1.26
30:W:186:ALA:CB	30:W:191:ILE:HG21	1.64	1.26
21:N:406:TYR:OH	21:N:748:PHE:CE1	1.89	1.26
21:N:596:LEU:HD22	21:N:717:LEU:CD1	1.66	1.25
22:O:250:TRP:O	22:O:269:LEU:HD11	1.19	1.25
15:H:172:MET:HB3	16:I:129:TYR:CE2	1.57	1.25
15:H:284:VAL:HB	20:M:254:MET:CB	1.66	1.25
23:P:203:ILE:HG12	23:P:220:TYR:OH	1.27	1.25
26:S:315:LYS:HD3	26:S:345:TYR:CE1	1.69	1.25
33:Z:486:SER:O	33:Z:490:ILE:HG12	1.29	1.25
22:O:342:ASP:OD1	23:P:358:SER:HB2	1.11	1.25
8:A:252:ASP:CG	23:P:85:LYS:CE	2.01	1.25
24:Q:309:ARG:NH2	24:Q:345:SER:CB	1.99	1.25
19:L:336:ALA:HB1	19:L:342:ARG:NH1	1.53	1.24
13:F:3:ARG:HH21	15:H:359:ASN:ND2	1.33	1.24

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:6:91:LYS:HD3	6:6:96:TYR:OH	1.30	1.24
23:P:131:PHE:CZ	23:P:167:THR:CG2	2.19	1.24
24:Q:309:ARG:CZ	24:Q:345:SER:HB3	1.68	1.24
27:T:2:PRO:O	27:T:9:LYS:HD2	1.32	1.24
33:Z:442:VAL:HG12	33:Z:443:ASP:N	1.41	1.23
29:V:107:TRP:CZ3	29:V:109:HIS:CD2	2.26	1.23
13:F:120:THR:CB	14:G:129:ARG:HH11	1.50	1.23
25:R:301:TYR:CE1	25:R:305:PHE:CZ	2.27	1.23
17:J:167:PRO:HB3	17:J:174:PHE:CE2	1.73	1.23
15:H:396:MET:CE	15:H:438:ALA:HB1	1.48	1.22
31:X:75:TRP:CE2	31:X:125:MET:HG3	1.74	1.22
33:Z:428:TRP:CZ3	33:Z:461:GLY:HA3	1.74	1.22
33:Z:442:VAL:CG1	33:Z:443:ASP:H	1.45	1.22
17:J:337:LEU:HB2	25:R:204:TRP:CZ2	1.74	1.22
27:T:86:LYS:CE	27:T:128:TYR:CE2	2.23	1.22
18:K:212:TYR:HE1	18:K:320:ARG:CA	1.52	1.22
33:Z:865:ASP:OD2	33:Z:909:ARG:NH2	1.71	1.22
14:G:173:ALA:CB	19:L:420:ARG:HH21	1.52	1.22
15:H:389:PHE:CZ	15:H:419:LEU:HD22	1.73	1.22
33:Z:64:TYR:OH	33:Z:115:LEU:HD21	1.39	1.22
15:H:324:GLY:HA3	20:M:290:ARG:NH2	1.34	1.22
13:F:84:LEU:HD23	13:F:132:LEU:CD1	1.70	1.21
27:T:86:LYS:HE3	27:T:128:TYR:CE2	1.76	1.21
33:Z:246:CYS:SG	33:Z:271:ILE:HG21	1.80	1.21
33:Z:89:LEU:HD21	33:Z:125:THR:CG2	1.66	1.20
16:I:384:LYS:HZ3	16:I:420:LYS:NZ	1.39	1.20
33:Z:75:ILE:CG2	33:Z:121:ILE:HG21	1.71	1.20
33:Z:392:LEU:CD1	33:Z:424:SER:O	1.90	1.20
33:Z:138:ARG:CZ	33:Z:157:LEU:HG	1.70	1.20
8:A:220:LYS:HD3	8:A:242:GLU:CB	1.70	1.20
16:I:207:LEU:HD13	33:Z:930:GLY:HA2	1.20	1.20
33:Z:443:ASP:CG	33:Z:447:VAL:HG11	1.62	1.20
33:Z:443:ASP:OD2	33:Z:447:VAL:CG1	1.88	1.20
13:F:159:THR:HA	13:F:169:LYS:NZ	1.57	1.20
31:X:75:TRP:CH2	31:X:125:MET:HG3	1.76	1.19
33:Z:419:VAL:O	33:Z:422:ILE:HG12	1.40	1.19
14:G:146:HIS:HB3	14:G:148:TYR:CE1	1.75	1.19
33:Z:574:TYR:CE2	33:Z:584:VAL:CG1	2.24	1.19
25:R:408:ASP:HB2	26:S:464:ARG:NH2	1.55	1.19
26:S:315:LYS:HD3	26:S:345:TYR:CZ	1.78	1.19
13:F:105:VAL:HG22	13:F:145:LEU:CD1	1.71	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:F:101:ARG:NH1	13:F:103:LEU:HA	1.55	1.19
33:Z:823:ASN:HB3	33:Z:856:HIS:CE1	1.78	1.19
24:Q:309:ARG:NE	24:Q:345:SER:HB3	1.57	1.18
17:J:337:LEU:CD2	17:J:382:PHE:HZ	1.56	1.18
12:E:221:CYS:SG	12:E:231:TYR:CE2	2.34	1.18
17:J:216:ALA:O	17:J:219:VAL:N	1.74	1.18
33:Z:574:TYR:CZ	33:Z:584:VAL:HG11	1.78	1.18
25:R:301:TYR:HE1	25:R:305:PHE:CZ	1.60	1.18
13:F:84:LEU:HD23	13:F:132:LEU:HD11	1.26	1.18
15:H:59:ILE:HG21	16:I:92:GLU:OE2	1.41	1.18
33:Z:474:LEU:CD2	33:Z:493:LEU:CD2	2.17	1.17
24:Q:418:GLN:CB	29:V:262:THR:HG21	1.74	1.17
21:N:53:ASP:HA	21:N:58:ARG:HH21	1.08	1.17
2:2:50:ALA:CB	3:3:118:ILE:HG22	1.73	1.17
24:Q:309:ARG:NH2	24:Q:345:SER:HB3	1.55	1.17
33:Z:321:PHE:HE2	33:Z:351:PRO:HG3	1.02	1.17
33:Z:217:GLU:CD	33:Z:244:ARG:HH21	1.47	1.17
33:Z:550:PHE:CZ	33:Z:566:LEU:HB3	1.77	1.17
33:Z:53:VAL:CG1	33:Z:95:THR:CG2	2.22	1.17
33:Z:138:ARG:NE	33:Z:157:LEU:HG	1.56	1.17
10:C:161:LYS:HD2	11:D:56:ASP:HB2	1.21	1.17
15:H:324:GLY:N	20:M:290:ARG:NH2	1.84	1.16
18:K:272:ASP:HB2	19:L:306:MET:CE	1.75	1.16
16:I:395:MET:HE2	16:I:420:LYS:NZ	1.61	1.16
33:Z:823:ASN:HB3	33:Z:856:HIS:HE1	1.04	1.16
15:H:396:MET:HE2	15:H:438:ALA:CB	1.55	1.16
30:W:186:ALA:CB	30:W:191:ILE:CG2	2.24	1.16
33:Z:748:LEU:HD21	33:Z:783:VAL:CA	1.75	1.16
33:Z:385:PHE:CE2	33:Z:389:PHE:CE2	2.33	1.15
31:X:75:TRP:CZ3	31:X:125:MET:HE3	1.61	1.15
33:Z:863:THR:HG21	33:Z:911:LYS:HZ3	1.01	1.15
8:A:153:SER:HB3	8:A:155:TYR:HE1	1.05	1.15
30:W:9:VAL:HG22	30:W:52:ILE:CD1	1.76	1.15
28:U:32:ARG:CB	28:U:94:HIS:HE1	1.60	1.15
33:Z:89:LEU:HD22	33:Z:125:THR:CG2	1.69	1.15
22:O:69:PHE:CE2	22:O:74:ASN:O	1.99	1.15
33:Z:385:PHE:CZ	33:Z:389:PHE:CE2	2.33	1.15
23:P:303:PHE:CE1	23:P:345:VAL:HG22	1.82	1.15
23:P:131:PHE:CE2	23:P:167:THR:HG22	1.80	1.15
15:H:173:ARG:CB	16:I:129:TYR:OH	1.93	1.15
33:Z:205:LEU:HG	33:Z:236:PHE:CE1	1.80	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:T:157:TYR:OH	27:T:188:GLU:HG2	1.46	1.15
25:R:266:LEU:HA	25:R:270:VAL:HG22	1.28	1.15
17:J:134:VAL:HG12	17:J:135:SER:N	1.57	1.15
14:G:7:TYR:CE1	14:G:13:VAL:HG21	1.80	1.14
28:U:277:TYR:CZ	29:V:295:VAL:HG13	1.83	1.14
23:P:303:PHE:HE1	23:P:345:VAL:HG22	1.06	1.14
11:D:68:ASP:OD2	11:D:97:ARG:NH2	1.80	1.14
23:P:167:THR:OG1	23:P:168:TYR:HD1	1.27	1.14
21:N:329:HIS:HB2	29:V:182:LYS:CE	1.77	1.14
28:U:189:ARG:NH1	29:V:296:LEU:HD13	1.60	1.14
21:N:282:TYR:CZ	21:N:286:LEU:HD13	1.81	1.14
23:P:267:PHE:CZ	23:P:329:PHE:CE2	2.35	1.14
14:G:111:PHE:HD1	14:G:114:ARG:NH2	1.44	1.14
30:W:20:ASP:HB3	30:W:25:ARG:NH2	1.62	1.14
1:1:137:TYR:CZ	1:1:157:HIS:HD2	1.65	1.14
33:Z:64:TYR:CE2	33:Z:111:LEU:HD13	1.82	1.13
22:O:250:TRP:HB3	22:O:269:LEU:HD21	1.25	1.13
30:W:124:GLU:OE1	30:W:127:ARG:NH2	1.80	1.13
21:N:515:ARG:NH2	21:N:738:GLN:OE1	1.80	1.13
26:S:401:LYS:HE2	26:S:444:GLU:OE2	1.46	1.13
23:P:308:LEU:HD22	23:P:369:LEU:HD23	1.30	1.13
29:V:131:GLN:NE2	29:V:194:ARG:HH21	1.47	1.13
21:N:327:LEU:HD21	21:N:743:PHE:HE1	1.12	1.13
33:Z:224:LEU:HD13	33:Z:233:LEU:HD23	1.22	1.13
16:I:384:LYS:NZ	16:I:420:LYS:HZ2	1.44	1.13
28:U:32:ARG:HB3	28:U:94:HIS:HE1	1.04	1.13
33:Z:154:ILE:HG22	33:Z:211:PHE:CZ	1.84	1.13
26:S:401:LYS:HG2	26:S:444:GLU:HG2	1.28	1.13
13:F:179:PHE:CZ	13:F:192:ALA:HB1	1.84	1.13
33:Z:75:ILE:HG21	33:Z:121:ILE:CG2	1.78	1.12
12:E:15:PHE:CD1	12:E:21:LEU:HD11	1.83	1.12
30:W:21:PHE:HZ	30:W:144:PHE:CD2	1.66	1.12
13:F:120:THR:HB	14:G:129:ARG:HH11	1.01	1.12
25:R:107:GLU:HG2	25:R:111:LYS:HE2	1.30	1.12
33:Z:278:LEU:HD22	33:Z:297:VAL:CG1	1.79	1.12
33:Z:188:ALA:H	33:Z:201:LEU:HD12	1.04	1.12
24:Q:299:MET:HE3	24:Q:335:PHE:HZ	1.12	1.12
25:R:209:ARG:HG3	25:R:213:TYR:HE2	1.11	1.12
33:Z:138:ARG:NH2	33:Z:157:LEU:HD12	1.64	1.12
5:5:8:PHE:CE1	5:5:13:ILE:HG12	1.85	1.12
31:X:79:LYS:CE	31:X:98:PHE:CE2	2.31	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:N:329:HIS:HB2	29:V:182:LYS:HE3	1.23	1.12
13:F:12:THR:HG23	13:F:19:LEU:CD1	1.78	1.12
7:7:129:TYR:HE1	7:7:134:LEU:HD22	1.02	1.12
23:P:131:PHE:HA	23:P:136:ARG:NH1	1.64	1.11
30:W:101:ARG:NH1	30:W:106:GLN:O	1.83	1.11
33:Z:188:ALA:N	33:Z:201:LEU:CD1	2.12	1.11
33:Z:278:LEU:HD22	33:Z:297:VAL:HG13	1.12	1.11
5:5:135:PHE:HE2	5:5:163:ALA:HB1	1.08	1.11
1:1:174:ARG:NH1	1:1:185:ARG:HH21	1.48	1.11
17:J:212:ARG:NH1	17:J:246:PHE:CE2	2.19	1.11
33:Z:776:VAL:CG1	33:Z:777:PRO:HD3	1.80	1.11
33:Z:776:VAL:HG12	33:Z:777:PRO:HD3	1.32	1.11
4:4:3:ILE:HG22	4:4:102:LEU:HD12	1.19	1.11
33:Z:574:TYR:CZ	33:Z:584:VAL:HG21	1.84	1.11
30:W:9:VAL:CG2	30:W:52:ILE:HD11	1.79	1.11
17:J:305:LEU:HD22	17:J:313:LYS:HE3	1.17	1.11
21:N:492:THR:O	21:N:528:ARG:NH1	1.84	1.11
24:Q:429:LYS:HB2	29:V:269:ARG:NH2	1.63	1.11
22:O:233:LEU:HD22	22:O:238:ILE:HD11	1.30	1.11
15:H:102:CYS:CB	15:H:105:ILE:HD11	1.79	1.11
20:M:251:LEU:C	20:M:252:VAL:CA	2.18	1.10
13:F:105:VAL:HG21	13:F:145:LEU:HB2	1.32	1.10
33:Z:217:GLU:OE2	33:Z:244:ARG:NH2	1.85	1.10
33:Z:748:LEU:CD2	33:Z:783:VAL:HG13	1.80	1.10
15:H:436:LYS:HE2	33:Z:365:SER:HB2	1.20	1.10
15:H:284:VAL:CG1	20:M:253:GLN:C	2.20	1.10
28:U:32:ARG:HB3	28:U:94:HIS:CE1	1.86	1.10
32:Y:80:GLU:OE2	32:Y:83:ARG:NH2	1.85	1.10
24:Q:275:ILE:HD11	24:Q:306:TYR:CD2	1.87	1.10
15:H:284:VAL:HG11	20:M:253:GLN:O	1.50	1.10
13:F:12:THR:HG23	13:F:19:LEU:HD13	1.14	1.10
24:Q:249:LEU:O	24:Q:250:THR:HG22	1.48	1.10
30:W:21:PHE:CE1	30:W:25:ARG:CZ	2.24	1.09
23:P:332:GLU:HB3	23:P:337:HIS:CE1	1.86	1.09
11:D:159:TRP:CH2	12:E:59:LEU:HD13	1.86	1.09
33:Z:835:ALA:O	33:Z:838:TYR:HD2	1.32	1.09
33:Z:50:GLU:OE2	33:Z:55:ARG:NH2	1.83	1.09
19:L:177:GLU:OE1	19:L:233:LYS:NZ	1.84	1.09
24:Q:61:LEU:HD21	24:Q:65:TYR:OH	1.51	1.09
33:Z:68:LEU:CD1	33:Z:111:LEU:HD22	1.83	1.09
22:O:15:ARG:HH12	22:O:73:ILE:CG1	1.63	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:418:GLN:HB3	29:V:262:THR:HG22	1.25	1.09
33:Z:748:LEU:HD23	33:Z:783:VAL:HG13	1.33	1.09
25:R:363:PHE:HE1	32:Y:78:LYS:HD3	1.00	1.09
33:Z:763:HIS:CG	33:Z:766:HIS:HE1	1.70	1.09
16:I:214:LYS:HZ2	16:I:318:ASP:C	1.54	1.09
1:I:83:LYS:CD	1:I:119:VAL:HG23	1.80	1.09
25:R:335:ARG:HD2	25:R:376:GLN:HB3	1.25	1.09
29:V:135:ARG:CD	29:V:157:ARG:HH22	1.64	1.09
24:Q:409:TYR:HA	25:R:403:LEU:HD21	1.11	1.09
17:J:167:PRO:CA	17:J:174:PHE:CZ	2.35	1.09
17:J:134:VAL:CG1	17:J:135:SER:H	1.65	1.09
27:T:89:TYR:CD1	27:T:102:LYS:HD3	1.87	1.09
21:N:398:ARG:HD2	21:N:438:ASP:HB3	1.17	1.09
13:F:7:ASP:HA	13:F:21:GLN:HE21	1.11	1.09
9:B:210:GLU:HG3	9:B:237:LYS:HE3	1.27	1.09
23:P:72:TRP:CH2	23:P:103:TYR:HB3	1.88	1.09
28:U:277:TYR:CZ	29:V:295:VAL:CG1	2.34	1.08
3:3:129:VAL:CG2	3:3:138:PHE:CE1	2.36	1.08
33:Z:821:GLY:HA2	33:Z:863:THR:HG22	1.33	1.08
23:P:72:TRP:HH2	23:P:103:TYR:HB3	1.16	1.08
20:M:74:GLN:O	20:M:77:TYR:CE1	2.06	1.08
33:Z:304:PRO:HB3	33:Z:342:LEU:HD11	1.30	1.08
33:Z:71:LEU:O	33:Z:75:ILE:HG13	1.53	1.08
33:Z:863:THR:HG21	33:Z:911:LYS:NZ	1.66	1.08
21:N:588:VAL:HG11	21:N:621:THR:CG2	1.83	1.08
21:N:221:ASP:CA	21:N:894:ARG:HH22	1.67	1.08
21:N:327:LEU:CD2	21:N:743:PHE:CE1	2.37	1.08
14:G:193:LYS:HE2	14:G:241:PHE:HB3	1.32	1.08
28:U:275:VAL:O	28:U:278:ILE:HG22	1.49	1.08
13:F:120:THR:HB	14:G:129:ARG:NH1	1.68	1.08
28:U:32:ARG:HE	28:U:94:HIS:CE1	1.71	1.08
19:L:88:TYR:HD1	20:M:62:ILE:HD13	1.17	1.08
25:R:408:ASP:CB	26:S:464:ARG:HH22	1.66	1.07
33:Z:562:TRP:NE1	33:Z:566:LEU:HD21	1.68	1.07
16:I:248:VAL:HG22	17:J:274:GLU:OE1	1.54	1.07
16:I:204:HIS:HB3	16:I:207:LEU:HB2	1.36	1.07
26:S:315:LYS:CD	26:S:345:TYR:CE1	2.37	1.07
17:J:167:PRO:N	17:J:174:PHE:CZ	2.22	1.07
23:P:332:GLU:CB	23:P:337:HIS:CE1	2.38	1.07
16:I:222:TYR:OH	16:I:349:LEU:HB3	1.54	1.07
22:O:235:HIS:HD2	22:O:236:HIS:CE1	1.72	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:I:253:ILE:CD1	16:I:287:ILE:HG22	1.84	1.07
22:O:47:LYS:NZ	22:O:62:TYR:OH	1.88	1.07
21:N:329:HIS:HB3	29:V:182:LYS:NZ	1.54	1.07
15:H:284:VAL:HB	20:M:254:MET:HB3	1.26	1.07
21:N:596:LEU:HD22	21:N:717:LEU:HD11	1.17	1.07
33:Z:278:LEU:CD2	33:Z:297:VAL:HG13	1.85	1.07
24:Q:273:ASN:CG	24:Q:306:TYR:OH	1.92	1.07
31:X:48:PHE:CE2	31:X:68:LEU:HD21	1.88	1.07
33:Z:106:TRP:HA	33:Z:112:LYS:HD3	1.36	1.07
16:I:207:LEU:HD22	33:Z:930:GLY:HA3	1.36	1.07
15:H:59:ILE:HD13	16:I:92:GLU:OE1	1.54	1.07
25:R:266:LEU:HA	25:R:270:VAL:CG2	1.85	1.07
21:N:282:TYR:OH	21:N:286:LEU:HD13	1.52	1.07
23:P:72:TRP:HH2	23:P:103:TYR:CB	1.68	1.07
25:R:63:TYR:HE2	25:R:94:PHE:HA	1.20	1.07
28:U:283:ARG:NH1	29:V:291:ASN:ND2	2.02	1.07
13:F:84:LEU:CD2	13:F:132:LEU:HD12	1.85	1.07
13:F:105:VAL:HG22	13:F:145:LEU:HD13	1.35	1.07
11:D:97:ARG:NH1	11:D:103:PRO:HG3	1.69	1.07
21:N:327:LEU:CD2	21:N:743:PHE:HE1	1.68	1.07
14:G:121:ALA:O	14:G:125:TYR:HD1	1.34	1.07
21:N:330:THR:HG21	21:N:739:PHE:HE1	1.12	1.06
7:7:88:LEU:HD21	7:7:106:ILE:HD13	1.36	1.06
23:P:144:VAL:HG21	23:P:160:LEU:HD21	1.33	1.06
8:A:153:SER:HB3	8:A:155:TYR:CE1	1.90	1.06
21:N:293:LEU:HD22	21:N:379:LEU:HD13	1.37	1.06
10:C:40:ALA:HA	10:C:184:MET:SD	1.95	1.06
19:L:365:THR:OG1	19:L:376:PHE:HE1	1.36	1.06
14:G:215:ILE:HG23	14:G:230:VAL:HB	1.35	1.06
23:P:203:ILE:CG1	23:P:220:TYR:OH	2.04	1.06
2:2:50:ALA:HB2	3:3:118:ILE:HG22	1.35	1.06
30:W:152:GLU:OE1	30:W:155:ASP:HB2	1.53	1.06
26:S:461:PHE:CE1	28:U:278:ILE:HB	1.91	1.06
8:A:252:ASP:CG	23:P:85:LYS:HE3	1.72	1.06
17:J:337:LEU:HB2	25:R:204:TRP:HZ2	0.89	1.06
26:S:192:GLU:HG3	26:S:239:ARG:HH12	1.13	1.06
33:Z:301:THR:HG22	33:Z:307:HIS:CE1	1.90	1.06
33:Z:89:LEU:HD22	33:Z:125:THR:HG21	1.08	1.06
12:E:15:PHE:CE1	12:E:21:LEU:CD1	2.37	1.06
18:K:272:ASP:HB2	19:L:306:MET:HE2	1.33	1.06
21:N:329:HIS:CB	29:V:182:LYS:CE	2.34	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:6:91:LYS:HB3	6:6:96:TYR:HE1	1.15	1.06
7:7:129:TYR:CE1	7:7:134:LEU:HD22	1.91	1.06
22:O:62:TYR:CD2	22:O:82:LEU:HD13	1.91	1.06
12:E:165:TYR:HB2	12:E:167:TYR:CE1	1.89	1.06
2:2:8:PHE:CZ	2:2:11:GLY:HA3	1.91	1.06
2:2:124:TYR:OH	2:2:139:GLU:HB3	1.56	1.06
14:G:7:TYR:CE1	14:G:13:VAL:CG2	2.39	1.05
25:R:137:LEU:HB3	25:R:141:TYR:CE2	1.90	1.05
15:H:101:ARG:NH2	15:H:150:LYS:HE2	1.71	1.05
15:H:174:VAL:CG1	15:H:183:ILE:HG21	1.87	1.05
12:E:15:PHE:CD1	12:E:21:LEU:CD1	2.38	1.05
27:T:86:LYS:HE2	27:T:128:TYR:CE2	1.91	1.05
14:G:106:ILE:HG12	14:G:114:ARG:HH21	1.21	1.05
25:R:363:PHE:CE1	32:Y:78:LYS:HD3	1.91	1.05
15:H:173:ARG:HB2	16:I:129:TYR:OH	1.55	1.05
20:M:251:LEU:CA	20:M:252:VAL:N	2.18	1.05
27:T:86:LYS:HE3	27:T:128:TYR:HE2	0.90	1.05
2:2:50:ALA:CB	3:3:118:ILE:CG2	2.35	1.05
28:U:189:ARG:HH12	29:V:296:LEU:HD13	1.12	1.05
19:L:125:PRO:HB2	19:L:127:TYR:CE2	1.91	1.05
25:R:137:LEU:HB3	25:R:141:TYR:HE2	1.20	1.05
15:H:456:LYS:HE2	16:I:332:GLU:O	1.57	1.05
22:O:116:ASN:HB3	22:O:127:LEU:HD12	1.35	1.05
15:H:156:VAL:HG22	15:H:181:TYR:CZ	1.90	1.05
31:X:75:TRP:CE2	31:X:125:MET:CB	2.39	1.05
30:W:186:ALA:HB2	30:W:191:ILE:HG21	1.34	1.05
22:O:62:TYR:HD2	22:O:82:LEU:HD13	1.11	1.05
26:S:286:TYR:CE1	26:S:323:LEU:HB3	1.92	1.05
22:O:266:PHE:HZ	22:O:280:LEU:CD2	1.70	1.05
6:6:91:LYS:CD	6:6:96:TYR:OH	2.05	1.04
21:N:162:ARG:HD3	21:N:165:ILE:HG12	1.35	1.04
23:P:131:PHE:CA	23:P:136:ARG:NH1	2.20	1.04
23:P:130:ILE:C	23:P:136:ARG:HH12	1.59	1.04
1:1:83:LYS:HZ3	1:1:118:SER:CA	1.70	1.04
9:B:65:SER:HB2	9:B:90:ARG:HH21	1.18	1.04
25:R:105:LYS:HE2	25:R:109:LYS:NZ	1.72	1.04
23:P:259:PRO:HB2	23:P:327:LEU:HD12	1.37	1.04
25:R:209:ARG:NH2	25:R:243:LEU:CD1	2.19	1.04
13:F:84:LEU:CD2	13:F:132:LEU:CD1	2.35	1.04
21:N:584:ARG:NH1	21:N:614:ASN:HD22	1.54	1.04
33:Z:321:PHE:CE2	33:Z:351:PRO:HG3	1.92	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:N:293:LEU:CD2	21:N:379:LEU:HD13	1.87	1.04
15:H:340:LEU:HD13	15:H:370:ARG:HG3	1.35	1.04
31:X:75:TRP:CH2	31:X:125:MET:CE	2.41	1.04
16:I:175:LYS:O	17:J:282:PHE:CD1	2.11	1.04
22:O:250:TRP:CB	22:O:269:LEU:HD21	1.87	1.04
31:X:91:PHE:H	31:X:96:ARG:HG2	1.16	1.04
23:P:308:LEU:HD13	23:P:349:ASN:ND2	1.73	1.03
5:5:135:PHE:CE2	5:5:163:ALA:HB1	1.92	1.03
21:N:588:VAL:CG1	21:N:621:THR:HG22	1.88	1.03
2:2:124:TYR:OH	2:2:139:GLU:CB	2.06	1.03
22:O:185:PHE:CD2	22:O:223:LEU:HD13	1.93	1.03
28:U:92:TRP:HZ2	28:U:120:LEU:HD12	1.22	1.03
24:Q:309:ARG:NH2	24:Q:345:SER:CA	2.18	1.03
13:F:120:THR:O	14:G:129:ARG:HD2	1.56	1.03
16:I:380:LEU:HD22	16:I:420:LYS:HG3	1.40	1.03
11:D:10:ILE:HD11	12:E:10:ARG:HD2	1.38	1.03
33:Z:865:ASP:CG	33:Z:909:ARG:NH2	2.09	1.03
22:O:342:ASP:OD1	23:P:358:SER:CB	2.06	1.03
16:I:320:GLY:HA2	16:I:323:LYS:HE2	1.39	1.03
25:R:408:ASP:HB2	26:S:464:ARG:HH22	1.10	1.03
15:H:323:ALA:C	20:M:290:ARG:HH21	1.62	1.03
33:Z:53:VAL:CG1	33:Z:95:THR:HG21	1.83	1.03
21:N:330:THR:HG21	21:N:739:PHE:CE1	1.91	1.03
21:N:584:ARG:HH11	21:N:614:ASN:ND2	1.56	1.03
33:Z:923:ILE:HD11	33:Z:985:LYS:HE2	1.40	1.03
4:4:66:TYR:CE2	10:C:102:TYR:OH	2.12	1.03
28:U:203:LYS:CE	28:U:229:LEU:CD2	2.36	1.03
15:H:206:VAL:HG21	15:H:261:ARG:HE	1.23	1.03
25:R:70:TYR:OH	25:R:75:GLY:C	1.97	1.03
15:H:174:VAL:HG13	15:H:183:ILE:HG21	1.34	1.02
29:V:107:TRP:CZ3	29:V:109:HIS:HD2	1.70	1.02
15:H:329:VAL:HG21	16:I:300:ARG:HH12	1.20	1.02
18:K:346:ARG:HG2	18:K:349:ARG:NH2	1.74	1.02
15:H:156:VAL:CG2	15:H:181:TYR:OH	2.05	1.02
15:H:324:GLY:CA	20:M:290:ARG:HH21	1.56	1.02
14:G:122:HIS:CD2	14:G:128:VAL:CG1	2.42	1.02
33:Z:392:LEU:HD12	33:Z:424:SER:O	1.54	1.02
19:L:361:PHE:CZ	19:L:391:ILE:HD12	1.93	1.02
8:A:128:TYR:CZ	8:A:134:MET:HE1	1.94	1.02
7:7:33:ARG:HH21	7:7:46:SER:HA	1.17	1.02
33:Z:443:ASP:CB	33:Z:447:VAL:HG11	1.89	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:N:327:LEU:HD23	21:N:743:PHE:CE1	1.94	1.02
19:L:340:PRO:HB3	19:L:344:ASP:OD2	1.58	1.02
16:I:204:HIS:CG	16:I:207:LEU:HD12	1.94	1.02
15:H:102:CYS:HB2	15:H:105:ILE:HD11	1.37	1.02
16:I:222:TYR:CZ	16:I:349:LEU:HB3	1.93	1.02
27:T:126:LEU:HD22	27:T:136:LEU:HD21	1.39	1.02
21:N:329:HIS:CG	29:V:182:LYS:HZ1	1.77	1.02
33:Z:493:LEU:CD1	33:Z:497:PHE:CZ	2.43	1.02
16:I:395:MET:CE	16:I:420:LYS:HZ3	1.73	1.02
10:C:115:LEU:CD1	10:C:137:TYR:OH	2.08	1.02
6:6:91:LYS:HB3	6:6:96:TYR:CE1	1.94	1.01
19:L:189:GLN:NE2	19:L:350:PRO:HD2	1.74	1.01
15:H:173:ARG:N	16:I:129:TYR:CZ	2.28	1.01
18:K:212:TYR:HE1	18:K:320:ARG:HA	0.99	1.01
15:H:156:VAL:HG13	15:H:181:TYR:CE1	1.95	1.01
30:W:21:PHE:CZ	30:W:144:PHE:CE2	2.48	1.01
30:W:20:ASP:CB	30:W:25:ARG:NH2	2.23	1.01
8:A:252:ASP:OXT	23:P:44:LYS:NZ	1.94	1.01
15:H:284:VAL:CB	20:M:254:MET:CA	2.38	1.01
23:P:332:GLU:HB3	23:P:337:HIS:NE2	1.74	1.01
33:Z:886:VAL:HA	33:Z:893:PHE:CE2	1.94	1.01
30:W:20:ASP:CB	30:W:25:ARG:HH21	1.73	1.01
21:N:717:LEU:CD2	21:N:733:LEU:CD1	2.39	1.01
3:3:60:TYR:CD2	10:C:96:GLN:HB3	1.95	1.01
19:L:290:ARG:HD2	19:L:293:GLU:HA	1.43	1.01
33:Z:68:LEU:HD12	33:Z:111:LEU:HD22	1.02	1.01
16:I:174:ASP:OD1	17:J:282:PHE:HB2	1.61	1.01
33:Z:138:ARG:NH2	33:Z:157:LEU:CD1	2.24	1.01
33:Z:863:THR:CG2	33:Z:911:LYS:HZ3	1.74	1.01
10:C:177:GLN:HG2	11:D:54:LEU:HD21	1.41	1.01
24:Q:36:SER:O	24:Q:46:VAL:HG23	1.60	1.01
16:I:204:HIS:CD2	16:I:207:LEU:HD12	1.96	1.00
1:1:137:TYR:CZ	1:1:157:HIS:CD2	2.49	1.00
4:4:45:PHE:CD2	4:4:101:VAL:HG12	1.96	1.00
28:U:16:LEU:HD23	28:U:19:LEU:HD12	1.43	1.00
23:P:366:ASN:ND2	23:P:373:GLU:HA	1.74	1.00
30:W:21:PHE:CZ	30:W:144:PHE:CD2	2.48	1.00
28:U:203:LYS:HE3	28:U:229:LEU:CD2	1.91	1.00
1:1:8:LYS:HZ3	2:2:117:GLY:HA3	1.26	1.00
22:O:15:ARG:NH1	22:O:73:ILE:CG1	2.23	1.00
2:2:50:ALA:HB3	3:3:118:ILE:CG2	1.92	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:7:33:ARG:HH21	7:7:46:SER:CA	1.74	1.00
17:J:340:GLY:HA2	25:R:238:PHE:CE1	1.95	1.00
29:V:145:GLN:HG2	29:V:148:LYS:HE3	1.44	1.00
20:M:50:ARG:NH1	20:M:54:GLU:OE2	1.95	1.00
25:R:167:LYS:HE2	25:R:197:MET:HE2	1.43	1.00
16:I:395:MET:HE2	16:I:420:LYS:HZ3	0.83	1.00
33:Z:385:PHE:CZ	33:Z:389:PHE:CZ	2.50	1.00
16:I:204:HIS:CG	16:I:207:LEU:CD1	2.45	0.99
28:U:67:PHE:CE1	30:W:97:THR:OG1	2.13	0.99
19:L:290:ARG:NH1	19:L:293:GLU:HB3	1.77	0.99
26:S:428:ARG:HA	27:T:195:LEU:CD2	1.91	0.99
21:N:362:TRP:CZ2	29:V:23:THR:HG21	1.97	0.99
14:G:173:ALA:CB	19:L:420:ARG:NH2	2.23	0.99
33:Z:154:ILE:CG2	33:Z:211:PHE:CZ	2.45	0.99
25:R:335:ARG:CD	25:R:376:GLN:HB3	1.90	0.99
31:X:75:TRP:CE2	31:X:125:MET:CG	2.40	0.99
33:Z:246:CYS:SG	33:Z:271:ILE:CG2	2.50	0.99
14:G:200:TYR:CE1	14:G:246:ILE:CG2	2.45	0.99
28:U:203:LYS:HE3	28:U:229:LEU:HD21	1.02	0.99
33:Z:562:TRP:HE1	33:Z:566:LEU:HD21	1.21	0.99
21:N:53:ASP:CA	21:N:58:ARG:HH21	1.75	0.99
25:R:241:ILE:HG22	25:R:242:GLU:HG3	1.41	0.99
14:G:111:PHE:CD1	14:G:114:ARG:NH2	2.27	0.99
17:J:62:LEU:HD11	18:K:89:ILE:HG13	1.41	0.99
23:P:272:PRO:O	23:P:273:TYR:CD1	2.15	0.99
22:O:15:ARG:NH1	22:O:73:ILE:HD11	1.77	0.99
1:1:-8:LYS:NZ	2:2:117:GLY:HA3	1.78	0.99
12:E:87:SER:O	12:E:91:HIS:ND1	1.94	0.99
33:Z:884:THR:O	33:Z:888:LEU:HD12	1.61	0.99
22:O:377:VAL:HG21	28:U:200:LEU:HD11	1.45	0.99
14:G:168:ARG:HE	14:G:172:LYS:NZ	1.59	0.99
15:H:323:ALA:C	20:M:290:ARG:NH2	2.14	0.99
24:Q:418:GLN:HB2	29:V:262:THR:HG21	1.40	0.99
19:L:88:TYR:CD1	20:M:62:ILE:HB	1.97	0.99
22:O:228:TYR:HA	22:O:290:LYS:NZ	1.76	0.98
33:Z:64:TYR:CD2	33:Z:111:LEU:CD1	1.87	0.98
13:F:101:ARG:HH12	13:F:103:LEU:HD12	1.26	0.98
18:K:280:LYS:NZ	18:K:296:LEU:HD23	1.78	0.98
27:T:126:LEU:HD22	27:T:136:LEU:CD2	1.93	0.98
33:Z:886:VAL:HG13	33:Z:893:PHE:CZ	1.98	0.98
15:H:172:MET:HB3	16:I:129:TYR:CD2	1.66	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:K:242:PHE:C	18:K:243:VAL:N	2.17	0.98
33:Z:188:ALA:H	33:Z:201:LEU:HD11	1.24	0.98
17:J:337:LEU:CB	25:R:204:TRP:HZ2	1.76	0.98
21:N:593:PHE:CZ	21:N:734:VAL:HG22	1.97	0.98
3:3:37:TYR:OH	3:3:59:ARG:HB2	1.64	0.98
16:I:126:PRO:HG2	16:I:154:MET:CE	1.93	0.98
17:J:340:GLY:CA	25:R:238:PHE:CE1	2.46	0.98
24:Q:299:MET:CE	24:Q:335:PHE:HZ	1.77	0.98
33:Z:74:SER:HB2	33:Z:79:THR:HG22	1.45	0.98
20:M:196:ALA:HB2	20:M:345:ARG:HE	1.24	0.98
2:2:160:GLN:NE2	2:2:164:TRP:NE1	2.10	0.98
19:L:365:THR:OG1	19:L:376:PHE:CE1	2.11	0.98
12:E:165:TYR:HB2	12:E:167:TYR:HE1	1.27	0.98
33:Z:929:VAL:O	33:Z:955:VAL:HG22	1.63	0.98
8:A:164:VAL:HB	9:B:61:LEU:HD21	1.44	0.98
15:H:172:MET:C	16:I:129:TYR:CE2	2.36	0.98
1:1:83:LYS:HD2	1:1:119:VAL:HG23	1.00	0.98
11:D:10:ILE:H	11:D:18:PHE:HE2	1.05	0.98
23:P:344:ARG:O	23:P:348:HIS:ND1	1.97	0.98
33:Z:68:LEU:HD12	33:Z:111:LEU:CD2	1.93	0.97
14:G:7:TYR:HE1	14:G:13:VAL:HG21	1.26	0.97
25:R:158:LEU:HD11	25:R:197:MET:HE1	1.46	0.97
12:E:15:PHE:HE1	12:E:21:LEU:HD11	1.21	0.97
19:L:336:ALA:HB1	19:L:342:ARG:HH12	1.05	0.97
17:J:167:PRO:CB	17:J:174:PHE:CE2	2.47	0.97
9:B:218:ASN:O	9:B:222:LEU:HG	1.64	0.97
33:Z:805:LEU:HD22	33:Z:841:GLU:CD	1.83	0.97
26:S:141:LEU:O	26:S:145:PHE:HD1	1.47	0.97
15:H:101:ARG:HH22	15:H:150:LYS:HE2	1.29	0.97
17:J:277:ASN:HD21	17:J:309:ARG:CZ	1.76	0.97
15:H:379:LEU:CD2	15:H:415:THR:HG22	1.94	0.97
21:N:329:HIS:HB3	29:V:182:LYS:HZ1	0.80	0.97
21:N:424:LYS:HZ1	21:N:461:GLU:HB3	0.82	0.97
17:J:134:VAL:HG12	17:J:135:SER:H	0.82	0.97
26:S:286:TYR:CZ	26:S:323:LEU:HB3	2.00	0.97
22:O:190:TYR:HD1	22:O:227:ILE:HD11	1.30	0.97
15:H:396:MET:CE	15:H:438:ALA:HB3	1.94	0.97
30:W:141:ILE:HD13	30:W:154:LEU:HD22	1.45	0.97
11:D:193:LYS:HG3	11:D:197:ARG:NH1	1.80	0.97
3:3:60:TYR:HA	10:C:96:GLN:OE1	1.65	0.97
16:I:310:LEU:HD11	16:I:337:ALA:O	1.65	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:H:396:MET:HE2	15:H:438:ALA:HB1	1.14	0.97
24:Q:418:GLN:CB	29:V:262:THR:CG2	2.33	0.97
28:U:32:ARG:CB	28:U:94:HIS:CE1	2.45	0.97
33:Z:769:ASN:HB3	33:Z:772:ILE:HD12	1.47	0.97
17:J:228:ARG:NH1	17:J:232:GLU:OE2	1.97	0.97
10:C:3:SER:HB3	11:D:6:ARG:NH2	1.78	0.97
13:F:179:PHE:CZ	13:F:192:ALA:CB	2.47	0.96
16:I:104:LEU:CD2	16:I:149:LEU:O	2.13	0.96
33:Z:474:LEU:HD23	33:Z:493:LEU:HD22	0.99	0.96
30:W:103:ASN:HB2	30:W:106:GLN:HE21	1.30	0.96
33:Z:835:ALA:O	33:Z:838:TYR:CD2	2.19	0.96
28:U:21:HIS:CE1	28:U:93:TYR:OH	2.18	0.96
20:M:148:VAL:HG22	20:M:155:ILE:HG12	1.46	0.96
33:Z:290:GLU:HG3	33:Z:293:MET:CE	1.95	0.96
24:Q:309:ARG:HE	24:Q:345:SER:HB3	1.22	0.96
30:W:9:VAL:HG22	30:W:52:ILE:HD11	0.98	0.96
24:Q:429:LYS:HB2	29:V:269:ARG:HH21	1.30	0.96
7:7:93:TYR:HE1	7:7:96:ARG:HH21	1.04	0.96
18:K:272:ASP:CB	19:L:306:MET:HE2	1.87	0.96
15:H:59:ILE:HD13	16:I:92:GLU:CD	1.85	0.96
21:N:318:LYS:HA	29:V:180:LEU:HG	1.46	0.96
3:3:129:VAL:HG22	3:3:138:PHE:CD1	1.99	0.96
1:1:83:LYS:NZ	1:1:118:SER:CA	2.28	0.96
20:M:75:LEU:HA	20:M:77:TYR:HD1	1.30	0.96
25:R:70:TYR:OH	25:R:75:GLY:O	1.82	0.96
7:7:93:TYR:CE1	7:7:96:ARG:NH2	2.32	0.96
33:Z:394:TYR:HD2	33:Z:396:ASN:ND2	1.62	0.96
16:I:207:LEU:HD22	33:Z:930:GLY:CA	1.95	0.96
21:N:329:HIS:CB	29:V:182:LYS:HE3	1.93	0.96
28:U:119:LEU:HD12	28:U:137:TYR:O	1.65	0.96
21:N:588:VAL:HG11	21:N:621:THR:HG22	1.45	0.96
19:L:159:LEU:HD12	19:L:160:PRO:O	1.64	0.96
1:1:14:LEU:HD11	1:1:100:ALA:HB1	1.48	0.96
25:R:209:ARG:HH21	25:R:243:LEU:HD11	1.20	0.96
33:Z:208:VAL:HG21	33:Z:236:PHE:CE2	2.01	0.96
18:K:159:SER:CB	18:K:244:HIS:HE2	1.79	0.96
22:O:59:LEU:HD21	22:O:85:SER:CB	1.95	0.96
28:U:92:TRP:CZ2	28:U:120:LEU:HD12	2.01	0.96
2:2:82:MET:O	2:2:86:HIS:ND1	1.97	0.96
21:N:162:ARG:CD	21:N:165:ILE:HG12	1.95	0.95
15:H:249:TYR:CE1	15:H:376:GLU:HA	2.01	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:474:LEU:HD22	33:Z:493:LEU:HD22	1.49	0.95
33:Z:224:LEU:HD21	33:Z:236:PHE:CE2	2.01	0.95
28:U:32:ARG:CG	28:U:94:HIS:CE1	2.48	0.95
16:I:172:LYS:HG2	17:J:278:GLN:HG3	1.49	0.95
28:U:92:TRP:CZ2	28:U:120:LEU:CD1	2.49	0.95
19:L:336:ALA:C	19:L:342:ARG:HH11	1.69	0.95
23:P:141:LYS:HB2	23:P:179:PHE:HE1	1.30	0.95
33:Z:89:LEU:HD22	33:Z:125:THR:CB	1.94	0.95
33:Z:748:LEU:HD21	33:Z:783:VAL:HA	1.45	0.95
2:2:8:PHE:CZ	2:2:11:GLY:CA	2.49	0.95
14:G:200:TYR:CE1	14:G:246:ILE:HG21	2.01	0.95
15:H:306:ILE:HG22	15:H:308:PHE:CE1	2.01	0.95
15:H:172:MET:CB	16:I:129:TYR:HD2	1.75	0.95
15:H:324:GLY:CA	20:M:290:ARG:HH22	1.54	0.95
25:R:209:ARG:HG3	25:R:213:TYR:CE2	2.02	0.95
33:Z:322:GLU:HG2	33:Z:464:ASP:OD2	1.67	0.95
23:P:131:PHE:N	23:P:136:ARG:HH12	1.64	0.95
33:Z:64:TYR:CE2	33:Z:68:LEU:HD11	2.01	0.95
15:H:436:LYS:HE2	33:Z:365:SER:CB	1.97	0.95
22:O:266:PHE:HZ	22:O:280:LEU:HD22	1.31	0.95
7:7:193:ASP:HB3	7:7:196:THR:OG1	1.64	0.95
21:N:346:ASN:HB3	21:N:350:LYS:HE3	1.47	0.95
21:N:424:LYS:NZ	21:N:461:GLU:CB	2.30	0.95
29:V:131:GLN:HE22	29:V:194:ARG:HH21	1.12	0.95
28:U:67:PHE:CZ	30:W:97:THR:HA	2.00	0.95
14:G:53:ILE:HD11	14:G:212:GLU:HB2	1.46	0.95
24:Q:309:ARG:HH21	24:Q:345:SER:HA	1.28	0.95
33:Z:884:THR:O	33:Z:888:LEU:CD1	2.13	0.95
23:P:131:PHE:HA	23:P:136:ARG:HH11	1.25	0.95
29:V:135:ARG:HA	29:V:157:ARG:CZ	1.97	0.95
33:Z:748:LEU:CD2	33:Z:783:VAL:CG1	2.45	0.95
28:U:67:PHE:CE2	30:W:97:THR:HA	2.02	0.95
7:7:68:TYR:OH	14:G:70:ASP:N	1.99	0.95
33:Z:64:TYR:CZ	33:Z:68:LEU:HD11	2.02	0.95
14:G:146:HIS:CB	14:G:148:TYR:HE1	1.79	0.95
33:Z:748:LEU:HD21	33:Z:783:VAL:CG1	1.96	0.95
23:P:366:ASN:HD21	23:P:373:GLU:HA	1.28	0.95
24:Q:146:TYR:HE1	24:Q:184:VAL:HA	1.15	0.94
19:L:336:ALA:CB	19:L:342:ARG:HH12	1.80	0.94
16:I:204:HIS:HD2	16:I:207:LEU:HD11	1.28	0.94
33:Z:290:GLU:HG3	33:Z:293:MET:HE1	1.46	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:M:197:ILE:HB	20:M:322:LYS:HD3	1.46	0.94
16:I:253:ILE:HD13	16:I:287:ILE:HG22	1.48	0.94
15:H:172:MET:HB2	16:I:129:TYR:CG	2.01	0.94
22:O:59:LEU:HD21	22:O:85:SER:HB3	1.48	0.94
18:K:137:VAL:HB	18:K:146:LEU:CD1	1.98	0.94
7:7:145:PRO:HA	7:7:148:ARG:HE	1.32	0.94
33:Z:562:TRP:NE1	33:Z:566:LEU:CD2	2.29	0.94
15:H:59:ILE:CD1	16:I:92:GLU:OE1	2.15	0.94
33:Z:165:TYR:HE1	33:Z:190:THR:HG1	0.96	0.94
15:H:284:VAL:CG2	20:M:254:MET:HA	1.98	0.94
14:G:122:HIS:NE2	14:G:128:VAL:HG11	1.82	0.94
33:Z:327:GLN:HG2	33:Z:349:THR:HB	1.47	0.94
18:K:135:MET:HG2	18:K:259:ARG:HH22	1.31	0.94
8:A:205:PHE:CZ	8:A:209:HIS:HE1	1.82	0.94
30:W:158:ILE:HG13	30:W:171:LEU:HB2	1.50	0.94
26:S:343:LEU:CD1	26:S:347:HIS:HE1	1.81	0.94
25:R:411:LEU:CD2	26:S:464:ARG:HH11	1.81	0.94
1:1:83:LYS:HD2	1:1:119:VAL:CG2	1.95	0.94
33:Z:497:PHE:CE2	33:Z:505:VAL:HG12	2.02	0.94
14:G:173:ALA:HA	19:L:420:ARG:NH2	1.83	0.94
33:Z:205:LEU:CG	33:Z:236:PHE:HE1	1.80	0.94
20:M:74:GLN:O	20:M:77:TYR:HE1	1.49	0.94
28:U:283:ARG:HH12	29:V:291:ASN:ND2	1.60	0.94
16:I:310:LEU:HD13	16:I:338:LEU:HA	1.50	0.94
18:K:224:LYS:CE	18:K:236:ARG:NH2	2.30	0.94
4:4:129:TYR:OH	4:4:144:ASP:OD1	1.86	0.94
19:L:336:ALA:CB	19:L:342:ARG:NH1	2.30	0.94
6:6:91:LYS:HD3	6:6:96:TYR:HH	1.25	0.94
15:H:172:MET:CG	16:I:129:TYR:CD2	2.51	0.93
33:Z:863:THR:CG2	33:Z:911:LYS:NZ	2.31	0.93
13:F:13:PHE:HE1	14:G:130:PRO:HD2	1.32	0.93
33:Z:56:LEU:CD2	33:Z:68:LEU:HD23	1.99	0.93
23:P:308:LEU:CD1	23:P:349:ASN:OD1	2.16	0.93
33:Z:562:TRP:CD1	33:Z:566:LEU:HG	2.02	0.93
13:F:120:THR:CB	14:G:129:ARG:NH1	2.27	0.93
33:Z:385:PHE:CE2	33:Z:389:PHE:HE2	1.79	0.93
21:N:536:ILE:HD13	21:N:555:ILE:CG1	1.98	0.93
30:W:44:ASN:HB2	30:W:47:ASN:HD21	1.32	0.93
25:R:130:GLN:HE21	25:R:134:TRP:HE1	1.12	0.93
22:O:356:ARG:HH12	28:U:234:ASN:HB2	1.32	0.93
17:J:337:LEU:HD23	17:J:377:VAL:HB	1.49	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:427:GLN:HG2	33:Z:428:TRP:CD1	2.03	0.93
24:Q:299:MET:CE	24:Q:335:PHE:CZ	2.52	0.93
26:S:461:PHE:CD2	28:U:277:TYR:HB2	2.03	0.93
25:R:50:VAL:HG13	25:R:54:ILE:HD12	1.50	0.93
26:S:141:LEU:O	26:S:145:PHE:CD1	2.21	0.93
30:W:139:VAL:HG11	30:W:157:PHE:CE2	2.04	0.93
14:G:121:ALA:O	14:G:125:TYR:CD1	2.22	0.93
1:1:57:ASP:HB3	8:A:106:TYR:CE1	2.02	0.93
21:N:329:HIS:CG	29:V:182:LYS:NZ	2.34	0.93
33:Z:546:ILE:CG2	33:Z:550:PHE:CE2	2.51	0.93
19:L:88:TYR:CE1	20:M:62:ILE:HB	2.02	0.93
22:O:15:ARG:NH1	22:O:73:ILE:CD1	2.32	0.93
1:1:19:ARG:HH21	1:1:171:GLY:CA	1.80	0.93
14:G:146:HIS:HB3	14:G:148:TYR:HE1	1.10	0.93
7:7:129:TYR:HE1	7:7:134:LEU:CD2	1.82	0.93
21:N:536:ILE:HD13	21:N:555:ILE:HG12	1.48	0.93
10:C:44:ILE:HB	10:C:216:ILE:HD12	1.51	0.93
15:H:396:MET:HE3	15:H:438:ALA:HB2	0.94	0.92
23:P:342:GLN:HE21	23:P:346:ILE:HD11	1.31	0.92
1:1:174:ARG:NH1	1:1:185:ARG:NH2	2.17	0.92
32:Y:80:GLU:CD	32:Y:83:ARG:HH21	1.73	0.92
16:I:75:PHE:HD2	16:I:76:VAL:HG23	1.33	0.92
15:H:65:GLU:O	15:H:69:VAL:HG23	1.69	0.92
23:P:184:MET:CB	23:P:223:LEU:HD13	1.98	0.92
30:W:21:PHE:CZ	30:W:25:ARG:NH1	2.36	0.92
31:X:75:TRP:HZ3	31:X:125:MET:HE2	1.31	0.92
18:K:212:TYR:CE1	18:K:321:ALA:N	2.38	0.92
13:F:84:LEU:HD21	13:F:132:LEU:HD12	1.47	0.92
13:F:105:VAL:CG2	13:F:145:LEU:HB2	1.99	0.92
31:X:75:TRP:HZ2	31:X:125:MET:HG3	1.26	0.92
16:I:126:PRO:HG2	16:I:154:MET:HE3	1.52	0.92
24:Q:309:ARG:NH2	24:Q:345:SER:HA	1.83	0.92
15:H:173:ARG:HA	16:I:129:TYR:OH	1.66	0.92
22:O:15:ARG:HH12	22:O:73:ILE:HG12	1.34	0.92
33:Z:443:ASP:CB	33:Z:447:VAL:CG1	2.47	0.92
21:N:717:LEU:HD23	21:N:733:LEU:CD1	1.99	0.92
18:K:224:LYS:HE2	18:K:236:ARG:NH2	1.84	0.92
24:Q:329:GLU:OE1	24:Q:332:ARG:NH2	2.03	0.92
23:P:308:LEU:HD13	23:P:349:ASN:OD1	1.70	0.92
20:M:290:ARG:HD3	20:M:294:GLU:HB3	1.49	0.92
33:Z:562:TRP:CD2	33:Z:566:LEU:HD11	2.05	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:U:32:ARG:HH22	28:U:106:ILE:HD12	1.33	0.92
24:Q:299:MET:HE3	24:Q:335:PHE:CZ	2.04	0.92
14:G:192:VAL:HG13	14:G:215:ILE:HD13	1.50	0.92
25:R:105:LYS:HE2	25:R:109:LYS:HZ2	1.23	0.92
22:O:15:ARG:NH1	22:O:73:ILE:HG12	1.82	0.92
16:I:204:HIS:CB	16:I:207:LEU:HD12	1.99	0.92
16:I:126:PRO:HB3	16:I:128:TYR:HE2	0.75	0.92
33:Z:53:VAL:HG23	33:Z:91:PHE:CE2	2.05	0.92
13:F:3:ARG:NH2	15:H:359:ASN:ND2	2.18	0.92
21:N:273:LEU:O	21:N:277:LEU:HG	1.68	0.92
10:C:13:PHE:CZ	11:D:127:ARG:NH1	2.37	0.92
26:S:461:PHE:HZ	28:U:274:MET:O	1.52	0.92
16:I:207:LEU:CD1	33:Z:930:GLY:HA2	2.00	0.92
25:R:50:VAL:HG13	25:R:54:ILE:CD1	2.00	0.92
12:E:165:TYR:CB	12:E:167:TYR:CE1	2.53	0.92
9:B:65:SER:HB2	9:B:90:ARG:NH2	1.83	0.92
26:S:461:PHE:HE1	28:U:278:ILE:HB	1.34	0.92
33:Z:165:TYR:OH	33:Z:188:ALA:HB1	1.70	0.92
19:L:88:TYR:CD1	20:M:62:ILE:HD13	2.04	0.92
25:R:50:VAL:CG1	25:R:54:ILE:HD12	2.00	0.92
23:P:202:LYS:HE2	23:P:206:LYS:NZ	1.85	0.92
4:4:81:SER:HA	4:4:124:LYS:HZ3	1.33	0.91
21:N:221:ASP:HA	21:N:894:ARG:HH22	1.32	0.91
25:R:63:TYR:CE2	25:R:94:PHE:HA	2.04	0.91
29:V:53:MET:CE	29:V:65:VAL:HG11	2.00	0.91
9:B:66:LEU:HD11	9:B:235:PHE:CE2	2.04	0.91
8:A:56:GLN:NE2	8:A:214:LEU:HD13	1.84	0.91
33:Z:188:ALA:N	33:Z:201:LEU:HD12	1.79	0.91
33:Z:53:VAL:HG13	33:Z:95:THR:HG21	0.92	0.91
15:H:284:VAL:CB	20:M:254:MET:HB3	2.00	0.91
33:Z:574:TYR:OH	33:Z:584:VAL:CG2	2.19	0.91
4:4:3:ILE:CG2	4:4:102:LEU:HD12	1.98	0.91
21:N:207:LEU:HB2	21:N:232:LEU:HD21	1.51	0.91
14:G:173:ALA:HB1	19:L:420:ARG:HH21	1.32	0.91
19:L:357:ARG:HH12	19:L:386:PHE:HB2	1.34	0.91
8:A:156:LYS:HB3	8:A:166:TYR:CE1	2.04	0.91
18:K:70:ASP:OD1	18:K:73:ARG:NH2	2.03	0.91
18:K:159:SER:HG	18:K:244:HIS:HE2	0.96	0.91
11:D:7:ALA:HB2	12:E:125:GLU:OE2	1.71	0.91
7:7:187:PHE:CZ	7:7:204:LEU:HB3	2.06	0.91
12:E:208:MET:HG2	12:E:210:GLU:H	1.36	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:562:TRP:HE1	33:Z:566:LEU:CD2	1.84	0.91
17:J:167:PRO:HA	17:J:174:PHE:CZ	2.06	0.91
2:2:8:PHE:CE2	2:2:11:GLY:N	2.37	0.91
13:F:12:THR:CG2	13:F:19:LEU:CD1	2.49	0.91
10:C:115:LEU:HD12	10:C:137:TYR:OH	1.71	0.91
5:5:38:ASN:HD21	5:5:41:LEU:HD12	1.36	0.91
23:P:267:PHE:HE1	23:P:329:PHE:CE2	1.65	0.91
15:H:351:VAL:HG12	15:H:353:PHE:CE1	2.04	0.91
31:X:100:TRP:CZ3	31:X:102:GLN:HA	2.06	0.91
5:5:159:ARG:HH12	5:5:200:VAL:HA	1.35	0.91
28:U:32:ARG:CG	28:U:94:HIS:HE1	1.84	0.90
24:Q:311:LEU:HD22	24:Q:343:LEU:CD1	1.99	0.90
14:G:48:ALA:HB1	14:G:199:ILE:HD11	1.53	0.90
22:O:250:TRP:O	22:O:269:LEU:CD1	2.16	0.90
23:P:332:GLU:HB2	23:P:337:HIS:CE1	2.06	0.90
23:P:72:TRP:CH2	23:P:103:TYR:CB	2.48	0.90
31:X:79:LYS:HE2	31:X:98:PHE:HE2	1.35	0.90
17:J:377:VAL:HG12	17:J:382:PHE:CE2	2.05	0.90
22:O:266:PHE:CZ	22:O:280:LEU:CD2	2.54	0.90
15:H:340:LEU:CD1	15:H:370:ARG:HG3	2.00	0.90
30:W:31:ASP:O	30:W:35:PHE:HD1	1.55	0.90
25:R:411:LEU:HD23	26:S:464:ARG:NH1	1.87	0.90
28:U:203:LYS:HE2	28:U:229:LEU:CD2	1.99	0.90
24:Q:146:TYR:OH	24:Q:183:LYS:O	1.89	0.90
15:H:206:VAL:CG2	15:H:261:ARG:HE	1.83	0.90
21:N:211:PHE:CD2	21:N:237:LEU:HD22	2.07	0.90
15:H:284:VAL:HB	20:M:254:MET:N	1.86	0.90
13:F:101:ARG:HG2	13:F:103:LEU:H	1.36	0.90
5:5:135:PHE:HB2	5:5:167:ARG:NH2	1.87	0.90
33:Z:562:TRP:CE2	33:Z:566:LEU:CD1	2.53	0.90
22:O:377:VAL:HG11	28:U:200:LEU:HD12	1.52	0.90
23:P:131:PHE:CA	23:P:136:ARG:HH11	1.83	0.90
29:V:107:TRP:HZ3	29:V:109:HIS:CD2	1.77	0.90
28:U:32:ARG:HG2	28:U:94:HIS:CE1	2.05	0.90
4:4:3:ILE:HG22	4:4:102:LEU:CD1	2.02	0.90
4:4:26:VAL:HG11	4:4:29:ASP:HB3	1.49	0.90
21:N:327:LEU:HD21	21:N:743:PHE:CE1	2.01	0.90
33:Z:574:TYR:HE2	33:Z:584:VAL:CG1	1.70	0.90
15:H:172:MET:HB3	16:I:129:TYR:HE2	1.31	0.90
20:M:290:ARG:HD3	20:M:294:GLU:CB	2.02	0.90
15:H:284:VAL:CB	20:M:254:MET:HA	2.02	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:N:75:TYR:OH	26:S:223:LEU:HD12	1.72	0.90
3:3:125:LYS:O	3:3:126:ASP:OD1	1.89	0.90
27:T:47:GLN:O	27:T:48:ASN:CG	2.10	0.90
15:H:251:PRO:HD2	15:H:377:PHE:CD2	2.06	0.90
5:5:111:THR:HG21	5:5:113:TYR:CZ	2.06	0.90
27:T:136:LEU:HD22	27:T:146:ILE:HD11	1.52	0.90
33:Z:888:LEU:HB3	33:Z:901:PHE:HE1	1.35	0.90
9:B:219:PRO:HA	9:B:222:LEU:HD12	1.53	0.90
19:L:222:GLY:HA3	19:L:349:ILE:HD12	1.51	0.90
16:I:204:HIS:HB3	16:I:207:LEU:CB	2.02	0.89
24:Q:275:ILE:HD11	24:Q:306:TYR:HD2	1.32	0.89
26:S:218:LEU:HG	26:S:256:LYS:NZ	1.87	0.89
33:Z:64:TYR:OH	33:Z:115:LEU:CD2	2.19	0.89
33:Z:154:ILE:HG21	33:Z:211:PHE:CE1	2.06	0.89
20:M:119:VAL:HG11	20:M:155:ILE:HD11	1.55	0.89
18:K:71:GLU:OE2	21:N:576:VAL:HG22	1.72	0.89
4:4:166:GLU:HB3	4:4:170:ARG:HH21	1.36	0.89
25:R:334:ARG:NH1	25:R:363:PHE:HZ	1.70	0.89
26:S:188:TYR:HE2	26:S:239:ARG:HH11	1.20	0.89
22:O:228:TYR:HA	22:O:290:LYS:HZ1	1.35	0.89
21:N:585:ARG:NH2	21:N:623:PHE:CE2	2.39	0.89
33:Z:813:PHE:CZ	33:Z:847:ILE:HG12	2.07	0.89
18:K:137:VAL:HB	18:K:146:LEU:HD11	1.53	0.89
24:Q:343:LEU:HD11	24:Q:368:LEU:HD11	1.54	0.89
33:Z:74:SER:CB	33:Z:79:THR:HG22	2.02	0.89
6:6:196:LEU:CD2	6:6:205:LYS:HG2	2.02	0.89
16:I:214:LYS:NZ	16:I:318:ASP:C	2.26	0.89
11:D:11:PHE:HE2	12:E:26:TYR:CB	1.85	0.89
14:G:122:HIS:CG	14:G:128:VAL:HG12	2.07	0.89
33:Z:138:ARG:HH21	33:Z:157:LEU:CD1	1.81	0.89
33:Z:863:THR:CB	33:Z:911:LYS:NZ	2.35	0.89
33:Z:888:LEU:HB3	33:Z:901:PHE:CE1	2.07	0.89
19:L:167:VAL:HG23	20:M:142:PRO:HG3	1.55	0.89
24:Q:165:PHE:CZ	24:Q:173:SER:OG	2.26	0.89
20:M:251:LEU:C	20:M:252:VAL:N	0.84	0.89
33:Z:205:LEU:HG	33:Z:236:PHE:HE1	1.28	0.89
16:I:395:MET:CE	16:I:420:LYS:NZ	2.32	0.89
33:Z:763:HIS:CG	33:Z:766:HIS:CE1	2.61	0.89
13:F:7:ASP:CA	13:F:21:GLN:HE21	1.86	0.89
31:X:67:ILE:HD12	31:X:69:ILE:HD11	1.54	0.89
26:S:428:ARG:HA	27:T:195:LEU:HD23	1.54	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:P:167:THR:CB	23:P:168:TYR:CD1	2.56	0.88
21:N:596:LEU:HD13	21:N:717:LEU:HD13	1.55	0.88
22:O:116:ASN:CB	22:O:127:LEU:HD12	2.03	0.88
15:H:351:VAL:HG11	15:H:353:PHE:CZ	2.08	0.88
3:3:155:PHE:CE1	3:3:189:ARG:HD2	2.08	0.88
33:Z:484:LYS:HB2	33:Z:521:GLU:OE1	1.71	0.88
33:Z:111:LEU:O	33:Z:115:LEU:HG	1.73	0.88
30:W:20:ASP:HB3	30:W:25:ARG:HH21	1.30	0.88
19:L:157:ARG:HH21	20:M:128:PHE:HD2	1.17	0.88
6:6:66:TYR:CE2	6:6:73:LYS:O	2.25	0.88
23:P:131:PHE:HZ	23:P:167:THR:HG22	1.09	0.88
33:Z:546:ILE:HG22	33:Z:550:PHE:CE2	2.08	0.88
16:I:317:ASP:HB3	16:I:343:ARG:NH2	1.88	0.88
25:R:209:ARG:O	25:R:213:TYR:HD2	1.56	0.88
18:K:212:TYR:CE1	18:K:320:ARG:CA	2.40	0.88
11:D:208:LYS:HE2	11:D:226:SER:HB3	1.54	0.88
27:T:15:PHE:CZ	27:T:67:LEU:HB3	2.09	0.88
33:Z:75:ILE:O	33:Z:75:ILE:HG22	1.72	0.88
33:Z:138:ARG:CZ	33:Z:157:LEU:CG	2.52	0.88
13:F:159:THR:HA	13:F:169:LYS:HZ3	1.27	0.88
33:Z:763:HIS:HA	33:Z:766:HIS:ND1	1.88	0.88
28:U:67:PHE:CZ	30:W:97:THR:HG23	2.08	0.88
23:P:245:TYR:CZ	23:P:257:TRP:NE1	2.40	0.88
33:Z:387:ASN:HD22	33:Z:400:ILE:HD11	1.36	0.88
23:P:125:VAL:HG23	23:P:126:THR:HG23	1.54	0.88
11:D:92:GLU:OE2	11:D:108:TYR:HE2	1.55	0.88
17:J:337:LEU:HD22	17:J:382:PHE:HZ	0.73	0.88
24:Q:61:LEU:HG	24:Q:65:TYR:CZ	2.08	0.88
21:N:588:VAL:HG11	21:N:621:THR:HG23	1.54	0.88
33:Z:812:ILE:HG12	33:Z:834:LEU:HD22	1.54	0.88
33:Z:473:LEU:O	33:Z:477:TYR:CD2	2.26	0.88
26:S:461:PHE:HE2	28:U:274:MET:CA	1.86	0.88
16:I:384:LYS:NZ	16:I:420:LYS:NZ	2.11	0.88
7:7:118:PHE:CE2	7:7:120:ARG:HD2	2.08	0.88
23:P:167:THR:OG1	23:P:168:TYR:CD1	2.07	0.88
13:F:105:VAL:HG22	13:F:145:LEU:HD12	1.55	0.88
25:R:316:LEU:HD11	25:R:329:PHE:CE1	2.09	0.88
1:1:66:TYR:CE2	1:1:73:PRO:HB3	2.08	0.88
33:Z:463:HIS:O	33:Z:466:GLU:HG2	1.74	0.88
33:Z:208:VAL:HG11	33:Z:236:PHE:CD2	2.08	0.88
33:Z:154:ILE:HG22	33:Z:211:PHE:HZ	1.33	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:L:88:TYR:CE1	20:M:62:ILE:CB	2.55	0.87
15:H:249:TYR:CZ	15:H:376:GLU:HA	2.08	0.87
33:Z:750:GLU:HG2	33:Z:753:GLY:H	1.37	0.87
3:3:60:TYR:CE2	10:C:96:GLN:HB3	2.09	0.87
18:K:241:GLU:HA	19:L:303:ARG:NH1	1.90	0.87
1:1:98:ILE:HD11	1:1:127:ALA:HB3	1.56	0.87
17:J:337:LEU:H	25:R:204:TRP:HE1	1.16	0.87
16:I:253:ILE:HD11	16:I:287:ILE:HG22	1.56	0.87
21:N:162:ARG:HD3	21:N:165:ILE:CG1	2.03	0.87
4:4:109:LYS:HG3	4:4:110:LYS:HG3	1.55	0.87
1:1:30:VAL:HG23	1:1:172:VAL:CG2	2.03	0.87
21:N:361:ASN:HB3	21:N:399:PHE:CD2	2.10	0.87
24:Q:322:GLU:HG3	24:Q:326:MET:CE	2.03	0.87
12:E:17:PRO:HA	13:F:24:TYR:CE2	2.09	0.87
20:M:331:ASP:OD1	20:M:332:VAL:HG23	1.75	0.87
27:T:11:LEU:HD22	27:T:30:ILE:HD13	1.56	0.87
25:R:266:LEU:HD21	25:R:293:THR:HG23	1.56	0.87
22:O:178:TYR:CZ	22:O:182:LYS:NZ	2.42	0.87
19:L:289:ARG:NH1	19:L:333:LEU:O	2.07	0.87
13:F:72:LEU:HD13	13:F:132:LEU:HD22	1.54	0.87
25:R:158:LEU:HD11	25:R:197:MET:CE	2.04	0.87
19:L:95:ILE:HG23	20:M:68:LYS:NZ	1.89	0.87
27:T:206:LYS:NZ	27:T:214:GLU:OE2	2.07	0.87
33:Z:795:THR:HG22	33:Z:799:PHE:HE2	1.38	0.87
33:Z:250:VAL:HG21	33:Z:272:TYR:OH	1.73	0.87
21:N:207:LEU:CB	21:N:232:LEU:HD21	2.04	0.87
1:1:94:THR:CG2	1:1:115:LEU:HD22	2.05	0.87
30:W:115:CYS:SG	30:W:144:PHE:CZ	2.68	0.87
8:A:205:PHE:CE2	8:A:209:HIS:CE1	2.62	0.87
11:D:8:LEU:O	11:D:18:PHE:HZ	1.58	0.87
21:N:444:HIS:ND1	21:N:476:THR:O	2.08	0.87
23:P:267:PHE:CE1	23:P:329:PHE:CD2	2.63	0.87
11:D:68:ASP:CG	11:D:97:ARG:HH21	1.77	0.87
11:D:11:PHE:HE2	12:E:26:TYR:HB3	1.40	0.87
24:Q:11:ALA:HB2	24:Q:26:VAL:HG11	1.54	0.86
16:I:126:PRO:CB	16:I:128:TYR:CE2	2.30	0.86
33:Z:748:LEU:HD21	33:Z:783:VAL:C	1.95	0.86
21:N:770:LYS:HE3	21:N:917:ILE:HG21	1.55	0.86
24:Q:382:LEU:HB3	25:R:263:ARG:NH1	1.90	0.86
17:J:218:LEU:HD21	17:J:230:VAL:HA	1.57	0.86
21:N:315:ASN:HA	21:N:318:LYS:NZ	1.90	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:N:596:LEU:CD2	21:N:717:LEU:HD11	2.05	0.86
21:N:53:ASP:HA	21:N:58:ARG:NH2	1.90	0.86
17:J:329:ARG:HH11	17:J:333:ARG:CZ	1.88	0.86
26:S:461:PHE:HE2	28:U:274:MET:O	1.56	0.86
33:Z:221:VAL:HG22	33:Z:245:VAL:HG13	1.56	0.86
23:P:332:GLU:CB	23:P:337:HIS:NE2	2.36	0.86
33:Z:394:TYR:HD2	33:Z:396:ASN:HD21	0.87	0.86
31:X:79:LYS:HE2	31:X:98:PHE:CD2	2.10	0.86
17:J:167:PRO:HA	17:J:174:PHE:CE1	2.10	0.86
19:L:263:ILE:O	19:L:267:PHE:HD1	1.58	0.86
26:S:399:TYR:HD2	26:S:401:LYS:O	1.58	0.86
18:K:371:LEU:HD21	18:K:407:LEU:HD13	1.55	0.86
15:H:172:MET:CA	16:I:129:TYR:CE2	2.58	0.86
16:I:384:LYS:HD3	16:I:420:LYS:HD2	1.55	0.86
2:2:42:TRP:HD1	2:2:178:MET:SD	1.98	0.86
27:T:2:PRO:O	27:T:9:LYS:CD	2.22	0.86
16:I:331:ILE:HD13	16:I:347:LYS:HE2	1.56	0.86
22:O:253:GLN:HB2	22:O:269:LEU:HD12	1.55	0.86
15:H:351:VAL:CG1	15:H:353:PHE:CE1	2.58	0.86
13:F:157:TYR:HD2	14:G:57:LEU:O	1.59	0.86
23:P:95:TYR:CD2	23:P:96:MET:CE	2.59	0.86
23:P:259:PRO:CB	23:P:327:LEU:HD12	2.06	0.86
4:4:45:PHE:CD2	4:4:101:VAL:CG1	2.58	0.86
21:N:599:TYR:HE1	21:N:634:LEU:HD13	1.39	0.86
20:M:236:ALA:HB2	20:M:277:ILE:HD12	1.57	0.86
16:I:163:ASP:HB2	17:J:76:ILE:HD13	1.56	0.86
15:H:396:MET:HE2	15:H:438:ALA:HB3	1.48	0.85
25:R:301:TYR:CE1	25:R:305:PHE:CE1	2.64	0.85
33:Z:748:LEU:CD2	33:Z:783:VAL:O	2.23	0.85
28:U:32:ARG:HG2	28:U:94:HIS:NE2	1.91	0.85
24:Q:141:LEU:HD11	24:Q:145:HIS:NE2	1.91	0.85
17:J:26:LYS:HE2	18:K:51:LEU:HD21	1.58	0.85
33:Z:126:TYR:HD2	33:Z:128:GLU:HB2	1.37	0.85
15:H:97:LEU:HD11	15:H:176:VAL:H	1.42	0.85
15:H:284:VAL:HG21	20:M:254:MET:HA	1.57	0.85
24:Q:10:GLU:O	24:Q:14:LEU:HG	1.76	0.85
31:X:37:PRO:HB3	31:X:46:TRP:CZ3	2.11	0.85
28:U:32:ARG:NH2	28:U:106:ILE:HD12	1.91	0.85
22:O:178:TYR:OH	22:O:182:LYS:NZ	2.08	0.85
23:P:167:THR:HB	23:P:168:TYR:CE1	2.11	0.85
13:F:7:ASP:HA	13:F:21:GLN:NE2	1.90	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:R:134:TRP:CH2	25:R:156:LYS:NZ	2.44	0.85
10:C:13:PHE:CE2	11:D:127:ARG:NH1	2.44	0.85
20:M:195:GLU:HA	20:M:199:LEU:HD12	1.56	0.85
15:H:97:LEU:HD21	15:H:175:GLY:HA3	1.55	0.85
23:P:131:PHE:HZ	23:P:167:THR:CG2	1.75	0.85
21:N:326:SER:HA	29:V:182:LYS:HE2	1.59	0.85
21:N:717:LEU:HD23	21:N:733:LEU:HD11	1.57	0.85
22:O:235:HIS:CD2	22:O:236:HIS:CE1	2.63	0.85
15:H:306:ILE:CG2	15:H:308:PHE:CE1	2.60	0.85
24:Q:311:LEU:HD22	24:Q:343:LEU:HD13	1.56	0.85
24:Q:382:LEU:HD13	25:R:263:ARG:CZ	2.07	0.85
19:L:401:PHE:CD1	19:L:404:ARG:NH1	2.44	0.85
1:1:61:TYR:HE1	8:A:103:GLU:HA	1.42	0.85
5:5:81:LYS:HG2	11:D:101:GLU:OE2	1.77	0.85
33:Z:205:LEU:CD2	33:Z:236:PHE:HE1	1.89	0.85
7:7:42:VAL:HG23	7:7:192:ILE:HD11	1.59	0.85
22:O:15:ARG:NH2	22:O:73:ILE:HD11	1.91	0.85
15:H:389:PHE:CZ	15:H:419:LEU:CD2	2.59	0.85
33:Z:763:HIS:HA	33:Z:766:HIS:CE1	2.11	0.85
31:X:48:PHE:CZ	31:X:68:LEU:HD21	2.11	0.85
23:P:95:TYR:HD2	23:P:96:MET:HE3	1.40	0.85
17:J:114:CYS:SG	18:K:119:VAL:HG21	2.17	0.85
23:P:184:MET:HB2	23:P:223:LEU:HD13	1.59	0.85
12:E:86:ARG:NH1	12:E:90:GLU:HB2	1.92	0.85
24:Q:426:LEU:HD22	28:U:293:GLU:OE1	1.76	0.85
23:P:130:ILE:C	23:P:136:ARG:NH1	2.30	0.84
33:Z:75:ILE:HG21	33:Z:121:ILE:HG21	0.89	0.84
13:F:159:THR:HA	13:F:169:LYS:HZ2	1.38	0.84
33:Z:763:HIS:O	33:Z:766:HIS:CE1	2.30	0.84
15:H:101:ARG:NH2	15:H:150:LYS:CE	2.38	0.84
15:H:329:VAL:HG21	16:I:300:ARG:NH1	1.91	0.84
14:G:200:TYR:CE1	14:G:246:ILE:HG22	2.09	0.84
18:K:258:PHE:CG	18:K:302:GLN:HB3	2.12	0.84
14:G:173:ALA:CA	19:L:420:ARG:NH2	2.39	0.84
15:H:284:VAL:CG1	20:M:254:MET:N	2.39	0.84
23:P:229:LEU:HD22	23:P:332:GLU:HG3	1.59	0.84
16:I:253:ILE:HD11	16:I:287:ILE:CG2	2.07	0.84
25:R:170:VAL:HG12	25:R:194:VAL:HG21	1.59	0.84
3:3:37:TYR:CE1	3:3:59:ARG:HG3	2.13	0.84
19:L:157:ARG:NH2	20:M:128:PHE:CD2	2.46	0.84
33:Z:562:TRP:NE1	33:Z:566:LEU:CG	2.39	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:J:219:VAL:HB	18:K:281:ARG:HD2	1.57	0.84
1:1:4:VAL:CG1	1:1:49:ALA:HB3	2.08	0.84
33:Z:493:LEU:HD11	33:Z:497:PHE:CE1	2.12	0.84
21:N:282:TYR:CZ	21:N:286:LEU:CD1	2.59	0.84
31:X:48:PHE:CZ	31:X:68:LEU:CD2	2.61	0.84
18:K:386:ILE:HA	18:K:414:GLN:HE22	1.43	0.84
16:I:208:TYR:CE1	16:I:209:GLU:HG3	2.12	0.84
24:Q:289:GLU:HB2	24:Q:291:TYR:HD1	1.42	0.84
31:X:75:TRP:CH2	31:X:125:MET:SD	2.70	0.84
33:Z:53:VAL:CG1	33:Z:95:THR:HG22	2.06	0.84
13:F:105:VAL:HG21	13:F:145:LEU:CB	2.08	0.84
21:N:579:SER:HA	21:N:584:ARG:NH2	1.92	0.84
15:H:249:TYR:OH	15:H:376:GLU:HB2	1.78	0.84
33:Z:574:TYR:CZ	33:Z:584:VAL:CG2	2.61	0.84
26:S:397:LEU:HD22	26:S:402:ILE:HG21	1.58	0.84
13:F:13:PHE:CE1	14:G:130:PRO:HD2	2.11	0.84
30:W:139:VAL:HG11	30:W:157:PHE:HE2	1.43	0.84
20:M:116:ALA:HB1	20:M:128:PHE:CE1	2.12	0.84
23:P:95:TYR:HD2	23:P:96:MET:CE	1.90	0.84
21:N:749:LEU:HG	21:N:753:PHE:CZ	2.13	0.84
5:5:111:THR:CG2	5:5:113:TYR:CZ	2.61	0.84
12:E:20:ARG:HD3	20:M:432:PHE:CZ	2.12	0.84
10:C:161:LYS:CD	11:D:56:ASP:HB2	2.07	0.84
24:Q:48:ASP:OD1	24:Q:92:LYS:HE3	1.77	0.84
33:Z:574:TYR:CZ	33:Z:584:VAL:CG1	2.56	0.83
33:Z:224:LEU:HD21	33:Z:236:PHE:CD2	2.14	0.83
21:N:223:LEU:HD11	21:N:722:THR:HG22	1.59	0.83
31:X:27:ILE:HB	31:X:59:ARG:NH2	1.92	0.83
5:5:6:PHE:CZ	5:5:13:ILE:HB	2.11	0.83
25:R:158:LEU:CD1	25:R:197:MET:HE1	2.07	0.83
13:F:120:THR:O	14:G:129:ARG:CD	2.25	0.83
28:U:32:ARG:NE	28:U:94:HIS:CE1	2.45	0.83
23:P:144:VAL:HG21	23:P:160:LEU:CD2	2.08	0.83
26:S:192:GLU:HG3	26:S:239:ARG:NH1	1.94	0.83
28:U:46:ILE:HD13	28:U:119:LEU:HD22	1.58	0.83
5:5:8:PHE:CZ	5:5:13:ILE:HD11	2.14	0.83
15:H:206:VAL:HG21	15:H:261:ARG:NE	1.92	0.83
10:C:4:ARG:HG3	11:D:6:ARG:HD2	1.59	0.83
19:L:145:ARG:HE	19:L:162:GLU:HG3	1.44	0.83
33:Z:138:ARG:HH21	33:Z:157:LEU:HD12	1.38	0.83
19:L:88:TYR:HE1	20:M:62:ILE:HG12	1.43	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:E:86:ARG:HH12	12:E:90:GLU:HB2	1.43	0.83
14:G:217:TRP:HE1	14:G:228:LYS:HB2	1.42	0.83
33:Z:463:HIS:NE2	33:Z:497:PHE:CD1	2.47	0.83
25:R:209:ARG:HE	25:R:243:LEU:HD22	1.41	0.83
33:Z:443:ASP:HB3	33:Z:447:VAL:CB	2.08	0.83
33:Z:886:VAL:HG13	33:Z:893:PHE:CE1	2.13	0.83
29:V:53:MET:HE2	29:V:65:VAL:HG11	1.58	0.83
31:X:38:ASN:HD22	31:X:42:GLU:H	1.25	0.83
5:5:100:MET:SD	5:5:127:PHE:HB2	2.19	0.83
18:K:48:TYR:CZ	21:N:156:ILE:HD11	2.14	0.83
19:L:369:LYS:HE3	20:M:209:ASP:O	1.79	0.83
11:D:11:PHE:CE2	12:E:26:TYR:HB3	2.13	0.83
23:P:426:ILE:O	29:V:230:TYR:OH	1.97	0.83
21:N:406:TYR:CD1	21:N:448:LEU:HB3	2.13	0.83
25:R:137:LEU:O	25:R:141:TYR:CD2	2.31	0.83
33:Z:985:LYS:HE3	33:Z:991:GLU:HB2	1.61	0.83
19:L:290:ARG:NH1	19:L:293:GLU:CB	2.41	0.83
17:J:329:ARG:NH1	17:J:333:ARG:CZ	2.42	0.83
18:K:98:GLN:HE22	18:K:136:SER:CB	1.90	0.83
17:J:241:ALA:HB2	17:J:288:ILE:HD11	1.59	0.83
15:H:168:ILE:HD12	15:H:187:LEU:HD12	1.59	0.83
22:O:185:PHE:CG	22:O:223:LEU:HD13	2.13	0.83
19:L:357:ARG:HH22	19:L:386:PHE:H	1.27	0.83
1:1:83:LYS:HZ2	1:1:118:SER:HA	1.42	0.82
21:N:717:LEU:CD2	21:N:733:LEU:HD12	2.07	0.82
21:N:222:TYR:H	21:N:894:ARG:CZ	1.91	0.82
5:5:40:PHE:HB3	5:5:73:ARG:NH2	1.94	0.82
9:B:239:THR:HG22	9:B:241:GLN:H	1.42	0.82
22:O:253:GLN:CB	22:O:269:LEU:HD12	2.10	0.82
21:N:424:LYS:HZ1	21:N:461:GLU:CB	1.79	0.82
19:L:167:VAL:CG2	20:M:142:PRO:HG3	2.09	0.82
1:1:-2:LEU:HD12	1:1:1:THR:H	1.44	0.82
33:Z:119:LEU:HB3	33:Z:137:TYR:CD2	2.14	0.82
25:R:408:ASP:CB	26:S:464:ARG:NH2	2.33	0.82
31:X:75:TRP:CH2	31:X:125:MET:CG	2.49	0.82
15:H:324:GLY:HA3	20:M:290:ARG:HH22	0.71	0.82
15:H:323:ALA:O	20:M:290:ARG:NH2	2.12	0.82
4:4:109:LYS:HE3	4:4:110:LYS:HE3	1.61	0.82
17:J:177:LEU:HD23	17:J:179:ILE:CG2	2.09	0.82
15:H:299:ARG:NH2	15:H:345:PRO:HD3	1.94	0.82
18:K:216:GLY:HA3	19:L:342:ARG:NH2	1.94	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:X:66:LEU:HD22	31:X:97:TYR:CD1	2.14	0.82
16:I:281:ILE:HG21	16:I:284:ILE:HD11	1.62	0.82
26:S:425:ARG:NH2	27:T:153:MET:O	2.12	0.82
24:Q:311:LEU:CD2	24:Q:343:LEU:HD13	2.09	0.82
33:Z:53:VAL:HG13	33:Z:95:THR:HG22	1.61	0.82
28:U:203:LYS:HE2	28:U:229:LEU:HD21	1.54	0.82
26:S:461:PHE:CE2	28:U:274:MET:C	2.52	0.82
23:P:267:PHE:CZ	23:P:329:PHE:CD2	2.68	0.82
25:R:266:LEU:CA	25:R:270:VAL:HG22	2.09	0.82
15:H:102:CYS:HB3	15:H:105:ILE:CD1	2.10	0.82
22:O:377:VAL:HG21	28:U:200:LEU:CD1	2.08	0.82
9:B:174:PHE:HB3	9:B:178:ARG:HH12	1.45	0.82
15:H:59:ILE:CG2	16:I:92:GLU:OE2	2.27	0.82
17:J:305:LEU:HD22	17:J:313:LYS:CE	2.07	0.82
4:4:107:ASP:OD1	4:4:109:LYS:HG2	1.78	0.82
13:F:201:LEU:O	13:F:202:ARG:HG3	1.80	0.82
31:X:36:LYS:NZ	31:X:49:GLU:OE1	2.12	0.82
31:X:100:TRP:HZ3	31:X:102:GLN:HA	1.43	0.82
6:6:66:TYR:OH	6:6:73:LYS:HG2	1.80	0.82
13:F:65:LYS:HG3	13:F:222:PHE:CD2	2.15	0.82
22:O:219:ILE:HG23	22:O:274:ILE:CD1	2.10	0.82
33:Z:900:LEU:HD22	33:Z:903:MET:CE	2.09	0.82
18:K:167:PRO:HG2	18:K:228:ASN:HB2	1.62	0.82
33:Z:89:LEU:HD21	33:Z:125:THR:HG21	0.82	0.81
29:V:135:ARG:HD2	29:V:157:ARG:HH22	0.73	0.81
10:C:115:LEU:HD13	10:C:137:TYR:OH	1.80	0.81
10:C:137:TYR:O	10:C:148:LEU:HD12	1.80	0.81
13:F:157:TYR:OH	14:G:59:VAL:HG23	1.80	0.81
33:Z:64:TYR:HD2	33:Z:111:LEU:HD11	1.40	0.81
33:Z:550:PHE:CE1	33:Z:566:LEU:HB3	2.14	0.81
33:Z:550:PHE:CZ	33:Z:566:LEU:CB	2.61	0.81
33:Z:321:PHE:HE2	33:Z:351:PRO:CG	1.89	0.81
5:5:83:LEU:O	5:5:87:VAL:HG23	1.79	0.81
14:G:122:HIS:CG	14:G:128:VAL:CG1	2.62	0.81
17:J:167:PRO:CD	17:J:174:PHE:CZ	2.64	0.81
26:S:435:LYS:HD3	27:T:198:ASP:OD2	1.80	0.81
21:N:615:ALA:HB3	21:N:651:PHE:HZ	1.44	0.81
33:Z:509:LEU:HB2	33:Z:530:LEU:HD21	1.62	0.81
18:K:49:PHE:CE2	18:K:53:LYS:HE3	2.15	0.81
6:6:43:MET:HG3	6:6:102:ILE:HG22	1.61	0.81
21:N:77:SER:O	21:N:81:TYR:HD1	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:T:112:ASN:HB2	27:T:177:PHE:HZ	1.45	0.81
24:Q:151:TYR:OH	24:Q:187:LYS:HG2	1.79	0.81
17:J:167:PRO:CD	17:J:174:PHE:HZ	1.92	0.81
7:7:192:ILE:HG12	7:7:198:LEU:HD13	1.60	0.81
1:1:1:THR:HG22	1:1:129:SER:H	1.45	0.81
33:Z:562:TRP:CZ2	33:Z:566:LEU:HD11	2.16	0.81
33:Z:550:PHE:HZ	33:Z:566:LEU:HB3	1.41	0.81
6:6:91:LYS:CB	6:6:96:TYR:CE1	2.63	0.81
21:N:67:LYS:HG2	21:N:97:PHE:CD1	2.15	0.81
20:M:282:GLU:OE2	20:M:328:ASN:ND2	2.14	0.81
23:P:274:GLY:O	23:P:277:GLN:HG2	1.79	0.81
22:O:72:LYS:O	30:W:18:ASN:CB	2.29	0.81
8:A:220:LYS:HD3	8:A:242:GLU:HB2	0.84	0.81
15:H:389:PHE:CE1	15:H:419:LEU:HD22	2.16	0.81
11:D:159:TRP:CZ2	12:E:59:LEU:HD13	2.14	0.81
22:O:356:ARG:NH1	28:U:234:ASN:HB2	1.94	0.81
10:C:194:LEU:HD12	10:C:242:THR:HG21	1.62	0.81
16:I:175:LYS:O	17:J:282:PHE:CZ	2.33	0.81
27:T:89:TYR:CE1	27:T:102:LYS:HD3	2.15	0.81
15:H:69:VAL:HG11	16:I:133:LEU:HD21	1.62	0.81
8:A:19:PHE:HA	8:A:25:LEU:HD21	1.63	0.81
22:O:157:LEU:HD22	22:O:171:PHE:CD1	2.16	0.81
33:Z:51:LEU:HB3	33:Z:91:PHE:HZ	1.44	0.81
25:R:209:ARG:CG	25:R:213:TYR:HE2	1.92	0.81
14:G:106:ILE:HG12	14:G:114:ARG:NH2	1.94	0.81
24:Q:61:LEU:CG	24:Q:65:TYR:CZ	2.64	0.81
18:K:224:LYS:NZ	18:K:236:ARG:HH22	1.78	0.81
1:1:8:PHE:CE1	1:1:13:ILE:HG13	2.16	0.81
9:B:44:VAL:HG22	9:B:213:ILE:HG22	1.60	0.81
16:I:103:PRO:HB3	17:J:120:TYR:CZ	2.15	0.81
33:Z:182:SER:O	33:Z:183:LYS:HB2	1.79	0.81
10:C:161:LYS:HD2	11:D:56:ASP:CB	2.08	0.81
25:R:399:GLN:O	25:R:403:LEU:HG	1.81	0.81
19:L:88:TYR:CE1	20:M:62:ILE:HG12	2.16	0.81
23:P:344:ARG:HH21	23:P:347:GLU:CD	1.85	0.81
18:K:132:LYS:HB2	18:K:135:MET:HG3	1.63	0.81
26:S:461:PHE:CE1	28:U:278:ILE:CB	2.64	0.81
14:G:173:ALA:HB1	19:L:420:ARG:NH2	1.91	0.81
21:N:549:TYR:OH	21:N:738:GLN:NE2	2.12	0.81
22:O:250:TRP:HZ2	22:O:271:LYS:CG	1.95	0.80
13:F:84:LEU:CD2	13:F:132:LEU:HD11	2.07	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:6:73:LYS:HD2	12:E:108:ASN:HD21	1.45	0.80
12:E:20:ARG:HD3	20:M:432:PHE:HZ	1.44	0.80
17:J:116:ARG:HB3	17:J:118:ASP:OD1	1.82	0.80
33:Z:574:TYR:OH	33:Z:584:VAL:HG21	1.80	0.80
29:V:107:TRP:HZ3	29:V:109:HIS:CG	1.97	0.80
13:F:179:PHE:CE2	13:F:192:ALA:HB1	2.16	0.80
8:A:128:TYR:CZ	8:A:134:MET:CE	2.63	0.80
23:P:154:ASP:OD1	23:P:190:LYS:NZ	2.14	0.80
19:L:178:ILE:HD13	19:L:230:LEU:CD2	2.11	0.80
9:B:43:VAL:HG11	9:B:137:ALA:HB1	1.63	0.80
3:3:129:VAL:CG2	3:3:138:PHE:CD1	2.62	0.80
23:P:202:LYS:HE2	23:P:206:LYS:HZ1	1.44	0.80
15:H:156:VAL:HG22	15:H:181:TYR:HH	1.46	0.80
33:Z:158:ALA:HB2	33:Z:207:ILE:HD13	1.63	0.80
15:H:392:HIS:CE1	15:H:420:ARG:HG3	2.16	0.80
19:L:362:LYS:HA	19:L:376:PHE:CZ	2.16	0.80
7:7:118:PHE:CZ	7:7:120:ARG:HD2	2.15	0.80
10:C:66:LEU:CD1	10:C:212:GLU:HG2	2.11	0.80
17:J:156:GLN:HE21	17:J:160:ILE:HB	1.45	0.80
14:G:173:ALA:HB2	19:L:420:ARG:HH21	1.43	0.80
33:Z:863:THR:OG1	33:Z:911:LYS:NZ	2.14	0.80
25:R:105:LYS:CE	25:R:109:LYS:NZ	2.44	0.80
15:H:254:THR:OG1	15:H:377:PHE:CE1	2.35	0.80
19:L:178:ILE:HD13	19:L:230:LEU:HD22	1.61	0.80
19:L:117:TYR:CE1	19:L:131:VAL:HG11	2.17	0.80
23:P:79:LEU:CD1	23:P:100:VAL:HG21	2.11	0.80
33:Z:338:HIS:HD2	33:Z:339:PHE:CE2	2.00	0.80
14:G:108:ILE:CG2	14:G:148:TYR:CE1	2.64	0.80
33:Z:763:HIS:O	33:Z:766:HIS:ND1	2.15	0.80
1:1:57:ASP:O	8:A:106:TYR:CE1	2.34	0.80
18:K:126:LEU:HD22	18:K:149:ILE:CD1	2.12	0.80
29:V:186:GLN:O	29:V:190:HIS:CD2	2.35	0.80
21:N:502:PHE:CZ	21:N:538:LYS:HB3	2.17	0.80
24:Q:99:THR:HG22	24:Q:103:LYS:HE3	1.62	0.80
24:Q:146:TYR:CE1	24:Q:151:TYR:HE1	2.00	0.80
18:K:280:LYS:HZ2	18:K:296:LEU:HD23	1.44	0.80
21:N:549:TYR:CD2	21:N:586:ALA:HB2	2.17	0.80
23:P:431:HIS:ND1	28:U:156:HIS:HB2	1.97	0.80
24:Q:415:LEU:HD13	28:U:282:VAL:HG11	1.61	0.80
6:6:48:PHE:CE2	6:6:50:ALA:HB3	2.17	0.80
24:Q:51:ARG:NH1	24:Q:55:GLU:OE2	2.13	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:H:147:ILE:HD12	15:H:181:TYR:HB3	1.64	0.80
26:S:315:LYS:NZ	26:S:345:TYR:CE1	2.50	0.80
15:H:102:CYS:CB	15:H:105:ILE:CD1	2.59	0.80
21:N:362:TRP:CH2	29:V:23:THR:CG2	2.65	0.80
16:I:317:ASP:HB3	16:I:343:ARG:HH21	1.47	0.80
19:L:117:TYR:CE1	19:L:131:VAL:CG1	2.64	0.80
13:F:137:TYR:CZ	13:F:218:LYS:HA	2.16	0.80
33:Z:866:VAL:HB	33:Z:873:LEU:HG	1.63	0.80
12:E:15:PHE:CZ	13:F:126:ARG:NH2	2.49	0.80
1:I:137:TYR:OH	1:I:157:HIS:CD2	2.35	0.80
22:O:373:TRP:CZ2	28:U:200:LEU:HD21	2.16	0.80
24:Q:232:TYR:HB2	24:Q:272:LEU:HD21	1.61	0.80
24:Q:348:CYS:HB3	24:Q:386:PHE:CE1	2.17	0.80
31:X:75:TRP:NE1	31:X:125:MET:HB2	1.97	0.79
11:D:70:HIS:HE1	11:D:97:ARG:HH22	1.30	0.79
15:H:102:CYS:HB3	15:H:105:ILE:HD11	1.62	0.79
22:O:185:PHE:CE2	22:O:223:LEU:HD13	2.16	0.79
30:W:46:GLU:O	30:W:47:ASN:CG	2.19	0.79
33:Z:833:GLN:NE2	33:Z:837:TYR:OH	2.16	0.79
29:V:107:TRP:CH2	29:V:109:HIS:CD2	2.70	0.79
20:M:196:ALA:HB2	20:M:345:ARG:NE	1.96	0.79
5:5:81:LYS:HD3	5:5:121:ARG:HE	1.45	0.79
19:L:145:ARG:HH21	19:L:163:THR:CA	1.95	0.79
33:Z:900:LEU:HD22	33:Z:903:MET:HE1	1.63	0.79
21:N:406:TYR:CE1	21:N:448:LEU:HB3	2.17	0.79
6:6:58:ARG:HD3	6:6:87:LEU:HD22	1.63	0.79
23:P:119:ILE:HG21	23:P:143:LEU:HD22	1.65	0.79
24:Q:249:LEU:O	24:Q:250:THR:CG2	2.29	0.79
19:L:88:TYR:CE1	20:M:62:ILE:CG1	2.65	0.79
20:M:59:LEU:O	20:M:63:LYS:HG3	1.83	0.79
6:6:66:TYR:HE2	6:6:73:LYS:O	1.65	0.79
9:B:174:PHE:HB3	9:B:178:ARG:NH1	1.97	0.79
20:M:394:VAL:HA	20:M:423:GLN:HE22	1.46	0.79
21:N:315:ASN:HA	21:N:318:LYS:HZ3	1.46	0.79
16:I:253:ILE:HD11	16:I:287:ILE:HA	1.65	0.79
11:D:11:PHE:CE2	12:E:26:TYR:CB	2.65	0.79
25:R:70:TYR:CE2	25:R:76:GLN:HA	2.17	0.79
2:2:160:GLN:HE21	2:2:164:TRP:HE1	1.31	0.79
22:O:190:TYR:HD1	22:O:227:ILE:CD1	1.95	0.79
33:Z:394:TYR:CD2	33:Z:396:ASN:ND2	2.45	0.79
23:P:131:PHE:N	23:P:136:ARG:NH1	2.28	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:T:89:TYR:CD1	27:T:102:LYS:CD	2.63	0.79
21:N:398:ARG:HD2	21:N:438:ASP:CB	2.08	0.79
30:W:141:ILE:HG21	30:W:154:LEU:HD13	1.64	0.79
26:S:461:PHE:HE2	28:U:274:MET:C	1.85	0.79
14:G:64:VAL:HG12	14:G:66:ILE:H	1.45	0.79
15:H:217:GLN:NE2	15:H:248:LEU:HD13	1.98	0.79
26:S:360:PHE:O	26:S:364:ILE:HG12	1.83	0.79
17:J:167:PRO:N	17:J:174:PHE:HZ	1.81	0.79
24:Q:74:LEU:HD23	24:Q:104:PHE:CE1	2.17	0.79
24:Q:74:LEU:HD23	24:Q:104:PHE:CD1	2.17	0.79
20:M:218:ALA:HB3	20:M:324:LEU:CD2	2.13	0.79
30:W:186:ALA:HB1	30:W:191:ILE:CG2	2.13	0.79
20:M:47:GLU:CD	20:M:50:ARG:NH2	2.37	0.79
16:I:174:ASP:OD2	16:I:177:PRO:HB3	1.83	0.79
25:R:63:TYR:OH	25:R:93:LYS:O	2.01	0.79
25:R:410:LEU:HD21	28:U:285:ILE:HG21	1.65	0.79
14:G:183:PRO:O	14:G:184:GLU:HG2	1.82	0.79
12:E:15:PHE:CD1	12:E:21:LEU:HD12	2.16	0.78
33:Z:518:LEU:HD11	33:Z:562:TRP:CE3	2.19	0.78
4:4:45:PHE:CE2	4:4:101:VAL:HG11	2.18	0.78
3:3:37:TYR:CZ	3:3:59:ARG:HB2	2.18	0.78
16:I:104:LEU:HD21	16:I:149:LEU:O	1.83	0.78
12:E:20:ARG:CD	20:M:432:PHE:HZ	1.95	0.78
15:H:147:ILE:HG13	15:H:183:ILE:CG1	2.13	0.78
11:D:97:ARG:HH12	11:D:103:PRO:HG3	1.45	0.78
10:C:3:SER:HB3	11:D:6:ARG:CZ	2.13	0.78
26:S:343:LEU:HD11	26:S:347:HIS:HE1	1.45	0.78
27:T:139:ASP:OD2	27:T:142:LEU:HG	1.83	0.78
15:H:97:LEU:HB3	15:H:173:ARG:HG3	1.64	0.78
25:R:334:ARG:NH1	25:R:363:PHE:CZ	2.49	0.78
10:C:3:SER:CB	11:D:6:ARG:NH2	2.45	0.78
20:M:203:ARG:HD3	20:M:206:LYS:HD2	1.65	0.78
12:E:207:VAL:HA	15:H:409:ARG:HH12	1.47	0.78
21:N:315:ASN:O	21:N:318:LYS:HG2	1.84	0.78
21:N:328:PHE:HZ	21:N:693:GLY:HA2	1.47	0.78
33:Z:224:LEU:HD13	33:Z:233:LEU:CD2	2.08	0.78
24:Q:36:SER:O	24:Q:46:VAL:CG2	2.31	0.78
18:K:98:GLN:HE22	18:K:136:SER:HB2	1.47	0.78
25:R:411:LEU:CD2	26:S:464:ARG:NH1	2.43	0.78
33:Z:474:LEU:CD2	33:Z:493:LEU:HD23	2.12	0.78
30:W:133:LYS:CE	30:W:163:ASN:HD21	1.97	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:5:35:ILE:HD11	5:5:45:MET:HE3	1.64	0.78
33:Z:119:LEU:HD13	33:Z:137:TYR:CZ	2.19	0.78
29:V:57:PHE:HZ	29:V:135:ARG:NH1	1.81	0.78
7:7:33:ARG:NH2	7:7:46:SER:HA	1.96	0.78
3:3:60:TYR:CE2	10:C:96:GLN:CB	2.66	0.78
10:C:158:THR:HG1	10:C:160:TRP:HE1	1.30	0.78
23:P:440:HIS:CE1	28:U:209:GLU:HB3	2.18	0.78
23:P:131:PHE:CE2	23:P:167:THR:CG2	2.59	0.78
13:F:3:ARG:HH21	15:H:359:ASN:HD21	1.31	0.78
22:O:233:LEU:HD22	22:O:238:ILE:CD1	2.11	0.78
8:A:164:VAL:CB	9:B:61:LEU:HD21	2.13	0.78
20:M:119:VAL:CG1	20:M:155:ILE:HD11	2.12	0.78
20:M:197:ILE:HB	20:M:322:LYS:CD	2.13	0.78
31:X:104:LYS:HE3	31:X:108:ASN:ND2	1.99	0.78
1:1:30:VAL:HG23	1:1:172:VAL:HG21	1.65	0.78
33:Z:169:VAL:HG11	33:Z:183:LYS:HG2	1.65	0.78
27:T:70:ILE:HD11	27:T:78:PHE:CE1	2.18	0.78
19:L:389:ALA:CB	20:M:339:ARG:HE	1.97	0.78
25:R:301:TYR:HE1	25:R:305:PHE:HZ	1.29	0.78
18:K:280:LYS:HZ1	18:K:296:LEU:HD23	1.49	0.78
25:R:219:LEU:O	25:R:325:HIS:CE1	2.36	0.78
15:H:183:ILE:HG22	15:H:183:ILE:O	1.81	0.78
25:R:209:ARG:HE	25:R:243:LEU:CD2	1.96	0.78
19:L:290:ARG:HH12	19:L:293:GLU:HB3	1.48	0.78
29:V:53:MET:HE2	29:V:65:VAL:CG1	2.14	0.78
27:T:8:THR:HG23	27:T:61:ILE:HG12	1.65	0.78
6:6:10:ASP:OD2	6:6:165:TYR:OH	2.01	0.78
17:J:146:THR:HG23	17:J:148:ASP:H	1.48	0.78
26:S:464:ARG:HB3	28:U:281:LEU:HD22	1.65	0.77
17:J:305:LEU:CD2	17:J:313:LYS:HE3	2.07	0.77
1:1:8:PHE:HE2	1:1:10:ASP:HB2	1.49	0.77
26:S:461:PHE:HE1	28:U:278:ILE:CB	1.96	0.77
29:V:57:PHE:HZ	29:V:135:ARG:CZ	1.96	0.77
16:I:314:ASP:OD1	16:I:340:ARG:NE	2.16	0.77
9:B:70:ASP:OD1	9:B:71:ILE:HG13	1.83	0.77
7:7:7:GLN:HG3	7:7:101:PRO:HD2	1.64	0.77
26:S:461:PHE:CZ	28:U:278:ILE:HB	2.19	0.77
25:R:209:ARG:O	25:R:213:TYR:CD2	2.36	0.77
13:F:157:TYR:CD2	14:G:57:LEU:O	2.38	0.77
23:P:413:ASN:OD1	29:V:245:VAL:HG13	1.83	0.77
13:F:144:LEU:O	13:F:155:GLU:HG3	1.84	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:T:186:ARG:NH1	27:T:220:PHE:CE2	2.53	0.77
26:S:464:ARG:CB	28:U:281:LEU:HD22	2.14	0.77
18:K:212:TYR:CZ	18:K:320:ARG:HA	2.18	0.77
33:Z:865:ASP:OD2	33:Z:909:ARG:CZ	2.32	0.77
23:P:203:ILE:HG12	23:P:220:TYR:HH	1.48	0.77
18:K:280:LYS:NZ	18:K:296:LEU:CD2	2.47	0.77
11:D:159:TRP:CZ3	12:E:59:LEU:HD13	2.18	0.77
19:L:401:PHE:CE1	19:L:404:ARG:NH1	2.52	0.77
25:R:315:VAL:O	25:R:319:CYS:SG	2.40	0.77
16:I:320:GLY:HA2	16:I:323:LYS:CE	2.13	0.77
13:F:101:ARG:NH1	13:F:103:LEU:HD12	2.00	0.77
33:Z:829:GLN:HG2	33:Z:832:ARG:NH2	2.00	0.77
27:T:256:LYS:HE3	29:V:298:ALA:O	1.85	0.77
33:Z:562:TRP:CE2	33:Z:566:LEU:HD21	2.19	0.77
31:X:91:PHE:N	31:X:96:ARG:HG2	1.97	0.77
25:R:170:VAL:CG1	25:R:194:VAL:HG21	2.14	0.77
31:X:27:ILE:HB	31:X:59:ARG:HH22	1.50	0.77
13:F:65:LYS:HE2	13:F:222:PHE:HD2	1.49	0.77
16:I:264:CYS:SG	16:I:305:THR:HG23	2.24	0.77
16:I:395:MET:HG3	16:I:420:LYS:HD3	1.65	0.77
21:N:362:TRP:CH2	29:V:23:THR:HG21	2.20	0.77
1:1:66:TYR:CD2	1:1:73:PRO:HB3	2.20	0.77
33:Z:126:TYR:CD2	33:Z:128:GLU:HB2	2.19	0.77
21:N:222:TYR:N	21:N:894:ARG:NH2	2.32	0.77
25:R:246:TYR:OH	25:R:275:GLU:OE2	2.02	0.77
33:Z:812:ILE:CG1	33:Z:834:LEU:HD22	2.14	0.77
13:F:158:GLY:O	14:G:57:LEU:HD13	1.85	0.77
30:W:7:VAL:HG23	30:W:98:LEU:CD2	2.15	0.77
33:Z:924:LYS:NZ	33:Z:993:GLU:HG3	2.00	0.77
21:N:145:LEU:HD22	21:N:173:LYS:HZ1	1.50	0.77
1:1:57:ASP:C	8:A:106:TYR:HE1	1.88	0.77
26:S:218:LEU:HG	26:S:256:LYS:HZ3	1.50	0.77
19:L:227:GLY:HA2	19:L:230:LEU:HD12	1.66	0.77
20:M:303:ARG:NH1	20:M:307:GLU:HB2	1.99	0.77
33:Z:392:LEU:HD13	33:Z:424:SER:O	1.84	0.76
15:H:436:LYS:CE	33:Z:365:SER:HB2	2.09	0.76
33:Z:382:ALA:HB1	33:Z:849:ARG:HG2	1.67	0.76
16:I:148:LEU:CD2	16:I:160:LEU:HD22	2.16	0.76
28:U:277:TYR:OH	29:V:295:VAL:CG1	2.32	0.76
3:3:52:THR:CB	4:4:84:ARG:NH2	2.48	0.76
28:U:283:ARG:NH1	29:V:291:ASN:HD22	1.82	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:L:357:ARG:O	19:L:361:PHE:CD2	2.38	0.76
19:L:95:ILE:HG23	20:M:68:LYS:HZ2	1.47	0.76
6:6:39:ASP:O	6:6:40:ASN:HB2	1.83	0.76
7:7:174:ARG:NE	7:7:207:GLU:O	2.17	0.76
26:S:151:GLU:OE2	26:S:153:GLU:HB3	1.84	0.76
22:O:15:ARG:CZ	22:O:73:ILE:CD1	2.55	0.76
17:J:224:GLY:C	17:J:225:GLU:CA	2.53	0.76
28:U:21:HIS:CE1	28:U:93:TYR:HH	2.02	0.76
2:2:42:TRP:CD1	2:2:178:MET:SD	2.78	0.76
10:C:33:GLY:HA2	10:C:51:LYS:HE3	1.67	0.76
19:L:283:VAL:HG22	19:L:286:ILE:HD11	1.68	0.76
23:P:130:ILE:HG22	23:P:136:ARG:HH22	1.50	0.76
29:V:57:PHE:CE2	29:V:59:ASP:O	2.39	0.76
28:U:67:PHE:HE2	30:W:100:HIS:ND1	1.82	0.76
23:P:167:THR:HB	23:P:168:TYR:CD1	2.21	0.76
23:P:94:GLN:OE1	23:P:136:ARG:HG2	1.86	0.76
31:X:75:TRP:CD2	31:X:125:MET:HB3	2.20	0.76
21:N:315:ASN:CA	21:N:318:LYS:HZ3	1.97	0.76
24:Q:299:MET:HE1	24:Q:335:PHE:CZ	2.20	0.76
24:Q:141:LEU:HG	24:Q:145:HIS:CD2	2.20	0.76
21:N:158:LEU:HD12	21:N:202:PHE:HE2	1.49	0.76
25:R:202:GLY:HA2	25:R:207:ARG:HH21	1.51	0.76
33:Z:188:ALA:HB3	33:Z:201:LEU:HD11	1.65	0.76
29:V:57:PHE:CZ	29:V:135:ARG:NH1	2.54	0.76
8:A:205:PHE:CZ	8:A:209:HIS:NE2	2.53	0.76
14:G:108:ILE:HG22	14:G:148:TYR:CE1	2.21	0.76
14:G:111:PHE:HD1	14:G:114:ARG:HH22	0.81	0.76
24:Q:61:LEU:CD2	24:Q:65:TYR:OH	2.32	0.76
20:M:384:ASP:H	20:M:386:PHE:HE1	1.34	0.76
5:5:158:LYS:HE3	5:5:196:LEU:HD11	1.68	0.76
33:Z:363:ASP:O	33:Z:366:LYS:NZ	2.17	0.76
8:A:220:LYS:CG	8:A:242:GLU:HB2	2.15	0.76
14:G:108:ILE:CG2	14:G:148:TYR:CD1	2.69	0.76
4:4:102:LEU:HD22	4:4:117:GLN:HG2	1.67	0.76
19:L:401:PHE:CD1	19:L:404:ARG:CZ	2.69	0.76
1:1:4:VAL:HG12	1:1:49:ALA:HB3	1.66	0.76
19:L:107:GLU:OE2	19:L:145:ARG:NH2	2.19	0.76
22:O:219:ILE:HG23	22:O:274:ILE:HD13	1.68	0.76
8:A:31:ALA:HA	14:G:14:PHE:CZ	2.19	0.76
33:Z:348:LEU:HD23	33:Z:353:VAL:HB	1.66	0.76
17:J:214:SER:HB3	17:J:217:GLU:OE1	1.86	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:C:144:TYR:HB2	10:C:147:GLN:HE21	1.49	0.76
33:Z:106:TRP:HB2	33:Z:112:LYS:NZ	2.00	0.76
33:Z:443:ASP:HB3	33:Z:447:VAL:HB	1.66	0.76
30:W:133:LYS:HE3	30:W:163:ASN:HD21	1.48	0.76
18:K:141:ARG:NH1	19:L:153:LEU:HD11	2.00	0.76
33:Z:975:SER:O	33:Z:977:ILE:HG23	1.86	0.76
16:I:253:ILE:HD11	16:I:287:ILE:CA	2.16	0.76
11:D:19:GLN:NE2	11:D:121:THR:HA	2.01	0.76
7:7:145:PRO:CB	7:7:148:ARG:HH21	1.99	0.76
1:1:94:THR:HG23	1:1:115:LEU:HD22	1.66	0.76
10:C:46:LEU:HD11	10:C:138:ALA:HB3	1.67	0.76
21:N:490:LEU:HD21	21:N:526:TYR:CD2	2.21	0.76
15:H:172:MET:C	16:I:129:TYR:HE2	1.88	0.76
33:Z:89:LEU:HD13	33:Z:125:THR:HB	1.67	0.76
25:R:411:LEU:HD22	26:S:464:ARG:HH11	1.50	0.76
33:Z:776:VAL:HG13	33:Z:777:PRO:HD3	1.65	0.76
7:7:33:ARG:NH2	7:7:46:SER:CA	2.49	0.76
33:Z:813:PHE:CE1	33:Z:847:ILE:HG23	2.21	0.76
33:Z:509:LEU:CD1	33:Z:530:LEU:HD23	2.16	0.76
33:Z:363:ASP:O	33:Z:366:LYS:CE	2.34	0.76
2:2:7:LYS:O	2:2:146:LEU:HD23	1.86	0.76
26:S:184:TRP:CH2	26:S:217:PHE:HE2	2.02	0.75
27:T:86:LYS:HE2	27:T:128:TYR:CD2	2.21	0.75
33:Z:763:HIS:CA	33:Z:766:HIS:CE1	2.69	0.75
22:O:228:TYR:CD2	22:O:229:ASN:N	2.49	0.75
24:Q:232:TYR:HB2	24:Q:272:LEU:CD2	2.15	0.75
9:B:190:HIS:NE2	24:Q:94:VAL:HG21	2.01	0.75
27:T:226:TRP:CZ3	27:T:235:PHE:HE2	2.04	0.75
26:S:163:VAL:HA	26:S:167:LEU:HD23	1.66	0.75
2:2:104:ASP:HB3	2:2:105:PRO:HD2	1.68	0.75
18:K:159:SER:OG	18:K:244:HIS:NE2	2.08	0.75
33:Z:74:SER:CB	33:Z:79:THR:CG2	2.64	0.75
16:I:200:LEU:HB3	33:Z:931:GLN:HG2	1.68	0.75
2:2:59:ILE:HD12	2:2:82:MET:HB3	1.67	0.75
16:I:75:PHE:CD2	16:I:76:VAL:HG23	2.20	0.75
6:6:10:ASP:OD1	6:6:11:PHE:HD1	1.69	0.75
24:Q:38:SER:OG	24:Q:88:PHE:CE1	2.39	0.75
12:E:98:THR:CG2	12:E:102:TYR:CE2	2.69	0.75
24:Q:263:LYS:HE2	24:Q:295:GLY:HA3	1.67	0.75
33:Z:443:ASP:HB3	33:Z:447:VAL:CG1	2.13	0.75
25:R:130:GLN:NE2	25:R:134:TRP:HE1	1.84	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:T:221:ALA:CB	27:T:228:ILE:HD11	2.17	0.75
23:P:308:LEU:HD22	23:P:369:LEU:CD2	2.15	0.75
33:Z:463:HIS:NE2	33:Z:497:PHE:HD1	1.82	0.75
33:Z:428:TRP:CE3	33:Z:461:GLY:HA3	2.20	0.75
33:Z:428:TRP:CZ3	33:Z:461:GLY:CA	2.63	0.75
13:F:105:VAL:CG2	13:F:145:LEU:CB	2.63	0.75
9:B:67:LEU:HD11	9:B:73:ALA:HB2	1.69	0.75
5:5:145:LYS:HE3	5:5:147:ASP:HB2	1.68	0.75
24:Q:146:TYR:CE1	24:Q:184:VAL:CA	2.63	0.75
29:V:127:LYS:HE3	29:V:194:ARG:NE	2.01	0.75
7:7:88:LEU:HD21	7:7:106:ILE:CD1	2.16	0.75
18:K:159:SER:HB3	18:K:244:HIS:HE2	1.52	0.75
22:O:190:TYR:CD1	22:O:227:ILE:HD11	2.18	0.75
10:C:4:ARG:CG	11:D:6:ARG:HD2	2.16	0.75
10:C:207:THR:HG23	10:C:210:ARG:HH21	1.51	0.75
21:N:424:LYS:HA	21:N:427:ILE:HD12	1.68	0.75
24:Q:146:TYR:CE1	24:Q:151:TYR:CE1	2.75	0.75
8:A:81:MET:SD	8:A:143:PHE:CE1	2.79	0.75
16:I:245:LEU:HG	16:I:247:ILE:HD11	1.67	0.75
33:Z:863:THR:CB	33:Z:911:LYS:HZ2	1.98	0.75
22:O:116:ASN:HB3	22:O:127:LEU:CD1	2.14	0.75
9:B:139:HIS:CD2	9:B:234:ARG:HD3	2.22	0.75
18:K:126:LEU:HD22	18:K:149:ILE:HD11	1.66	0.75
21:N:163:LEU:HB3	21:N:209:LYS:NZ	2.02	0.75
2:2:8:PHE:CE2	2:2:10:ASN:C	2.60	0.75
23:P:184:MET:HB3	23:P:223:LEU:HD13	1.67	0.75
16:I:340:ARG:NH1	16:I:343:ARG:HG2	2.01	0.75
33:Z:338:HIS:HD2	33:Z:339:PHE:CZ	2.05	0.75
10:C:46:LEU:HD11	10:C:138:ALA:CB	2.16	0.75
6:6:85:GLN:HG3	6:6:122:TYR:HD1	1.51	0.75
25:R:378:ASN:HB3	25:R:391:ASN:OD1	1.86	0.75
24:Q:389:VAL:HG13	24:Q:400:TYR:HB2	1.66	0.75
18:K:205:PRO:HD2	18:K:207:ARG:NH2	2.01	0.75
33:Z:574:TYR:OH	33:Z:584:VAL:CG1	2.35	0.75
33:Z:493:LEU:HG	33:Z:497:PHE:CE2	2.22	0.75
29:V:135:ARG:HA	29:V:157:ARG:NH2	2.02	0.75
33:Z:823:ASN:CB	33:Z:856:HIS:CE1	2.65	0.75
21:N:654:GLN:NE2	21:N:697:PHE:HD2	1.85	0.75
30:W:35:PHE:CE2	30:W:182:TYR:CD2	2.75	0.75
3:3:155:PHE:HD1	3:3:180:ILE:HD11	1.52	0.75
21:N:909:GLU:HB3	21:N:911:LYS:NZ	2.01	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:481:PRO:O	33:Z:482:ASP:CG	2.25	0.75
1:1:190:PRO:HA	1:1:193:TYR:CE2	2.22	0.75
19:L:219:LEU:HD23	19:L:346:LYS:HG3	1.68	0.75
7:7:103:TRP:CD1	7:7:103:TRP:O	2.39	0.75
33:Z:748:LEU:CD2	33:Z:783:VAL:HA	2.16	0.74
16:I:310:LEU:CD1	16:I:338:LEU:HA	2.17	0.74
26:S:378:GLN:HB3	26:S:382:ARG:NH1	2.02	0.74
24:Q:50:ARG:NH2	24:Q:53:GLU:HB3	2.02	0.74
21:N:16:ASN:O	21:N:17:GLN:HG2	1.87	0.74
30:W:21:PHE:CE1	30:W:144:PHE:CE2	2.74	0.74
33:Z:443:ASP:HB3	33:Z:447:VAL:HG11	1.67	0.74
14:G:173:ALA:HA	19:L:420:ARG:CZ	2.16	0.74
15:H:59:ILE:HD13	16:I:92:GLU:OE2	1.87	0.74
14:G:7:TYR:CE1	14:G:13:VAL:HG23	2.20	0.74
22:O:30:GLU:CG	22:O:58:ARG:NH1	2.50	0.74
14:G:168:ARG:HE	14:G:172:LYS:HZ1	1.34	0.74
7:7:193:ASP:CB	7:7:196:THR:OG1	2.35	0.74
16:I:281:ILE:CG2	16:I:284:ILE:HD11	2.16	0.74
8:A:83:VAL:HG22	8:A:141:LEU:CD2	2.17	0.74
11:D:53:LYS:HG3	11:D:55:GLN:HG2	1.67	0.74
15:H:284:VAL:CB	20:M:254:MET:CB	2.55	0.74
33:Z:154:ILE:CG2	33:Z:211:PHE:CE1	2.70	0.74
19:L:357:ARG:O	19:L:361:PHE:HD2	1.71	0.74
19:L:290:ARG:NH1	19:L:293:GLU:CA	2.50	0.74
24:Q:289:GLU:HB2	24:Q:291:TYR:CD1	2.23	0.74
20:M:81:ASN:HD21	20:M:143:ASN:H	1.35	0.74
9:B:159:TRP:CZ3	10:C:57:LEU:HB2	2.22	0.74
15:H:284:VAL:CB	20:M:254:MET:N	2.48	0.74
8:A:220:LYS:HG3	8:A:242:GLU:OE1	1.87	0.74
6:6:58:ARG:HH12	6:6:91:LYS:HD2	1.52	0.74
17:J:212:ARG:NH1	17:J:246:PHE:HE2	1.83	0.74
23:P:141:LYS:HB2	23:P:179:PHE:CE1	2.20	0.74
1:1:-2:LEU:CD1	1:1:1:THR:H	2.01	0.74
6:6:48:PHE:HE2	6:6:50:ALA:HB3	1.52	0.74
13:F:91:GLN:NE2	13:F:111:LEU:HD23	2.03	0.74
25:R:353:MET:HA	25:R:357:PHE:HD2	1.52	0.74
22:O:71:ASP:O	30:W:18:ASN:HB2	1.86	0.74
3:3:52:THR:HG21	4:4:84:ARG:CZ	2.17	0.74
26:S:343:LEU:CD1	26:S:347:HIS:CE1	2.70	0.74
26:S:256:LYS:O	26:S:259:TYR:CE1	2.39	0.74
33:Z:604:GLY:O	33:Z:608:TYR:HD2	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:J:337:LEU:CD2	17:J:377:VAL:HB	2.16	0.74
33:Z:748:LEU:HD22	33:Z:783:VAL:O	1.88	0.74
5:5:40:PHE:HB3	5:5:73:ARG:HH21	1.46	0.74
16:I:103:PRO:HB3	17:J:120:TYR:CE2	2.22	0.74
14:G:61:GLN:HA	14:G:64:VAL:HG23	1.69	0.74
24:Q:50:ARG:HH21	24:Q:53:GLU:HB3	1.51	0.74
24:Q:50:ARG:HH21	24:Q:53:GLU:CB	2.00	0.74
21:N:386:MET:O	21:N:390:LEU:HG	1.87	0.74
23:P:344:ARG:NH2	23:P:347:GLU:OE1	2.20	0.74
24:Q:353:PRO:O	24:Q:354:PHE:HD1	1.71	0.74
22:O:15:ARG:HH12	22:O:73:ILE:HG13	1.52	0.74
27:T:157:TYR:OH	27:T:188:GLU:CG	2.30	0.74
22:O:266:PHE:CZ	22:O:280:LEU:HD22	2.18	0.74
22:O:373:TRP:CH2	28:U:200:LEU:HD21	2.22	0.74
31:X:12:ALA:HB3	31:X:33:ILE:HG23	1.70	0.74
33:Z:135:LEU:O	33:Z:139:LEU:HG	1.88	0.74
17:J:219:VAL:HG11	18:K:284:ALA:HA	1.68	0.74
24:Q:11:ALA:HB2	24:Q:26:VAL:CG1	2.16	0.74
8:A:232:LYS:HD2	8:A:234:PHE:HE1	1.52	0.74
15:H:156:VAL:HG13	15:H:181:TYR:HE1	1.53	0.74
33:Z:272:TYR:HE2	33:Z:284:LEU:HD11	1.53	0.74
33:Z:217:GLU:CD	33:Z:244:ARG:NH2	2.31	0.74
29:V:131:GLN:NE2	29:V:194:ARG:NH2	2.32	0.74
19:L:290:ARG:CD	19:L:293:GLU:HA	2.18	0.74
16:I:310:LEU:CD1	16:I:337:ALA:O	2.36	0.74
16:I:148:LEU:HD21	16:I:160:LEU:HD22	1.70	0.74
23:P:353:ILE:HG23	23:P:357:TYR:CD2	2.23	0.74
18:K:186:GLU:HA	18:K:190:LEU:HD12	1.70	0.74
21:N:762:ARG:HG3	21:N:890:PHE:HE2	1.52	0.74
7:7:154:GLU:HA	7:7:157:ILE:HD12	1.68	0.74
9:B:139:HIS:ND1	9:B:145:PHE:CD1	2.56	0.73
3:3:155:PHE:CD1	3:3:180:ILE:HD11	2.23	0.73
17:J:241:ALA:CB	17:J:288:ILE:HD11	2.17	0.73
24:Q:104:PHE:CD2	24:Q:114:GLN:OE1	2.41	0.73
33:Z:829:GLN:HG2	33:Z:832:ARG:HH22	1.53	0.73
9:B:119:GLN:OE1	10:C:82:ALA:HB1	1.87	0.73
31:X:75:TRP:CE2	31:X:125:MET:HB3	2.21	0.73
33:Z:190:THR:HG21	33:Z:195:PHE:HB2	1.70	0.73
21:N:424:LYS:HZ2	21:N:461:GLU:HB3	1.52	0.73
26:S:315:LYS:CD	26:S:345:TYR:CZ	2.63	0.73
24:Q:74:LEU:CD2	24:Q:104:PHE:CD1	2.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:H:147:ILE:HB	15:H:183:ILE:HD11	1.70	0.73
4:4:81:SER:HA	4:4:124:LYS:NZ	2.03	0.73
33:Z:562:TRP:NE1	33:Z:566:LEU:HG	2.03	0.73
29:V:131:GLN:HE22	29:V:194:ARG:NH2	1.85	0.73
1:1:30:VAL:HG22	1:1:174:ARG:HH21	1.53	0.73
24:Q:250:THR:HG23	24:Q:251:THR:N	2.03	0.73
29:V:53:MET:HE2	29:V:65:VAL:HG21	1.70	0.73
18:K:307:ASP:OD1	18:K:312:VAL:O	2.05	0.73
22:O:23:HIS:ND1	22:O:24:PRO:HD2	2.02	0.73
17:J:27:ILE:HD13	18:K:50:LYS:HD3	1.69	0.73
23:P:130:ILE:O	23:P:136:ARG:NH1	2.22	0.73
33:Z:221:VAL:HG11	33:Z:248:TYR:HD2	1.54	0.73
9:B:139:HIS:ND1	9:B:145:PHE:CE1	2.56	0.73
19:L:159:LEU:CD1	19:L:160:PRO:O	2.37	0.73
33:Z:64:TYR:CZ	33:Z:115:LEU:HD21	2.23	0.73
33:Z:557:GLU:OE1	33:Z:562:TRP:CZ3	2.40	0.73
33:Z:776:VAL:CG1	33:Z:777:PRO:CD	2.63	0.73
22:O:233:LEU:CD2	22:O:238:ILE:HD11	2.16	0.73
22:O:266:PHE:CZ	22:O:280:LEU:HD21	2.22	0.73
25:R:239:THR:HG22	25:R:246:TYR:HB2	1.69	0.73
15:H:351:VAL:CG1	15:H:353:PHE:CZ	2.71	0.73
24:Q:141:LEU:CD1	24:Q:145:HIS:NE2	2.51	0.73
8:A:64:LEU:HD13	14:G:157:TRP:CD1	2.22	0.73
25:R:366:ASN:O	25:R:370:LYS:HG3	1.88	0.73
33:Z:165:TYR:OH	33:Z:188:ALA:CB	2.36	0.73
33:Z:92:LEU:O	33:Z:95:THR:OG1	2.05	0.73
33:Z:497:PHE:CD2	33:Z:505:VAL:CG1	2.71	0.73
17:J:162:GLU:HA	17:J:166:LEU:HD12	1.70	0.73
24:Q:61:LEU:HD11	24:Q:65:TYR:CE1	2.23	0.73
19:L:362:LYS:HA	19:L:376:PHE:CE2	2.24	0.73
2:2:8:PHE:CE1	2:2:11:GLY:C	2.62	0.73
18:K:346:ARG:HG2	18:K:349:ARG:HH22	1.53	0.73
33:Z:812:ILE:HG12	33:Z:834:LEU:CD2	2.18	0.73
25:R:378:ASN:ND2	25:R:393:PRO:HA	2.03	0.73
5:5:8:PHE:CZ	5:5:13:ILE:CD1	2.71	0.73
26:S:286:TYR:CE1	26:S:323:LEU:CB	2.70	0.73
21:N:75:TYR:O	21:N:79:VAL:HG23	1.88	0.73
16:I:171:MET:HB3	16:I:245:LEU:HD11	1.71	0.73
25:R:55:LYS:NZ	25:R:91:TRP:CE2	2.57	0.73
16:I:229:LYS:NZ	16:I:283:GLU:OE2	2.21	0.73
20:M:59:LEU:HG	20:M:63:LYS:HE3	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:I:253:ILE:CD1	16:I:287:ILE:CG2	2.64	0.73
26:S:428:ARG:HA	27:T:195:LEU:HD22	1.69	0.73
21:N:536:ILE:CD1	21:N:555:ILE:HG12	2.19	0.73
29:V:53:MET:CE	29:V:65:VAL:HG21	2.19	0.73
27:T:112:ASN:HB2	27:T:177:PHE:CZ	2.23	0.73
33:Z:312:TYR:CE1	33:Z:348:LEU:HD22	2.23	0.73
10:C:144:TYR:HB2	10:C:147:GLN:NE2	2.03	0.73
16:I:428:VAL:HG12	16:I:428:VAL:O	1.87	0.73
33:Z:761:PHE:CD2	33:Z:780:MET:CE	2.70	0.73
26:S:461:PHE:CE2	28:U:277:TYR:HB2	2.24	0.73
28:U:277:TYR:HE1	29:V:295:VAL:HG11	0.95	0.73
17:J:167:PRO:HD3	17:J:174:PHE:HZ	1.50	0.73
33:Z:748:LEU:HD21	33:Z:783:VAL:O	1.85	0.73
23:P:271:SER:C	23:P:344:ARG:HD2	2.09	0.73
25:R:252:TYR:HE1	25:R:319:CYS:SG	2.11	0.73
22:O:72:LYS:O	30:W:18:ASN:HB2	1.89	0.73
21:N:596:LEU:CD2	21:N:717:LEU:CD1	2.57	0.73
21:N:282:TYR:CE2	21:N:286:LEU:HB3	2.24	0.73
21:N:460:ILE:HG22	21:N:494:LYS:HE3	1.70	0.73
15:H:295:PHE:CZ	15:H:336:LEU:HD12	2.23	0.73
11:D:120:TYR:CD1	11:D:126:VAL:HG21	2.24	0.73
26:S:184:TRP:CH2	26:S:217:PHE:CE2	2.78	0.72
33:Z:550:PHE:CE1	33:Z:566:LEU:CB	2.71	0.72
19:L:336:ALA:O	19:L:342:ARG:HD2	1.89	0.72
26:S:286:TYR:HE1	26:S:323:LEU:HD13	1.53	0.72
21:N:579:SER:HA	21:N:584:ARG:HH21	1.52	0.72
8:A:154:ILE:HD11	8:A:169:THR:HG22	1.68	0.72
28:U:293:GLU:HG2	29:V:277:LYS:CE	2.18	0.72
21:N:615:ALA:CB	21:N:651:PHE:CZ	2.72	0.72
12:E:207:VAL:HA	15:H:409:ARG:NH1	2.04	0.72
8:A:64:LEU:HD12	14:G:158:GLY:O	1.88	0.72
25:R:55:LYS:NZ	25:R:91:TRP:CZ2	2.57	0.72
23:P:212:LYS:HD3	23:P:247:THR:HG23	1.70	0.72
15:H:49:LEU:HD22	33:Z:758:LEU:O	1.89	0.72
21:N:300:ASN:HD22	21:N:920:VAL:HG21	1.54	0.72
6:6:-5:TYR:CE1	6:6:97:TYR:CB	2.72	0.72
26:S:461:PHE:CE1	28:U:278:ILE:CA	2.72	0.72
8:A:232:LYS:HD2	8:A:234:PHE:CE1	2.24	0.72
30:W:172:LEU:HD11	30:W:190:ILE:HB	1.70	0.72
21:N:36:TRP:HZ3	26:S:252:ASP:HB3	1.53	0.72
31:X:75:TRP:CE3	31:X:125:MET:CE	2.43	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:X:75:TRP:CH2	31:X:125:MET:HE2	2.17	0.72
21:N:162:ARG:NH1	21:N:165:ILE:HD11	2.04	0.72
19:L:386:PHE:HE1	19:L:422:VAL:HG12	1.54	0.72
25:R:214:TYR:CD2	25:R:230:LEU:HD12	2.23	0.72
17:J:221:LYS:HD3	18:K:288:SER:HA	1.69	0.72
33:Z:912:PHE:HE2	33:Z:980:VAL:HG23	1.55	0.72
31:X:9:LYS:HG2	31:X:34:GLU:HG2	1.69	0.72
1:1:114:PRO:HG2	1:1:118:SER:HB2	1.71	0.72
22:O:253:GLN:HB2	22:O:269:LEU:CD1	2.19	0.72
26:S:315:LYS:HD3	26:S:345:TYR:OH	1.89	0.72
25:R:266:LEU:HD21	25:R:293:THR:CG2	2.19	0.72
14:G:98:PHE:CE2	14:G:106:ILE:HA	2.25	0.72
4:4:38:SER:HB3	4:4:39:PRO:HD2	1.72	0.72
3:3:68:LYS:HG2	10:C:92:ARG:NH1	2.05	0.72
16:I:204:HIS:HB3	16:I:207:LEU:CD1	2.20	0.72
33:Z:463:HIS:HA	33:Z:466:GLU:OE2	1.89	0.72
22:O:250:TRP:CZ2	22:O:271:LYS:CG	2.71	0.72
16:I:246:ARG:HD2	17:J:278:GLN:NE2	2.05	0.72
9:B:66:LEU:HD11	9:B:235:PHE:CD2	2.24	0.72
31:X:104:LYS:HE3	31:X:108:ASN:HD21	1.54	0.72
33:Z:612:GLY:HA3	33:Z:746:ILE:CG2	2.20	0.72
1:1:175:MET:CE	1:1:188:PHE:HE1	2.01	0.72
22:O:359:SER:HB3	22:O:363:ILE:HG13	1.70	0.72
19:L:196:VAL:HG23	19:L:197:ILE:HG13	1.71	0.72
1:1:19:ARG:CZ	1:1:171:GLY:N	2.50	0.72
25:R:241:ILE:CG2	25:R:242:GLU:HG3	2.18	0.72
33:Z:612:GLY:CA	33:Z:746:ILE:HG23	2.20	0.72
15:H:221:LEU:HD21	15:H:263:VAL:HB	1.70	0.72
20:M:264:ARG:HA	20:M:311:GLN:HE22	1.53	0.72
27:T:103:SER:CB	27:T:141:LEU:HD12	2.20	0.72
33:Z:497:PHE:HB2	33:Z:533:VAL:HG22	1.72	0.72
20:M:50:ARG:O	20:M:54:GLU:HG3	1.89	0.72
21:N:406:TYR:HD1	21:N:448:LEU:CB	2.03	0.72
17:J:212:ARG:NH2	17:J:248:ASP:OD1	2.22	0.72
22:O:99:LEU:HD11	22:O:132:GLU:HG3	1.71	0.72
4:4:103:ILE:HD12	4:4:118:ILE:HD12	1.72	0.72
23:P:342:GLN:HE21	23:P:346:ILE:CD1	2.01	0.72
7:7:119:LEU:HG	7:7:134:LEU:HD12	1.72	0.72
5:5:135:PHE:HB2	5:5:167:ARG:HH22	1.54	0.72
28:U:67:PHE:CD2	30:W:100:HIS:CE1	2.78	0.72
2:2:160:GLN:NE2	2:2:164:TRP:HE1	1.83	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:H:299:ARG:NH2	15:H:344:ASP:HA	2.05	0.72
30:W:94:ALA:O	30:W:98:LEU:HG	1.89	0.72
13:F:7:ASP:CA	13:F:21:GLN:NE2	2.50	0.72
10:C:14:SER:HB2	10:C:15:PRO:HD2	1.72	0.72
21:N:75:TYR:OH	26:S:223:LEU:CD1	2.38	0.72
33:Z:612:GLY:HA3	33:Z:746:ILE:HG21	1.72	0.72
23:P:234:TYR:OH	23:P:340:ASP:OD2	2.06	0.72
33:Z:857:LEU:HD21	33:Z:908:ILE:HD11	1.72	0.72
1:1:-8:LYS:NZ	2:2:117:GLY:CA	2.52	0.71
33:Z:371:SER:O	33:Z:372:ALA:CB	2.38	0.71
27:T:245:TYR:O	27:T:246:GLU:CB	2.38	0.71
19:L:392:ARG:HH21	20:M:213:ARG:HG3	1.55	0.71
24:Q:273:ASN:ND2	24:Q:306:TYR:OH	2.22	0.71
21:N:642:ASP:HB2	21:N:643:PRO:HD3	1.73	0.71
21:N:712:ASN:OD1	21:N:873:ARG:HG2	1.90	0.71
28:U:275:VAL:O	28:U:278:ILE:CG2	2.32	0.71
21:N:318:LYS:HA	29:V:180:LEU:CG	2.20	0.71
29:V:57:PHE:CZ	29:V:135:ARG:CZ	2.73	0.71
33:Z:557:GLU:OE1	33:Z:562:TRP:CE3	2.43	0.71
13:F:12:THR:CG2	13:F:19:LEU:HD11	2.19	0.71
20:M:75:LEU:HA	20:M:77:TYR:CD1	2.21	0.71
28:U:67:PHE:CE2	30:W:100:HIS:ND1	2.59	0.71
23:P:271:SER:O	23:P:344:ARG:HD2	1.91	0.71
18:K:135:MET:CG	18:K:259:ARG:HH22	2.02	0.71
18:K:224:LYS:CE	18:K:236:ARG:HH22	1.99	0.71
5:5:34:VAL:CG1	5:5:42:LEU:HD22	2.20	0.71
19:L:104:LEU:HD23	20:M:127:VAL:HG12	1.71	0.71
25:R:62:TYR:CZ	25:R:180:PHE:HB3	2.25	0.71
30:W:9:VAL:HG22	30:W:52:ILE:CG1	2.19	0.71
17:J:212:ARG:NH1	17:J:246:PHE:CD2	2.58	0.71
1:1:10:ASP:O	1:1:102:TYR:CE1	2.44	0.71
27:T:247:ASP:OD1	27:T:248:GLU:N	2.23	0.71
33:Z:574:TYR:CE1	33:Z:584:VAL:HG21	2.24	0.71
16:I:126:PRO:HG2	16:I:154:MET:HE2	1.72	0.71
7:7:145:PRO:HB3	7:7:148:ARG:HH21	1.55	0.71
33:Z:795:THR:HG22	33:Z:799:PHE:CE2	2.24	0.71
33:Z:924:LYS:CE	33:Z:993:GLU:HG3	2.20	0.71
33:Z:915:ALA:HB1	33:Z:983:LEU:HD12	1.73	0.71
25:R:408:ASP:CG	26:S:464:ARG:HH22	1.93	0.71
24:Q:309:ARG:HE	24:Q:345:SER:CB	2.02	0.71
33:Z:493:LEU:CG	33:Z:497:PHE:CE2	2.74	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:L:336:ALA:CA	19:L:342:ARG:NH1	2.54	0.71
33:Z:303:ASP:O	33:Z:307:HIS:CD2	2.43	0.71
21:N:770:LYS:HE3	21:N:917:ILE:HD13	1.72	0.71
24:Q:348:CYS:HG	24:Q:386:PHE:HD1	1.39	0.71
20:M:160:PRO:HB2	20:M:166:ARG:HH22	1.56	0.71
16:I:230:THR:HG22	16:I:234:LYS:HE3	1.73	0.71
27:T:119:THR:HG23	27:T:123:HIS:HE1	1.56	0.71
26:S:461:PHE:HE2	28:U:274:MET:HA	1.55	0.71
22:O:72:LYS:O	30:W:18:ASN:CG	2.28	0.71
33:Z:139:LEU:HD11	33:Z:194:GLU:O	1.90	0.71
20:M:82:VAL:HG22	20:M:119:VAL:HG12	1.71	0.71
1:I:57:ASP:O	8:A:106:TYR:HE1	1.73	0.71
7:7:187:PHE:CE2	7:7:204:LEU:HB2	2.25	0.71
6:6:196:LEU:HD22	6:6:205:LYS:HG2	1.73	0.71
2:2:36:ARG:CZ	2:2:38:SER:HA	2.20	0.71
16:I:205:PRO:HA	16:I:208:TYR:CE2	2.26	0.71
10:C:33:GLY:HA2	10:C:51:LYS:CE	2.20	0.71
33:Z:612:GLY:CA	33:Z:746:ILE:CG2	2.68	0.71
10:C:136:ILE:HD11	10:C:165:VAL:HG22	1.73	0.71
1:1:177:VAL:HG12	1:1:179:THR:HG23	1.71	0.71
1:1:116:GLY:HA3	7:7:-4:ILE:HD11	1.73	0.71
21:N:529:GLN:HE22	21:N:559:TYR:HA	1.53	0.71
24:Q:275:ILE:CD1	24:Q:306:TYR:HD2	2.03	0.71
19:L:114:GLU:HB3	19:L:137:ARG:HD3	1.70	0.71
33:Z:224:LEU:HD21	33:Z:236:PHE:HE2	1.50	0.71
21:N:549:TYR:CE2	21:N:586:ALA:HB2	2.26	0.71
33:Z:884:THR:HG21	33:Z:904:LEU:CD2	2.21	0.71
27:T:183:SER:HA	27:T:186:ARG:NE	2.06	0.71
4:4:13:ILE:HD11	4:4:153:THR:HG23	1.71	0.71
33:Z:748:LEU:HD21	33:Z:783:VAL:CB	2.21	0.71
19:L:290:ARG:HH11	19:L:293:GLU:C	1.94	0.71
33:Z:387:ASN:ND2	33:Z:400:ILE:HD11	2.05	0.71
25:R:353:MET:HA	25:R:357:PHE:CD2	2.26	0.71
25:R:31:PHE:CG	25:R:320:LYS:HG2	2.26	0.71
1:1:124:TYR:OH	1:1:139:ASP:OD1	2.04	0.71
20:M:251:LEU:O	20:M:252:VAL:CA	2.36	0.70
17:J:219:VAL:HB	18:K:281:ARG:CD	2.20	0.70
22:O:377:VAL:HG11	28:U:200:LEU:CD1	2.20	0.70
18:K:242:PHE:N	18:K:243:VAL:N	2.39	0.70
9:B:231:LYS:HD3	9:B:234:ARG:HH22	1.56	0.70
20:M:148:VAL:CG2	20:M:155:ILE:HG12	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:94:VAL:HG22	24:Q:130:ARG:HH11	1.56	0.70
26:S:330:LEU:HD13	26:S:346:TYR:CD1	2.26	0.70
4:4:32:ASP:HB3	4:4:35:ARG:HH12	1.56	0.70
33:Z:549:ASN:ND2	33:Z:562:TRP:HH2	1.89	0.70
28:U:67:PHE:HZ	30:W:97:THR:HG23	1.54	0.70
18:K:242:PHE:C	18:K:243:VAL:CA	2.59	0.70
33:Z:929:VAL:O	33:Z:955:VAL:CG2	2.39	0.70
18:K:135:MET:HG2	18:K:259:ARG:NH2	2.05	0.70
30:W:31:ASP:O	30:W:35:PHE:CD1	2.40	0.70
13:F:18:ARG:HH12	13:F:23:GLU:HB2	1.56	0.70
33:Z:748:LEU:HD11	33:Z:783:VAL:HA	1.71	0.70
2:2:124:TYR:OH	2:2:139:GLU:HB2	1.91	0.70
11:D:8:LEU:O	11:D:18:PHE:CZ	2.43	0.70
12:E:163:THR:HG22	13:F:78:ALA:HB3	1.71	0.70
25:R:29:LYS:HD2	25:R:49:PHE:CD2	2.26	0.70
21:N:315:ASN:CA	21:N:318:LYS:NZ	2.53	0.70
21:N:183:VAL:HG11	21:N:221:ASP:OD2	1.90	0.70
7:7:93:TYR:HE1	7:7:96:ARG:NH2	1.82	0.70
31:X:57:VAL:H	31:X:59:ARG:NH1	1.88	0.70
18:K:193:VAL:HG12	18:K:194:GLN:HG2	1.72	0.70
17:J:377:VAL:CG1	17:J:382:PHE:CE2	2.75	0.70
1:1:175:MET:CE	1:1:188:PHE:CE1	2.74	0.70
3:3:44:ILE:HG22	3:3:51:VAL:HG22	1.74	0.70
21:N:14:ARG:NH2	21:N:42:GLU:OE2	2.25	0.70
3:3:177:VAL:HG12	3:3:190:TYR:CD1	2.26	0.70
4:4:48:GLU:OE1	4:4:51:ASP:OD2	2.09	0.70
7:7:70:ASN:HD22	13:F:107:ARG:NH2	1.89	0.70
15:H:396:MET:HE1	15:H:438:ALA:HB1	1.65	0.70
33:Z:103:TYR:OH	33:Z:140:LEU:HD12	1.92	0.70
33:Z:205:LEU:CG	33:Z:236:PHE:CE1	2.58	0.70
17:J:199:ALA:HB1	17:J:210:PHE:HE1	1.57	0.70
33:Z:299:ASP:OD1	33:Z:341:TYR:OH	2.10	0.70
12:E:219:LEU:HD12	12:E:236:THR:HG22	1.71	0.70
22:O:15:ARG:O	30:W:20:ASP:HA	1.91	0.70
16:I:204:HIS:CG	16:I:207:LEU:HD13	2.18	0.70
13:F:64:ILE:HD12	13:F:72:LEU:HD11	1.73	0.70
26:S:211:ARG:NH2	26:S:241:PHE:CE1	2.60	0.70
11:D:10:ILE:N	11:D:18:PHE:HE2	1.86	0.70
23:P:272:PRO:O	23:P:273:TYR:CG	2.45	0.70
1:1:57:ASP:HB3	8:A:106:TYR:HE1	1.49	0.70
21:N:94:LYS:HE2	21:N:143:LYS:NZ	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:56:LEU:HD23	33:Z:68:LEU:HD23	1.72	0.70
31:X:79:LYS:CE	31:X:98:PHE:CD2	2.74	0.70
16:I:128:TYR:CD2	16:I:154:MET:HG3	2.27	0.70
26:S:211:ARG:O	26:S:215:MET:HG3	1.91	0.70
19:L:386:PHE:CE1	19:L:422:VAL:HG12	2.27	0.70
14:G:200:TYR:HE1	14:G:246:ILE:CG2	2.05	0.70
7:7:187:PHE:CZ	7:7:204:LEU:CB	2.74	0.70
13:F:65:LYS:HB2	13:F:222:PHE:HE2	1.55	0.70
22:O:325:GLU:OE1	23:P:364:ARG:NH1	2.25	0.70
3:3:79:THR:HG23	3:3:115:PHE:CZ	2.27	0.70
1:1:14:LEU:HD11	1:1:100:ALA:CB	2.21	0.70
4:4:81:SER:CA	4:4:124:LYS:HZ3	2.04	0.70
19:L:145:ARG:HH21	19:L:163:THR:HA	1.56	0.70
21:N:96:GLN:O	21:N:100:THR:HG23	1.91	0.70
4:4:174:ASP:OD1	4:4:176:LYS:NZ	2.24	0.70
10:C:224:GLU:HG3	10:C:225:VAL:HG23	1.74	0.70
21:N:539:MET:CE	21:N:551:GLY:HA2	2.22	0.70
17:J:378:THR:O	17:J:382:PHE:CD2	2.45	0.70
21:N:450:ILE:HG21	21:N:466:LEU:HD21	1.72	0.70
15:H:101:ARG:NH2	15:H:150:LYS:CD	2.55	0.70
8:A:162:TYR:CZ	8:A:164:VAL:HG11	2.27	0.70
18:K:224:LYS:CE	18:K:236:ARG:HH21	2.04	0.70
17:J:26:LYS:HE2	18:K:51:LEU:CD2	2.21	0.70
27:T:183:SER:HA	27:T:186:ARG:HE	1.56	0.70
27:T:221:ALA:HB1	27:T:228:ILE:HD11	1.74	0.70
21:N:13:LEU:HD22	21:N:49:LEU:HD11	1.74	0.70
3:3:18:LEU:HD11	3:3:177:VAL:HG13	1.72	0.70
27:T:7:LEU:HD12	27:T:33:GLU:HG3	1.71	0.70
24:Q:82:THR:O	24:Q:86:MET:HG2	1.92	0.70
4:4:77:GLN:HG2	4:4:116:TYR:OH	1.92	0.70
21:N:98:VAL:O	21:N:102:VAL:HG23	1.92	0.70
2:2:50:ALA:HB3	3:3:118:ILE:HG21	1.71	0.69
32:Y:82:ASP:HB3	32:Y:86:ARG:NH1	2.07	0.69
26:S:211:ARG:NE	26:S:240:ASP:OD2	2.25	0.69
1:1:-2:LEU:HB2	1:1:33:LYS:HE3	1.72	0.69
33:Z:242:PHE:HB2	33:Z:275:GLN:HG3	1.73	0.69
23:P:203:ILE:HG12	23:P:220:TYR:CZ	2.26	0.69
14:G:108:ILE:HG21	14:G:148:TYR:CD1	2.27	0.69
25:R:363:PHE:HE1	32:Y:78:LYS:CD	1.92	0.69
33:Z:301:THR:CG2	33:Z:307:HIS:CE1	2.73	0.69
26:S:211:ARG:HD2	26:S:240:ASP:OD2	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:8:PHE:HE1	1:1:13:ILE:HG13	1.55	0.69
23:P:154:ASP:CG	23:P:190:LYS:HZ3	1.95	0.69
6:6:-5:TYR:CD1	6:6:97:TYR:CD2	2.81	0.69
1:1:70:TYR:HD1	14:G:110:ALA:CB	2.05	0.69
1:1:32:ASP:O	1:1:45:ARG:NH2	2.25	0.69
30:W:4:GLU:HG2	30:W:107:HIS:HB2	1.73	0.69
25:R:209:ARG:HH21	25:R:243:LEU:CD1	1.96	0.69
33:Z:442:VAL:CG1	33:Z:443:ASP:N	2.20	0.69
33:Z:748:LEU:HD23	33:Z:783:VAL:CG1	2.13	0.69
7:7:7:LYS:HE3	7:7:119:LEU:HB3	1.74	0.69
15:H:308:PHE:CE1	15:H:351:VAL:HG13	2.28	0.69
21:N:585:ARG:NH2	21:N:623:PHE:CD2	2.60	0.69
1:1:-2:LEU:HD12	1:1:1:THR:N	2.06	0.69
21:N:390:LEU:HD23	21:N:404:SER:HB3	1.74	0.69
27:T:103:SER:HB2	27:T:141:LEU:HD12	1.72	0.69
21:N:406:TYR:CD1	21:N:448:LEU:CB	2.74	0.69
5:5:8:PHE:CE1	5:5:13:ILE:CG1	2.72	0.69
23:P:72:TRP:CH2	23:P:103:TYR:HB2	2.26	0.69
25:R:239:THR:HG22	25:R:246:TYR:CB	2.23	0.69
25:R:194:VAL:HA	25:R:197:MET:SD	2.33	0.69
18:K:244:HIS:CG	19:L:256:ILE:HG23	2.28	0.69
18:K:139:LEU:HD23	18:K:146:LEU:HA	1.74	0.69
10:C:44:ILE:HD11	10:C:146:TYR:HB3	1.74	0.69
30:W:21:PHE:CE1	30:W:144:PHE:HE2	2.11	0.69
15:H:365:LEU:HD22	15:H:370:ARG:NH2	2.08	0.69
1:1:98:ILE:HD11	1:1:127:ALA:CB	2.22	0.69
20:M:236:ALA:CB	20:M:277:ILE:HD12	2.22	0.69
20:M:303:ARG:HH12	20:M:307:GLU:HB2	1.56	0.69
1:1:70:TYR:CD1	14:G:110:ALA:HB1	2.28	0.69
16:I:164:ALA:O	16:I:165:ASP:HB2	1.93	0.69
22:O:79:VAL:HB	22:O:128:LEU:HD23	1.74	0.69
22:O:83:LEU:HD12	22:O:128:LEU:HD23	1.73	0.69
31:X:75:TRP:CD2	31:X:125:MET:HE3	2.27	0.69
28:U:203:LYS:HE2	28:U:229:LEU:HD23	1.74	0.69
15:H:244:LYS:HB2	15:H:346:ARG:HG2	1.73	0.69
26:S:343:LEU:O	26:S:347:HIS:ND1	2.20	0.69
7:7:187:PHE:CE2	7:7:204:LEU:CB	2.75	0.69
31:X:15:CYS:HB2	31:X:100:TRP:HB2	1.73	0.69
23:P:395:ARG:HD2	24:Q:357:VAL:HG12	1.74	0.69
8:A:252:ASP:OD1	23:P:85:LYS:NZ	0.54	0.69
2:2:50:ALA:HB2	3:3:118:ILE:CG2	2.09	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:N:221:ASP:CB	21:N:894:ARG:HH22	2.06	0.69
16:I:222:TYR:CZ	16:I:349:LEU:CB	2.72	0.69
25:R:58:GLU:OE2	25:R:109:LYS:HD2	1.92	0.69
15:H:379:LEU:HD22	15:H:415:THR:HG22	1.74	0.69
16:I:340:ARG:NH1	16:I:343:ARG:CG	2.55	0.69
16:I:205:PRO:HA	16:I:208:TYR:CD2	2.27	0.69
21:N:615:ALA:CB	21:N:651:PHE:HZ	2.05	0.69
21:N:145:LEU:CD2	21:N:173:LYS:HZ1	2.05	0.69
30:W:7:VAL:HG23	30:W:98:LEU:HD23	1.73	0.69
29:V:261:LEU:HD21	29:V:284:ALA:HB2	1.74	0.69
10:C:107:PRO:HB3	10:C:143:ARG:NH2	2.08	0.69
27:T:161:TRP:HE3	27:T:162:ASP:OD1	1.76	0.69
27:T:263:ALA:HA	27:T:266:TYR:CE2	2.27	0.69
21:N:329:HIS:HB3	29:V:182:LYS:CE	2.10	0.69
17:J:167:PRO:CB	17:J:174:PHE:CZ	2.75	0.69
14:G:111:PHE:CE2	14:G:115:LEU:HD11	2.28	0.69
18:K:123:LEU:HG	18:K:146:LEU:O	1.92	0.69
8:A:56:GLN:HE22	8:A:214:LEU:HD13	1.54	0.69
33:Z:509:LEU:HD12	33:Z:530:LEU:HD23	1.73	0.69
1:1:8:PHE:CE2	1:1:10:ASP:HB2	2.28	0.69
4:4:38:SER:HB3	4:4:73:GLU:OE2	1.93	0.69
8:A:54:ILE:HG22	8:A:210:MET:HE1	1.74	0.69
3:3:28:SER:HB2	4:4:127:LEU:HD21	1.74	0.69
33:Z:497:PHE:CE2	33:Z:505:VAL:CG1	2.76	0.69
25:R:209:ARG:CG	25:R:213:TYR:CE2	2.70	0.69
19:L:361:PHE:CZ	19:L:391:ILE:CD1	2.72	0.69
29:V:53:MET:HE3	29:V:65:VAL:HG11	1.75	0.69
17:J:163:VAL:HG21	17:J:314:ILE:HD11	1.75	0.69
27:T:211:PHE:CZ	27:T:220:PHE:CZ	2.81	0.69
16:I:220:ILE:HG13	16:I:344:ILE:HG21	1.75	0.69
33:Z:188:ALA:CB	33:Z:201:LEU:HD11	2.23	0.68
33:Z:138:ARG:NE	33:Z:157:LEU:CG	2.45	0.68
21:N:221:ASP:HA	21:N:894:ARG:NH2	2.05	0.68
11:D:19:GLN:HE22	11:D:121:THR:HA	1.56	0.68
18:K:346:ARG:HG2	18:K:349:ARG:HH21	1.57	0.68
19:L:263:ILE:HG23	19:L:267:PHE:CE1	2.29	0.68
21:N:599:TYR:CD1	21:N:634:LEU:HD22	2.28	0.68
26:S:294:ILE:HG12	26:S:317:HIS:HE1	1.56	0.68
5:5:7:ARG:NE	5:5:110:PRO:HG2	2.09	0.68
21:N:179:THR:HG21	21:N:219:ASN:ND2	2.08	0.68
15:H:147:ILE:HG13	15:H:183:ILE:HG13	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:I:126:PRO:HB3	16:I:128:TYR:CZ	2.24	0.68
14:G:108:ILE:HG21	14:G:148:TYR:CE1	2.27	0.68
8:A:164:VAL:HG12	9:B:61:LEU:HD22	1.75	0.68
33:Z:924:LYS:HE2	33:Z:993:GLU:HG3	1.75	0.68
11:D:39:LYS:HD2	11:D:186:ALA:HB2	1.74	0.68
12:E:50:VAL:HG22	12:E:67:ILE:HD11	1.75	0.68
16:I:204:HIS:HB3	16:I:207:LEU:HD12	1.73	0.68
33:Z:187:SER:HA	33:Z:198:GLU:HG2	1.75	0.68
8:A:205:PHE:HZ	8:A:209:HIS:HE1	1.38	0.68
6:6:58:ARG:NH1	6:6:91:LYS:HD2	2.08	0.68
26:S:397:LEU:CD2	26:S:402:ILE:HG21	2.22	0.68
26:S:256:LYS:O	26:S:259:TYR:HE1	1.75	0.68
10:C:18:ARG:HH21	11:D:29:ARG:HH22	1.40	0.68
21:N:759:ILE:HG23	21:N:871:MET:HE3	1.73	0.68
26:S:461:PHE:CE1	28:U:278:ILE:N	2.61	0.68
33:Z:165:TYR:HE1	33:Z:190:THR:OG1	1.73	0.68
33:Z:763:HIS:ND1	33:Z:766:HIS:HE1	1.89	0.68
21:N:293:LEU:HD23	21:N:379:LEU:HD13	1.75	0.68
33:Z:552:GLU:HB3	33:Z:554:THR:HG23	1.74	0.68
1:1:51:ASP:OD1	1:1:93:LEU:HD22	1.94	0.68
19:L:282:GLU:OE2	20:M:306:LEU:HD13	1.94	0.68
29:V:134:SER:O	29:V:157:ARG:NH2	2.27	0.68
19:L:88:TYR:HD1	20:M:62:ILE:CD1	2.02	0.68
22:O:30:GLU:HG2	22:O:58:ARG:NH1	2.08	0.68
25:R:79:LEU:O	25:R:93:LYS:HD3	1.93	0.68
17:J:340:GLY:CA	25:R:238:PHE:HE1	2.06	0.68
26:S:343:LEU:HB3	26:S:344:PRO:HD3	1.76	0.68
21:N:145:LEU:HB3	21:N:173:LYS:HZ1	1.59	0.68
22:O:26:PHE:HZ	22:O:64:ASN:HD22	1.41	0.68
13:F:70:MET:SD	13:F:135:ILE:O	2.52	0.68
10:C:198:SER:HA	10:C:206:LEU:HD22	1.75	0.68
17:J:378:THR:O	17:J:382:PHE:HD2	1.76	0.68
22:O:30:GLU:HB3	22:O:58:ARG:HH12	1.59	0.68
16:I:362:LEU:CD2	16:I:377:LEU:HD22	2.23	0.68
22:O:310:PHE:CE2	22:O:346:GLU:HA	2.29	0.68
33:Z:812:ILE:CD1	33:Z:834:LEU:HD22	2.22	0.68
33:Z:483:THR:CG2	33:Z:521:GLU:HG3	2.23	0.68
26:S:425:ARG:HH11	27:T:155:GLY:HA2	1.59	0.68
16:I:103:PRO:HD3	17:J:120:TYR:CE1	2.29	0.68
5:5:35:ILE:HD11	5:5:45:MET:CE	2.22	0.68
28:U:70:HIS:NE2	28:U:109:LEU:HD22	2.09	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:U:13:LEU:HD11	29:V:36:LYS:HG3	1.76	0.68
20:M:253:GLN:HG3	20:M:258:GLU:HB2	1.76	0.68
19:L:336:ALA:C	19:L:342:ARG:NH1	2.45	0.68
24:Q:409:TYR:HA	25:R:403:LEU:CD2	2.07	0.68
19:L:88:TYR:CD1	20:M:62:ILE:CB	2.75	0.68
27:T:126:LEU:CD2	27:T:136:LEU:HD21	2.19	0.68
18:K:224:LYS:HE2	18:K:236:ARG:HH21	1.56	0.68
24:Q:50:ARG:NH2	24:Q:53:GLU:CB	2.56	0.68
33:Z:554:THR:O	33:Z:558:LEU:HG	1.93	0.68
21:N:31:VAL:HG23	21:N:35:LEU:HD12	1.74	0.68
15:H:50:LYS:HZ2	33:Z:791:LYS:HG2	1.57	0.68
25:R:286:LEU:HD12	25:R:289:ILE:HD13	1.75	0.68
31:X:62:ASP:OD1	31:X:63:PRO:O	2.11	0.68
23:P:130:ILE:CG2	23:P:136:ARG:HH22	2.07	0.68
33:Z:103:TYR:HE1	33:Z:116:ALA:HB2	1.58	0.68
1:1:14:LEU:CD2	1:1:100:ALA:CB	2.32	0.68
24:Q:61:LEU:CD1	24:Q:65:TYR:CE1	2.77	0.68
21:N:221:ASP:CA	21:N:894:ARG:NH2	2.49	0.68
19:L:125:PRO:HB2	19:L:127:TYR:CZ	2.28	0.68
27:T:229:VAL:HB	27:T:234:TYR:HE1	1.58	0.68
24:Q:294:ARG:NH2	24:Q:324:GLU:HB2	2.08	0.68
18:K:342:SER:O	18:K:343:LEU:HB2	1.93	0.68
23:P:323:ASN:OD1	23:P:324:GLU:HG2	1.93	0.68
24:Q:382:LEU:CB	25:R:263:ARG:NH1	2.57	0.68
21:N:749:LEU:CD2	21:N:753:PHE:CZ	2.77	0.68
33:Z:761:PHE:CD2	33:Z:780:MET:HE1	2.29	0.68
12:E:109:VAL:HG12	12:E:156:PHE:CD1	2.29	0.68
26:S:181:ALA:HB2	26:S:232:MET:SD	2.34	0.68
33:Z:972:SER:O	33:Z:984:LYS:HE2	1.93	0.68
21:N:245:LEU:HD21	21:N:254:SER:HA	1.75	0.68
17:J:363:THR:HA	18:K:203:ILE:CD1	2.24	0.68
33:Z:188:ALA:N	33:Z:201:LEU:HD11	1.93	0.67
17:J:167:PRO:CA	17:J:174:PHE:CE2	2.76	0.67
33:Z:205:LEU:CD2	33:Z:236:PHE:CE1	2.76	0.67
25:R:193:ALA:O	25:R:197:MET:HG3	1.93	0.67
24:Q:322:GLU:HG3	24:Q:326:MET:HE3	1.74	0.67
21:N:67:LYS:HG2	21:N:97:PHE:CE1	2.29	0.67
24:Q:94:VAL:HG13	24:Q:133:LEU:HD11	1.74	0.67
29:V:154:ASP:HB3	29:V:156:PHE:CZ	2.28	0.67
25:R:211:LYS:NZ	25:R:234:SER:HA	2.09	0.67
9:B:75:TYR:CG	9:B:82:TYR:CD1	2.82	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:T:109:TYR:CE2	27:T:113:LEU:HD11	2.28	0.67
25:R:266:LEU:CA	25:R:270:VAL:CG2	2.68	0.67
15:H:244:LYS:HE2	15:H:340:LEU:HD22	1.76	0.67
14:G:200:TYR:OH	14:G:248:GLY:N	2.28	0.67
8:A:56:GLN:NE2	8:A:214:LEU:CD1	2.57	0.67
29:V:153:ILE:HG23	29:V:201:ILE:HD13	1.76	0.67
21:N:657:MET:HG2	21:N:682:PHE:HE1	1.60	0.67
33:Z:368:VAL:HG12	33:Z:369:PHE:O	1.94	0.67
33:Z:490:ILE:HD11	33:Z:512:ILE:HD13	1.75	0.67
30:W:152:GLU:HG2	30:W:155:ASP:H	1.58	0.67
14:G:168:ARG:NE	14:G:172:LYS:NZ	2.40	0.67
29:V:53:MET:HE2	29:V:65:VAL:CG2	2.23	0.67
12:E:98:THR:HG22	12:E:102:TYR:CE2	2.29	0.67
27:T:253:GLU:O	27:T:254:ASP:HB2	1.94	0.67
8:A:205:PHE:CE1	8:A:209:HIS:NE2	2.63	0.67
22:O:384:MET:HE2	28:U:189:ARG:C	2.15	0.67
19:L:247:PRO:HB3	20:M:303:ARG:HH21	1.59	0.67
20:M:303:ARG:NH1	20:M:307:GLU:OE1	2.27	0.67
26:S:330:LEU:HB3	26:S:346:TYR:CE1	2.29	0.67
33:Z:81:SER:O	33:Z:82:MET:HB2	1.95	0.67
22:O:366:MET:HG2	28:U:233:PHE:HE2	1.59	0.67
21:N:282:TYR:CE2	21:N:286:LEU:CB	2.78	0.67
22:O:41:LEU:HD21	22:O:62:TYR:HB2	1.75	0.67
25:R:54:ILE:HG21	25:R:63:TYR:HB2	1.75	0.67
21:N:325:PHE:CE1	29:V:167:ASN:OD1	2.47	0.67
8:A:162:TYR:OH	8:A:164:VAL:HG11	1.94	0.67
15:H:306:ILE:HG21	15:H:308:PHE:CZ	2.29	0.67
1:1:75:THR:HG22	1:1:111:TYR:CD1	2.29	0.67
23:P:130:ILE:O	23:P:130:ILE:HG23	1.95	0.67
26:S:184:TRP:CZ2	26:S:217:PHE:CD2	2.82	0.67
21:N:588:VAL:HG13	21:N:621:THR:HG22	1.73	0.67
26:S:211:ARG:CD	26:S:240:ASP:OD2	2.42	0.67
8:A:167:LYS:HE3	9:B:57:MET:HG2	1.76	0.67
24:Q:11:ALA:HA	24:Q:14:LEU:HD12	1.75	0.67
25:R:91:TRP:CH2	25:R:97:GLU:OE1	2.48	0.67
12:E:109:VAL:CG1	12:E:156:PHE:CD1	2.78	0.67
3:3:20:LEU:HD12	3:3:31:PHE:CD1	2.30	0.67
28:U:20:ASP:OD2	28:U:24:ARG:NE	2.19	0.67
20:M:362:GLN:O	20:M:366:ARG:HG3	1.93	0.67
23:P:306:ASN:OD1	23:P:352:VAL:HG21	1.94	0.67
33:Z:205:LEU:HG	33:Z:236:PHE:CZ	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:O:228:TYR:CA	22:O:290:LYS:HZ1	2.07	0.67
19:L:157:ARG:NH2	20:M:128:PHE:CE2	2.63	0.67
24:Q:382:LEU:HB3	25:R:263:ARG:HH11	1.58	0.67
25:R:410:LEU:HD23	28:U:285:ILE:HD13	1.75	0.67
21:N:117:TYR:OH	21:N:202:PHE:N	2.28	0.67
4:4:145:HIS:HD2	4:4:146:HIS:CE1	2.11	0.67
33:Z:317:GLN:HG3	33:Z:317:GLN:O	1.94	0.67
33:Z:168:GLN:OE1	33:Z:195:PHE:CZ	2.47	0.67
27:T:47:GLN:O	27:T:48:ASN:OD1	2.12	0.67
31:X:38:ASN:HB3	31:X:41:GLU:HA	1.75	0.67
31:X:38:ASN:OD1	31:X:43:LEU:HD12	1.95	0.67
33:Z:182:SER:O	33:Z:183:LYS:CB	2.41	0.67
13:F:74:LEU:HD22	13:F:81:ALA:CB	2.24	0.67
7:7:6:MET:HG2	7:7:169:ILE:HD11	1.77	0.67
6:6:3:ILE:HG23	6:6:46:ASN:HD22	1.59	0.67
21:N:47:GLU:OE2	21:N:69:TYR:OH	2.12	0.67
17:J:224:GLY:CA	17:J:225:GLU:N	2.57	0.67
29:V:145:GLN:HG2	29:V:148:LYS:CE	2.22	0.67
16:I:310:LEU:HB2	16:I:338:LEU:HD13	1.76	0.67
19:L:145:ARG:NE	19:L:162:GLU:HG3	2.08	0.67
17:J:252:SER:HB2	17:J:259:GLU:HG2	1.77	0.67
33:Z:964:GLU:HG2	33:Z:965:LEU:HG	1.76	0.67
9:B:211:LEU:HD22	9:B:238:LEU:HD12	1.76	0.67
22:O:269:LEU:HD23	22:O:269:LEU:O	1.95	0.67
26:S:399:TYR:HB3	26:S:402:ILE:CD1	2.25	0.67
24:Q:409:TYR:CA	25:R:403:LEU:HD21	2.07	0.67
33:Z:886:VAL:HA	33:Z:893:PHE:HE2	1.58	0.67
14:G:196:ALA:HA	14:G:213:LEU:HD11	1.77	0.67
33:Z:338:HIS:CD2	33:Z:339:PHE:CE2	2.83	0.67
15:H:192:ASP:HB2	15:H:193:PRO:HD2	1.76	0.67
10:C:171:ALA:HA	16:I:425:LYS:HD2	1.77	0.67
22:O:82:LEU:HD21	22:O:98:TYR:OH	1.94	0.66
28:U:283:ARG:HD3	29:V:287:THR:HG22	1.76	0.66
17:J:340:GLY:HA3	25:R:238:PHE:CE1	2.29	0.66
11:D:208:LYS:HE2	11:D:226:SER:CB	2.25	0.66
21:N:222:TYR:H	21:N:894:ARG:NH2	1.89	0.66
16:I:230:THR:CG2	16:I:234:LYS:HE3	2.25	0.66
11:D:18:PHE:CD1	11:D:19:GLN:N	2.63	0.66
10:C:66:LEU:HD11	10:C:212:GLU:HG2	1.77	0.66
33:Z:850:LEU:HD21	33:Z:854:LEU:HD11	1.78	0.66
33:Z:53:VAL:HG11	33:Z:95:THR:CG2	2.24	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:463:HIS:CE1	33:Z:497:PHE:CE1	2.83	0.66
21:N:717:LEU:HD21	21:N:733:LEU:CD1	2.24	0.66
25:R:137:LEU:HD22	25:R:141:TYR:CZ	2.30	0.66
19:L:290:ARG:HD2	19:L:293:GLU:CA	2.22	0.66
2:2:36:ARG:NH2	2:2:39:PRO:HD3	2.11	0.66
18:K:258:PHE:HZ	18:K:299:LEU:HD12	1.61	0.66
33:Z:509:LEU:CB	33:Z:530:LEU:HD21	2.25	0.66
24:Q:387:TYR:HB3	24:Q:400:TYR:HD2	1.59	0.66
33:Z:481:PRO:O	33:Z:482:ASP:CB	2.43	0.66
1:1:141:ASN:HB2	1:1:154:PHE:HE1	1.61	0.66
18:K:168:ASP:OD1	19:L:315:PHE:HE1	1.79	0.66
27:T:249:MET:O	27:T:250:MET:HB2	1.94	0.66
23:P:267:PHE:HE1	23:P:329:PHE:CD2	2.06	0.66
21:N:654:GLN:NE2	21:N:697:PHE:CD2	2.64	0.66
25:R:54:ILE:O	25:R:54:ILE:HG22	1.94	0.66
8:A:128:TYR:CE2	8:A:134:MET:HE2	2.30	0.66
21:N:362:TRP:CZ2	29:V:23:THR:CG2	2.77	0.66
20:M:203:ARG:NH1	20:M:206:LYS:HZ2	1.94	0.66
23:P:342:GLN:NE2	23:P:346:ILE:HD11	2.09	0.66
18:K:212:TYR:CE1	18:K:320:ARG:C	2.69	0.66
15:H:365:LEU:CD2	15:H:370:ARG:NH2	2.59	0.66
25:R:239:THR:CG2	25:R:246:TYR:HB2	2.26	0.66
20:M:196:ALA:CB	20:M:345:ARG:HE	2.05	0.66
20:M:197:ILE:HB	20:M:322:LYS:CE	2.24	0.66
3:3:7:THR:HG23	3:3:112:ILE:CD1	2.26	0.66
6:6:196:LEU:HD23	6:6:205:LYS:HG2	1.77	0.66
27:T:245:TYR:HD2	27:T:246:GLU:H	1.40	0.66
2:2:65:LEU:HD13	9:B:94:HIS:ND1	2.10	0.66
31:X:79:LYS:CE	31:X:98:PHE:HE2	1.96	0.66
17:J:199:ALA:HB1	17:J:210:PHE:CE1	2.30	0.66
12:E:165:TYR:CB	12:E:167:TYR:CZ	2.78	0.66
18:K:388:GLN:HB2	19:L:340:PRO:HG2	1.77	0.66
24:Q:385:ILE:HG22	24:Q:386:PHE:CD1	2.31	0.66
24:Q:94:VAL:HG22	24:Q:130:ARG:NH1	2.10	0.66
26:S:365:THR:O	26:S:368:LYS:HG3	1.95	0.66
9:B:57:MET:O	9:B:61:LEU:HG	1.96	0.66
11:D:193:LYS:HG3	11:D:197:ARG:CZ	2.26	0.66
23:P:79:LEU:HD11	23:P:100:VAL:HG21	1.76	0.66
18:K:227:ALA:HB2	18:K:268:ILE:HD12	1.78	0.66
9:B:48:GLU:HG3	9:B:200:VAL:HG11	1.78	0.66
15:H:168:ILE:CG2	15:H:172:MET:HA	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:H:174:VAL:CG1	15:H:183:ILE:CG2	2.72	0.66
33:Z:102:ILE:HG23	33:Z:115:LEU:HD13	1.77	0.66
25:R:237:THR:HG22	25:R:275:GLU:OE1	1.96	0.66
21:N:599:TYR:CE1	21:N:634:LEU:HD13	2.28	0.66
24:Q:61:LEU:HD11	24:Q:65:TYR:CZ	2.30	0.66
15:H:101:ARG:HH21	15:H:150:LYS:CE	2.09	0.66
4:4:45:PHE:CE2	4:4:101:VAL:CG1	2.79	0.66
19:L:263:ILE:HG23	19:L:267:PHE:HE1	1.59	0.66
7:7:192:ILE:HG12	7:7:198:LEU:CD1	2.26	0.66
19:L:145:ARG:NH2	19:L:163:THR:C	2.49	0.66
24:Q:4:PRO:HB3	24:Q:50:ARG:HH11	1.61	0.66
27:T:119:THR:CG2	27:T:123:HIS:CE1	2.78	0.66
13:F:117:GLN:HG3	13:F:121:GLN:HE21	1.61	0.66
33:Z:250:VAL:HG21	33:Z:272:TYR:HH	1.59	0.65
17:J:305:LEU:HB3	17:J:313:LYS:CE	2.26	0.65
28:U:67:PHE:HD2	30:W:100:HIS:CE1	2.13	0.65
33:Z:884:THR:HG21	33:Z:904:LEU:HG	1.77	0.65
27:T:211:PHE:HZ	27:T:220:PHE:CZ	2.13	0.65
33:Z:313:ILE:HG21	33:Z:977:ILE:HD11	1.78	0.65
22:O:48:PHE:CE1	22:O:80:LYS:NZ	2.60	0.65
17:J:59:LYS:HE2	17:J:63:ARG:NH1	2.11	0.65
4:4:34:THR:CG2	4:4:181:LYS:NZ	2.59	0.65
17:J:167:PRO:CA	17:J:174:PHE:CE1	2.77	0.65
33:Z:776:VAL:HG13	33:Z:777:PRO:CD	2.25	0.65
23:P:332:GLU:HB2	23:P:337:HIS:HE1	1.58	0.65
33:Z:813:PHE:CD1	33:Z:847:ILE:HG23	2.32	0.65
29:V:53:MET:HG3	29:V:108:TYR:HD1	1.61	0.65
31:X:38:ASN:ND2	31:X:42:GLU:H	1.93	0.65
33:Z:761:PHE:CD2	33:Z:780:MET:HE2	2.32	0.65
15:H:223:GLU:HB3	20:M:400:MET:CE	2.26	0.65
22:O:250:TRP:HZ2	22:O:271:LYS:HG3	1.60	0.65
1:1:30:VAL:HG23	1:1:172:VAL:HG22	1.76	0.65
20:M:72:ASN:HB3	20:M:156:LEU:CD2	2.26	0.65
26:S:188:TYR:CE2	26:S:239:ARG:NH1	2.64	0.65
25:R:137:LEU:HD22	25:R:141:TYR:OH	1.96	0.65
11:D:11:PHE:HA	11:D:17:ILE:CD1	2.26	0.65
25:R:338:TYR:CZ	25:R:368:LEU:HD13	2.31	0.65
33:Z:553:ARG:HH12	33:Z:595:MET:CE	2.10	0.65
33:Z:306:MET:CE	33:Z:310:LEU:HD21	2.25	0.65
33:Z:574:TYR:HE2	33:Z:584:VAL:HG11	0.90	0.65
21:N:315:ASN:CB	21:N:318:LYS:NZ	2.59	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:278:LEU:HD13	33:Z:297:VAL:CG1	2.27	0.65
18:K:159:SER:CB	18:K:244:HIS:NE2	2.54	0.65
15:H:379:LEU:HD13	15:H:413:ASN:OD1	1.95	0.65
1:1:57:ASP:C	8:A:106:TYR:CE1	2.68	0.65
24:Q:311:LEU:HD22	24:Q:343:LEU:HD12	1.75	0.65
25:R:316:LEU:HD22	25:R:322:LEU:HB3	1.78	0.65
1:1:61:TYR:CE1	8:A:103:GLU:HA	2.30	0.65
5:5:100:MET:SD	5:5:127:PHE:CB	2.84	0.65
29:V:78:VAL:O	29:V:121:VAL:HG22	1.97	0.65
15:H:147:ILE:CB	15:H:183:ILE:HD11	2.27	0.65
15:H:97:LEU:CB	15:H:173:ARG:HG3	2.27	0.65
31:X:75:TRP:CE2	31:X:125:MET:HB2	2.24	0.65
33:Z:401:VAL:HG22	33:Z:439:TYR:CE2	2.31	0.65
24:Q:61:LEU:HG	24:Q:65:TYR:CE2	2.30	0.65
2:2:124:TYR:CZ	2:2:139:GLU:HB3	2.31	0.65
28:U:92:TRP:CZ2	28:U:120:LEU:HG	2.32	0.65
25:R:70:TYR:CZ	25:R:76:GLN:HA	2.32	0.65
18:K:253:MET:O	18:K:257:VAL:HG23	1.96	0.65
21:N:536:ILE:CD1	21:N:555:ILE:CG1	2.73	0.65
21:N:330:THR:CG2	21:N:739:PHE:HE1	2.01	0.65
31:X:48:PHE:CZ	31:X:68:LEU:HD22	2.30	0.65
33:Z:884:THR:O	33:Z:888:LEU:HD11	1.96	0.65
22:O:373:TRP:CH2	28:U:200:LEU:CD2	2.79	0.65
2:2:210:THR:HG23	3:3:160:GLN:HE21	1.61	0.65
30:W:19:GLY:O	30:W:20:ASP:OD1	2.15	0.65
3:3:52:THR:HG1	4:4:84:ARG:NH2	1.94	0.65
26:S:399:TYR:HB3	26:S:402:ILE:HD11	1.79	0.65
22:O:40:GLN:HB2	22:O:58:ARG:NE	2.11	0.65
21:N:909:GLU:HB3	21:N:911:LYS:HZ3	1.61	0.65
23:P:353:ILE:HG23	23:P:357:TYR:HD2	1.62	0.65
19:L:114:GLU:O	19:L:137:ARG:NE	2.30	0.65
16:I:204:HIS:CB	16:I:207:LEU:CD1	2.68	0.65
11:D:70:HIS:CE1	11:D:97:ARG:HH22	2.14	0.65
13:F:179:PHE:CZ	13:F:192:ALA:HB2	2.32	0.65
19:L:88:TYR:CD1	20:M:62:ILE:CD1	2.78	0.65
26:S:192:GLU:CG	26:S:239:ARG:HH12	2.02	0.65
18:K:224:LYS:HZ3	18:K:236:ARG:HH22	1.42	0.65
11:D:92:GLU:OE2	11:D:108:TYR:CE2	2.45	0.65
12:E:17:PRO:HA	13:F:24:TYR:CZ	2.31	0.65
24:Q:382:LEU:HD13	25:R:263:ARG:NH1	2.11	0.65
5:5:40:PHE:CB	5:5:73:ARG:NH2	2.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:N:615:ALA:HB3	21:N:651:PHE:CZ	2.29	0.65
9:B:189:ILE:HD11	9:B:213:ILE:HG21	1.79	0.65
25:R:410:LEU:CD2	28:U:285:ILE:HD13	2.26	0.65
33:Z:608:TYR:CG	33:Z:616:LEU:HD11	2.32	0.65
12:E:14:THR:CG2	12:E:22:PHE:HE2	2.10	0.65
7:7:152:ASP:OD1	7:7:156:ASP:OD2	2.15	0.65
33:Z:53:VAL:CG2	33:Z:91:PHE:CE2	2.78	0.65
15:H:285:GLY:C	15:H:287:GLY:N	2.50	0.65
17:J:249:GLU:O	17:J:249:GLU:HG2	1.97	0.65
19:L:365:THR:HG1	19:L:376:PHE:HE1	0.67	0.65
13:F:49:LEU:HD22	13:F:201:LEU:HD21	1.79	0.65
10:C:46:LEU:HD21	10:C:138:ALA:HB2	1.78	0.65
25:R:378:ASN:HD22	25:R:393:PRO:HA	1.60	0.65
15:H:53:GLU:HB2	33:Z:765:MET:SD	2.36	0.65
28:U:65:VAL:HG12	30:W:96:LEU:CD1	2.26	0.65
21:N:666:GLN:HG2	21:N:875:LEU:HD23	1.79	0.65
33:Z:506:LEU:HB2	33:Z:534:PHE:HZ	1.62	0.65
24:Q:78:ILE:HB	24:Q:79:PRO:HD3	1.78	0.65
21:N:268:GLN:NE2	21:N:457:SER:HA	2.12	0.65
15:H:172:MET:HB2	16:I:129:TYR:CZ	2.27	0.65
18:K:212:TYR:HE1	18:K:320:ARG:C	2.00	0.65
33:Z:160:GLU:O	33:Z:164:VAL:HG23	1.97	0.65
9:B:49:LYS:HE2	9:B:210:GLU:HB2	1.77	0.65
3:3:37:TYR:HE1	3:3:59:ARG:HG3	1.58	0.65
15:H:299:ARG:HH21	15:H:344:ASP:HA	1.61	0.65
17:J:27:ILE:HG21	18:K:50:LYS:CE	2.27	0.65
8:A:54:ILE:HG22	8:A:210:MET:CE	2.27	0.65
28:U:24:ARG:HD3	29:V:100:ARG:HG2	1.79	0.65
33:Z:415:MET:HB3	33:Z:446:GLU:HB3	1.78	0.65
16:I:204:HIS:HD2	16:I:207:LEU:HD13	1.10	0.64
21:N:282:TYR:HE2	21:N:286:LEU:HB3	1.60	0.64
22:O:228:TYR:CA	22:O:290:LYS:NZ	2.57	0.64
24:Q:311:LEU:HD11	24:Q:339:TYR:CE1	2.32	0.64
18:K:386:ILE:HD13	18:K:411:TYR:HD1	1.62	0.64
9:B:184:GLU:HG2	9:B:186:GLU:H	1.62	0.64
17:J:39:GLU:OE2	17:J:42:ARG:NH2	2.29	0.64
26:S:461:PHE:CD2	28:U:277:TYR:CB	2.77	0.64
1:1:19:ARG:HH22	1:1:171:GLY:H	1.39	0.64
2:2:8:PHE:HE2	2:2:10:ASN:HB3	1.62	0.64
21:N:162:ARG:CZ	21:N:165:ILE:HD11	2.28	0.64
33:Z:813:PHE:CD2	33:Z:888:LEU:HD22	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:N:596:LEU:HD22	21:N:717:LEU:HD13	1.73	0.64
33:Z:744:ALA:HA	33:Z:783:VAL:CG2	2.27	0.64
33:Z:383:SER:HB3	33:Z:849:ARG:HH12	1.62	0.64
6:6:116:PHE:CE2	6:6:122:TYR:HB3	2.32	0.64
20:M:170:MET:SD	20:M:244:LEU:HB3	2.37	0.64
8:A:252:ASP:CB	23:P:85:LYS:HE3	2.25	0.64
5:5:8:PHE:CZ	5:5:13:ILE:HG12	2.33	0.64
24:Q:429:LYS:HB2	29:V:269:ARG:CZ	2.25	0.64
10:C:15:PRO:HA	11:D:22:TYR:CE1	2.33	0.64
21:N:324:LYS:HG3	21:N:325:PHE:HD2	1.62	0.64
27:T:139:ASP:HB3	27:T:142:LEU:HD12	1.80	0.64
17:J:27:ILE:HG21	18:K:50:LYS:HD3	1.79	0.64
24:Q:226:HIS:HA	24:Q:229:ASP:OD1	1.98	0.64
8:A:92:ASN:HB2	14:G:120:GLN:OE1	1.98	0.64
33:Z:408:TYR:CZ	33:Z:411:LYS:NZ	2.63	0.64
16:I:210:GLU:OE2	33:Z:822:THR:HB	1.97	0.64
23:P:167:THR:CB	23:P:168:TYR:CE1	2.81	0.64
15:H:172:MET:HG3	16:I:129:TYR:CD2	2.30	0.64
33:Z:439:TYR:O	33:Z:443:ASP:OD2	2.14	0.64
16:I:174:ASP:CG	16:I:177:PRO:HB3	2.18	0.64
22:O:250:TRP:CD1	22:O:269:LEU:O	2.49	0.64
29:V:159:ILE:O	29:V:160:ASP:OD1	2.16	0.64
7:7:7:LYS:HG2	7:7:12:VAL:HG12	1.80	0.64
19:L:164:ASP:OD1	20:M:118:VAL:HG11	1.96	0.64
1:1:103:ASP:HB2	1:1:106:ASN:OD1	1.98	0.64
26:S:159:ASN:HB3	26:S:187:ILE:HD11	1.80	0.64
33:Z:463:HIS:CE1	33:Z:497:PHE:HE1	2.16	0.64
28:U:67:PHE:CZ	30:W:97:THR:CA	2.79	0.64
9:B:139:HIS:CD2	9:B:234:ARG:CD	2.80	0.64
15:H:249:TYR:CZ	15:H:376:GLU:CA	2.81	0.64
23:P:101:MET:HE2	23:P:139:VAL:HG13	1.78	0.64
21:N:36:TRP:CZ3	26:S:252:ASP:HB3	2.33	0.64
29:V:153:ILE:HG21	29:V:203:TYR:OH	1.96	0.64
10:C:98:TYR:CE1	10:C:104:GLU:HG3	2.33	0.64
30:W:20:ASP:CG	30:W:25:ARG:HH21	2.01	0.64
1:1:137:TYR:CE1	1:1:157:HIS:CD2	2.85	0.64
28:U:16:LEU:HD23	28:U:19:LEU:CD1	2.23	0.64
33:Z:884:THR:OG1	33:Z:904:LEU:HD21	1.98	0.64
24:Q:225:LEU:O	24:Q:229:ASP:OD1	2.16	0.64
26:S:159:ASN:CB	26:S:187:ILE:HD11	2.27	0.64
2:2:99:ILE:CG1	2:2:127:LEU:HD12	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:M:289:LYS:HD3	20:M:305:MET:CE	2.27	0.64
33:Z:106:TRP:CA	33:Z:112:LYS:HD3	2.23	0.64
33:Z:744:ALA:HA	33:Z:783:VAL:HG22	1.80	0.64
16:I:246:ARG:HD2	17:J:278:GLN:HE21	1.63	0.64
33:Z:957:LEU:HD13	33:Z:958:ASN:O	1.98	0.64
11:D:193:LYS:CE	11:D:197:ARG:NH2	2.61	0.64
10:C:160:TRP:CD2	10:C:163:ILE:HD13	2.33	0.64
1:I:175:MET:HE1	1:I:188:PHE:CE1	2.33	0.64
11:D:48:ARG:HH12	11:D:57:THR:HB	1.62	0.64
33:Z:436:LEU:HD23	33:Z:455:ILE:HG12	1.80	0.64
33:Z:106:TRP:HB2	33:Z:112:LYS:HZ3	1.59	0.64
33:Z:119:LEU:HB3	33:Z:137:TYR:CE2	2.33	0.64
22:O:233:LEU:HD13	22:O:251:LEU:HD22	1.79	0.64
18:K:241:GLU:OE2	19:L:307:GLU:OE1	2.16	0.64
13:F:65:LYS:HB2	13:F:222:PHE:CE2	2.32	0.64
20:M:222:GLY:O	20:M:228:LYS:NZ	2.24	0.64
17:J:167:PRO:HB3	17:J:174:PHE:HE2	1.55	0.64
21:N:492:THR:HA	21:N:528:ARG:HH11	1.63	0.64
8:A:128:TYR:CE1	8:A:131:ARG:NH1	2.66	0.64
23:P:164:GLN:HE22	23:P:180:ILE:HA	1.63	0.64
20:M:411:LYS:HE3	20:M:413:GLU:HB2	1.79	0.64
21:N:315:ASN:OD1	21:N:318:LYS:NZ	2.29	0.63
33:Z:985:LYS:HD2	33:Z:991:GLU:H	1.62	0.63
33:Z:929:VAL:HG22	33:Z:957:LEU:HD23	1.80	0.63
3:3:109:LYS:HE3	3:3:125:LYS:NZ	2.13	0.63
20:M:116:ALA:HB1	20:M:128:PHE:HE1	1.61	0.63
21:N:749:LEU:HG	21:N:753:PHE:CE1	2.33	0.63
30:W:172:LEU:HD22	30:W:188:SER:HB3	1.79	0.63
15:H:367:ARG:HH12	20:M:223:PRO:HB3	1.62	0.63
27:T:40:LEU:O	27:T:88:TYR:OH	2.15	0.63
3:3:140:MET:HE1	3:3:144:LEU:HD11	1.79	0.63
33:Z:887:GLY:N	33:Z:893:PHE:CD2	2.67	0.63
30:W:44:ASN:HB2	30:W:47:ASN:ND2	2.09	0.63
19:L:95:ILE:HG23	20:M:68:LYS:HZ3	1.63	0.63
21:N:770:LYS:CE	21:N:917:ILE:HD13	2.28	0.63
33:Z:158:ALA:HB2	33:Z:207:ILE:CD1	2.28	0.63
21:N:387:ALA:HA	21:N:390:LEU:HD12	1.79	0.63
25:R:209:ARG:CZ	25:R:243:LEU:CD1	2.76	0.63
22:O:250:TRP:CZ2	22:O:271:LYS:HB2	2.33	0.63
33:Z:327:GLN:HE22	33:Z:346:LEU:CD1	2.11	0.63
18:K:67:TYR:OH	21:N:609:LEU:CD2	2.46	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:-2:LEU:HD21	1:1:46:SER:HA	1.80	0.63
21:N:117:TYR:OH	21:N:202:PHE:CA	2.46	0.63
21:N:383:LYS:HD2	21:N:390:LEU:HD13	1.81	0.63
3:3:54:LEU:HD11	3:3:96:VAL:HG11	1.79	0.63
33:Z:130:GLY:O	33:Z:131:LYS:HG3	1.99	0.63
26:S:311:GLN:HE22	26:S:338:MET:H	1.46	0.63
30:W:6:THR:HG21	30:W:40:LYS:NZ	2.12	0.63
23:P:308:LEU:HD11	23:P:349:ASN:HB2	0.67	0.63
8:A:128:TYR:CE2	8:A:134:MET:CE	2.82	0.63
33:Z:846:PHE:HE2	33:Z:889:VAL:HG11	1.63	0.63
9:B:239:THR:HG22	9:B:241:GLN:N	2.13	0.63
17:J:221:LYS:HD3	18:K:288:SER:CA	2.28	0.63
21:N:508:THR:HG22	21:N:510:HIS:H	1.64	0.63
25:R:354:ALA:HB2	25:R:364:LEU:HD23	1.80	0.63
21:N:355:TRP:CH2	21:N:356:LEU:HD21	2.34	0.63
25:R:266:LEU:HG	25:R:270:VAL:HG23	1.80	0.63
5:5:38:ASN:ND2	5:5:41:LEU:HD12	2.11	0.63
21:N:615:ALA:HB1	21:N:651:PHE:CZ	2.33	0.63
28:U:277:TYR:OH	29:V:295:VAL:HG13	1.93	0.63
13:F:101:ARG:NH1	13:F:103:LEU:CA	2.48	0.63
17:J:76:ILE:HD11	17:J:87:LYS:HB2	1.79	0.63
7:7:42:VAL:CG2	7:7:192:ILE:HD11	2.28	0.63
13:F:201:LEU:O	13:F:202:ARG:CG	2.46	0.63
6:6:68:PHE:CZ	13:F:66:CYS:C	2.72	0.63
26:S:378:GLN:HB3	26:S:382:ARG:HH12	1.61	0.63
21:N:386:MET:HB2	21:N:390:LEU:HD11	1.81	0.63
21:N:390:LEU:CD2	21:N:404:SER:HB3	2.28	0.63
21:N:759:ILE:HG23	21:N:871:MET:CE	2.29	0.63
10:C:198:SER:CA	10:C:206:LEU:HD22	2.28	0.63
22:O:383:LYS:HD2	27:T:257:THR:HG21	1.80	0.63
8:A:18:ILE:HB	9:B:20:GLN:HE22	1.64	0.63
33:Z:71:LEU:HD23	33:Z:118:VAL:CG1	2.29	0.63
33:Z:442:VAL:HG12	33:Z:443:ASP:H	0.56	0.63
16:I:380:LEU:HB3	16:I:420:LYS:HE3	1.81	0.63
21:N:327:LEU:HD23	21:N:743:PHE:CD1	2.33	0.63
25:R:105:LYS:CE	25:R:109:LYS:HZ1	2.10	0.63
16:I:104:LEU:CG	16:I:149:LEU:O	2.47	0.63
17:J:87:LYS:HG3	17:J:93:LYS:HG2	1.81	0.63
23:P:119:ILE:CG2	23:P:143:LEU:HD22	2.28	0.63
23:P:391:ALA:O	24:Q:354:PHE:CE1	2.51	0.63
20:M:264:ARG:HG2	20:M:311:GLN:NE2	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:C:34:THR:HG22	10:C:167:ALA:O	1.99	0.63
23:P:287:ASP:CB	23:P:297:GLU:OE1	2.47	0.63
17:J:250:ILE:HG13	17:J:293:ALA:O	1.99	0.63
1:1:112:THR:CG2	7:7:27:ARG:HH21	2.11	0.63
27:T:157:TYR:HH	27:T:188:GLU:HG2	1.60	0.63
21:N:536:ILE:HG21	21:N:555:ILE:HD11	1.80	0.63
25:R:338:TYR:CZ	25:R:368:LEU:CD1	2.82	0.63
33:Z:501:LYS:HG3	33:Z:534:PHE:CE2	2.34	0.63
13:F:206:LEU:CD2	13:F:211:LEU:HD11	2.27	0.63
10:C:36:ILE:HG21	10:C:197:LEU:HD21	1.81	0.63
21:N:500:ASP:O	21:N:504:TYR:CD2	2.52	0.63
2:2:213:LEU:HD13	3:3:192:LYS:HD2	1.79	0.63
24:Q:61:LEU:CD1	24:Q:65:TYR:CZ	2.82	0.63
16:I:104:LEU:HG	16:I:149:LEU:O	1.99	0.63
19:L:289:ARG:HH11	19:L:334:ASP:HA	1.64	0.63
8:A:135:ARG:NH2	14:G:14:PHE:CD2	2.67	0.63
13:F:207:THR:OG1	13:F:210:ASN:ND2	2.31	0.63
5:5:207:PHE:O	5:5:208:ASN:OD1	2.16	0.63
6:6:7:ALA:HB2	6:6:113:VAL:HG23	1.80	0.63
21:N:771:PHE:CE2	21:N:773:MET:HG2	2.34	0.63
30:W:174:VAL:HG13	30:W:184:ASN:HB3	1.81	0.63
14:G:108:ILE:N	14:G:109:PRO:HD2	2.14	0.62
25:R:266:LEU:HG	25:R:270:VAL:CG2	2.29	0.62
15:H:299:ARG:CZ	15:H:345:PRO:HD3	2.29	0.62
3:3:140:MET:CE	3:3:144:LEU:HD11	2.28	0.62
19:L:85:GLU:HA	20:M:58:MET:HE2	1.81	0.62
3:3:26:GLY:HA3	3:3:174:TRP:NE1	2.14	0.62
23:P:67:ALA:HA	23:P:75:LEU:HD22	1.81	0.62
29:V:92:MET:HA	29:V:95:LEU:HD12	1.81	0.62
18:K:72:GLN:O	18:K:76:LYS:HG3	1.98	0.62
33:Z:75:ILE:O	33:Z:75:ILE:CG2	2.44	0.62
33:Z:89:LEU:HD22	33:Z:125:THR:OG1	1.99	0.62
13:F:159:THR:CA	13:F:169:LYS:NZ	2.49	0.62
21:N:162:ARG:NE	21:N:165:ILE:HG12	2.14	0.62
18:K:242:PHE:C	18:K:244:HIS:H	2.02	0.62
24:Q:311:LEU:CD2	24:Q:343:LEU:CD1	2.71	0.62
31:X:38:ASN:HD21	31:X:43:LEU:HG	1.64	0.62
27:T:226:TRP:CZ3	27:T:235:PHE:CE2	2.87	0.62
11:D:120:TYR:HE2	11:D:129:PHE:CZ	2.16	0.62
27:T:108:LEU:HD23	27:T:174:PHE:CE1	2.34	0.62
16:I:362:LEU:HD23	16:I:377:LEU:HD22	1.79	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:F:50:LYS:HE3	13:F:212:SER:CB	2.28	0.62
23:P:412:LEU:HD22	28:U:272:GLU:OE1	1.98	0.62
20:M:173:ASP:OD2	20:M:233:ARG:NH2	2.31	0.62
13:F:84:LEU:HD11	13:F:112:LEU:HD22	1.80	0.62
14:G:108:ILE:HG22	14:G:148:TYR:CD1	2.33	0.62
29:V:188:LEU:C	29:V:188:LEU:HD13	2.20	0.62
12:E:165:TYR:HB2	12:E:167:TYR:CZ	2.34	0.62
11:D:18:PHE:CE1	11:D:19:GLN:HB3	2.35	0.62
1:1:94:THR:HG22	1:1:115:LEU:HD22	1.81	0.62
19:L:263:ILE:O	19:L:267:PHE:CD1	2.48	0.62
21:N:223:LEU:CD1	21:N:722:THR:HG22	2.29	0.62
15:H:49:LEU:HD13	33:Z:758:LEU:HB3	1.79	0.62
9:B:75:TYR:CD1	9:B:82:TYR:CE1	2.86	0.62
28:U:171:VAL:HG13	29:V:213:LEU:HD22	1.80	0.62
25:R:259:PHE:CE1	25:R:332:GLU:HB2	2.34	0.62
21:N:602:VAL:O	21:N:606:VAL:HG22	2.00	0.62
3:3:41:PHE:CD1	3:3:181:ILE:HD13	2.35	0.62
11:D:74:SER:OG	11:D:134:LEU:HB2	1.98	0.62
11:D:217:PRO:O	11:D:218:ASP:HB2	1.98	0.62
33:Z:56:LEU:HD11	33:Z:71:LEU:HD22	1.81	0.62
23:P:267:PHE:HZ	23:P:329:PHE:CD2	2.16	0.62
16:I:263:LEU:HD21	17:J:224:GLY:H	1.64	0.62
33:Z:763:HIS:CA	33:Z:766:HIS:ND1	2.62	0.62
3:3:37:TYR:CE1	3:3:59:ARG:CG	2.82	0.62
6:6:66:TYR:HE2	6:6:73:LYS:C	2.02	0.62
28:U:297:GLN:HE22	29:V:277:LYS:HG3	1.64	0.62
3:3:79:THR:HG23	3:3:115:PHE:HZ	1.64	0.62
23:P:302:LEU:CD1	23:P:314:VAL:HG11	2.29	0.62
15:H:284:VAL:HG12	20:M:253:GLN:C	2.19	0.62
33:Z:278:LEU:HD13	33:Z:297:VAL:HG13	1.81	0.62
21:N:221:ASP:C	21:N:894:ARG:HH22	2.03	0.62
26:S:218:LEU:HG	26:S:256:LYS:HZ1	1.64	0.62
20:M:195:GLU:HA	20:M:199:LEU:CD1	2.30	0.62
21:N:749:LEU:CG	21:N:753:PHE:CZ	2.82	0.62
16:I:278:ILE:HG21	16:I:325:ILE:HD12	1.82	0.62
24:Q:262:LEU:HD23	24:Q:296:ILE:HD13	1.81	0.62
27:T:201:PRO:HD2	27:T:204:ASN:HD22	1.63	0.62
28:U:104:LEU:O	28:U:108:GLU:HG3	1.99	0.62
28:U:5:HIS:HE1	28:U:158:PRO:HG3	1.65	0.62
33:Z:865:ASP:OD1	33:Z:909:ARG:NE	2.32	0.62
13:F:159:THR:CA	13:F:169:LYS:HZ3	2.08	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:D:10:ILE:HD11	12:E:10:ARG:CD	2.24	0.62
28:U:35:GLY:HA3	28:U:93:TYR:CZ	2.35	0.62
26:S:343:LEU:HD11	26:S:347:HIS:CE1	2.31	0.62
10:C:207:THR:HG23	10:C:210:ARG:NH2	2.13	0.62
4:4:106:TYR:CZ	4:4:185:LYS:HB3	2.34	0.62
23:P:307:GLU:N	23:P:307:GLU:OE1	2.33	0.62
12:E:179:ALA:O	12:E:183:LEU:HG	1.98	0.62
23:P:306:ASN:ND2	23:P:349:ASN:HA	2.14	0.62
16:I:126:PRO:CG	16:I:154:MET:HE3	2.25	0.62
22:O:250:TRP:C	22:O:269:LEU:HD11	2.12	0.62
19:L:348:GLU:HG2	19:L:350:PRO:HD3	1.82	0.62
15:H:249:TYR:OH	15:H:376:GLU:CB	2.47	0.62
13:F:91:GLN:CD	13:F:111:LEU:HD23	2.19	0.62
24:Q:353:PRO:O	24:Q:354:PHE:CD1	2.52	0.62
22:O:325:GLU:HB3	23:P:364:ARG:HH22	1.65	0.62
26:S:475:TYR:CE1	28:U:291:LEU:O	2.52	0.62
24:Q:191:LEU:O	24:Q:195:LYS:HG3	2.00	0.62
15:H:285:GLY:O	15:H:288:ALA:N	2.32	0.62
33:Z:518:LEU:CD1	33:Z:562:TRP:CE3	2.82	0.62
33:Z:327:GLN:HG2	33:Z:349:THR:CB	2.26	0.62
25:R:70:TYR:OH	25:R:76:GLN:N	2.32	0.62
25:R:239:THR:HG22	25:R:246:TYR:H	1.64	0.62
14:G:10:SER:HA	14:G:126:ASN:OD1	1.99	0.62
13:F:157:TYR:OH	14:G:59:VAL:CG2	2.48	0.62
10:C:160:TRP:CG	10:C:163:ILE:HD13	2.35	0.62
24:Q:389:VAL:O	24:Q:397:LEU:HD12	1.99	0.62
20:M:216:LYS:NZ	20:M:321:VAL:HB	2.15	0.62
4:4:65:LEU:CG	4:4:69:ARG:HE	2.13	0.62
33:Z:740:VAL:HG11	33:Z:764:LEU:HD11	1.81	0.62
14:G:72:HIS:CD2	14:G:73:ILE:HG13	2.34	0.62
22:O:4:ASN:HB2	22:O:39:PHE:CZ	2.34	0.62
8:A:148:GLU:CD	8:A:230:LYS:HE2	2.20	0.62
23:P:303:PHE:O	23:P:306:ASN:ND2	2.33	0.62
33:Z:474:LEU:HD22	33:Z:493:LEU:HB2	1.82	0.62
19:L:74:LEU:HD11	20:M:47:GLU:HG3	1.80	0.62
33:Z:774:ARG:HE	33:Z:806:GLU:HB3	1.64	0.62
22:O:280:LEU:C	22:O:280:LEU:HD23	2.20	0.62
11:D:19:GLN:HE21	11:D:121:THR:HG23	1.63	0.62
15:H:326:ASP:HA	15:H:329:VAL:HG22	1.81	0.62
24:Q:289:GLU:CD	24:Q:291:TYR:HE1	2.03	0.62
20:M:385:GLU:O	20:M:385:GLU:CD	2.38	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:N:302:PHE:CZ	21:N:757:THR:HB	2.35	0.62
4:4:65:LEU:HG	4:4:69:ARG:HE	1.65	0.62
14:G:51:LYS:HE2	14:G:63:ASN:HB2	1.82	0.62
24:Q:146:TYR:CD1	24:Q:184:VAL:HG22	2.35	0.62
17:J:167:PRO:HD3	17:J:174:PHE:CZ	2.32	0.62
16:I:318:ASP:HB3	16:I:321:ASP:OD1	1.99	0.62
33:Z:884:THR:HG21	33:Z:904:LEU:HD23	1.82	0.62
31:X:38:ASN:ND2	31:X:43:LEU:H	1.98	0.62
22:O:4:ASN:N	22:O:39:PHE:CE1	2.68	0.62
27:T:150:ARG:O	27:T:154:GLU:HG3	2.00	0.62
18:K:183:GLU:CG	18:K:338:ILE:HG12	2.30	0.62
21:N:424:LYS:HZ2	21:N:461:GLU:CB	2.09	0.61
26:S:315:LYS:NZ	26:S:345:TYR:CD1	2.60	0.61
22:O:233:LEU:CD2	22:O:238:ILE:CD1	2.78	0.61
23:P:95:TYR:CD2	23:P:96:MET:HE2	2.34	0.61
21:N:145:LEU:CB	21:N:173:LYS:HZ1	2.13	0.61
21:N:21:LYS:O	21:N:25:LEU:HG	1.99	0.61
15:H:50:LYS:HZ1	33:Z:791:LYS:HA	1.65	0.61
21:N:365:PHE:CE2	21:N:402:GLY:C	2.74	0.61
26:S:461:PHE:CE2	28:U:274:MET:HA	2.36	0.61
17:J:134:VAL:CG1	17:J:135:SER:N	2.34	0.61
2:2:8:PHE:CE1	2:2:12:VAL:N	2.68	0.61
2:2:124:TYR:CE2	2:2:139:GLU:HA	2.35	0.61
22:O:377:VAL:HG12	28:U:197:LEU:HD13	1.81	0.61
15:H:306:ILE:CG2	15:H:308:PHE:CZ	2.83	0.61
18:K:258:PHE:CZ	18:K:299:LEU:HD12	2.35	0.61
33:Z:436:LEU:HD21	33:Z:455:ILE:HG13	1.83	0.61
30:W:25:ARG:HH11	30:W:144:PHE:HE2	0.63	0.61
30:W:115:CYS:SG	30:W:144:PHE:HZ	2.23	0.61
13:F:101:ARG:HH22	13:F:103:LEU:CD1	2.13	0.61
21:N:221:ASP:C	21:N:894:ARG:NH2	2.54	0.61
14:G:200:TYR:HE1	14:G:246:ILE:HG21	1.62	0.61
16:I:310:LEU:HD13	16:I:338:LEU:CA	2.28	0.61
31:X:38:ASN:HD22	31:X:42:GLU:N	1.98	0.61
10:C:66:LEU:HG	10:C:212:GLU:OE2	1.99	0.61
19:L:298:ASP:OD1	19:L:301:ILE:HD12	2.00	0.61
27:T:53:ASN:O	27:T:54:ASP:OD1	2.18	0.61
23:P:177:ILE:O	23:P:181:LEU:HG	2.00	0.61
20:M:337:LEU:HD22	20:M:343:LEU:HD12	1.81	0.61
9:B:160:LYS:HE2	10:C:55:THR:O	2.00	0.61
22:O:159:LYS:HE2	22:O:160:LYS:HE3	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:71:LEU:O	33:Z:75:ILE:CG1	2.41	0.61
33:Z:546:ILE:HG23	33:Z:550:PHE:CE2	2.32	0.61
23:P:220:TYR:O	23:P:224:LEU:HG	1.99	0.61
16:I:380:LEU:HD13	16:I:420:LYS:HE3	1.83	0.61
19:L:88:TYR:CD1	20:M:62:ILE:CG1	2.84	0.61
6:6:66:TYR:OH	6:6:73:LYS:CG	2.48	0.61
14:G:61:GLN:HA	14:G:64:VAL:CG2	2.29	0.61
22:O:159:LYS:HG2	22:O:160:LYS:HG3	1.80	0.61
6:6:61:ASN:O	6:6:65:TRP:CD1	2.53	0.61
26:S:464:ARG:HB2	28:U:281:LEU:CD2	2.30	0.61
30:W:186:ALA:O	30:W:192:LEU:HG	1.99	0.61
24:Q:331:THR:HG22	24:Q:335:PHE:CE2	2.36	0.61
7:7:92:MET:HA	7:7:102:LEU:HD12	1.82	0.61
9:B:139:HIS:HD2	9:B:234:ARG:CD	2.14	0.61
19:L:145:ARG:HE	19:L:162:GLU:CG	2.11	0.61
5:5:158:LYS:HG2	5:5:196:LEU:HD21	1.83	0.61
8:A:135:ARG:NH2	14:G:14:PHE:HD2	1.98	0.61
3:3:96:VAL:O	3:3:117:LEU:HD23	1.99	0.61
1:1:34:LEU:HD13	1:1:176:VAL:HG23	1.82	0.61
21:N:685:VAL:HG13	21:N:691:GLN:HG3	1.81	0.61
5:5:179:HIS:HB2	5:5:188:HIS:CD2	2.35	0.61
33:Z:574:TYR:OH	33:Z:584:VAL:HG22	2.01	0.61
18:K:280:LYS:HZ2	18:K:296:LEU:CD2	2.12	0.61
5:5:135:PHE:HE2	5:5:163:ALA:CB	1.98	0.61
8:A:128:TYR:HE1	8:A:131:ARG:NH1	1.98	0.61
33:Z:795:THR:CG2	33:Z:799:PHE:HE2	2.11	0.61
21:N:145:LEU:HB3	21:N:173:LYS:NZ	2.16	0.61
21:N:163:LEU:HB3	21:N:209:LYS:HZ1	1.66	0.61
6:6:-5:TYR:HE1	6:6:97:TYR:CB	2.12	0.61
3:3:6:MET:CE	3:3:158:ILE:HA	2.31	0.61
21:N:671:LEU:HD13	21:N:877:GLN:HG3	1.83	0.61
26:S:315:LYS:CE	26:S:345:TYR:CE1	2.83	0.61
6:6:31:GLU:OE1	7:7:129:TYR:CB	2.48	0.61
25:R:327:ASP:O	25:R:331:ARG:HG3	2.01	0.61
29:V:145:GLN:OE1	29:V:148:LYS:NZ	2.27	0.61
18:K:67:TYR:OH	21:N:609:LEU:HD23	2.01	0.61
23:P:392:LYS:HG2	24:Q:354:PHE:CG	2.36	0.61
17:J:28:GLN:HG3	26:S:225:HIS:NE2	2.16	0.61
8:A:29:GLU:OE2	18:K:425:ASP:HB2	1.99	0.61
10:C:113:ARG:HD3	11:D:83:ARG:HD2	1.81	0.61
7:7:178:TYR:CE1	7:7:210:LYS:HD3	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:1:GLY:HA2	3:3:17:ASP:OD2	2.01	0.61
21:N:330:THR:O	21:N:334:VAL:HG23	2.01	0.61
5:5:6:PHE:CE1	5:5:13:ILE:HB	2.35	0.61
25:R:54:ILE:O	25:R:54:ILE:CG2	2.49	0.61
12:E:165:TYR:CB	12:E:167:TYR:HH	2.14	0.61
22:O:228:TYR:CG	22:O:229:ASN:N	2.63	0.61
15:H:358:PRO:HB2	15:H:374:LYS:HZ2	1.65	0.61
12:E:17:PRO:HA	13:F:24:TYR:CD2	2.35	0.61
19:L:178:ILE:CD1	19:L:230:LEU:HD22	2.29	0.61
30:W:7:VAL:HG23	30:W:98:LEU:HD21	1.83	0.61
6:6:-5:TYR:CE1	6:6:97:TYR:HB3	2.36	0.61
27:T:245:TYR:CD2	27:T:246:GLU:N	2.68	0.61
12:E:219:LEU:HB2	12:E:236:THR:HG22	1.82	0.61
23:P:395:ARG:CD	24:Q:357:VAL:HG12	2.30	0.61
15:H:275:ILE:HG21	16:I:308:GLU:OE1	2.01	0.61
17:J:236:MET:O	17:J:240:HIS:CD2	2.54	0.61
17:J:161:LYS:HG3	17:J:165:GLU:OE1	2.01	0.61
22:O:115:ARG:HH21	30:W:80:GLN:HE21	1.47	0.61
33:Z:75:ILE:HG21	33:Z:121:ILE:HD13	1.81	0.61
16:I:207:LEU:CD2	33:Z:930:GLY:CA	2.77	0.61
17:J:382:PHE:O	17:J:386:VAL:HG23	2.01	0.61
33:Z:205:LEU:HD23	33:Z:236:PHE:HE1	1.66	0.61
14:G:168:ARG:HE	14:G:172:LYS:HZ2	1.42	0.61
3:3:7:THR:HG23	3:3:112:ILE:HD11	1.83	0.61
30:W:95:GLN:NE2	30:W:132:LEU:HA	2.16	0.61
21:N:482:ALA:HB1	21:N:517:LEU:HD23	1.83	0.61
23:P:210:ASN:HB3	23:P:211:PRO:HD2	1.82	0.61
29:V:135:ARG:CD	29:V:157:ARG:NH2	2.39	0.61
33:Z:232:LYS:HB3	33:Z:236:PHE:CE2	2.36	0.61
16:I:221:LEU:HD23	16:I:348:ILE:HB	1.83	0.61
24:Q:165:PHE:CE1	24:Q:173:SER:OG	2.49	0.61
16:I:208:TYR:CD1	16:I:209:GLU:N	2.69	0.61
23:P:154:ASP:CG	23:P:190:LYS:NZ	2.54	0.61
11:D:96:HIS:NE2	11:D:100:LEU:HD22	2.15	0.61
15:H:285:GLY:H	15:H:331:ARG:HH12	1.49	0.60
21:N:593:PHE:CZ	21:N:734:VAL:CG2	2.80	0.60
4:4:44:SER:OG	4:4:102:LEU:HB2	2.01	0.60
33:Z:763:HIS:ND1	33:Z:766:HIS:CE1	2.69	0.60
6:6:73:LYS:HD2	12:E:108:ASN:ND2	2.16	0.60
2:2:97:TYR:CZ	2:2:115:ALA:HB3	2.36	0.60
8:A:53:VAL:HG11	8:A:82:VAL:HG21	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:880:SER:HB2	33:Z:906:ALA:HB3	1.82	0.60
30:W:186:ALA:CA	30:W:191:ILE:HG21	1.99	0.60
3:3:129:VAL:HG22	3:3:138:PHE:HE1	1.54	0.60
33:Z:546:ILE:CG2	33:Z:550:PHE:HE2	2.09	0.60
13:F:72:LEU:HD22	13:F:132:LEU:HD13	1.83	0.60
33:Z:224:LEU:CD2	33:Z:236:PHE:HE2	2.14	0.60
16:I:395:MET:CE	16:I:420:LYS:CE	2.78	0.60
18:K:159:SER:HB3	18:K:244:HIS:NE2	2.15	0.60
21:N:770:LYS:CE	21:N:917:ILE:HG21	2.28	0.60
27:T:245:TYR:O	27:T:246:GLU:HB2	2.01	0.60
21:N:602:VAL:HB	21:N:603:PRO:HD3	1.83	0.60
23:P:422:LEU:HD12	28:U:262:GLN:NE2	2.17	0.60
12:E:153:TYR:OH	12:E:223:THR:HA	2.01	0.60
8:A:24:ARG:NH1	18:K:426:PHE:CE2	2.70	0.60
21:N:596:LEU:HD21	21:N:627:ILE:HG22	1.83	0.60
22:O:250:TRP:CB	22:O:269:LEU:CD2	2.73	0.60
33:Z:250:VAL:CG2	33:Z:272:TYR:OH	2.48	0.60
26:S:401:LYS:CE	26:S:444:GLU:OE2	2.36	0.60
25:R:50:VAL:HG13	25:R:54:ILE:HD11	1.81	0.60
17:J:340:GLY:HA3	25:R:238:PHE:HE1	1.65	0.60
6:6:34:VAL:HG12	6:6:196:LEU:HD12	1.82	0.60
21:N:361:ASN:HB3	21:N:399:PHE:CE2	2.36	0.60
17:J:329:ARG:NH1	17:J:333:ARG:NH1	2.50	0.60
5:5:81:LYS:HD3	5:5:121:ARG:NE	2.16	0.60
12:E:20:ARG:CD	20:M:432:PHE:CZ	2.77	0.60
6:6:89:TYR:CE1	6:6:92:ARG:NE	2.69	0.60
31:X:25:THR:OG1	31:X:82:LYS:NZ	2.28	0.60
22:O:237:PRO:HB2	22:O:241:THR:HG23	1.83	0.60
20:M:290:ARG:HD3	20:M:294:GLU:HB2	1.83	0.60
33:Z:821:GLY:CA	33:Z:863:THR:HG22	2.20	0.60
27:T:157:TYR:CZ	27:T:188:GLU:HG2	2.36	0.60
2:2:59:ILE:HG13	2:2:83:LEU:HD23	1.83	0.60
7:7:186:ASN:OD1	7:7:205:GLN:HG2	2.01	0.60
2:2:36:ARG:HB2	2:2:42:TRP:CZ3	2.37	0.60
33:Z:295:ARG:NE	33:Z:325:GLY:O	2.34	0.60
4:4:55:PHE:HZ	4:4:83:VAL:HG13	1.65	0.60
33:Z:64:TYR:CE2	33:Z:111:LEU:HB3	2.36	0.60
22:O:15:ARG:CA	30:W:20:ASP:OD1	2.49	0.60
21:N:331:ALA:HB2	21:N:697:PHE:HD1	1.67	0.60
10:C:177:GLN:NE2	11:D:52:LEU:HB3	2.16	0.60
16:I:200:LEU:CB	33:Z:931:GLN:HG2	2.29	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:322:GLU:HG3	24:Q:326:MET:HE2	1.82	0.60
1:1:-2:LEU:HD12	1:1:-1:GLY:N	2.16	0.60
26:S:425:ARG:NH1	27:T:155:GLY:N	2.49	0.60
21:N:67:LYS:CG	21:N:97:PHE:CE1	2.85	0.60
18:K:205:PRO:HD2	18:K:207:ARG:HH22	1.66	0.60
17:J:27:ILE:HG21	18:K:50:LYS:CD	2.32	0.60
18:K:423:LYS:HE3	18:K:424:PHE:HE2	1.64	0.60
23:P:308:LEU:CD2	23:P:369:LEU:HD23	2.20	0.60
13:F:160:ALA:N	13:F:169:LYS:HD3	2.16	0.60
17:J:219:VAL:CB	18:K:281:ARG:HD2	2.27	0.60
2:2:124:TYR:CZ	2:2:139:GLU:HA	2.37	0.60
28:U:92:TRP:CZ2	28:U:120:LEU:CG	2.84	0.60
18:K:161:MET:CE	18:K:237:VAL:HG13	2.31	0.60
13:F:203:ASP:OD1	13:F:204:GLU:HG3	2.01	0.60
15:H:295:PHE:HZ	15:H:336:LEU:HD12	1.62	0.60
16:I:290:LYS:HE3	16:I:336:PRO:HD3	1.84	0.60
27:T:144:TYR:HB2	27:T:145:PRO:HD3	1.83	0.60
16:I:263:LEU:HD21	17:J:224:GLY:N	2.16	0.60
2:2:8:PHE:CE2	2:2:10:ASN:HB3	2.36	0.60
31:X:91:PHE:H	31:X:96:ARG:CG	2.03	0.60
14:G:168:ARG:O	14:G:172:LYS:HG3	2.01	0.60
33:Z:931:GLN:HB2	33:Z:955:VAL:HG21	1.82	0.60
9:B:174:PHE:HB3	9:B:178:ARG:CZ	2.31	0.60
17:J:363:THR:HA	18:K:203:ILE:HD13	1.83	0.60
33:Z:306:MET:HE3	33:Z:310:LEU:HD21	1.84	0.60
33:Z:99:LEU:O	33:Z:102:ILE:HG22	2.02	0.60
17:J:224:GLY:C	17:J:225:GLU:C	2.60	0.60
24:Q:309:ARG:CZ	24:Q:345:SER:CB	2.54	0.60
29:V:159:ILE:HB	29:V:194:ARG:H	1.66	0.60
28:U:16:LEU:HD12	29:V:35:LEU:CD1	2.32	0.60
33:Z:884:THR:HG21	33:Z:904:LEU:CG	2.31	0.60
11:D:193:LYS:HE3	11:D:197:ARG:CZ	2.32	0.60
1:1:57:ASP:HB3	8:A:106:TYR:CZ	2.35	0.60
27:T:229:VAL:HG12	27:T:230:ASN:N	2.17	0.60
10:C:193:ALA:O	10:C:197:LEU:HG	2.00	0.60
17:J:328:LEU:HD23	17:J:343:LEU:HD22	1.82	0.60
21:N:405:LEU:HD22	21:N:423:LEU:CD2	2.31	0.60
23:P:193:TYR:HE1	23:P:230:HIS:HD1	1.50	0.60
21:N:329:HIS:CG	29:V:182:LYS:HZ2	2.18	0.60
13:F:105:VAL:CG2	13:F:145:LEU:CD1	2.65	0.60
15:H:451:ILE:O	15:H:455:LYS:HG3	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:H:249:TYR:CE2	15:H:374:LYS:HG2	2.37	0.60
4:4:129:TYR:CD1	4:4:143:LEU:HD13	2.37	0.60
24:Q:11:ALA:HB1	24:Q:27:TYR:CE1	2.37	0.60
18:K:386:ILE:HA	18:K:414:GLN:NE2	2.12	0.60
24:Q:88:PHE:CD2	24:Q:89:ALA:N	2.69	0.60
20:M:81:ASN:ND2	20:M:143:ASN:H	2.00	0.60
33:Z:608:TYR:CD2	33:Z:616:LEU:HD11	2.36	0.60
8:A:232:LYS:CD	8:A:234:PHE:HE1	2.15	0.60
4:4:103:ILE:CD1	4:4:118:ILE:HD12	2.32	0.60
4:4:37:LEU:HD22	4:4:43:MET:SD	2.41	0.60
21:N:539:MET:HE2	21:N:551:GLY:CA	2.32	0.60
21:N:405:LEU:HD13	21:N:446:ALA:HB2	1.83	0.60
24:Q:383:ASP:OD1	25:R:267:LYS:NZ	2.35	0.60
21:N:601:THR:O	21:N:605:ILE:HG12	2.01	0.60
25:R:258:LEU:HD12	25:R:288:SER:HB2	1.83	0.60
33:Z:518:LEU:HG	33:Z:524:ALA:HB3	1.84	0.60
21:N:596:LEU:CD1	21:N:717:LEU:HD13	2.29	0.60
21:N:330:THR:CG2	21:N:739:PHE:CE1	2.76	0.60
5:5:135:PHE:HB2	5:5:167:ARG:CZ	2.32	0.60
1:1:174:ARG:HH11	1:1:185:ARG:HH21	1.42	0.60
24:Q:275:ILE:CD1	24:Q:306:TYR:CD2	2.74	0.60
27:T:126:LEU:HD22	27:T:136:LEU:HD22	1.80	0.60
18:K:258:PHE:CD2	18:K:302:GLN:HB3	2.37	0.60
18:K:192:LEU:HD21	18:K:266:PRO:HB3	1.84	0.60
21:N:109:TYR:HE1	21:N:129:ILE:HD12	1.67	0.60
26:S:242:LEU:HD21	26:S:279:ILE:HG13	1.83	0.60
33:Z:64:TYR:CD2	33:Z:68:LEU:HD11	2.37	0.59
28:U:92:TRP:HZ2	28:U:120:LEU:CD1	1.93	0.59
26:S:425:ARG:HH11	27:T:155:GLY:CA	2.15	0.59
16:I:220:ILE:CD1	16:I:344:ILE:HG21	2.32	0.59
25:R:338:TYR:CE2	25:R:368:LEU:HD13	2.36	0.59
28:U:57:GLU:HG2	30:W:96:LEU:HD22	1.84	0.59
13:F:5:ASN:HB3	14:G:9:LEU:HD11	1.84	0.59
21:N:376:LYS:HE2	21:N:750:SER:O	2.02	0.59
25:R:222:ARG:HA	25:R:224:PHE:CE2	2.37	0.59
5:5:93:ALA:HB1	6:6:93:PHE:HE1	1.67	0.59
22:O:131:SER:HB3	22:O:135:ARG:NH1	2.16	0.59
30:W:21:PHE:HZ	30:W:144:PHE:HD2	1.39	0.59
20:M:345:ARG:HG3	20:M:347:ILE:HG13	1.85	0.59
13:F:201:LEU:HD22	13:F:204:GLU:HB2	1.84	0.59
17:J:27:ILE:CG2	18:K:50:LYS:HE2	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:O:83:LEU:HD12	22:O:128:LEU:CD2	2.32	0.59
23:P:395:ARG:HD2	24:Q:357:VAL:CG1	2.31	0.59
21:N:306:ASN:O	21:N:308:ASN:ND2	2.36	0.59
17:J:59:LYS:HE2	17:J:63:ARG:HH12	1.67	0.59
25:R:422:ARG:NH1	26:S:474:GLU:HG3	2.17	0.59
23:P:241:LEU:HD11	23:P:260:VAL:HG13	1.84	0.59
33:Z:327:GLN:NE2	33:Z:346:LEU:HD12	2.16	0.59
33:Z:931:GLN:O	33:Z:931:GLN:HG3	2.01	0.59
23:P:137:ALA:HB1	23:P:179:PHE:CE2	2.38	0.59
17:J:177:LEU:HD23	17:J:179:ILE:HG21	1.85	0.59
29:V:186:GLN:O	29:V:190:HIS:HD2	1.85	0.59
20:M:218:ALA:HB3	20:M:324:LEU:HD23	1.84	0.59
14:G:183:PRO:O	14:G:184:GLU:CG	2.49	0.59
33:Z:383:SER:O	33:Z:386:VAL:HG12	2.03	0.59
11:D:53:LYS:NZ	11:D:209:ASN:OD1	2.32	0.59
12:E:46:VAL:HG11	12:E:145:ALA:HB1	1.84	0.59
17:J:211:ILE:HD12	17:J:243:SER:OG	2.02	0.59
9:B:179:TRP:CD1	9:B:183:LEU:HD12	2.36	0.59
33:Z:190:THR:HG22	33:Z:190:THR:O	2.02	0.59
33:Z:217:GLU:OE1	33:Z:244:ARG:NE	2.31	0.59
19:L:290:ARG:HH11	19:L:293:GLU:CA	2.13	0.59
5:5:38:ASN:HB2	5:5:39:PRO:HD2	1.84	0.59
21:N:599:TYR:HD1	21:N:634:LEU:HD22	1.66	0.59
21:N:490:LEU:HD23	21:N:491:GLY:N	2.17	0.59
14:G:203:HIS:CE1	14:G:211:PHE:HD1	2.21	0.59
21:N:83:LEU:HD22	21:N:132:LYS:HB3	1.85	0.59
19:L:149:ASP:OD2	19:L:152:THR:N	2.24	0.59
33:Z:64:TYR:CD2	33:Z:111:LEU:CG	2.81	0.59
17:J:224:GLY:C	17:J:226:GLY:N	2.56	0.59
33:Z:278:LEU:CD1	33:Z:297:VAL:HG13	2.32	0.59
19:L:264:ARG:HA	19:L:311:GLN:HE22	1.66	0.59
9:B:174:PHE:HB3	9:B:178:ARG:NH2	2.17	0.59
33:Z:279:THR:HG21	33:Z:977:ILE:HD13	1.83	0.59
13:F:34:VAL:HG21	13:F:200:SER:OG	2.02	0.59
28:U:66:TRP:CZ3	28:U:68:LEU:HB3	2.37	0.59
10:C:70:ASN:ND2	10:C:95:ALA:HB1	2.18	0.59
13:F:22:VAL:O	13:F:26:LEU:HG	2.02	0.59
19:L:102:GLY:HA3	20:M:153:TYR:HD2	1.67	0.59
22:O:44:SER:OG	22:O:73:ILE:HG13	2.01	0.59
20:M:253:GLN:HG3	20:M:258:GLU:CB	2.32	0.59
13:F:12:THR:CG2	13:F:19:LEU:HD13	2.06	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:P:332:GLU:N	23:P:337:HIS:NE2	2.50	0.59
11:D:11:PHE:CE2	12:E:26:TYR:HB2	2.37	0.59
28:U:67:PHE:CE1	30:W:97:THR:CB	2.85	0.59
22:O:59:LEU:CD2	22:O:85:SER:CB	2.76	0.59
1:1:-4:VAL:HG11	1:1:49:ALA:HB3	1.83	0.59
23:P:391:ALA:O	24:Q:354:PHE:CD1	2.55	0.59
21:N:43:LEU:HD21	21:N:69:TYR:HE1	1.66	0.59
2:2:210:THR:OG1	3:3:160:GLN:NE2	2.35	0.59
18:K:177:LEU:HB2	18:K:181:LYS:HE3	1.85	0.59
15:H:284:VAL:HG11	20:M:254:MET:N	2.11	0.59
22:O:266:PHE:CE1	22:O:280:LEU:HD21	2.38	0.59
25:R:70:TYR:O	25:R:70:TYR:CD2	2.55	0.59
19:L:360:ILE:HG23	19:L:391:ILE:HG21	1.84	0.59
28:U:37:ILE:HG23	28:U:93:TYR:HD2	1.66	0.59
17:J:329:ARG:HH12	17:J:333:ARG:NH1	2.01	0.59
23:P:79:LEU:HD13	23:P:100:VAL:HG21	1.83	0.59
8:A:117:LEU:HD23	8:A:143:PHE:CD1	2.37	0.59
24:Q:190:ASN:ND2	24:Q:193:LYS:HD2	2.18	0.59
6:6:70:HIS:CD2	12:E:111:SER:HB2	2.38	0.59
24:Q:179:LEU:HD13	24:Q:218:LEU:HD23	1.83	0.59
21:N:406:TYR:HD1	21:N:448:LEU:HB2	1.66	0.59
33:Z:748:LEU:CG	33:Z:783:VAL:HA	2.33	0.59
12:E:165:TYR:HB3	12:E:167:TYR:CZ	2.38	0.59
33:Z:74:SER:HB2	33:Z:79:THR:CG2	2.25	0.59
24:Q:83:GLU:HA	24:Q:86:MET:CG	2.33	0.59
21:N:302:PHE:CE2	21:N:757:THR:HB	2.37	0.59
21:N:371:LEU:O	21:N:375:HIS:ND1	2.18	0.59
10:C:162:ALA:HB1	10:C:176:LEU:HD21	1.83	0.59
7:7:163:GLN:O	7:7:167:GLU:HG3	2.03	0.59
33:Z:823:ASN:CG	33:Z:856:HIS:HD1	2.06	0.59
29:V:127:LYS:HE3	29:V:194:ARG:CD	2.32	0.59
2:2:8:PHE:CZ	2:2:11:GLY:N	2.68	0.59
25:R:73:ASN:H	25:R:76:GLN:HE21	1.50	0.59
1:1:193:TYR:CD1	1:1:194:GLU:N	2.71	0.59
4:4:34:THR:CG2	4:4:181:LYS:HZ1	2.16	0.59
28:U:100:ARG:N	28:U:103:ASP:OD2	2.35	0.59
21:N:394:ARG:HG2	21:N:395:ALA:O	2.03	0.59
10:C:42:ASP:HA	10:C:218:LYS:NZ	2.17	0.59
25:R:65:TYR:O	25:R:69:GLU:HG2	2.03	0.59
26:S:461:PHE:CE2	28:U:274:MET:CA	2.78	0.59
31:X:79:LYS:HE2	31:X:98:PHE:CZ	2.28	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:14:LEU:CG	1:1:100:ALA:CB	2.80	0.59
33:Z:138:ARG:NH2	33:Z:157:LEU:CG	2.63	0.59
1:1:174:ARG:HH12	1:1:185:ARG:NH2	1.98	0.59
33:Z:50:GLU:OE2	33:Z:55:ARG:CZ	2.48	0.59
25:R:170:VAL:CG1	25:R:194:VAL:CG2	2.80	0.59
18:K:239:GLY:HA2	18:K:242:PHE:CE2	2.38	0.59
16:I:76:VAL:HG12	33:Z:621:LEU:HD13	1.85	0.59
31:X:47:ASP:OD1	31:X:67:ILE:HG22	2.02	0.59
16:I:205:PRO:O	16:I:208:TYR:CD2	2.56	0.59
23:P:425:HIS:HA	28:U:228:LYS:NZ	2.18	0.59
17:J:214:SER:CB	17:J:217:GLU:OE1	2.51	0.59
21:N:490:LEU:HD21	21:N:526:TYR:CG	2.37	0.59
8:A:64:LEU:HD13	14:G:157:TRP:HD1	1.66	0.59
21:N:656:ALA:O	21:N:660:LEU:HG	2.02	0.59
22:O:199:LEU:HD11	22:O:204:SER:O	2.03	0.59
8:A:13:ASP:OD1	8:A:14:ARG:HG3	2.02	0.59
15:H:334:LEU:HD13	20:M:285:ALA:HB2	1.84	0.59
21:N:315:ASN:HA	21:N:318:LYS:HZ2	1.68	0.58
12:E:221:CYS:N	12:E:231:TYR:CE1	2.71	0.58
5:5:40:PHE:CB	5:5:73:ARG:HH21	2.13	0.58
10:C:66:LEU:HG	10:C:212:GLU:CD	2.22	0.58
13:F:91:GLN:NE2	13:F:108:ALA:HA	2.18	0.58
26:S:242:LEU:HD21	26:S:279:ILE:CG1	2.33	0.58
5:5:185:TRP:HZ3	5:5:187:TYR:HB3	1.68	0.58
13:F:84:LEU:CD1	13:F:112:LEU:HD22	2.33	0.58
33:Z:241:THR:HG22	33:Z:244:ARG:H	1.69	0.58
12:E:165:TYR:HB3	12:E:167:TYR:CE1	2.36	0.58
25:R:167:LYS:NZ	25:R:199:GLU:HG2	2.17	0.58
19:L:145:ARG:HH21	19:L:163:THR:C	2.05	0.58
11:D:96:HIS:CD2	11:D:100:LEU:HD22	2.38	0.58
25:R:154:LEU:CD1	25:R:173:THR:OG1	2.52	0.58
16:I:214:LYS:HZ2	16:I:318:ASP:CA	2.16	0.58
27:T:63:GLU:OE2	27:T:89:TYR:OH	2.19	0.58
33:Z:923:ILE:CD1	33:Z:985:LYS:HE2	2.25	0.58
15:H:217:GLN:HE21	15:H:248:LEU:HD13	1.68	0.58
3:3:-2:ASN:HD21	3:3:48:ALA:H	1.49	0.58
33:Z:188:ALA:CA	33:Z:201:LEU:HD11	2.33	0.58
15:H:284:VAL:CA	20:M:254:MET:HB3	2.32	0.58
16:I:96:LEU:O	16:I:100:ARG:HG3	2.03	0.58
18:K:280:LYS:HE3	18:K:296:LEU:HD22	1.86	0.58
5:5:8:PHE:HE1	5:5:12:ILE:C	2.07	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:4:102:LEU:HD21	4:4:132:HIS:NE2	2.19	0.58
11:D:193:LYS:HE3	11:D:197:ARG:NH2	2.17	0.58
11:D:193:LYS:CG	11:D:197:ARG:NH1	2.63	0.58
19:L:163:THR:HG21	19:L:264:ARG:HH22	1.68	0.58
19:L:389:ALA:HB2	20:M:339:ARG:HH21	1.69	0.58
22:O:325:GLU:HB3	23:P:364:ARG:NH2	2.19	0.58
33:Z:286:VAL:O	33:Z:287:ARG:HB2	2.01	0.58
18:K:227:ALA:CB	18:K:268:ILE:HD12	2.34	0.58
33:Z:522:THR:HG23	33:Z:559:LYS:NZ	2.19	0.58
22:O:250:TRP:HZ2	22:O:271:LYS:CB	2.17	0.58
25:R:167:LYS:NZ	25:R:198:ILE:HB	2.18	0.58
14:G:168:ARG:CG	14:G:172:LYS:HE3	2.33	0.58
5:5:159:ARG:NH1	5:5:200:VAL:HA	2.13	0.58
6:6:66:TYR:CD2	6:6:73:LYS:O	2.56	0.58
6:6:-5:TYR:CE1	6:6:97:TYR:CG	2.92	0.58
23:P:263:HIS:HE1	23:P:325:ASP:HA	1.67	0.58
8:A:148:GLU:OE1	8:A:230:LYS:HE2	2.03	0.58
12:E:138:PHE:HB3	12:E:140:VAL:HG12	1.86	0.58
16:I:126:PRO:HB2	16:I:128:TYR:HE2	1.54	0.58
13:F:145:LEU:HD21	13:F:153:VAL:HG13	1.84	0.58
28:U:280:ASN:HB2	29:V:291:ASN:OD1	2.03	0.58
14:G:215:ILE:HG22	14:G:235:LEU:HD13	1.85	0.58
26:S:188:TYR:HE2	26:S:239:ARG:NH1	1.94	0.58
24:Q:343:LEU:HD11	24:Q:368:LEU:CD1	2.30	0.58
1:1:3:ILE:HG13	1:1:98:ILE:HD12	1.85	0.58
9:B:159:TRP:HZ3	10:C:54:SER:HB2	1.69	0.58
9:B:159:TRP:CZ2	10:C:57:LEU:HD13	2.39	0.58
25:R:258:LEU:CD1	25:R:288:SER:HB2	2.32	0.58
24:Q:179:LEU:HD21	24:Q:217:GLU:HB3	1.84	0.58
33:Z:522:THR:HG23	33:Z:559:LYS:HZ3	1.69	0.58
12:E:198:LEU:CD1	12:E:243:LEU:HD13	2.33	0.58
12:E:198:LEU:HD11	12:E:243:LEU:HD13	1.85	0.58
31:X:10:PHE:HE2	31:X:101:LEU:CD1	2.17	0.58
18:K:272:ASP:HB3	19:L:306:MET:HE1	0.67	0.58
24:Q:299:MET:HE1	24:Q:335:PHE:CE1	2.38	0.58
15:H:105:ILE:HD12	15:H:169:GLU:OE2	2.03	0.58
14:G:53:ILE:CD1	14:G:212:GLU:HB2	2.29	0.58
28:U:293:GLU:HG2	29:V:277:LYS:NZ	2.19	0.58
10:C:98:TYR:HE1	10:C:104:GLU:HG3	1.68	0.58
26:S:322:LEU:HD21	26:S:349:THR:HG23	1.85	0.58
8:A:34:ALA:O	8:A:35:THR:HG23	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:X:79:LYS:CD	31:X:98:PHE:HE2	2.16	0.58
24:Q:146:TYR:CD1	24:Q:184:VAL:HA	2.33	0.58
33:Z:278:LEU:CG	33:Z:297:VAL:HG13	2.34	0.58
7:7:129:TYR:CE1	7:7:134:LEU:CD2	2.69	0.58
21:N:492:THR:C	21:N:528:ARG:NH1	2.57	0.58
23:P:366:ASN:ND2	23:P:373:GLU:CA	2.60	0.58
3:3:177:VAL:HG12	3:3:190:TYR:CE1	2.38	0.58
20:M:289:LYS:HD3	20:M:305:MET:HE1	1.86	0.58
6:6:141:LEU:HD12	6:6:145:VAL:CG2	2.34	0.58
21:N:353:LEU:H	21:N:354:PRO:CD	2.17	0.58
30:W:87:MET:HE1	30:W:114:VAL:HG22	1.86	0.58
22:O:250:TRP:HZ2	22:O:271:LYS:HB2	1.68	0.58
15:H:102:CYS:HB3	15:H:105:ILE:HD13	1.86	0.58
15:H:105:ILE:HG23	15:H:169:GLU:OE2	2.04	0.58
13:F:51:ARG:HD3	13:F:204:GLU:OE1	2.03	0.58
12:E:207:VAL:CA	15:H:409:ARG:HH12	2.17	0.58
25:R:283:THR:O	25:R:289:ILE:HD11	2.03	0.58
28:U:50:ASN:HD22	28:U:87:GLU:CD	2.08	0.58
14:G:122:HIS:CE1	14:G:128:VAL:CG1	2.87	0.58
25:R:107:GLU:CG	25:R:111:LYS:HE2	2.19	0.58
25:R:73:ASN:H	25:R:76:GLN:NE2	2.01	0.58
31:X:67:ILE:HD12	31:X:69:ILE:CD1	2.29	0.58
19:L:145:ARG:NH2	19:L:163:THR:HA	2.18	0.58
16:I:103:PRO:HG3	17:J:120:TYR:OH	2.03	0.58
20:M:203:ARG:HD3	20:M:206:LYS:CD	2.33	0.58
20:M:203:ARG:HD3	20:M:206:LYS:NZ	2.19	0.58
12:E:207:VAL:HB	15:H:409:ARG:NH1	2.18	0.58
30:W:140:ASP:OD2	30:W:190:ILE:HD12	2.04	0.58
13:F:18:ARG:NH1	13:F:23:GLU:HB2	2.18	0.58
33:Z:242:PHE:CB	33:Z:275:GLN:HG3	2.34	0.58
17:J:39:GLU:CD	17:J:42:ARG:HH21	2.06	0.58
12:E:31:ILE:CD1	12:E:141:ALA:HB2	2.34	0.58
15:H:74:THR:HG22	15:H:74:THR:O	2.04	0.58
26:S:416:GLU:O	26:S:417:GLN:NE2	2.37	0.58
26:S:234:ILE:O	26:S:238:LEU:HG	2.04	0.58
11:D:203:VAL:O	11:D:204:GLN:HB2	2.03	0.58
15:H:396:MET:CE	15:H:438:ALA:HB2	1.76	0.57
22:O:269:LEU:C	22:O:269:LEU:HD23	2.24	0.57
17:J:212:ARG:CZ	17:J:246:PHE:CE2	2.88	0.57
4:4:66:TYR:CD2	10:C:102:TYR:OH	2.56	0.57
15:H:206:VAL:HG23	15:H:261:ARG:HH21	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:M:119:VAL:HG11	20:M:155:ILE:CD1	2.31	0.57
16:I:340:ARG:HH12	16:I:343:ARG:HG2	1.67	0.57
6:6:68:PHE:HZ	13:F:67:ASP:HA	1.69	0.57
23:P:234:TYR:CE1	23:P:270:LEU:HD13	2.38	0.57
27:T:119:THR:CG2	27:T:123:HIS:HE1	2.12	0.57
23:P:264:ILE:CG2	23:P:280:LEU:HD11	2.34	0.57
2:2:27:ALA:O	2:2:28:ASP:OD1	2.22	0.57
17:J:374:ARG:NH2	17:J:381:ASP:OD2	2.36	0.57
33:Z:64:TYR:O	33:Z:68:LEU:HG	2.04	0.57
1:1:19:ARG:NH2	1:1:170:GLY:C	2.53	0.57
33:Z:497:PHE:CB	33:Z:533:VAL:HG22	2.34	0.57
15:H:357:ARG:CZ	15:H:359:ASN:HD22	2.17	0.57
14:G:11:ASN:HB2	14:G:126:ASN:HA	1.86	0.57
33:Z:312:TYR:OH	33:Z:348:LEU:HD21	2.04	0.57
27:T:161:TRP:CE3	27:T:162:ASP:OD1	2.56	0.57
13:F:50:LYS:HE3	13:F:212:SER:HB3	1.86	0.57
10:C:62:SER:OG	10:C:231:LYS:HD3	2.04	0.57
21:N:328:PHE:CZ	21:N:693:GLY:HA2	2.35	0.57
23:P:203:ILE:HG21	23:P:220:TYR:CZ	2.39	0.57
2:2:50:ALA:CB	3:3:118:ILE:HG21	2.30	0.57
33:Z:321:PHE:CE1	33:Z:349:THR:HA	2.39	0.57
17:J:277:ASN:ND2	17:J:309:ARG:CZ	2.59	0.57
2:2:59:ILE:HD11	2:2:86:HIS:CE1	2.40	0.57
19:L:117:TYR:HE1	19:L:131:VAL:HG11	1.68	0.57
33:Z:553:ARG:NH1	33:Z:595:MET:CE	2.66	0.57
22:O:4:ASN:HB2	22:O:39:PHE:CE1	2.39	0.57
8:A:72:ILE:HG12	8:A:82:VAL:HG22	1.87	0.57
10:C:123:THR:CG2	10:C:130:PRO:HB3	2.34	0.57
16:I:136:VAL:HG11	16:I:159:VAL:HG12	1.86	0.57
27:T:164:LEU:HD21	27:T:178:THR:HA	1.86	0.57
33:Z:99:LEU:CB	33:Z:119:LEU:HD21	2.34	0.57
16:I:395:MET:CE	16:I:420:LYS:HE2	2.34	0.57
33:Z:748:LEU:CD1	33:Z:783:VAL:HA	2.34	0.57
28:U:67:PHE:CZ	30:W:97:THR:CG2	2.86	0.57
17:J:277:ASN:HD21	17:J:309:ARG:NH2	2.03	0.57
33:Z:900:LEU:HD22	33:Z:903:MET:HE2	1.87	0.57
8:A:52:VAL:HG11	8:A:203:VAL:HG22	1.87	0.57
17:J:59:LYS:HG2	17:J:63:ARG:NH1	2.19	0.57
27:T:151:TRP:HD1	27:T:154:GLU:OE2	1.88	0.57
9:B:245:ASP:HA	24:Q:95:LYS:HD3	1.85	0.57
16:I:170:VAL:H	17:J:227:SER:HB3	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:I:102:ASN:HD21	17:J:97:ASP:H	1.52	0.57
17:J:316:PHE:CG	17:J:317:PRO:HD2	2.39	0.57
17:J:115:LEU:HD13	17:J:122:LEU:HD23	1.86	0.57
3:3:109:LYS:HE3	3:3:125:LYS:HZ3	1.69	0.57
13:F:43:HIS:CD2	13:F:217:GLY:HA3	2.39	0.57
24:Q:74:LEU:CD2	24:Q:104:PHE:HD1	2.15	0.57
21:N:355:TRP:CH2	21:N:356:LEU:CD2	2.87	0.57
18:K:211:LEU:HD23	18:K:338:ILE:HB	1.85	0.57
17:J:369:ALA:HB1	17:J:374:ARG:HG3	1.86	0.57
28:U:89:LEU:HD23	28:U:113:TYR:O	2.05	0.57
28:U:54:LEU:HD23	28:U:72:TYR:CE2	2.39	0.57
18:K:216:GLY:HA3	19:L:342:ARG:HH21	1.68	0.57
33:Z:233:LEU:C	33:Z:271:ILE:HD11	2.24	0.57
13:F:12:THR:HG21	13:F:19:LEU:HD11	1.85	0.57
22:O:30:GLU:HB3	22:O:58:ARG:NH1	2.20	0.57
25:R:140:TYR:HD2	25:R:141:TYR:CD1	2.22	0.57
15:H:244:LYS:HE3	15:H:340:LEU:O	2.04	0.57
23:P:272:PRO:C	23:P:273:TYR:CD1	2.77	0.57
22:O:228:TYR:HA	22:O:290:LYS:HZ3	1.67	0.57
16:I:104:LEU:HD23	16:I:149:LEU:O	2.01	0.57
24:Q:6:SER:O	24:Q:10:GLU:HG3	2.04	0.57
19:L:401:PHE:HD1	19:L:404:ARG:CZ	2.16	0.57
13:F:65:LYS:HE2	13:F:222:PHE:CD2	2.37	0.57
6:6:39:ASP:O	6:6:40:ASN:CB	2.50	0.57
26:S:151:GLU:OE1	26:S:154:GLN:HB2	2.04	0.57
24:Q:88:PHE:CG	24:Q:89:ALA:N	2.73	0.57
10:C:59:GLN:O	10:C:232:PRO:HG2	2.05	0.57
9:B:158:PRO:O	10:C:57:LEU:HD12	2.05	0.57
11:D:120:TYR:CE2	11:D:129:PHE:CZ	2.93	0.57
18:K:393:ARG:NH2	19:L:345:ARG:HH12	2.03	0.57
1:1:83:LYS:HZ3	1:1:118:SER:HA	0.77	0.57
25:R:70:TYR:OH	25:R:76:GLN:CA	2.52	0.57
5:5:40:PHE:CG	5:5:73:ARG:NH2	2.73	0.57
13:F:65:LYS:CB	13:F:222:PHE:CE2	2.87	0.57
10:C:50:ARG:NH2	10:C:209:ASP:HA	2.19	0.57
3:3:42:LEU:HD21	3:3:44:ILE:HD11	1.86	0.57
9:B:48:GLU:HG2	9:B:196:LEU:HD11	1.87	0.57
2:2:196:ARG:HH21	2:2:199:LYS:HD3	1.69	0.57
33:Z:71:LEU:HD23	33:Z:118:VAL:HG11	1.85	0.57
25:R:203:ASP:OD1	25:R:204:TRP:N	2.38	0.57
33:Z:321:PHE:CZ	33:Z:349:THR:HA	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:N:331:ALA:HB2	21:N:697:PHE:CD1	2.39	0.57
25:R:107:GLU:HG2	25:R:111:LYS:CE	2.21	0.57
1:1:30:VAL:CG2	1:1:172:VAL:HG21	2.35	0.57
31:X:90:VAL:HB	31:X:96:ARG:HD3	1.86	0.57
28:U:67:PHE:CE2	30:W:100:HIS:CE1	2.92	0.57
8:A:163:TYR:O	8:A:164:VAL:HG13	2.04	0.57
28:U:21:HIS:CE1	28:U:93:TYR:CZ	2.92	0.57
5:5:162:LEU:CD2	5:5:200:VAL:HG21	2.34	0.57
19:L:165:PRO:HA	19:L:265:GLU:OE2	2.04	0.57
24:Q:268:SER:O	24:Q:272:LEU:HG	2.04	0.57
3:3:68:LYS:HG2	10:C:92:ARG:HH11	1.70	0.57
8:A:41:ASN:OD1	8:A:173:PRO:HD2	2.05	0.57
24:Q:148:LYS:O	24:Q:149:LYS:HB2	2.04	0.57
33:Z:75:ILE:CG2	33:Z:121:ILE:CG2	2.56	0.57
30:W:186:ALA:HB1	30:W:191:ILE:HG23	1.85	0.57
21:N:593:PHE:HA	21:N:596:LEU:HG	1.86	0.57
10:C:140:TYR:HD1	10:C:146:TYR:CE1	2.23	0.57
17:J:218:LEU:HD12	17:J:229:MET:HB3	1.86	0.57
21:N:31:VAL:CG2	21:N:35:LEU:HD12	2.34	0.57
1:1:75:THR:HG22	1:1:111:TYR:HD1	1.69	0.57
21:N:114:SER:HA	21:N:161:TYR:CE2	2.40	0.57
20:M:56:ASN:O	20:M:60:GLU:HG2	2.04	0.57
31:X:14:VAL:HG13	31:X:50:TRP:CE2	2.39	0.57
21:N:717:LEU:O	21:N:725:LEU:HD22	2.04	0.57
22:O:250:TRP:HA	22:O:269:LEU:HG	1.86	0.57
7:7:131:SER:OG	7:7:132:PRO:HD2	2.04	0.57
25:R:50:VAL:HG12	25:R:54:ILE:HD12	1.84	0.57
14:G:200:TYR:CZ	14:G:246:ILE:HG22	2.39	0.57
27:T:11:LEU:HD22	27:T:30:ILE:CD1	2.30	0.57
18:K:393:ARG:HH21	19:L:345:ARG:HH12	1.51	0.57
21:N:657:MET:HB3	21:N:682:PHE:CE1	2.40	0.57
22:O:250:TRP:CG	22:O:269:LEU:CD2	2.88	0.56
25:R:335:ARG:HD3	25:R:376:GLN:HB3	1.84	0.56
16:I:246:ARG:HH21	17:J:274:GLU:HG2	1.70	0.56
19:L:365:THR:OG1	19:L:376:PHE:CZ	2.57	0.56
21:N:162:ARG:HE	21:N:164:ASP:HB3	1.70	0.56
3:3:37:TYR:CZ	3:3:59:ARG:CB	2.88	0.56
1:1:4:VAL:HG12	1:1:49:ALA:CB	2.35	0.56
20:M:203:ARG:NH1	20:M:206:LYS:NZ	2.53	0.56
6:6:85:GLN:HG3	6:6:122:TYR:CD1	2.35	0.56
33:Z:354:PRO:O	33:Z:357:ILE:HG12	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:612:GLY:N	33:Z:746:ILE:HG23	2.20	0.56
27:T:119:THR:HG23	27:T:123:HIS:CE1	2.38	0.56
28:U:5:HIS:ND1	28:U:6:GLU:O	2.37	0.56
21:N:353:LEU:H	21:N:354:PRO:HD3	1.69	0.56
6:6:29:ARG:HA	6:6:191:ASP:OD2	2.04	0.56
20:M:167:VAL:HG23	20:M:269:LEU:HD12	1.86	0.56
15:H:97:LEU:HB2	15:H:173:ARG:HD3	1.86	0.56
20:M:290:ARG:CD	20:M:294:GLU:HB3	2.31	0.56
1:1:12:VAL:HG22	1:1:14:LEU:HD12	1.86	0.56
1:1:5:ALA:HB2	1:1:14:LEU:HG	1.87	0.56
1:1:83:LYS:NZ	1:1:117:GLY:O	2.38	0.56
25:R:170:VAL:HG11	25:R:194:VAL:CG2	2.35	0.56
33:Z:269:TYR:OH	33:Z:293:MET:HB3	2.04	0.56
1:1:173:ILE:HD12	1:1:193:TYR:CB	2.35	0.56
22:O:260:VAL:HG11	22:O:262:ASP:OD2	2.05	0.56
23:P:288:ASN:O	23:P:289:ASN:HB2	2.06	0.56
17:J:25:GLN:NE2	21:N:99:GLU:HB3	2.20	0.56
28:U:83:ILE:HD11	29:V:87:PHE:HZ	1.69	0.56
33:Z:64:TYR:CE1	33:Z:68:LEU:HD11	2.40	0.56
1:1:83:LYS:CD	1:1:119:VAL:CG2	2.69	0.56
13:F:3:ARG:HE	15:H:359:ASN:CG	2.08	0.56
15:H:62:ARG:HB2	16:I:134:SER:HB2	1.86	0.56
33:Z:221:VAL:CG2	33:Z:245:VAL:HG13	2.34	0.56
14:G:111:PHE:HA	14:G:114:ARG:CZ	2.36	0.56
25:R:137:LEU:CB	25:R:141:TYR:CE2	2.80	0.56
22:O:222:LEU:HB3	22:O:280:LEU:HD11	1.87	0.56
25:R:167:LYS:HZ1	25:R:198:ILE:HB	1.70	0.56
33:Z:929:VAL:CG2	33:Z:957:LEU:HD23	2.35	0.56
25:R:134:TRP:CZ3	25:R:156:LYS:NZ	2.70	0.56
29:V:53:MET:CG	29:V:108:TYR:HD1	2.19	0.56
27:T:28:PRO:HB2	27:T:29:PRO:HD3	1.88	0.56
1:1:13:ILE:HD12	1:1:151:THR:CG2	2.35	0.56
1:1:10:ASP:O	1:1:102:TYR:HE1	1.87	0.56
1:1:11:GLY:HA3	1:1:102:TYR:CD1	2.41	0.56
24:Q:100:LEU:HD23	24:Q:103:LYS:HD2	1.87	0.56
33:Z:912:PHE:CE2	33:Z:980:VAL:HG23	2.39	0.56
5:5:7:ARG:HE	5:5:110:PRO:HG2	1.69	0.56
13:F:87:TYR:HE2	13:F:128:TYR:OH	1.88	0.56
12:E:14:THR:HG21	12:E:22:PHE:HE2	1.69	0.56
21:N:602:VAL:CG1	21:N:625:LEU:HD23	2.36	0.56
22:O:131:SER:O	22:O:135:ARG:HG3	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:U:50:ASN:ND2	28:U:87:GLU:OE2	2.37	0.56
17:J:367:MET:O	17:J:371:ARG:HG3	2.05	0.56
19:L:82:ARG:HG2	19:L:86:LYS:HE3	1.86	0.56
11:D:67:ILE:HD13	11:D:109:LEU:HD21	1.86	0.56
16:I:257:LEU:HD12	16:I:258:GLY:N	2.21	0.56
33:Z:320:SER:O	33:Z:326:VAL:HG11	2.05	0.56
1:1:82:PHE:CB	1:1:113:ILE:HD13	2.36	0.56
26:S:267:SER:OG	26:S:305:LYS:HE3	2.05	0.56
3:3:53:THR:O	3:3:57:MET:HG2	2.06	0.56
24:Q:61:LEU:HD11	24:Q:65:TYR:OH	2.06	0.56
10:C:177:GLN:HE22	11:D:52:LEU:HD22	1.70	0.56
10:C:140:TYR:HD1	10:C:146:TYR:CD1	2.23	0.56
18:K:67:TYR:HD1	21:N:572:LEU:HB3	1.70	0.56
27:T:27:LEU:O	27:T:31:LYS:HG3	2.04	0.56
20:M:170:MET:SD	20:M:244:LEU:HD22	2.45	0.56
27:T:62:LEU:HB2	27:T:85:LEU:HD13	1.87	0.56
13:F:159:THR:CA	13:F:169:LYS:HZ2	2.16	0.56
4:4:117:GLN:HE22	4:4:130:GLY:HA3	1.69	0.56
33:Z:763:HIS:C	33:Z:766:HIS:CE1	2.79	0.56
15:H:428:MET:HG3	16:I:346:ARG:HH21	1.70	0.56
19:L:386:PHE:HD1	19:L:390:ASP:HB3	1.70	0.56
8:A:128:TYR:CD2	8:A:134:MET:HE2	2.41	0.56
8:A:162:TYR:CZ	8:A:164:VAL:CG1	2.88	0.56
15:H:308:PHE:CD1	15:H:351:VAL:HG13	2.40	0.56
24:Q:343:LEU:HD12	24:Q:366:ILE:HD11	1.88	0.56
13:F:157:TYR:HH	14:G:59:VAL:HG23	1.70	0.56
24:Q:74:LEU:HD21	24:Q:104:PHE:HD1	1.69	0.56
5:5:144:TYR:O	5:5:145:LYS:HB2	2.05	0.56
7:7:178:TYR:HD2	7:7:179:ARG:HG3	1.70	0.56
20:M:424:ALA:O	20:M:425:ARG:HB2	2.05	0.56
24:Q:81:SER:HA	24:Q:84:TYR:CD2	2.41	0.56
5:5:8:PHE:CZ	5:5:13:ILE:CG1	2.88	0.56
22:O:41:LEU:H	22:O:58:ARG:HD2	1.71	0.56
25:R:137:LEU:HD22	25:R:141:TYR:CE2	2.41	0.56
23:P:431:HIS:CE1	28:U:137:TYR:HE1	2.24	0.56
15:H:249:TYR:HE2	15:H:374:LYS:HG2	1.70	0.56
10:C:140:TYR:CD1	10:C:146:TYR:CE1	2.93	0.56
19:L:163:THR:CG2	19:L:264:ARG:HH22	2.19	0.56
33:Z:371:SER:O	33:Z:372:ALA:HB2	2.05	0.56
26:S:294:ILE:CG1	26:S:317:HIS:HE1	2.18	0.56
15:H:50:LYS:NZ	33:Z:791:LYS:HG2	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:F:87:TYR:CE2	13:F:128:TYR:OH	2.59	0.56
3:3:1:GLY:HA3	3:3:33:LYS:NZ	2.20	0.56
17:J:96:VAL:HG11	17:J:115:LEU:HD21	1.87	0.56
24:Q:220:LEU:HD12	24:Q:239:PHE:HE1	1.69	0.56
17:J:77:LYS:HG2	17:J:78:ILE:O	2.06	0.56
30:W:186:ALA:HA	30:W:191:ILE:HG22	0.65	0.56
27:T:185:ILE:HG22	27:T:189:ILE:CD1	2.35	0.56
16:I:81:ILE:HG12	33:Z:766:HIS:CE1	2.39	0.56
14:G:168:ARG:HG3	14:G:172:LYS:HE3	1.88	0.56
20:M:82:VAL:HG21	20:M:140:LEU:HD22	1.87	0.56
6:6:66:TYR:OH	6:6:73:LYS:CD	2.54	0.56
21:N:749:LEU:HD23	21:N:753:PHE:HZ	1.70	0.56
20:M:203:ARG:CZ	20:M:206:LYS:NZ	2.69	0.56
5:5:158:LYS:HB2	5:5:177:LEU:HD11	1.87	0.56
24:Q:355:GLU:HG2	24:Q:397:LEU:HG	1.87	0.56
12:E:85:ALA:HB2	12:E:140:VAL:HG21	1.88	0.56
31:X:94:ASN:O	31:X:95:GLU:HB2	2.05	0.56
21:N:214:LEU:HD23	21:N:217:MET:HE2	1.86	0.56
23:P:131:PHE:CB	23:P:136:ARG:HH11	2.18	0.56
23:P:130:ILE:HG22	23:P:136:ARG:NH2	2.21	0.56
15:H:173:ARG:NH2	16:I:119:ILE:HG21	2.21	0.56
17:J:337:LEU:CD2	17:J:382:PHE:CZ	2.47	0.56
22:O:217:LEU:CD1	22:O:238:ILE:HG21	2.35	0.56
18:K:161:MET:CE	18:K:257:VAL:HG21	2.36	0.56
23:P:269:VAL:O	23:P:344:ARG:HG3	2.06	0.56
4:4:166:GLU:HB3	4:4:170:ARG:NH2	2.15	0.56
8:A:75:ILE:HD13	8:A:117:LEU:CD2	2.36	0.56
15:H:295:PHE:HZ	15:H:336:LEU:CD1	2.17	0.56
16:I:326:MET:SD	16:I:344:ILE:HD11	2.46	0.56
27:T:253:GLU:O	27:T:254:ASP:CB	2.54	0.56
33:Z:317:GLN:HE22	33:Z:874:ASN:HA	1.71	0.56
18:K:184:ILE:HD12	18:K:222:LEU:HD13	1.86	0.56
2:2:6:VAL:HG21	2:2:154:LEU:HD23	1.87	0.56
30:W:12:ASN:H	30:W:55:ALA:HB3	1.70	0.56
24:Q:9:GLU:HG2	24:Q:13:ARG:HH12	1.70	0.56
3:3:150:GLU:HB3	3:3:151:PRO:HD2	1.88	0.56
13:F:105:VAL:CG2	13:F:145:LEU:HD13	2.21	0.56
4:4:143:LEU:HD23	4:4:159:LEU:HD21	1.85	0.56
8:A:83:VAL:HG22	8:A:141:LEU:HD22	1.87	0.56
28:U:62:ASN:ND2	28:U:65:VAL:HG23	2.21	0.56
10:C:152:ASN:HB2	10:C:153:PRO:HD2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:N:220:CYS:SG	21:N:225:LEU:HD11	2.46	0.56
15:H:328:GLU:HA	15:H:331:ARG:NH2	2.21	0.56
27:T:86:LYS:CE	27:T:128:TYR:CD2	2.81	0.56
20:M:62:ILE:HG13	20:M:66:LYS:HE3	1.87	0.56
11:D:193:LYS:NZ	11:D:236:ILE:HG13	2.21	0.56
18:K:137:VAL:HB	18:K:146:LEU:HD13	1.87	0.56
1:1:31:THR:HG21	1:1:33:LYS:HE2	1.87	0.56
24:Q:385:ILE:HG22	24:Q:386:PHE:CE1	2.40	0.56
14:G:183:PRO:C	14:G:184:GLU:HG2	2.25	0.56
25:R:252:TYR:CE1	25:R:319:CYS:SG	2.96	0.56
27:T:194:GLU:HB2	27:T:226:TRP:HZ2	1.71	0.56
20:M:81:ASN:HB2	20:M:163:PHE:CD1	2.41	0.56
21:N:768:ILE:HD13	21:N:871:MET:HE3	1.87	0.56
17:J:316:PHE:CD1	17:J:317:PRO:HD2	2.41	0.56
11:D:111:ARG:HG2	11:D:156:TYR:OH	2.06	0.56
18:K:326:PRO:O	18:K:330:ARG:HG3	2.06	0.56
22:O:179:PHE:HB3	22:O:188:PHE:HB2	1.86	0.56
22:O:102:LEU:C	22:O:103:LYS:HG2	2.27	0.56
16:I:117:HIS:HB3	16:I:129:TYR:O	2.06	0.55
22:O:15:ARG:HB3	30:W:20:ASP:OD1	2.07	0.55
27:T:185:ILE:HG22	27:T:189:ILE:HD12	1.88	0.55
16:I:222:TYR:OH	16:I:349:LEU:CB	2.43	0.55
1:1:-8:LYS:HZ3	2:2:117:GLY:CA	2.08	0.55
26:S:258:GLU:O	26:S:259:TYR:CD1	2.59	0.55
21:N:338:PHE:CZ	21:N:749:LEU:HD23	2.41	0.55
1:1:193:TYR:CD1	1:1:193:TYR:C	2.79	0.55
26:S:257:LEU:CD2	26:S:272:TYR:CE1	2.89	0.55
29:V:71:MET:CE	29:V:83:VAL:HG13	2.35	0.55
24:Q:264:TYR:CZ	24:Q:330:LEU:HD23	2.41	0.55
21:N:777:ALA:HA	21:N:878:GLN:HE21	1.71	0.55
26:S:452:TYR:HA	26:S:456:ASP:OD2	2.05	0.55
22:O:69:PHE:CE2	22:O:73:ILE:O	2.60	0.55
33:Z:168:GLN:OE1	33:Z:195:PHE:CE1	2.59	0.55
13:F:101:ARG:CZ	13:F:103:LEU:HA	2.32	0.55
24:Q:425:GLN:HB3	29:V:269:ARG:HG2	1.86	0.55
25:R:137:LEU:O	25:R:141:TYR:HD2	1.85	0.55
26:S:286:TYR:CE1	26:S:323:LEU:HD13	2.39	0.55
15:H:340:LEU:HD13	15:H:370:ARG:CG	2.25	0.55
3:3:109:LYS:HG2	3:3:110:PRO:O	2.07	0.55
8:A:19:PHE:HA	8:A:25:LEU:CD2	2.34	0.55
19:L:389:ALA:HB1	20:M:339:ARG:HE	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:6:-5:TYR:HE1	6:6:97:TYR:HB3	1.71	0.55
24:Q:86:MET:SD	24:Q:93:THR:HG21	2.46	0.55
3:3:89:ARG:HB3	3:3:94:TYR:CD1	2.41	0.55
4:4:17:SER:HB3	4:4:33:LYS:CE	2.37	0.55
25:R:266:LEU:HD23	25:R:266:LEU:C	2.27	0.55
15:H:365:LEU:HD22	15:H:370:ARG:HH22	1.70	0.55
8:A:163:TYR:O	8:A:164:VAL:CG1	2.54	0.55
31:X:66:LEU:CD2	31:X:97:TYR:CD1	2.89	0.55
8:A:75:ILE:HD13	8:A:117:LEU:HD21	1.87	0.55
21:N:308:ASN:HB2	21:N:711:ARG:HD2	1.88	0.55
33:Z:973:TYR:HA	33:Z:984:LYS:HD3	1.88	0.55
6:6:141:LEU:CD1	6:6:145:VAL:HG21	2.37	0.55
11:D:146:LYS:HE2	11:D:148:TYR:HE2	1.71	0.55
17:J:331:HIS:CE1	17:J:359:LYS:HE2	2.41	0.55
9:B:39:ALA:C	9:B:40:THR:HG23	2.26	0.55
33:Z:149:TRP:CD1	33:Z:214:HIS:CE1	2.95	0.55
10:C:65:LYS:HA	10:C:67:TYR:HE1	1.71	0.55
12:E:15:PHE:HE1	13:F:126:ARG:HE	1.54	0.55
17:J:219:VAL:HB	18:K:281:ARG:CG	2.36	0.55
17:J:62:LEU:CD1	18:K:89:ILE:HG13	2.27	0.55
10:C:3:SER:CB	11:D:6:ARG:HH21	2.18	0.55
24:Q:426:LEU:CD2	28:U:293:GLU:OE1	2.53	0.55
18:K:258:PHE:HB2	18:K:302:GLN:OE1	2.06	0.55
23:P:416:SER:OG	29:V:245:VAL:HG22	2.07	0.55
4:4:37:LEU:CD1	4:4:60:GLN:HA	2.37	0.55
13:F:117:GLN:HG3	13:F:121:GLN:NE2	2.21	0.55
28:U:65:VAL:HG12	30:W:96:LEU:HD11	1.86	0.55
15:H:343:PHE:HZ	20:M:233:ARG:NH2	2.04	0.55
30:W:25:ARG:NH1	30:W:144:PHE:CD2	2.61	0.55
21:N:406:TYR:OH	21:N:748:PHE:HE1	1.76	0.55
33:Z:205:LEU:HA	33:Z:236:PHE:CZ	2.41	0.55
26:S:323:LEU:CD2	26:S:383:LEU:HD23	2.37	0.55
11:D:193:LYS:HZ3	11:D:235:GLN:HB2	1.71	0.55
22:O:157:LEU:HD22	22:O:171:PHE:CG	2.41	0.55
27:T:186:ARG:NH1	27:T:220:PHE:HE2	2.00	0.55
16:I:377:LEU:O	16:I:381:VAL:HG23	2.06	0.55
25:R:354:ALA:HA	25:R:364:LEU:HD22	1.88	0.55
4:4:17:SER:HB3	4:4:33:LYS:HE2	1.89	0.55
24:Q:167:LYS:O	24:Q:168:LEU:HD23	2.06	0.55
33:Z:92:LEU:HD23	33:Z:122:LEU:HD13	1.88	0.55
21:N:588:VAL:CG1	21:N:621:THR:CG2	2.57	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:7:92:MET:CE	7:7:122:VAL:HG22	2.37	0.55
18:K:258:PHE:HZ	18:K:299:LEU:CD1	2.19	0.55
19:L:178:ILE:HD13	19:L:230:LEU:HD23	1.87	0.55
24:Q:74:LEU:HD21	24:Q:104:PHE:CD1	2.42	0.55
10:C:136:ILE:HD11	10:C:165:VAL:CG2	2.36	0.55
9:B:75:TYR:CD1	9:B:82:TYR:CD1	2.94	0.55
21:N:43:LEU:HD11	21:N:69:TYR:CE1	2.42	0.55
13:F:206:LEU:HD21	13:F:211:LEU:HD11	1.88	0.55
1:1:82:PHE:HB3	1:1:113:ILE:HD13	1.88	0.55
7:7:8:TYR:CZ	7:7:11:GLY:HA3	2.41	0.55
17:J:223:ILE:O	17:J:225:GLU:N	2.40	0.55
25:R:209:ARG:HH21	25:R:243:LEU:HD21	1.71	0.55
6:6:91:LYS:CB	6:6:96:TYR:HE1	2.00	0.55
13:F:145:LEU:HD23	13:F:146:GLU:C	2.26	0.55
29:V:127:LYS:HE3	29:V:194:ARG:CZ	2.37	0.55
26:S:286:TYR:HB3	26:S:324:MET:HB3	1.89	0.55
11:D:17:ILE:CG2	11:D:19:GLN:HG2	2.36	0.55
21:N:325:PHE:H	29:V:185:ILE:HG21	1.72	0.55
21:N:749:LEU:CD2	21:N:753:PHE:HZ	2.19	0.55
20:M:431:SER:O	20:M:432:PHE:CD1	2.59	0.55
19:L:145:ARG:NH2	19:L:163:THR:CA	2.68	0.55
23:P:425:HIS:HA	28:U:228:LYS:HZ1	1.71	0.55
19:L:117:TYR:HE1	19:L:131:VAL:CG1	2.19	0.55
17:J:27:ILE:HG21	18:K:50:LYS:HE2	1.87	0.55
27:T:103:SER:HB3	27:T:141:LEU:HD12	1.89	0.55
2:2:99:ILE:HG12	2:2:127:LEU:HD12	1.88	0.55
28:U:104:LEU:HD11	28:U:152:LYS:HD2	1.88	0.55
3:3:6:MET:HE1	3:3:158:ILE:HA	1.87	0.55
1:1:17:ASP:HB3	1:1:163:ILE:HD11	1.89	0.55
2:2:223:ILE:HG12	10:C:222:ASP:OD2	2.06	0.55
33:Z:56:LEU:CD2	33:Z:68:LEU:CD2	2.79	0.55
22:O:250:TRP:CZ2	22:O:271:LYS:HG3	2.41	0.55
28:U:92:TRP:CE2	28:U:120:LEU:HG	2.41	0.55
25:R:170:VAL:HG11	25:R:194:VAL:HG22	1.89	0.55
15:H:345:PRO:HD2	15:H:349:ILE:HD12	1.87	0.55
8:A:30:TYR:C	14:G:14:PHE:CE1	2.80	0.55
12:E:109:VAL:HG11	12:E:156:PHE:CD1	2.42	0.55
21:N:355:TRP:CZ3	21:N:356:LEU:HD23	2.41	0.55
28:U:83:ILE:HG22	28:U:84:ASN:ND2	2.22	0.55
14:G:233:ASP:O	14:G:237:GLU:HG3	2.06	0.55
18:K:395:VAL:HG13	19:L:206:ILE:HG22	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:F:47:VAL:HG21	13:F:193:GLY:HA3	1.89	0.55
12:E:68:VAL:HG12	12:E:93:ARG:HH21	1.71	0.55
33:Z:497:PHE:CZ	33:Z:505:VAL:HG12	2.41	0.55
4:4:84:ARG:HD2	4:4:124:LYS:HB3	1.89	0.55
33:Z:549:ASN:HD22	33:Z:562:TRP:HH2	1.53	0.55
15:H:326:ASP:HA	15:H:329:VAL:CG2	2.37	0.55
25:R:167:LYS:HZ3	25:R:199:GLU:HG2	1.71	0.55
23:P:271:SER:O	23:P:344:ARG:CD	2.55	0.55
30:W:180:LEU:HD13	30:W:182:TYR:HE1	1.72	0.55
23:P:95:TYR:CD2	23:P:96:MET:HE3	2.28	0.55
16:I:208:TYR:C	16:I:208:TYR:CD1	2.80	0.55
23:P:425:HIS:CB	28:U:228:LYS:HZ1	2.20	0.55
20:M:385:GLU:O	20:M:385:GLU:OE1	2.25	0.55
8:A:83:VAL:HG22	8:A:141:LEU:HD23	1.89	0.55
33:Z:604:GLY:O	33:Z:608:TYR:CD2	2.57	0.55
28:U:83:ILE:HD11	29:V:87:PHE:CZ	2.41	0.55
25:R:251:THR:O	25:R:255:VAL:HG23	2.06	0.55
21:N:358:LYS:HD2	29:V:183:ALA:HA	1.88	0.55
33:Z:851:ALA:O	33:Z:855:LEU:HG	2.06	0.55
22:O:217:LEU:HD12	22:O:238:ILE:HG21	1.89	0.55
8:A:128:TYR:CE1	8:A:134:MET:CE	2.90	0.55
33:Z:79:THR:O	33:Z:80:SER:CB	2.55	0.55
10:C:13:PHE:HA	10:C:19:LEU:HD23	1.88	0.55
16:I:340:ARG:HH12	16:I:343:ARG:CG	2.19	0.55
19:L:289:ARG:HD3	19:L:334:ASP:OD1	2.06	0.55
18:K:389:GLU:HB3	18:K:414:GLN:NE2	2.22	0.55
19:L:170:MET:HE1	19:L:266:MET:N	2.22	0.55
27:T:112:ASN:HA	27:T:177:PHE:CE1	2.42	0.55
9:B:43:VAL:CG1	9:B:137:ALA:HB1	2.36	0.55
19:L:115:GLU:HG2	19:L:137:ARG:NH2	2.21	0.55
21:N:302:PHE:CD1	21:N:306:ASN:ND2	2.75	0.55
1:1:75:THR:CG2	1:1:111:TYR:HD1	2.20	0.55
17:J:33:LYS:O	17:J:37:LYS:HG2	2.07	0.55
15:H:172:MET:CG	16:I:129:TYR:HD2	2.06	0.54
21:N:717:LEU:HD21	21:N:733:LEU:HD13	1.88	0.54
16:I:214:LYS:NZ	16:I:318:ASP:CA	2.70	0.54
33:Z:303:ASP:C	33:Z:307:HIS:CD2	2.80	0.54
33:Z:887:GLY:H	33:Z:893:PHE:HD2	1.55	0.54
28:U:14:VAL:HG21	28:U:48:VAL:HG12	1.88	0.54
15:H:69:VAL:HG21	16:I:133:LEU:HG	1.87	0.54
21:N:130:ASP:HB3	21:N:133:LEU:HD12	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:O:165:LEU:HD12	22:O:202:SER:HB3	1.90	0.54
33:Z:493:LEU:HD21	33:Z:497:PHE:CE2	2.42	0.54
20:M:253:GLN:CG	20:M:258:GLU:HB2	2.37	0.54
33:Z:550:PHE:CE1	33:Z:566:LEU:HB2	2.42	0.54
33:Z:867:PHE:O	33:Z:909:ARG:NH2	2.40	0.54
22:O:250:TRP:CA	22:O:269:LEU:HD21	2.37	0.54
23:P:105:LYS:HB2	23:P:115:ARG:NH1	2.22	0.54
2:2:124:TYR:CZ	2:2:139:GLU:CB	2.87	0.54
11:D:6:ARG:HA	12:E:125:GLU:OE1	2.08	0.54
14:G:217:TRP:NE1	14:G:228:LYS:HB2	2.19	0.54
17:J:156:GLN:HE22	17:J:314:ILE:HG21	1.72	0.54
19:L:226:THR:HA	19:L:389:ALA:HB2	1.88	0.54
8:A:81:MET:SD	8:A:143:PHE:HE1	2.29	0.54
21:N:16:ASN:O	21:N:17:GLN:CG	2.55	0.54
25:R:62:TYR:CE2	25:R:180:PHE:HB3	2.42	0.54
16:I:220:ILE:CG1	16:I:344:ILE:HG21	2.38	0.54
29:V:121:VAL:HG13	29:V:122:ASP:N	2.23	0.54
19:L:149:ASP:CG	19:L:152:THR:HB	2.28	0.54
28:U:52:PHE:CD2	28:U:72:TYR:CE2	2.88	0.54
15:H:208:TYR:CD1	15:H:211:VAL:CG1	2.90	0.54
9:B:151:ASP:HB3	9:B:152:PRO:HD2	1.88	0.54
22:O:117:ASN:ND2	22:O:167:ILE:HA	2.22	0.54
33:Z:102:ILE:CG2	33:Z:115:LEU:HD13	2.38	0.54
5:5:8:PHE:HZ	5:5:13:ILE:HD11	1.70	0.54
17:J:212:ARG:CZ	17:J:246:PHE:HE2	2.19	0.54
10:C:2:GLY:N	14:G:126:ASN:HD21	2.06	0.54
14:G:199:ILE:HD13	14:G:213:LEU:HG	1.90	0.54
21:N:529:GLN:NE2	21:N:559:TYR:HA	2.21	0.54
1:1:75:THR:CG2	1:1:111:TYR:CD1	2.91	0.54
4:4:106:TYR:CZ	4:4:185:LYS:CB	2.90	0.54
18:K:209:VAL:HG22	18:K:336:ARG:HB2	1.88	0.54
27:T:270:ILE:HD11	29:V:288:LEU:HD21	1.88	0.54
33:Z:562:TRP:CD2	33:Z:566:LEU:CD1	2.87	0.54
13:F:101:ARG:HH22	13:F:103:LEU:HD13	1.72	0.54
17:J:186:ILE:HD11	17:J:300:LEU:HD11	1.89	0.54
17:J:305:LEU:HB3	17:J:313:LYS:HE2	1.87	0.54
33:Z:812:ILE:HD11	33:Z:834:LEU:HD22	1.89	0.54
21:N:649:VAL:HG11	21:N:651:PHE:CE2	2.42	0.54
21:N:158:LEU:HD12	21:N:202:PHE:CE2	2.38	0.54
4:4:13:ILE:HG12	4:4:182:ILE:HG12	1.88	0.54
16:I:220:ILE:HD11	16:I:344:ILE:HD13	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:V:71:MET:HA	29:V:87:PHE:CE2	2.42	0.54
22:O:167:ILE:HG23	22:O:168:THR:N	2.22	0.54
8:A:197:GLU:O	8:A:198:SER:OG	2.23	0.54
21:N:919:THR:CG2	21:N:921:ARG:HG2	2.36	0.54
7:7:41:THR:HG21	7:7:84:ILE:HD12	1.90	0.54
7:7:48:ASP:OD1	7:7:50:SER:HB2	2.08	0.54
33:Z:557:GLU:OE1	33:Z:562:TRP:HZ3	1.86	0.54
14:G:122:HIS:CE1	14:G:128:VAL:HG11	2.42	0.54
19:L:336:ALA:CA	19:L:342:ARG:HH11	2.20	0.54
22:O:40:GLN:NE2	22:O:55:THR:O	2.41	0.54
1:1:57:ASP:CB	8:A:106:TYR:HE1	2.17	0.54
19:L:95:ILE:CG2	20:M:68:LYS:HZ2	2.18	0.54
21:N:736:PHE:CD1	21:N:749:LEU:HB2	2.43	0.54
9:B:174:PHE:HB3	9:B:178:ARG:HH22	1.71	0.54
33:Z:509:LEU:HD13	33:Z:530:LEU:HD23	1.88	0.54
8:A:75:ILE:HD11	8:A:81:MET:HB2	1.89	0.54
3:3:19:ARG:NH2	3:3:171:LEU:HD23	2.22	0.54
11:D:138:PHE:HE1	11:D:215:VAL:HG12	1.72	0.54
33:Z:385:PHE:HE2	33:Z:389:PHE:HE2	1.48	0.54
21:N:654:GLN:HG3	21:N:698:GLY:CA	2.37	0.54
12:E:165:TYR:HB2	12:E:167:TYR:HH	1.70	0.54
11:D:17:ILE:HG22	11:D:19:GLN:HG2	1.90	0.54
8:A:128:TYR:CE1	8:A:134:MET:HE1	2.42	0.54
8:A:163:TYR:C	8:A:164:VAL:HG13	2.28	0.54
31:X:29:VAL:HG21	31:X:59:ARG:HH12	1.72	0.54
18:K:84:GLU:O	18:K:88:ARG:HG3	2.08	0.54
5:5:76:VAL:HG21	5:5:103:GLY:HA3	1.90	0.54
19:L:113:SER:OG	19:L:116:LYS:HB2	2.08	0.54
4:4:8:VAL:CG2	4:4:11:SER:OG	2.55	0.54
11:D:82:SER:OG	11:D:131:VAL:HG11	2.08	0.54
21:N:363:ALA:HB2	29:V:182:LYS:NZ	2.23	0.54
22:O:384:MET:CE	28:U:190:LEU:N	2.70	0.54
5:5:6:PHE:CZ	5:5:13:ILE:CB	2.89	0.54
33:Z:774:ARG:O	33:Z:777:PRO:HD2	2.07	0.54
32:Y:82:ASP:O	32:Y:86:ARG:HG3	2.07	0.54
11:D:159:TRP:CZ2	12:E:59:LEU:CD1	2.89	0.54
16:I:253:ILE:CD1	16:I:287:ILE:HA	2.37	0.54
3:3:63:ASN:CB	10:C:96:GLN:HE22	2.20	0.54
3:3:59:ARG:HH21	10:C:100:LYS:HA	1.71	0.54
6:6:68:PHE:CZ	13:F:66:CYS:O	2.61	0.54
21:N:77:SER:O	21:N:81:TYR:CD1	2.52	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:7:103:TRP:CE3	7:7:124:LEU:HD22	2.43	0.54
33:Z:318:LYS:HB2	33:Z:874:ASN:HD21	1.72	0.54
25:R:259:PHE:HE1	25:R:332:GLU:HB2	1.72	0.54
21:N:641:LEU:CD1	21:N:660:LEU:HD23	2.36	0.54
17:J:338:THR:HA	17:J:376:HIS:NE2	2.22	0.54
8:A:57:LYS:NZ	8:A:66:PRO:HB2	2.23	0.54
11:D:37:LYS:CE	11:D:160:SER:HA	2.38	0.54
33:Z:223:LEU:O	33:Z:227:ILE:HG23	2.08	0.54
27:T:50:ILE:HD13	27:T:96:LEU:HB3	1.88	0.54
5:5:174:SER:CB	5:5:190:ASN:HD21	2.21	0.54
1:1:89:ASN:HB3	1:1:92:ASN:OD1	2.07	0.54
23:P:130:ILE:O	23:P:136:ARG:CZ	2.55	0.54
33:Z:119:LEU:HD13	33:Z:137:TYR:CE2	2.43	0.54
14:G:111:PHE:CB	14:G:114:ARG:NH2	2.71	0.54
14:G:192:VAL:HG13	14:G:215:ILE:CD1	2.33	0.54
27:T:126:LEU:CD2	27:T:136:LEU:CD2	2.79	0.54
15:H:306:ILE:HG21	15:H:308:PHE:CE1	2.39	0.54
26:S:256:LYS:O	26:S:259:TYR:CD1	2.61	0.54
24:Q:50:ARG:NH2	24:Q:53:GLU:OE1	2.41	0.54
4:4:32:ASP:CB	4:4:35:ARG:HH12	2.18	0.54
1:1:70:TYR:CD1	14:G:110:ALA:CB	2.88	0.54
24:Q:419:LEU:HD22	28:U:289:ASP:OD2	2.08	0.54
33:Z:286:VAL:HG11	33:Z:317:GLN:HG2	1.89	0.54
33:Z:601:VAL:HB	33:Z:620:LEU:HD23	1.90	0.54
25:R:276:LEU:O	25:R:280:ILE:HG23	2.07	0.54
23:P:163:LEU:O	23:P:167:THR:HG23	2.08	0.54
17:J:377:VAL:HG12	17:J:378:THR:N	2.23	0.54
23:P:72:TRP:CZ2	23:P:103:TYR:HB3	2.38	0.54
2:2:124:TYR:CZ	2:2:139:GLU:CA	2.90	0.54
11:D:10:ILE:CD1	12:E:10:ARG:HB3	2.38	0.54
2:2:59:ILE:HD12	2:2:82:MET:CB	2.37	0.54
12:E:20:ARG:CG	20:M:432:PHE:HZ	2.20	0.54
15:H:344:ASP:OD1	15:H:345:PRO:HD2	2.08	0.54
22:O:215:TYR:CZ	22:O:219:ILE:HD11	2.43	0.54
18:K:126:LEU:HD22	18:K:149:ILE:HD12	1.90	0.54
17:J:363:THR:OG1	18:K:203:ILE:HD11	2.08	0.54
2:2:109:HIS:HB3	2:2:111:PHE:CE2	2.43	0.54
22:O:250:TRP:CG	22:O:269:LEU:HD21	2.40	0.54
22:O:217:LEU:HD12	22:O:238:ILE:CG2	2.38	0.54
20:M:72:ASN:CB	20:M:156:LEU:CD2	2.86	0.54
18:K:161:MET:HE3	18:K:237:VAL:HG13	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:7:145:PRO:HA	7:7:148:ARG:NE	2.12	0.54
27:T:112:ASN:CB	27:T:177:PHE:CZ	2.90	0.54
21:N:909:GLU:HB3	21:N:911:LYS:HZ1	1.72	0.54
25:R:211:LYS:HZ1	25:R:234:SER:HA	1.73	0.54
3:3:41:PHE:CE1	3:3:181:ILE:HD13	2.42	0.54
6:6:61:ASN:O	6:6:65:TRP:HD1	1.91	0.54
33:Z:149:TRP:CG	33:Z:214:HIS:CE1	2.96	0.54
33:Z:316:ALA:HB1	33:Z:868:ASN:OD1	2.08	0.54
25:R:262:GLU:HA	25:R:336:LYS:NZ	2.23	0.54
2:2:126:SER:OG	2:2:135:MET:HB3	2.07	0.54
5:5:135:PHE:CB	5:5:167:ARG:NH2	2.65	0.53
28:U:16:LEU:HA	28:U:19:LEU:HD12	1.90	0.53
3:3:37:TYR:CE1	3:3:59:ARG:CB	2.92	0.53
7:7:145:PRO:HG3	7:7:148:ARG:NH2	2.23	0.53
4:4:129:TYR:CG	4:4:143:LEU:HD13	2.43	0.53
21:N:585:ARG:HH21	21:N:623:PHE:HE2	1.43	0.53
4:4:32:ASP:HB3	4:4:35:ARG:NH1	2.21	0.53
20:M:216:LYS:HE3	20:M:267:PHE:HE1	1.73	0.53
23:P:241:LEU:HD23	23:P:264:ILE:CG1	2.37	0.53
8:A:84:ASN:HD22	8:A:171:THR:HG23	1.74	0.53
24:Q:158:ILE:HG23	24:Q:177:VAL:CG1	2.38	0.53
18:K:374:ARG:HH12	18:K:408:GLU:HG2	1.73	0.53
1:1:120:HIS:HB2	7:7:28:PHE:CE1	2.44	0.53
33:Z:582:ASP:HA	33:Z:585:LEU:HD12	1.90	0.53
8:A:252:ASP:C	23:P:44:LYS:HZ3	2.04	0.53
4:4:84:ARG:HD2	4:4:124:LYS:CB	2.38	0.53
18:K:132:LYS:HB2	18:K:135:MET:CG	2.36	0.53
7:7:118:PHE:CE2	7:7:120:ARG:CD	2.89	0.53
31:X:38:ASN:ND2	31:X:43:LEU:HG	2.23	0.53
16:I:148:LEU:HD23	16:I:160:LEU:HD22	1.90	0.53
4:4:34:THR:HG21	4:4:181:LYS:NZ	2.23	0.53
2:2:99:ILE:HG13	2:2:127:LEU:HD12	1.90	0.53
18:K:183:GLU:HG2	18:K:338:ILE:HG12	1.89	0.53
27:T:59:LYS:HG3	27:T:85:LEU:HD11	1.90	0.53
4:4:161:LYS:HE2	4:4:165:GLN:HE21	1.72	0.53
17:J:61:GLU:O	17:J:65:LEU:HG	2.08	0.53
21:N:340:HIS:CB	21:N:374:ILE:HG12	2.38	0.53
8:A:189:SER:OG	8:A:191:ILE:HG12	2.08	0.53
33:Z:106:TRP:HB2	33:Z:112:LYS:HZ2	1.73	0.53
3:3:129:VAL:CG2	3:3:138:PHE:CZ	2.91	0.53
33:Z:497:PHE:CD2	33:Z:505:VAL:HB	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:P:144:VAL:HG12	23:P:148:LYS:HE3	1.90	0.53
10:C:40:ALA:CA	10:C:184:MET:SD	2.84	0.53
11:D:10:ILE:HG22	11:D:18:PHE:CE2	2.43	0.53
12:E:17:PRO:CA	13:F:24:TYR:CE2	2.89	0.53
33:Z:126:TYR:O	33:Z:127:SER:HB2	2.08	0.53
23:P:97:ILE:O	23:P:101:MET:HG2	2.08	0.53
25:R:179:PHE:HE1	25:R:321:TYR:HH	1.56	0.53
24:Q:4:PRO:HB3	24:Q:50:ARG:NH1	2.23	0.53
27:T:266:TYR:C	27:T:266:TYR:CD1	2.82	0.53
2:2:112:SER:HB2	2:2:127:LEU:HD11	1.89	0.53
3:3:83:SER:HB2	3:3:121:ILE:HD11	1.90	0.53
17:J:370:LEU:HD23	17:J:370:LEU:C	2.29	0.53
5:5:3:THR:HG23	5:5:16:VAL:HG12	1.89	0.53
2:2:72:ARG:NH1	8:A:113:PRO:HB3	2.23	0.53
30:W:186:ALA:HB1	30:W:191:ILE:HG21	1.76	0.53
4:4:81:SER:CA	4:4:124:LYS:NZ	2.68	0.53
25:R:301:TYR:CZ	25:R:305:PHE:CZ	2.94	0.53
11:D:157:SER:HG	11:D:159:TRP:HE1	1.55	0.53
11:D:18:PHE:CG	11:D:19:GLN:N	2.76	0.53
21:N:362:TRP:CH2	29:V:23:THR:HB	2.44	0.53
12:E:207:VAL:CB	15:H:409:ARG:NH1	2.71	0.53
21:N:145:LEU:HD22	21:N:173:LYS:NZ	2.21	0.53
27:T:249:MET:O	27:T:250:MET:CB	2.56	0.53
22:O:80:LYS:HE2	22:O:81:TYR:HE1	1.74	0.53
17:J:153:LEU:O	17:J:157:ILE:HG13	2.08	0.53
1:1:14:LEU:CD1	1:1:100:ALA:HB1	2.32	0.53
1:1:5:ALA:CB	1:1:14:LEU:HG	2.39	0.53
33:Z:493:LEU:CD1	33:Z:497:PHE:CE2	2.88	0.53
13:F:101:ARG:HH12	13:F:103:LEU:HA	1.67	0.53
24:Q:249:LEU:C	24:Q:250:THR:HG22	2.25	0.53
15:H:365:LEU:HD23	15:H:370:ARG:CZ	2.38	0.53
4:4:66:TYR:CZ	10:C:102:TYR:OH	2.61	0.53
25:R:70:TYR:OH	25:R:76:GLN:HA	2.08	0.53
20:M:197:ILE:HG13	20:M:198:VAL:N	2.24	0.53
23:P:426:ILE:HA	23:P:429:ILE:HD12	1.89	0.53
24:Q:99:THR:CG2	24:Q:103:LYS:HE3	2.37	0.53
21:N:117:TYR:CZ	21:N:202:PHE:HB2	2.43	0.53
10:C:209:ASP:OD1	10:C:210:ARG:HG3	2.09	0.53
24:Q:50:ARG:CZ	24:Q:53:GLU:OE1	2.57	0.53
33:Z:915:ALA:HB1	33:Z:983:LEU:CD1	2.38	0.53
25:R:31:PHE:CZ	25:R:320:LYS:HA	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:A:54:ILE:CG2	8:A:210:MET:CE	2.86	0.53
18:K:105:GLN:O	18:K:106:ASN:HB2	2.09	0.53
33:Z:550:PHE:HZ	33:Z:566:LEU:CB	2.13	0.53
33:Z:246:CYS:O	33:Z:250:VAL:HG23	2.08	0.53
16:I:384:LYS:HZ3	16:I:420:LYS:HZ2	0.63	0.53
17:J:234:PHE:HZ	17:J:279:LEU:HD21	1.74	0.53
25:R:237:THR:C	25:R:246:TYR:CE1	2.82	0.53
33:Z:394:TYR:HB3	33:Z:859:LYS:HE3	1.90	0.53
19:L:167:VAL:HG23	20:M:142:PRO:CG	2.33	0.53
21:N:130:ASP:OD2	21:N:132:LYS:HB2	2.09	0.53
6:6:70:HIS:CD2	12:E:111:SER:CB	2.92	0.53
9:B:40:THR:HG21	9:B:182:GLU:HG2	1.91	0.53
17:J:338:THR:O	17:J:341:ILE:HG22	2.08	0.53
26:S:436:ILE:HG23	27:T:197:TYR:CE2	2.43	0.53
33:Z:57:LYS:HE2	33:Z:98:ASP:OD2	2.08	0.53
14:G:136:ILE:HG12	14:G:149:MET:CG	2.39	0.53
14:G:136:ILE:HG12	14:G:149:MET:HG3	1.90	0.53
33:Z:385:PHE:HZ	33:Z:389:PHE:CZ	2.20	0.53
19:L:386:PHE:CD1	19:L:390:ASP:HB3	2.43	0.53
33:Z:846:PHE:CE2	33:Z:901:PHE:HE2	2.27	0.53
9:B:219:PRO:CA	9:B:222:LEU:HD12	2.32	0.53
23:P:431:HIS:CE1	28:U:156:HIS:H	2.27	0.53
23:P:202:LYS:HE2	23:P:206:LYS:HZ2	1.72	0.53
27:T:26:LEU:O	27:T:29:PRO:HD2	2.08	0.53
21:N:223:LEU:CD2	21:N:897:LYS:HB2	2.39	0.53
27:T:119:THR:HG22	27:T:123:HIS:CE1	2.44	0.53
24:Q:201:ALA:HB1	24:Q:218:LEU:HD21	1.89	0.53
12:E:68:VAL:CG1	12:E:93:ARG:NH2	2.71	0.53
17:J:370:LEU:HD23	17:J:370:LEU:O	2.07	0.53
30:W:131:THR:HG23	30:W:134:LYS:HD2	1.89	0.53
16:I:354:ASP:OD1	16:I:357:THR:HG23	2.08	0.53
33:Z:397:ASP:OD1	33:Z:425:ILE:HD12	2.09	0.53
8:A:91:ARG:HH21	14:G:113:ASP:CG	2.11	0.53
15:H:157:VAL:HG12	15:H:159:LEU:H	1.74	0.53
33:Z:249:MET:CE	33:Z:268:ALA:HB2	2.38	0.53
21:N:719:ASN:N	21:N:726:ASP:OD2	2.41	0.53
20:M:75:LEU:HD23	20:M:77:TYR:HB2	1.89	0.53
21:N:221:ASP:HA	21:N:894:ARG:HH12	1.74	0.53
33:Z:809:MET:HG2	33:Z:847:ILE:CD1	2.38	0.53
15:H:358:PRO:HB2	15:H:374:LYS:NZ	2.23	0.53
1:1:66:TYR:CE2	1:1:73:PRO:CB	2.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:P:425:HIS:O	23:P:429:ILE:HG13	2.09	0.53
12:E:219:LEU:HB2	12:E:236:THR:CG2	2.39	0.53
3:3:54:LEU:CD1	3:3:96:VAL:HG11	2.38	0.53
26:S:339:GLN:HA	26:S:342:LEU:HD12	1.91	0.53
1:1:59:VAL:HG21	1:1:82:PHE:CE1	2.44	0.53
21:N:919:THR:HG23	21:N:921:ARG:HG2	1.89	0.53
15:H:200:VAL:HG13	15:H:270:THR:CG2	2.38	0.53
33:Z:609:THR:HG21	33:Z:878:LEU:HD13	1.91	0.53
15:H:224:VAL:O	15:H:228:PRO:HG3	2.07	0.53
10:C:120:GLN:OE1	11:D:80:ALA:HB1	2.09	0.53
15:H:99:VAL:O	15:H:173:ARG:HD3	2.08	0.53
22:O:15:ARG:CB	30:W:20:ASP:OD1	2.57	0.53
33:Z:51:LEU:HB3	33:Z:91:PHE:CZ	2.34	0.53
33:Z:463:HIS:NE2	33:Z:497:PHE:CE1	2.77	0.53
22:O:384:MET:HE3	28:U:190:LEU:HA	1.90	0.53
16:I:193:GLU:O	16:I:346:ARG:NH1	2.42	0.53
33:Z:322:GLU:HG2	33:Z:464:ASP:CG	2.29	0.53
2:2:36:ARG:NH2	2:2:39:PRO:CD	2.72	0.53
21:N:649:VAL:CG1	21:N:651:PHE:CE2	2.91	0.53
33:Z:383:SER:HA	33:Z:849:ARG:HH11	1.74	0.53
18:K:393:ARG:HH21	19:L:345:ARG:NH1	2.06	0.53
20:M:264:ARG:HG2	20:M:311:GLN:HE21	1.74	0.53
22:O:26:PHE:HZ	22:O:64:ASN:ND2	2.05	0.53
29:V:140:VAL:CG1	29:V:156:PHE:HE2	2.22	0.53
30:W:179:ARG:NE	30:W:184:ASN:OD1	2.37	0.53
33:Z:298:PHE:HZ	33:Z:314:LEU:HD22	1.74	0.53
1:1:120:HIS:CE1	7:7:31:VAL:HG22	2.44	0.53
21:N:619:CYS:SG	21:N:655:ALA:HB2	2.49	0.53
5:5:32:LYS:O	5:5:33:ARG:NH1	2.36	0.53
33:Z:419:VAL:HG21	33:Z:447:VAL:HA	1.91	0.53
15:H:385:ARG:HB3	15:H:389:PHE:CE2	2.44	0.53
33:Z:773:ARG:O	33:Z:776:VAL:HG12	2.09	0.53
10:C:41:SER:HB3	10:C:184:MET:CE	2.38	0.53
25:R:110:ILE:HD11	25:R:140:TYR:OH	2.09	0.53
25:R:70:TYR:HE2	25:R:77:SER:H	1.57	0.53
4:4:45:PHE:HB3	4:4:99:VAL:HG11	1.92	0.53
15:H:379:LEU:HD21	15:H:415:THR:HG22	1.89	0.53
19:L:228:LYS:HB2	19:L:349:ILE:HD11	1.90	0.53
24:Q:104:PHE:HE2	24:Q:114:GLN:HA	1.74	0.53
27:T:8:THR:HG23	27:T:61:ILE:CG1	2.38	0.53
26:S:378:GLN:CB	26:S:382:ARG:HH12	2.21	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:553:ARG:HH12	33:Z:595:MET:HE3	1.74	0.53
10:C:98:TYR:CE1	10:C:105:ASP:O	2.62	0.53
30:W:6:THR:HG23	30:W:111:VAL:HG23	1.90	0.53
18:K:423:LYS:HG3	18:K:424:PHE:CD2	2.43	0.53
22:O:188:PHE:CD2	22:O:220:SER:HB3	2.44	0.53
8:A:46:ARG:HD2	8:A:152:PRO:HB2	1.90	0.53
4:4:7:ARG:HH11	4:4:114:GLU:HA	1.74	0.53
33:Z:263:ALA:O	33:Z:267:THR:HG23	2.08	0.53
33:Z:65:GLU:CA	33:Z:111:LEU:HD21	2.38	0.52
24:Q:331:THR:CG2	24:Q:335:PHE:CE2	2.92	0.52
17:J:62:LEU:HD13	18:K:86:VAL:HA	1.90	0.52
18:K:239:GLY:HA2	18:K:242:PHE:CD2	2.44	0.52
26:S:145:PHE:HD2	26:S:152:LEU:CD2	2.21	0.52
15:H:308:PHE:HE1	15:H:351:VAL:HG13	1.73	0.52
5:5:111:THR:HG21	5:5:113:TYR:OH	2.07	0.52
12:E:207:VAL:CB	15:H:409:ARG:HH12	2.22	0.52
21:N:762:ARG:HB2	21:N:769:PRO:HG3	1.90	0.52
18:K:168:ASP:OD1	19:L:315:PHE:CE1	2.62	0.52
8:A:88:PRO:O	14:G:120:GLN:NE2	2.42	0.52
25:R:222:ARG:HA	25:R:224:PHE:CZ	2.45	0.52
3:3:16:CYS:SG	3:3:34:ILE:HD12	2.49	0.52
17:J:206:THR:O	17:J:207:ASP:HB2	2.09	0.52
22:O:245:ASP:HA	22:O:249:ASP:OD1	2.09	0.52
31:X:75:TRP:NE1	31:X:125:MET:CB	2.63	0.52
15:H:284:VAL:N	20:M:254:MET:HB3	2.25	0.52
19:L:312:MET:SD	19:L:342:ARG:HA	2.48	0.52
33:Z:138:ARG:HH12	33:Z:160:GLU:HB3	1.73	0.52
22:O:301:PHE:CZ	28:U:234:ASN:HA	2.43	0.52
19:L:178:ILE:HD12	19:L:183:ILE:HG21	1.91	0.52
19:L:247:PRO:HB3	20:M:303:ARG:NH2	2.24	0.52
17:J:236:MET:O	17:J:240:HIS:HD2	1.91	0.52
5:5:55:TRP:HE1	6:6:89:TYR:HH	0.55	0.52
31:X:14:VAL:HG13	31:X:50:TRP:CZ2	2.44	0.52
27:T:236:ASN:OD1	27:T:238:GLN:HB2	2.10	0.52
14:G:161:GLY:HA3	14:G:175:LEU:HD21	1.90	0.52
2:2:25:ILE:HG21	3:3:138:PHE:HB3	1.92	0.52
33:Z:53:VAL:HG23	33:Z:91:PHE:CD2	2.44	0.52
33:Z:474:LEU:HD23	33:Z:493:LEU:HD23	1.68	0.52
26:S:188:TYR:OH	26:S:240:ASP:HB2	2.09	0.52
33:Z:805:LEU:HD22	33:Z:841:GLU:CG	2.39	0.52
19:L:257:GLY:HA2	19:L:303:ARG:NH2	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:L:170:MET:HG2	19:L:266:MET:CE	2.39	0.52
1:1:18:SER:HB3	1:1:31:THR:HG22	1.91	0.52
12:E:207:VAL:CA	15:H:409:ARG:NH1	2.70	0.52
7:7:-7:GLN:CG	7:7:101:PRO:HD2	2.35	0.52
30:W:172:LEU:CD1	30:W:190:ILE:HB	2.37	0.52
26:S:250:ALA:CB	26:S:279:ILE:HD13	2.39	0.52
10:C:26:LEU:HD23	10:C:153:PRO:CG	2.39	0.52
15:H:174:VAL:HG13	15:H:183:ILE:CG2	2.24	0.52
29:V:180:LEU:O	29:V:181:ASN:HB2	2.10	0.52
33:Z:809:MET:HG2	33:Z:847:ILE:HD12	1.91	0.52
22:O:228:TYR:HE2	22:O:231:GLY:H	1.57	0.52
28:U:37:ILE:CG2	28:U:93:TYR:HD2	2.23	0.52
20:M:129:LEU:HD13	20:M:130:PRO:O	2.09	0.52
29:V:52:LEU:HD12	29:V:69:PHE:CZ	2.45	0.52
21:N:232:LEU:HD12	21:N:237:LEU:CD1	2.40	0.52
7:7:187:PHE:HE1	7:7:205:GLN:C	2.12	0.52
23:P:440:HIS:ND1	28:U:209:GLU:HB3	2.24	0.52
25:R:179:PHE:CE1	25:R:321:TYR:OH	2.62	0.52
16:I:106:ILE:HD13	16:I:160:LEU:HD21	1.89	0.52
23:P:319:GLU:HB3	23:P:323:ASN:OD1	2.09	0.52
16:I:278:ILE:CG2	16:I:325:ILE:HD12	2.39	0.52
22:O:4:ASN:HB2	22:O:39:PHE:CE2	2.44	0.52
20:M:167:VAL:CG2	20:M:269:LEU:HD12	2.39	0.52
22:O:117:ASN:HD22	22:O:167:ILE:HD12	1.74	0.52
18:K:170:THR:HG23	18:K:172:ALA:H	1.74	0.52
3:3:169:ASP:HB2	3:3:172:SER:OG	2.09	0.52
27:T:202:LEU:O	27:T:205:ILE:HG22	2.08	0.52
24:Q:395:GLY:O	24:Q:396:TRP:HD1	1.93	0.52
7:7:138:PHE:CZ	7:7:142:MET:HG3	2.45	0.52
24:Q:122:ILE:HG22	24:Q:126:LYS:HE3	1.90	0.52
21:N:363:ALA:HB2	29:V:182:LYS:HZ3	1.72	0.52
15:H:284:VAL:HG13	20:M:252:VAL:HG12	1.91	0.52
21:N:745:LEU:O	21:N:748:PHE:HD1	1.92	0.52
33:Z:392:LEU:HD11	33:Z:427:GLN:HB3	1.90	0.52
24:Q:250:THR:HG23	24:Q:251:THR:H	1.72	0.52
23:P:333:ALA:HB3	23:P:336:HIS:HB2	1.91	0.52
27:T:89:TYR:CG	27:T:102:LYS:CD	2.92	0.52
19:L:88:TYR:CE1	20:M:62:ILE:CG2	2.92	0.52
19:L:88:TYR:CE1	20:M:62:ILE:HG21	2.45	0.52
16:I:222:TYR:CD1	16:I:348:ILE:O	2.63	0.52
33:Z:886:VAL:CA	33:Z:893:PHE:CE2	2.82	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:M:197:ILE:CB	20:M:322:LYS:HD3	2.32	0.52
8:A:156:LYS:HB3	8:A:166:TYR:CZ	2.43	0.52
21:N:150:LEU:HD21	21:N:173:LYS:HG3	1.90	0.52
33:Z:81:SER:O	33:Z:82:MET:CB	2.57	0.52
21:N:645:THR:HG21	21:N:660:LEU:HD11	1.90	0.52
26:S:237:ILE:HG21	26:S:253:PHE:CZ	2.45	0.52
29:V:135:ARG:NE	29:V:157:ARG:NH1	2.08	0.52
13:F:11:VAL:HA	14:G:129:ARG:HG2	1.91	0.52
15:H:389:PHE:HZ	15:H:419:LEU:CD2	2.18	0.52
33:Z:272:TYR:CE2	33:Z:284:LEU:HD11	2.39	0.52
17:J:219:VAL:CG1	18:K:281:ARG:HD2	2.39	0.52
18:K:242:PHE:C	18:K:243:VAL:HA	2.30	0.52
9:B:139:HIS:CE1	9:B:145:PHE:CZ	2.98	0.52
26:S:230:LYS:NZ	26:S:256:LYS:O	2.37	0.52
16:I:217:LYS:HD3	16:I:343:ARG:HD2	1.91	0.52
20:M:218:ALA:HB3	20:M:324:LEU:HD22	1.92	0.52
15:H:295:PHE:CD1	15:H:339:GLN:HG3	2.44	0.52
6:6:-5:TYR:CD1	6:6:97:TYR:CG	2.97	0.52
4:4:145:HIS:CD2	4:4:146:HIS:CE1	2.96	0.52
24:Q:222:SER:O	24:Q:226:HIS:ND1	2.30	0.52
28:U:54:LEU:CD2	28:U:72:TYR:HD2	2.22	0.52
11:D:34:VAL:HG12	11:D:163:THR:OG1	2.08	0.52
15:H:215:LYS:O	15:H:219:GLU:HG3	2.09	0.52
15:H:302:LYS:HD2	15:H:348:ASN:HD22	1.73	0.52
31:X:87:PHE:HE2	31:X:121:ILE:HG21	1.75	0.52
1:1:14:LEU:CD1	1:1:100:ALA:CB	2.87	0.52
33:Z:518:LEU:HD23	33:Z:523:ALA:O	2.09	0.52
26:S:315:LYS:HD3	26:S:345:TYR:HE1	1.58	0.52
17:J:166:LEU:C	17:J:174:PHE:CE1	2.83	0.52
33:Z:821:GLY:O	33:Z:962:ARG:NH2	2.42	0.52
25:R:266:LEU:HA	25:R:270:VAL:HG21	1.80	0.52
6:6:66:TYR:OH	6:6:73:LYS:HE2	2.10	0.52
27:T:24:GLU:HA	27:T:27:LEU:HD12	1.92	0.52
12:E:98:THR:HG22	12:E:102:TYR:CD2	2.45	0.52
33:Z:612:GLY:CA	33:Z:746:ILE:HG21	2.37	0.52
26:S:311:GLN:NE2	26:S:338:MET:H	2.08	0.52
23:P:287:ASP:HB3	23:P:297:GLU:OE1	2.09	0.52
3:3:26:GLY:HA3	3:3:174:TRP:CE2	2.44	0.52
21:N:602:VAL:HG12	21:N:625:LEU:HD23	1.92	0.52
26:S:257:LEU:HD23	26:S:272:TYR:CZ	2.44	0.52
18:K:395:VAL:HG11	19:L:207:PHE:CD1	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:6:136:LEU:HD21	6:6:185:ARG:HD2	1.90	0.52
33:Z:531:ALA:HA	33:Z:573:LEU:HD21	1.91	0.52
15:H:324:GLY:HA2	20:M:290:ARG:NH2	2.09	0.52
21:N:318:LYS:HA	29:V:180:LEU:CD1	2.40	0.52
21:N:654:GLN:HG3	21:N:698:GLY:HA3	1.90	0.52
16:I:104:LEU:HD21	16:I:149:LEU:C	2.29	0.52
21:N:269:LEU:O	21:N:273:LEU:HG	2.10	0.52
5:5:111:THR:CG2	5:5:113:TYR:CE1	2.92	0.52
17:J:218:LEU:HD11	17:J:229:MET:C	2.30	0.52
27:T:104:LYS:N	27:T:141:LEU:HD13	2.25	0.52
12:E:109:VAL:CG1	12:E:156:PHE:CE1	2.93	0.52
15:H:330:GLN:O	15:H:334:LEU:HG	2.09	0.52
28:U:54:LEU:HD22	28:U:72:TYR:HD2	1.74	0.52
24:Q:220:LEU:HD12	24:Q:239:PHE:CE1	2.45	0.52
10:C:29:ILE:CD1	10:C:153:PRO:HD3	2.40	0.52
33:Z:601:VAL:HB	33:Z:620:LEU:CD2	2.40	0.52
17:J:345:LYS:O	17:J:349:LYS:HG3	2.10	0.52
22:O:150:LEU:HD22	22:O:175:ASN:OD1	2.09	0.52
16:I:204:HIS:CD2	16:I:207:LEU:HD11	2.13	0.52
6:6:58:ARG:CD	6:6:87:LEU:HD22	2.39	0.52
18:K:281:ARG:HD3	18:K:286:THR:HB	1.92	0.52
33:Z:327:GLN:HG3	33:Z:349:THR:O	2.10	0.52
22:O:30:GLU:CD	22:O:58:ARG:NH1	2.63	0.52
2:2:8:PHE:CE1	2:2:11:GLY:CA	2.92	0.52
15:H:412:PRO:HG2	15:H:451:ILE:HG13	1.91	0.52
26:S:425:ARG:NH1	27:T:155:GLY:CA	2.72	0.52
8:A:135:ARG:HH21	14:G:14:PHE:HD2	1.56	0.52
21:N:759:ILE:HG12	21:N:871:MET:SD	2.50	0.52
18:K:209:VAL:HG11	18:K:338:ILE:HD12	1.91	0.52
7:7:49:ILE:HG23	7:7:52:MET:HE3	1.91	0.52
20:M:354:GLU:HG2	20:M:357:ARG:NH2	2.25	0.52
29:V:57:PHE:HE2	29:V:59:ASP:O	1.92	0.52
33:Z:419:VAL:O	33:Z:422:ILE:CG1	2.34	0.52
16:I:380:LEU:HD13	16:I:420:LYS:CE	2.40	0.52
7:7:131:SER:HB3	7:7:134:LEU:HD21	1.91	0.52
23:P:104:LEU:HD13	23:P:115:ARG:HG2	1.90	0.52
10:C:177:GLN:CG	11:D:54:LEU:HD21	2.27	0.52
26:S:141:LEU:O	26:S:145:PHE:CE1	2.62	0.52
22:O:59:LEU:CD2	22:O:85:SER:HB3	2.32	0.52
4:4:26:VAL:CG1	4:4:29:ASP:HB3	2.31	0.52
17:J:329:ARG:HH11	17:J:333:ARG:NH2	2.07	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:F:81:ALA:HB2	13:F:130:VAL:HG21	1.92	0.52
28:U:54:LEU:HD23	28:U:72:TYR:CD2	2.45	0.52
22:O:102:LEU:O	22:O:103:LYS:HG2	2.09	0.52
11:D:146:LYS:HB3	11:D:148:TYR:HE2	1.75	0.52
8:A:252:ASP:HB2	23:P:85:LYS:HE3	1.92	0.51
14:G:122:HIS:NE2	14:G:128:VAL:CG1	2.63	0.51
24:Q:146:TYR:CD1	24:Q:151:TYR:CE1	2.97	0.51
21:N:717:LEU:HD22	21:N:733:LEU:HD12	1.92	0.51
17:J:167:PRO:N	17:J:174:PHE:CE1	2.77	0.51
14:G:111:PHE:HA	14:G:114:ARG:NH2	2.25	0.51
21:N:654:GLN:HE21	21:N:697:PHE:HD2	1.55	0.51
25:R:335:ARG:HA	25:R:371:PHE:CE2	2.45	0.51
28:U:283:ARG:CD	29:V:287:THR:HG22	2.39	0.51
12:E:157:HIS:ND1	12:E:170:LYS:HE2	2.25	0.51
10:C:15:PRO:HB2	16:I:332:GLU:OE1	2.10	0.51
4:4:45:PHE:HB3	4:4:99:VAL:CG1	2.41	0.51
2:2:160:GLN:O	2:2:164:TRP:CD1	2.63	0.51
33:Z:957:LEU:CD1	33:Z:958:ASN:O	2.59	0.51
21:N:273:LEU:O	21:N:277:LEU:CG	2.50	0.51
33:Z:495:ILE:HD11	33:Z:903:MET:HG2	1.92	0.51
26:S:151:GLU:OE1	26:S:154:GLN:N	2.39	0.51
2:2:103:VAL:O	2:2:104:ASP:OD1	2.28	0.51
9:B:94:HIS:HA	9:B:98:LYS:HE2	1.92	0.51
2:2:210:THR:CG2	3:3:160:GLN:HE21	2.22	0.51
30:W:6:THR:HG21	30:W:40:LYS:HZ2	1.75	0.51
23:P:218:LEU:HD22	23:P:256:LYS:NZ	2.25	0.51
28:U:39:GLY:HA2	28:U:49:THR:OG1	2.10	0.51
6:6:13:VAL:HG12	6:6:197:ILE:HG23	1.92	0.51
18:K:421:VAL:O	18:K:422:ASP:HB2	2.09	0.51
1:1:36:ARG:HB2	1:1:42:TRP:CZ3	2.45	0.51
24:Q:302:VAL:HG13	24:Q:314:PHE:CE1	2.45	0.51
33:Z:99:LEU:HB3	33:Z:119:LEU:HD21	1.92	0.51
15:H:331:ARG:CD	20:M:252:VAL:HG11	2.40	0.51
33:Z:443:ASP:CB	33:Z:447:VAL:CB	2.84	0.51
4:4:102:LEU:CD2	4:4:117:GLN:HG2	2.36	0.51
23:P:333:ALA:O	23:P:337:HIS:CD2	2.64	0.51
10:C:41:SER:HB3	10:C:184:MET:HE1	1.92	0.51
33:Z:955:VAL:HG12	33:Z:956:LEU:HG	1.92	0.51
6:6:-2:ASN:OD1	6:6:48:PHE:CD1	2.64	0.51
20:M:394:VAL:HA	20:M:423:GLN:NE2	2.19	0.51
24:Q:114:GLN:HG3	24:Q:144:LEU:HD11	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:O:23:HIS:CE1	22:O:24:PRO:HD2	2.43	0.51
21:N:94:LYS:HE2	21:N:143:LYS:HZ1	1.72	0.51
7:7:6:MET:CE	7:7:150:VAL:HG11	2.40	0.51
9:B:160:LYS:HE2	10:C:56:LEU:HA	1.92	0.51
27:T:111:LEU:HG	27:T:145:PRO:HG3	1.90	0.51
16:I:433:GLU:OE1	16:I:433:GLU:N	2.40	0.51
18:K:160:VAL:HG12	18:K:238:ASN:ND2	2.25	0.51
12:E:154:GLN:HE22	12:E:166:ARG:HH21	1.57	0.51
22:O:189:TYR:CZ	22:O:193:LEU:HD11	2.44	0.51
33:Z:86:PRO:HG2	33:Z:87:LYS:HG3	1.92	0.51
16:I:397:THR:HG22	17:J:312:ARG:HH22	1.75	0.51
33:Z:463:HIS:HA	33:Z:466:GLU:CD	2.31	0.51
33:Z:550:PHE:HE1	33:Z:566:LEU:HB2	1.76	0.51
33:Z:278:LEU:HB3	33:Z:297:VAL:HG11	1.93	0.51
12:E:165:TYR:CB	12:E:167:TYR:OH	2.58	0.51
25:R:121:GLU:HG2	25:R:130:GLN:HE22	1.76	0.51
29:V:53:MET:HE1	29:V:65:VAL:HG21	1.93	0.51
16:I:317:ASP:HB3	16:I:343:ARG:CZ	2.40	0.51
21:N:749:LEU:HD12	21:N:752:SER:OG	2.10	0.51
23:P:241:LEU:CD2	23:P:264:ILE:HG13	2.41	0.51
5:5:58:TRP:CH2	5:5:62:GLN:NE2	2.78	0.51
2:2:75:ARG:HB3	2:2:77:VAL:HG22	1.91	0.51
12:E:196:ALA:O	12:E:200:VAL:HG23	2.11	0.51
1:1:6:VAL:HG13	1:1:142:PHE:CE1	2.46	0.51
21:N:315:ASN:CG	21:N:318:LYS:HZ2	2.11	0.51
22:O:250:TRP:CZ2	22:O:271:LYS:CB	2.94	0.51
15:H:59:ILE:HD11	16:I:92:GLU:OE1	2.06	0.51
33:Z:821:GLY:HA2	33:Z:863:THR:CG2	2.24	0.51
22:O:280:LEU:O	22:O:280:LEU:HD23	2.11	0.51
23:P:344:ARG:NH2	23:P:347:GLU:CD	2.61	0.51
9:B:239:THR:HG22	9:B:240:SER:N	2.25	0.51
13:F:65:LYS:HA	13:F:222:PHE:CE2	2.45	0.51
1:1:11:GLY:CA	1:1:102:TYR:CE1	2.93	0.51
23:P:154:ASP:OD2	23:P:190:LYS:NZ	2.43	0.51
30:W:95:GLN:HA	30:W:98:LEU:HD12	1.91	0.51
5:5:158:LYS:HE3	5:5:196:LEU:CD1	2.40	0.51
33:Z:363:ASP:O	33:Z:366:LYS:HD3	2.10	0.51
22:O:79:VAL:HB	22:O:83:LEU:HD12	1.92	0.51
21:N:308:ASN:CB	21:N:711:ARG:HD2	2.41	0.51
12:E:121:LEU:HD22	13:F:79:PRO:CB	2.41	0.51
23:P:130:ILE:CG2	23:P:136:ARG:NH2	2.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:W:21:PHE:CD1	30:W:25:ARG:HG3	2.44	0.51
33:Z:138:ARG:HH21	33:Z:157:LEU:HD11	1.69	0.51
13:F:7:ASP:CB	13:F:21:GLN:NE2	2.74	0.51
19:L:290:ARG:NH1	19:L:293:GLU:HA	2.24	0.51
14:G:200:TYR:CD1	14:G:246:ILE:HG21	2.46	0.51
26:S:218:LEU:C	26:S:256:LYS:HZ1	2.14	0.51
17:J:218:LEU:CD2	17:J:230:VAL:HG22	2.40	0.51
33:Z:338:HIS:CD2	33:Z:339:PHE:CZ	2.94	0.51
24:Q:88:PHE:CE2	24:Q:89:ALA:HB2	2.46	0.51
8:A:232:LYS:CG	8:A:234:PHE:HE1	2.23	0.51
15:H:49:LEU:HD21	33:Z:759:ARG:HA	1.93	0.51
16:I:220:ILE:HG13	16:I:344:ILE:CG2	2.38	0.51
21:N:508:THR:HG22	21:N:510:HIS:N	2.25	0.51
4:4:65:LEU:CD1	4:4:69:ARG:HE	2.23	0.51
21:N:83:LEU:HD11	21:N:133:LEU:CD2	2.41	0.51
26:S:388:ILE:HG21	26:S:422:MET:CE	2.40	0.51
19:L:214:PRO:HD2	19:L:216:LYS:NZ	2.24	0.51
33:Z:71:LEU:CD2	33:Z:118:VAL:CG1	2.89	0.51
12:E:15:PHE:HD1	12:E:21:LEU:CD1	2.18	0.51
22:O:15:ARG:HH11	22:O:72:LYS:HG2	1.76	0.51
33:Z:497:PHE:CD2	33:Z:505:VAL:HG11	2.45	0.51
24:Q:146:TYR:CZ	24:Q:183:LYS:O	2.64	0.51
26:S:315:LYS:HB2	26:S:345:TYR:OH	2.11	0.51
26:S:399:TYR:CD2	26:S:401:LYS:O	2.50	0.51
22:O:41:LEU:HG	22:O:58:ARG:HG3	1.91	0.51
2:2:36:ARG:CZ	2:2:38:SER:CA	2.88	0.51
19:L:264:ARG:HA	19:L:311:GLN:NE2	2.26	0.51
33:Z:866:VAL:HB	33:Z:873:LEU:CG	2.36	0.51
19:L:196:VAL:HG11	19:L:345:ARG:HE	1.75	0.51
8:A:54:ILE:HD13	8:A:207:ILE:HG13	1.92	0.51
3:3:28:SER:CB	4:4:127:LEU:HD21	2.40	0.51
5:5:179:HIS:HB3	5:5:188:HIS:NE2	2.26	0.51
1:1:55:ILE:HG23	1:1:85:LEU:HD13	1.93	0.51
30:W:76:LEU:O	30:W:79:THR:HG23	2.10	0.51
33:Z:208:VAL:HG11	33:Z:236:PHE:CG	2.44	0.51
33:Z:138:ARG:CZ	33:Z:157:LEU:CD1	2.86	0.51
29:V:168:LEU:CD1	29:V:188:LEU:HG	2.41	0.51
18:K:244:HIS:CD2	19:L:256:ILE:HG23	2.46	0.51
8:A:54:ILE:HD12	8:A:206:ALA:CB	2.41	0.51
19:L:281:ASP:OD2	19:L:282:GLU:HG2	2.11	0.51
33:Z:306:MET:HE2	33:Z:310:LEU:HD21	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:B:184:GLU:HG2	9:B:185:LEU:N	2.26	0.51
27:T:151:TRP:CZ3	27:T:159:LYS:HB3	2.45	0.51
6:6:141:LEU:HD11	6:6:145:VAL:HG21	1.93	0.51
21:N:349:ILE:O	21:N:353:LEU:HD23	2.11	0.51
28:U:83:ILE:HG21	29:V:70:ALA:HB3	1.93	0.51
26:S:157:GLU:HG2	26:S:161:LYS:HE3	1.93	0.51
33:Z:515:SER:O	33:Z:516:THR:OG1	2.10	0.51
33:Z:557:GLU:CD	33:Z:562:TRP:HZ3	2.13	0.51
8:A:205:PHE:HZ	8:A:209:HIS:CE1	2.09	0.51
14:G:106:ILE:HG13	14:G:107:PRO:O	2.11	0.51
33:Z:301:THR:O	33:Z:307:HIS:HE1	1.94	0.51
11:D:19:GLN:CD	11:D:128:PRO:CD	2.79	0.51
18:K:243:VAL:O	18:K:243:VAL:HG12	2.09	0.51
9:B:219:PRO:HA	9:B:222:LEU:CD1	2.33	0.51
33:Z:491:LEU:O	33:Z:495:ILE:HG13	2.11	0.51
33:Z:900:LEU:CD2	33:Z:903:MET:HE2	2.40	0.51
19:L:178:ILE:HD11	19:L:230:LEU:CA	2.41	0.51
23:P:395:ARG:HD2	24:Q:357:VAL:CB	2.41	0.51
25:R:211:LYS:HZ3	25:R:234:SER:HA	1.75	0.51
9:B:248:GLU:OE1	24:Q:95:LYS:HD2	2.11	0.51
4:4:17:SER:HB3	4:4:33:LYS:CD	2.40	0.51
23:P:156:ALA:O	23:P:159:ILE:HG22	2.10	0.51
29:V:266:LEU:HD23	29:V:266:LEU:C	2.30	0.51
33:Z:591:ILE:HG22	33:Z:593:HIS:CD2	2.46	0.51
25:R:168:ILE:HG13	25:R:206:ARG:HH21	1.75	0.51
8:A:164:VAL:HG12	9:B:61:LEU:CD2	2.39	0.51
21:N:235:ALA:HA	21:N:273:LEU:HD21	1.92	0.51
13:F:157:TYR:CZ	14:G:59:VAL:HB	2.45	0.51
13:F:201:LEU:C	13:F:202:ARG:HG3	2.30	0.51
21:N:539:MET:HE2	21:N:551:GLY:HA2	1.90	0.51
25:R:222:ARG:CA	25:R:224:PHE:CE2	2.93	0.51
3:3:57:MET:CE	3:3:89:ARG:NH2	2.74	0.51
7:7:48:ASP:OD1	7:7:50:SER:N	2.43	0.51
21:N:121:GLU:O	21:N:122:GLN:NE2	2.44	0.51
19:L:246:SER:OG	19:L:280:MET:HA	2.11	0.51
16:I:204:HIS:CD2	33:Z:930:GLY:HA2	2.46	0.51
33:Z:493:LEU:CD1	33:Z:497:PHE:CE1	2.84	0.51
33:Z:562:TRP:CD1	33:Z:566:LEU:CG	2.81	0.51
17:J:166:LEU:C	17:J:174:PHE:CZ	2.85	0.51
17:J:248:ASP:O	17:J:249:GLU:HB3	2.11	0.51
24:Q:273:ASN:OD1	24:Q:306:TYR:OH	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:H:308:PHE:CE1	15:H:351:VAL:CG1	2.94	0.51
21:N:207:LEU:HB3	21:N:232:LEU:HD21	1.91	0.51
24:Q:311:LEU:HD21	24:Q:343:LEU:HD13	1.91	0.51
20:M:384:ASP:N	20:M:386:PHE:CE1	2.77	0.51
8:A:117:LEU:CD2	8:A:143:PHE:CE1	2.94	0.51
21:N:70:TYR:CE1	21:N:100:THR:HB	2.46	0.51
13:F:80:ASP:OD2	13:F:128:TYR:O	2.29	0.51
17:J:328:LEU:CD2	17:J:343:LEU:HD22	2.41	0.51
14:G:118:TYR:HE2	14:G:131:PHE:HZ	1.58	0.51
24:Q:391:ASP:OD1	25:R:347:THR:HB	2.11	0.51
22:O:151:ASP:O	22:O:154:GLU:HB2	2.11	0.51
33:Z:443:ASP:CB	33:Z:447:VAL:HB	2.38	0.50
15:H:382:LEU:HD23	15:H:385:ARG:NH1	2.25	0.50
3:3:63:ASN:HB3	10:C:96:GLN:HE22	1.76	0.50
31:X:37:PRO:HA	31:X:46:TRP:CE3	2.46	0.50
21:N:32:VAL:HG11	21:N:67:LYS:HB2	1.94	0.50
1:1:11:GLY:CA	1:1:102:TYR:CD1	2.94	0.50
10:C:38:ILE:HD12	10:C:193:ALA:HB2	1.93	0.50
5:5:179:HIS:CB	5:5:188:HIS:NE2	2.74	0.50
4:4:17:SER:HB3	4:4:33:LYS:HD2	1.93	0.50
3:3:83:SER:CB	3:3:121:ILE:HD11	2.40	0.50
21:N:756:THR:HB	21:N:900:ASN:ND2	2.26	0.50
8:A:15:HIS:HB3	10:C:6:TYR:CE1	2.46	0.50
33:Z:96:TYR:HB3	33:Z:97:PRO:HD3	1.93	0.50
18:K:100:LEU:HB3	18:K:109:ILE:O	2.12	0.50
22:O:30:GLU:CD	22:O:58:ARG:HH11	2.14	0.50
12:E:165:TYR:CD2	20:M:434:ALA:HB2	2.46	0.50
21:N:579:SER:HA	21:N:584:ARG:CZ	2.41	0.50
21:N:599:TYR:CE1	21:N:634:LEU:HD22	2.46	0.50
16:I:208:TYR:CE1	16:I:209:GLU:CG	2.91	0.50
27:T:229:VAL:HG12	27:T:230:ASN:H	1.75	0.50
8:A:203:VAL:O	8:A:207:ILE:HG13	2.12	0.50
3:3:57:MET:O	3:3:61:LYS:HG3	2.11	0.50
5:5:76:VAL:CG2	5:5:103:GLY:HA3	2.41	0.50
26:S:203:SER:O	26:S:204:ASP:CB	2.60	0.50
21:N:521:LEU:HD23	21:N:524:ILE:HD12	1.92	0.50
24:Q:146:TYR:HE1	24:Q:184:VAL:CA	2.05	0.50
26:S:315:LYS:HZ3	26:S:345:TYR:HD1	1.50	0.50
16:I:255:LYS:HG3	18:K:284:ALA:O	2.11	0.50
21:N:138:GLU:HG2	21:N:162:ARG:HH12	1.76	0.50
20:M:196:ALA:HA	20:M:345:ARG:HH21	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:D:7:ALA:N	12:E:125:GLU:OE1	2.44	0.50
8:A:156:LYS:CB	8:A:166:TYR:CE1	2.87	0.50
21:N:749:LEU:HD23	21:N:753:PHE:CZ	2.46	0.50
23:P:274:GLY:N	23:P:277:GLN:HE21	2.09	0.50
27:T:229:VAL:HB	27:T:234:TYR:CE1	2.44	0.50
25:R:338:TYR:CD1	25:R:377:LEU:HD13	2.46	0.50
3:3:57:MET:HE2	3:3:89:ARG:NH2	2.26	0.50
15:H:208:TYR:CD1	15:H:211:VAL:HG11	2.46	0.50
22:O:146:ALA:O	22:O:150:LEU:HG	2.12	0.50
1:1:42:TRP:CD1	1:1:178:LEU:HD11	2.46	0.50
2:2:217:ILE:HG22	3:3:187:VAL:HG22	1.93	0.50
15:H:172:MET:HG3	16:I:129:TYR:HD2	1.69	0.50
21:N:406:TYR:HE1	21:N:448:LEU:HB3	1.73	0.50
15:H:155:PHE:CE2	20:M:76:PRO:CB	2.95	0.50
33:Z:301:THR:C	33:Z:307:HIS:CE1	2.84	0.50
33:Z:303:ASP:C	33:Z:307:HIS:HD2	2.15	0.50
3:3:60:TYR:CE2	10:C:96:GLN:HB2	2.45	0.50
14:G:168:ARG:NE	14:G:172:LYS:HZ2	2.06	0.50
15:H:358:PRO:HA	15:H:361:LEU:HD12	1.92	0.50
18:K:67:TYR:OH	21:N:609:LEU:HD21	2.12	0.50
23:P:425:HIS:CA	28:U:228:LYS:HZ1	2.25	0.50
23:P:101:MET:CE	23:P:119:ILE:HD11	2.42	0.50
21:N:771:PHE:HE2	21:N:773:MET:HG2	1.73	0.50
26:S:288:THR:CG2	26:S:292:TYR:HE2	2.24	0.50
28:U:275:VAL:C	28:U:278:ILE:HG22	2.27	0.50
23:P:203:ILE:CG2	23:P:220:TYR:CZ	2.95	0.50
21:N:536:ILE:HD13	21:N:555:ILE:HG13	1.89	0.50
3:3:155:PHE:CE1	3:3:189:ARG:CD	2.88	0.50
27:T:220:PHE:HB3	27:T:224:ARG:NH1	2.27	0.50
7:7:103:TRP:CG	7:7:103:TRP:O	2.60	0.50
8:A:229:THR:OG1	8:A:232:LYS:HG3	2.12	0.50
26:S:316:LEU:O	26:S:320:ILE:HG13	2.12	0.50
16:I:228:GLY:O	16:I:232:LEU:HG	2.12	0.50
16:I:174:ASP:CG	17:J:282:PHE:HB2	2.31	0.50
26:S:315:LYS:NZ	26:S:345:TYR:HE1	2.06	0.50
14:G:111:PHE:HD1	14:G:114:ARG:CZ	2.19	0.50
31:X:72:GLU:O	31:X:91:PHE:CD2	2.64	0.50
9:B:139:HIS:HD2	9:B:234:ARG:NE	2.09	0.50
24:Q:39:SER:OG	24:Q:88:PHE:HB2	2.11	0.50
21:N:16:ASN:HA	21:N:21:LYS:NZ	2.27	0.50
3:3:100:VAL:HG21	3:3:115:PHE:CE1	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:298:PHE:CZ	33:Z:314:LEU:HD22	2.46	0.50
21:N:756:THR:HB	21:N:900:ASN:HD22	1.77	0.50
5:5:101:ILE:HD12	5:5:115:VAL:HG21	1.93	0.50
21:N:50:TYR:CD1	21:N:62:ALA:HB2	2.47	0.50
6:6:49:ALA:HB3	7:7:127:VAL:HG22	1.92	0.50
33:Z:577:GLN:O	33:Z:580:GLN:HG2	2.12	0.50
19:L:412:PRO:O	19:L:416:MET:HG3	2.11	0.50
22:O:30:GLU:HG2	22:O:58:ARG:CZ	2.42	0.50
18:K:241:GLU:HA	19:L:303:ARG:HH12	1.74	0.50
19:L:178:ILE:HD11	19:L:230:LEU:HA	1.93	0.50
9:B:249:ALA:HB1	24:Q:94:VAL:HG12	1.93	0.50
15:H:295:PHE:CZ	15:H:336:LEU:CD1	2.91	0.50
9:B:75:TYR:HB3	9:B:134:LEU:HD23	1.91	0.50
6:6:1:GLY:C	6:6:46:ASN:HD21	2.15	0.50
26:S:327:ILE:HG21	26:S:349:THR:CG2	2.42	0.50
17:J:247:MET:CE	17:J:272:MET:HG3	2.42	0.50
7:7:77:GLU:O	7:7:77:GLU:HG3	2.12	0.50
33:Z:433:LEU:HD13	33:Z:468:GLU:HB3	1.93	0.50
33:Z:64:TYR:HE2	33:Z:111:LEU:HB3	1.74	0.50
21:N:492:THR:CA	21:N:528:ARG:HH11	2.24	0.50
20:M:75:LEU:HD22	20:M:77:TYR:H	1.77	0.50
14:G:193:LYS:HE2	14:G:241:PHE:CB	2.23	0.50
33:Z:79:THR:O	33:Z:80:SER:HB3	2.11	0.50
4:4:143:LEU:CD2	4:4:159:LEU:HD21	2.42	0.50
19:L:289:ARG:NH1	19:L:333:LEU:C	2.63	0.50
18:K:98:GLN:NE2	18:K:136:SER:CB	2.69	0.50
19:L:178:ILE:CD1	19:L:230:LEU:CD2	2.87	0.50
13:F:43:HIS:CD2	13:F:218:LYS:H	2.29	0.50
20:M:203:ARG:HB3	20:M:206:LYS:HD2	1.94	0.50
23:P:152:LYS:HD3	23:P:155:GLU:OE1	2.12	0.50
25:R:417:TYR:OH	28:U:292:ILE:CG2	2.60	0.50
6:6:17:ASP:OD2	6:6:189:VAL:HG22	2.12	0.50
16:I:395:MET:HE2	16:I:420:LYS:CE	2.35	0.50
29:V:292:ILE:O	29:V:296:LEU:HG	2.12	0.50
24:Q:61:LEU:CD2	24:Q:65:TYR:CZ	2.94	0.50
22:O:30:GLU:CB	22:O:58:ARG:NH1	2.75	0.50
23:P:160:LEU:HD12	23:P:186:LEU:HD12	1.93	0.50
1:1:-8:LYS:HZ1	2:2:117:GLY:CA	2.24	0.50
18:K:159:SER:HG	18:K:244:HIS:CE1	2.18	0.50
23:P:343:LYS:O	23:P:347:GLU:HG3	2.12	0.50
24:Q:38:SER:HG	24:Q:88:PHE:HE1	1.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:38:SER:OG	24:Q:88:PHE:CD1	2.51	0.50
27:T:247:ASP:CG	27:T:248:GLU:H	2.13	0.50
33:Z:850:LEU:C	33:Z:850:LEU:HD23	2.31	0.50
8:A:130:GLN:HG2	9:B:128:ARG:HG2	1.93	0.50
8:A:18:ILE:HA	9:B:128:ARG:HH11	1.76	0.50
4:4:106:TYR:CE1	4:4:185:LYS:HA	2.47	0.50
26:S:242:LEU:HD13	26:S:278:LYS:HD3	1.93	0.50
26:S:250:ALA:HB2	26:S:279:ILE:HD13	1.94	0.50
21:N:353:LEU:N	21:N:354:PRO:CD	2.75	0.50
24:Q:9:GLU:HG2	24:Q:13:ARG:NH1	2.26	0.50
33:Z:405:ASN:O	33:Z:409:LYS:HG3	2.12	0.50
21:N:84:ALA:O	21:N:86:LYS:HG3	2.11	0.50
18:K:55:GLU:O	18:K:59:GLU:HG3	2.11	0.50
15:H:147:ILE:HD12	15:H:181:TYR:CB	2.40	0.49
33:Z:562:TRP:CZ2	33:Z:566:LEU:HD21	2.46	0.49
33:Z:442:VAL:O	33:Z:443:ASP:HB2	2.12	0.49
22:O:250:TRP:NE1	22:O:269:LEU:O	2.44	0.49
22:O:195:TYR:CD2	22:O:213:LEU:HD22	2.46	0.49
21:N:221:ASP:HB3	21:N:894:ARG:HH22	1.77	0.49
11:D:193:LYS:HG3	11:D:197:ARG:HH12	1.72	0.49
30:W:139:VAL:CG1	30:W:157:PHE:HE2	2.18	0.49
18:K:241:GLU:HA	19:L:303:ARG:HH11	1.75	0.49
10:C:147:GLN:HB3	10:C:149:TYR:CE1	2.47	0.49
15:H:295:PHE:CE1	15:H:336:LEU:HD12	2.47	0.49
21:N:304:LEU:HD23	21:N:343:THR:O	2.12	0.49
4:4:103:ILE:HD12	4:4:118:ILE:CD1	2.40	0.49
17:J:363:THR:HA	18:K:203:ILE:HD11	1.93	0.49
33:Z:850:LEU:CD2	33:Z:854:LEU:CD1	2.89	0.49
25:R:258:LEU:HD11	25:R:288:SER:HA	1.94	0.49
22:O:199:LEU:HD12	22:O:203:THR:O	2.11	0.49
3:3:-2:ASN:HD21	3:3:48:ALA:N	2.09	0.49
7:7:1:THR:H	7:7:19:LEU:HD23	1.77	0.49
23:P:77:GLU:O	23:P:81:LEU:HG	2.12	0.49
21:N:174:LEU:HD12	21:N:182:ASN:CG	2.33	0.49
15:H:172:MET:HB3	16:I:129:TYR:HD2	1.48	0.49
33:Z:165:TYR:CE1	33:Z:196:SER:HB3	2.47	0.49
1:1:83:LYS:HZ2	1:1:117:GLY:C	2.15	0.49
33:Z:502:ASN:O	33:Z:505:VAL:HG22	2.11	0.49
33:Z:557:GLU:OE1	33:Z:562:TRP:HE3	1.95	0.49
27:T:1:MET:HB3	27:T:9:LYS:NZ	2.27	0.49
15:H:385:ARG:O	15:H:389:PHE:CD2	2.65	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:N:515:ARG:NH2	21:N:741:TYR:CD2	2.80	0.49
11:D:13:PRO:HB3	12:E:26:TYR:CZ	2.46	0.49
25:R:164:THR:HG21	25:R:199:GLU:OE1	2.11	0.49
11:D:236:ILE:CG2	11:D:240:LYS:HE3	2.42	0.49
5:5:159:ARG:NH1	5:5:204:GLU:HB2	2.27	0.49
21:N:338:PHE:CE1	21:N:749:LEU:HB3	2.47	0.49
21:N:223:LEU:HD22	21:N:897:LYS:HB2	1.92	0.49
24:Q:50:ARG:HH21	24:Q:53:GLU:HB2	1.74	0.49
33:Z:761:PHE:CG	33:Z:780:MET:HE2	2.46	0.49
4:4:37:LEU:HD12	4:4:60:GLN:HA	1.94	0.49
1:1:112:THR:HG22	7:7:27:ARG:NH2	2.27	0.49
28:U:52:PHE:CD2	28:U:72:TYR:HE2	2.30	0.49
18:K:170:THR:N	18:K:173:ASP:OD2	2.37	0.49
14:G:68:VAL:HG12	14:G:69:VAL:N	2.28	0.49
18:K:329:LEU:HA	18:K:334:LEU:HD23	1.93	0.49
17:J:143:PRO:HB2	17:J:204:HIS:HB2	1.93	0.49
33:Z:205:LEU:HA	33:Z:236:PHE:HZ	1.77	0.49
28:U:46:ILE:HG21	28:U:119:LEU:HD22	1.92	0.49
23:P:241:LEU:HD23	23:P:264:ILE:HG13	1.93	0.49
6:6:141:LEU:HD12	6:6:145:VAL:HG23	1.95	0.49
28:U:54:LEU:CD2	28:U:72:TYR:CD2	2.96	0.49
1:1:55:ILE:HG23	1:1:85:LEU:CD1	2.42	0.49
13:F:152:ASN:ND2	14:G:81:ILE:HD12	2.26	0.49
17:J:142:VAL:HG12	17:J:142:VAL:O	2.12	0.49
11:D:31:THR:OG1	11:D:76:SER:HA	2.12	0.49
21:N:720:ALA:O	21:N:721:ASP:CG	2.50	0.49
33:Z:168:GLN:CD	33:Z:195:PHE:CE1	2.86	0.49
30:W:9:VAL:HA	30:W:52:ILE:HG13	1.94	0.49
22:O:384:MET:HE3	28:U:190:LEU:CA	2.42	0.49
22:O:41:LEU:CD2	22:O:62:TYR:HB2	2.42	0.49
18:K:346:ARG:CG	18:K:349:ARG:NH2	2.61	0.49
20:M:338:LEU:HD21	20:M:346:LYS:NZ	2.27	0.49
11:D:193:LYS:HE2	11:D:197:ARG:NH2	2.27	0.49
20:M:129:LEU:HD21	20:M:155:ILE:HG13	1.95	0.49
29:V:52:LEU:HD12	29:V:69:PHE:HZ	1.77	0.49
30:W:35:PHE:CE2	30:W:182:TYR:CE2	3.00	0.49
25:R:338:TYR:CZ	25:R:368:LEU:HD11	2.48	0.49
20:M:289:LYS:HD3	20:M:305:MET:HE2	1.94	0.49
17:J:29:GLU:O	17:J:32:LEU:HB3	2.12	0.49
29:V:84:ASP:OD2	29:V:87:PHE:HB2	2.12	0.49
7:7:8:TYR:CE2	7:7:10:ASN:C	2.85	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:109:HIS:HB3	2:2:111:PHE:HE2	1.77	0.49
15:H:307:PHE:CE2	15:H:309:ASP:OD1	2.66	0.49
23:P:292:LYS:HG2	23:P:320:PRO:HB2	1.93	0.49
33:Z:532:HIS:O	33:Z:535:VAL:HG23	2.11	0.49
33:Z:486:SER:O	33:Z:490:ILE:CG1	2.25	0.49
17:J:162:GLU:HG2	17:J:166:LEU:HD12	1.94	0.49
6:6:31:GLU:CD	7:7:129:TYR:HA	2.33	0.49
33:Z:957:LEU:C	33:Z:957:LEU:HD12	2.32	0.49
15:H:274:VAL:HG21	15:H:308:PHE:CE2	2.48	0.49
15:H:351:VAL:HG11	15:H:353:PHE:CE1	2.37	0.49
16:I:340:ARG:NH1	16:I:343:ARG:HG3	2.26	0.49
24:Q:353:PRO:C	24:Q:354:PHE:CD1	2.86	0.49
1:1:123:PRO:HG2	1:1:124:TYR:CD1	2.47	0.49
8:A:148:GLU:OE2	8:A:230:LYS:HG3	2.12	0.49
33:Z:295:ARG:NH2	33:Z:325:GLY:HA3	2.27	0.49
33:Z:294:ILE:O	33:Z:298:PHE:CD2	2.65	0.49
21:N:340:HIS:HB2	21:N:374:ILE:HG12	1.92	0.49
29:V:254:ARG:O	29:V:258:GLU:HG3	2.13	0.49
5:5:1:THR:HA	5:5:17:ASP:OD2	2.13	0.49
11:D:181:ARG:NH1	12:E:57:PRO:O	2.45	0.49
24:Q:176:ASP:O	24:Q:180:LEU:HG	2.12	0.49
16:I:126:PRO:CG	16:I:154:MET:CE	2.77	0.49
33:Z:463:HIS:CE1	33:Z:497:PHE:CD1	3.01	0.49
22:O:250:TRP:CZ2	22:O:271:LYS:HG2	2.47	0.49
24:Q:246:TYR:HA	24:Q:249:LEU:HD12	1.93	0.49
21:N:162:ARG:CZ	21:N:165:ILE:CD1	2.91	0.49
3:3:100:VAL:HG21	3:3:115:PHE:HE1	1.78	0.49
9:B:94:HIS:HA	9:B:98:LYS:CE	2.43	0.49
2:2:113:ILE:HG12	2:2:119:THR:HG22	1.93	0.49
16:I:117:HIS:O	16:I:118:ALA:HB2	2.12	0.49
23:P:237:VAL:CG1	23:P:267:PHE:CE2	2.95	0.49
18:K:280:LYS:HZ1	18:K:296:LEU:CD2	2.19	0.49
28:U:67:PHE:CE1	30:W:97:THR:HG23	2.47	0.49
2:2:59:ILE:O	2:2:63:ILE:HG12	2.13	0.49
7:7:144:ASN:O	7:7:148:ARG:HG3	2.13	0.49
5:5:159:ARG:NH2	5:5:203:GLU:OE1	2.45	0.49
3:3:109:LYS:CE	3:3:125:LYS:NZ	2.76	0.49
27:T:32:ILE:HA	27:T:35:ILE:HD12	1.95	0.49
19:L:165:PRO:HB3	19:L:269:TYR:CE2	2.48	0.49
15:H:392:HIS:CE1	15:H:420:ARG:CG	2.94	0.49
27:T:228:ILE:HG22	27:T:229:VAL:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:B:159:TRP:CE2	10:C:57:LEU:HD13	2.48	0.49
21:N:642:ASP:HB2	21:N:643:PRO:CD	2.42	0.49
22:O:188:PHE:HD2	22:O:220:SER:HB3	1.77	0.49
7:7:-3:VAL:HG23	7:7:49:ILE:H	1.76	0.49
19:L:133:ASN:ND2	28:U:86:LYS:NZ	2.60	0.49
24:Q:64:LEU:O	24:Q:68:MET:HG2	2.13	0.49
23:P:90:LYS:HE3	23:P:129:LYS:HB3	1.95	0.49
17:J:337:LEU:O	25:R:204:TRP:NE1	2.46	0.49
18:K:281:ARG:NH1	18:K:287:GLY:O	2.46	0.49
22:O:384:MET:HE1	28:U:189:ARG:CB	2.43	0.49
14:G:98:PHE:CE2	14:G:104:THR:HG23	2.47	0.49
24:Q:273:ASN:CB	24:Q:306:TYR:OH	2.59	0.49
16:I:193:GLU:OE1	16:I:348:ILE:HG12	2.12	0.49
12:E:165:TYR:HE2	20:M:433:TYR:O	1.96	0.49
17:J:151:GLY:HA3	17:J:326:GLU:HG3	1.95	0.49
4:4:37:LEU:HD12	4:4:60:GLN:HG2	1.95	0.49
20:M:159:LEU:HB3	20:M:160:PRO:HD2	1.94	0.49
21:N:657:MET:CB	21:N:682:PHE:CE1	2.95	0.49
21:N:83:LEU:HD11	21:N:133:LEU:HD21	1.95	0.49
2:2:73:GLU:O	2:2:75:ARG:NH1	2.45	0.49
25:R:417:TYR:CZ	28:U:292:ILE:CG2	2.95	0.49
31:X:73:THR:HB	31:X:129:LEU:HD11	1.94	0.49
18:K:353:PHE:HD1	18:K:387:MET:SD	2.36	0.49
25:R:356:ALA:O	32:Y:89:GLN:NE2	2.46	0.49
23:P:308:LEU:HD21	23:P:346:ILE:HA	1.95	0.49
21:N:447:SER:HA	21:N:450:ILE:HG22	1.94	0.49
23:P:203:ILE:CG1	23:P:220:TYR:CZ	2.90	0.49
33:Z:889:VAL:HG23	33:Z:891:PRO:HD2	1.93	0.49
2:2:160:GLN:NE2	2:2:164:TRP:CE2	2.80	0.49
26:S:343:LEU:HD12	26:S:347:HIS:CE1	2.48	0.49
19:L:117:TYR:CE1	19:L:131:VAL:HG13	2.44	0.49
24:Q:59:LEU:HD13	24:Q:103:LYS:HG2	1.95	0.49
33:Z:924:LYS:HZ3	33:Z:993:GLU:HG3	1.74	0.49
5:5:145:LYS:HB3	5:5:148:LEU:HG	1.95	0.49
23:P:392:LYS:HG2	24:Q:354:PHE:CD2	2.47	0.49
27:T:131:LYS:H	27:T:135:ASN:ND2	2.11	0.49
19:L:231:LEU:O	19:L:235:VAL:HG23	2.13	0.49
15:H:246:ILE:HD11	15:H:352:MET:HG2	1.95	0.49
33:Z:99:LEU:HB2	33:Z:119:LEU:HD21	1.94	0.49
25:R:175:ALA:HB2	25:R:209:ARG:HD3	1.94	0.49
18:K:216:GLY:HA3	19:L:342:ARG:HH22	1.75	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:S:399:TYR:HB3	26:S:402:ILE:HD13	1.94	0.49
6:6:31:GLU:OE1	7:7:129:TYR:HB2	2.12	0.49
20:M:59:LEU:O	20:M:62:ILE:HG22	2.13	0.49
11:D:7:ALA:CB	12:E:125:GLU:OE2	2.53	0.49
1:1:1:THR:HG22	1:1:1:THR:O	2.13	0.49
33:Z:371:SER:HB3	33:Z:399:LEU:HD13	1.95	0.49
12:E:45:GLY:HA2	12:E:153:TYR:CE1	2.47	0.49
1:1:120:HIS:CB	7:7:28:PHE:CE1	2.95	0.49
25:R:113:LEU:HD22	25:R:136:ASN:HB3	1.94	0.49
17:J:56:ARG:NH2	21:N:611:LYS:O	2.42	0.49
23:P:48:GLN:HE22	23:P:86:HIS:CG	2.31	0.49
21:N:447:SER:O	21:N:450:ILE:HG22	2.13	0.48
33:Z:546:ILE:HG22	33:Z:550:PHE:CD2	2.48	0.48
29:V:168:LEU:HD11	29:V:188:LEU:HG	1.95	0.48
23:P:72:TRP:HH2	23:P:103:TYR:HB2	1.56	0.48
18:K:242:PHE:C	18:K:244:HIS:N	2.66	0.48
33:Z:74:SER:HB3	33:Z:79:THR:CG2	2.42	0.48
11:D:6:ARG:HH12	13:F:123:TYR:CB	2.26	0.48
20:M:82:VAL:HG11	20:M:140:LEU:HB3	1.95	0.48
33:Z:290:GLU:HB3	33:Z:293:MET:HG3	1.95	0.48
15:H:65:GLU:O	15:H:69:VAL:CG2	2.52	0.48
19:L:228:LYS:HB2	19:L:349:ILE:CD1	2.43	0.48
28:U:293:GLU:CG	29:V:277:LYS:HE3	2.43	0.48
17:J:177:LEU:HD23	17:J:179:ILE:HB	1.95	0.48
3:3:-2:ASN:ND2	3:3:48:ALA:H	2.11	0.48
8:A:104:PHE:CD1	8:A:108:TYR:CD2	3.01	0.48
17:J:286:LYS:HE3	17:J:289:LYS:NZ	2.28	0.48
12:E:184:LEU:HD13	13:F:56:LEU:HG	1.94	0.48
15:H:418:GLU:O	15:H:422:VAL:HG23	2.13	0.48
9:B:250:LEU:HD22	24:Q:132:PHE:CZ	2.48	0.48
15:H:172:MET:C	16:I:129:TYR:CZ	2.71	0.48
33:Z:103:TYR:HE1	33:Z:116:ALA:CB	2.25	0.48
23:P:306:ASN:O	23:P:306:ASN:OD1	2.31	0.48
23:P:311:TRP:CD1	23:P:345:VAL:HG21	2.48	0.48
17:J:210:PHE:CE2	17:J:212:ARG:HG3	2.48	0.48
17:J:186:ILE:CG2	17:J:313:LYS:HG2	2.44	0.48
12:E:157:HIS:CE1	12:E:159:GLU:OE2	2.65	0.48
19:L:125:PRO:HG2	19:L:127:TYR:OH	2.13	0.48
19:L:357:ARG:HB3	19:L:361:PHE:HE2	1.77	0.48
1:1:98:ILE:CD1	1:1:127:ALA:HB3	2.37	0.48
24:Q:141:LEU:HG	24:Q:145:HIS:HD2	1.74	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:D:120:TYR:CD2	11:D:129:PHE:CE1	3.01	0.48
19:L:193:LEU:HD21	19:L:347:VAL:HG21	1.94	0.48
16:I:362:LEU:CD2	16:I:377:LEU:CD2	2.91	0.48
4:4:63:ILE:HD11	4:4:82:PHE:CD2	2.48	0.48
20:M:167:VAL:HG23	20:M:269:LEU:CD1	2.43	0.48
24:Q:239:PHE:CE2	24:Q:264:TYR:HB3	2.48	0.48
31:X:120:GLU:O	31:X:124:LYS:HG3	2.13	0.48
19:L:92:GLU:CG	20:M:65:ASN:HD21	2.26	0.48
19:L:140:LEU:HD21	19:L:158:ILE:HD11	1.94	0.48
33:Z:781:GLY:HA2	33:Z:818:CYS:SG	2.54	0.48
12:E:35:SER:OG	12:E:53:ARG:NE	2.35	0.48
15:H:171:GLY:O	16:I:129:TYR:CE1	2.66	0.48
33:Z:56:LEU:HD23	33:Z:68:LEU:CD2	2.41	0.48
25:R:130:GLN:NE2	25:R:134:TRP:NE1	2.48	0.48
9:B:66:LEU:CD1	9:B:235:PHE:CE2	2.87	0.48
17:J:326:GLU:OE2	17:J:329:ARG:NH2	2.43	0.48
21:N:223:LEU:O	21:N:227:LYS:HG3	2.13	0.48
23:P:425:HIS:CG	28:U:228:LYS:HZ1	2.31	0.48
27:T:108:LEU:HD23	27:T:174:PHE:HE1	1.76	0.48
2:2:210:THR:HG23	3:3:160:GLN:NE2	2.27	0.48
12:E:14:THR:HG22	12:E:22:PHE:HE2	1.78	0.48
16:I:290:LYS:CE	16:I:336:PRO:HD3	2.43	0.48
24:Q:164:GLU:O	24:Q:168:LEU:HB2	2.12	0.48
12:E:121:LEU:HD22	13:F:79:PRO:HB3	1.95	0.48
4:4:40:HIS:CE1	4:4:108:LYS:HD3	2.49	0.48
19:L:169:ASN:HD22	19:L:262:ILE:HD13	1.79	0.48
21:N:776:TYR:HD2	21:N:881:TYR:HB3	1.77	0.48
1:1:143:ARG:HG2	1:1:144:GLU:O	2.14	0.48
6:6:91:LYS:O	6:6:96:TYR:CE1	2.66	0.48
33:Z:321:PHE:CZ	33:Z:349:THR:O	2.67	0.48
15:H:101:ARG:NH2	15:H:150:LYS:HD3	2.27	0.48
8:A:158:ASP:OD2	8:A:162:TYR:HB3	2.13	0.48
18:K:71:GLU:OE2	21:N:576:VAL:CG2	2.55	0.48
24:Q:141:LEU:CG	24:Q:145:HIS:NE2	2.76	0.48
28:U:293:GLU:HG2	29:V:277:LYS:HE3	1.94	0.48
26:S:425:ARG:HH12	27:T:155:GLY:N	2.11	0.48
13:F:49:LEU:CD2	13:F:201:LEU:HD21	2.43	0.48
17:J:146:THR:HG22	17:J:149:MET:HB2	1.95	0.48
27:T:220:PHE:HB3	27:T:224:ARG:HH12	1.78	0.48
33:Z:481:PRO:O	33:Z:482:ASP:HB2	2.13	0.48
16:I:141:LEU:HD21	16:I:159:VAL:HB	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:H:246:ILE:HD11	15:H:352:MET:CE	2.42	0.48
26:S:390:THR:HA	26:S:393:ARG:NH1	2.29	0.48
12:E:70:ILE:HD12	12:E:74:ILE:HG22	1.95	0.48
30:W:20:ASP:HB2	30:W:25:ARG:CZ	2.43	0.48
31:X:87:PHE:CE2	31:X:121:ILE:HG21	2.47	0.48
31:X:121:ILE:O	31:X:125:MET:HG2	2.13	0.48
29:V:181:ASN:C	29:V:182:LYS:HG2	2.34	0.48
16:I:384:LYS:CD	16:I:420:LYS:HD2	2.37	0.48
13:F:159:THR:HA	13:F:169:LYS:CE	2.40	0.48
23:P:332:GLU:O	23:P:333:ALA:HB2	2.14	0.48
27:T:89:TYR:CE1	27:T:102:LYS:HB2	2.49	0.48
20:M:72:ASN:HB3	20:M:156:LEU:HD22	1.94	0.48
21:N:183:VAL:HG21	21:N:221:ASP:OD2	2.13	0.48
16:I:172:LYS:CD	17:J:231:ARG:HH12	2.27	0.48
15:H:428:MET:CG	16:I:346:ARG:HH21	2.24	0.48
25:R:70:TYR:O	25:R:70:TYR:CG	2.63	0.48
24:Q:165:PHE:CE2	24:Q:173:SER:OG	2.60	0.48
29:V:186:GLN:HG2	29:V:190:HIS:CD2	2.48	0.48
30:W:133:LYS:HE3	30:W:163:ASN:ND2	2.22	0.48
8:A:117:LEU:HD23	8:A:143:PHE:CE1	2.49	0.48
3:3:64:LEU:CD1	10:C:92:ARG:HB3	2.43	0.48
28:U:24:ARG:HH22	29:V:66:VAL:CG1	2.27	0.48
17:J:32:LEU:HD22	26:S:225:HIS:CE1	2.49	0.48
10:C:29:ILE:HD11	10:C:153:PRO:HD3	1.95	0.48
26:S:451:ILE:O	26:S:452:TYR:HB2	2.13	0.48
20:M:207:PHE:CD2	20:M:212:ILE:HD11	2.49	0.48
19:L:371:THR:HG21	19:L:411:ASN:HD22	1.78	0.48
11:D:64:VAL:HG11	11:D:213:THR:HG21	1.95	0.48
1:1:126:ILE:HD12	1:1:131:SER:O	2.13	0.48
23:P:308:LEU:HD12	23:P:349:ASN:OD1	2.08	0.48
25:R:209:ARG:NE	25:R:243:LEU:HD22	2.19	0.48
13:F:101:ARG:HH11	13:F:103:LEU:HA	1.65	0.48
17:J:200:ARG:HG2	17:J:210:PHE:CD2	2.48	0.48
25:R:331:ARG:O	25:R:371:PHE:CZ	2.66	0.48
4:4:72:TYR:OH	4:4:109:LYS:HB3	2.13	0.48
6:6:77:ILE:HD11	6:6:102:ILE:HB	1.95	0.48
33:Z:924:LYS:HA	33:Z:959:HIS:HD2	1.79	0.48
24:Q:50:ARG:NH2	24:Q:53:GLU:HB2	2.29	0.48
21:N:657:MET:HG2	21:N:682:PHE:CE1	2.45	0.48
33:Z:407:VAL:HG12	33:Z:415:MET:HE1	1.96	0.48
21:N:510:HIS:HB2	21:N:513:ILE:HD12	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:T:57:ILE:HG23	27:T:58:THR:N	2.28	0.48
8:A:34:ALA:O	8:A:35:THR:CG2	2.61	0.48
21:N:919:THR:CG2	21:N:922:GLN:HG2	2.44	0.48
22:O:138:LEU:C	22:O:138:LEU:HD23	2.33	0.48
10:C:5:ARG:O	10:C:6:TYR:HD1	1.96	0.48
3:3:65:TYR:HD2	3:3:73:ILE:HG22	1.76	0.48
13:F:168:ALA:O	13:F:172:LEU:HG	2.13	0.48
33:Z:744:ALA:CB	33:Z:783:VAL:HG23	2.43	0.48
28:U:32:ARG:CD	28:U:94:HIS:CE1	2.97	0.48
33:Z:884:THR:OG1	33:Z:904:LEU:CD2	2.61	0.48
3:3:155:PHE:HB2	3:3:180:ILE:CD1	2.43	0.48
20:M:236:ALA:CA	20:M:277:ILE:HD12	2.43	0.48
20:M:203:ARG:CZ	20:M:206:LYS:HZ1	2.27	0.48
21:N:657:MET:CG	21:N:682:PHE:HE1	2.26	0.48
8:A:58:LYS:HE2	19:L:384:ASP:OD1	2.14	0.48
23:P:363:LEU:HG	23:P:398:LYS:HD3	1.94	0.48
25:R:298:ALA:O	25:R:299:SER:CB	2.60	0.48
33:Z:233:LEU:O	33:Z:271:ILE:HD11	2.13	0.48
13:F:12:THR:CG2	13:F:19:LEU:CD2	2.92	0.48
9:B:210:GLU:CG	9:B:237:LYS:HE3	2.20	0.48
19:L:390:ASP:OD1	20:M:338:LEU:HD13	2.14	0.48
9:B:217:GLU:HB3	9:B:234:ARG:HG2	1.95	0.48
28:U:11:ALA:HB3	28:U:14:VAL:HG23	1.95	0.48
2:2:36:ARG:NH1	2:2:38:SER:HA	2.28	0.48
9:B:67:LEU:HD11	9:B:73:ALA:CB	2.39	0.48
4:4:39:PRO:HD2	4:4:73:GLU:OE2	2.14	0.48
4:4:34:THR:CG2	4:4:181:LYS:HZ2	2.27	0.48
12:E:14:THR:CG2	12:E:22:PHE:CE2	2.96	0.48
26:S:381:VAL:HG22	27:T:150:ARG:HE	1.78	0.48
8:A:160:ALA:HB1	18:K:428:LYS:HG2	1.95	0.48
21:N:263:SER:CB	21:N:721:ASP:OD2	2.62	0.48
30:W:99:LYS:NZ	30:W:135:ASN:HB3	2.29	0.48
21:N:758:VAL:H	21:N:874:ILE:HD12	1.78	0.48
9:B:123:GLN:HE22	10:C:86:ILE:HG13	1.78	0.48
15:H:168:ILE:HG12	15:H:174:VAL:HB	1.96	0.48
30:W:20:ASP:HB2	30:W:25:ARG:NH2	2.21	0.48
33:Z:493:LEU:HG	33:Z:497:PHE:CD2	2.48	0.48
33:Z:493:LEU:CD2	33:Z:497:PHE:CE2	2.97	0.48
33:Z:550:PHE:HZ	33:Z:566:LEU:C	2.18	0.48
24:Q:61:LEU:HD21	24:Q:65:TYR:CZ	2.44	0.48
27:T:89:TYR:CG	27:T:102:LYS:HD2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:D:174:PHE:HZ	11:D:197:ARG:HB3	1.78	0.48
3:3:155:PHE:HB2	3:3:180:ILE:HD11	1.96	0.48
19:L:170:MET:HG2	19:L:266:MET:HE3	1.96	0.48
20:M:384:ASP:O	20:M:385:GLU:HB3	2.14	0.48
1:1:116:GLY:CA	7:7:-4:ILE:HD11	2.40	0.48
24:Q:419:LEU:HD21	28:U:286:ILE:HG12	1.96	0.48
33:Z:850:LEU:HD23	33:Z:850:LEU:O	2.13	0.48
21:N:314:LEU:HD13	21:N:336:ASN:OD1	2.14	0.48
33:Z:92:LEU:HD12	33:Z:95:THR:OG1	2.14	0.48
29:V:135:ARG:HD2	29:V:157:ARG:CZ	2.31	0.48
28:U:106:ILE:CG2	28:U:110:PHE:HE2	2.27	0.48
7:7:92:MET:HE2	7:7:122:VAL:HG22	1.96	0.48
25:R:237:THR:OG1	25:R:238:PHE:CE1	2.65	0.48
18:K:83:GLN:O	18:K:86:VAL:HG12	2.14	0.48
26:S:145:PHE:O	26:S:146:LEU:HB3	2.13	0.48
17:J:228:ARG:NH1	17:J:232:GLU:CD	2.66	0.48
5:5:159:ARG:NH1	5:5:200:VAL:HG22	2.28	0.48
15:H:254:THR:OG1	15:H:377:PHE:CZ	2.58	0.48
18:K:258:PHE:CG	18:K:302:GLN:CB	2.92	0.48
15:H:299:ARG:HH21	15:H:345:PRO:HD3	1.77	0.48
33:Z:363:ASP:O	33:Z:366:LYS:CD	2.62	0.48
1:1:138:CYS:HA	1:1:154:PHE:HZ	1.78	0.48
22:O:48:PHE:CD1	22:O:80:LYS:NZ	2.76	0.48
28:U:72:TYR:CZ	28:U:76:MET:HG3	2.49	0.48
18:K:150:LEU:HD22	19:L:112:LEU:HD21	1.96	0.48
22:O:255:LEU:C	22:O:255:LEU:HD23	2.34	0.48
24:Q:63:GLN:O	24:Q:66:VAL:HG22	2.13	0.48
13:F:190:ILE:HG23	13:F:213:ILE:HD13	1.95	0.48
16:I:137:ASP:HB2	16:I:140:LEU:HG	1.96	0.48
28:U:277:TYR:CE1	29:V:295:VAL:HG13	2.12	0.47
22:O:366:MET:SD	28:U:229:LEU:HD13	2.54	0.47
33:Z:208:VAL:HG21	33:Z:236:PHE:CZ	2.46	0.47
16:I:384:LYS:HD3	16:I:420:LYS:CD	2.37	0.47
11:D:68:ASP:CG	11:D:97:ARG:NH2	2.50	0.47
21:N:282:TYR:CE2	21:N:286:LEU:HB2	2.49	0.47
32:Y:82:ASP:HB3	32:Y:86:ARG:HH12	1.76	0.47
19:L:290:ARG:NH1	19:L:293:GLU:C	2.65	0.47
14:G:168:ARG:HE	14:G:172:LYS:CE	2.27	0.47
15:H:434:ARG:HG2	33:Z:956:LEU:HB3	1.95	0.47
33:Z:394:TYR:CB	33:Z:859:LYS:HZ1	2.27	0.47
28:U:293:GLU:HG2	29:V:277:LYS:HD2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:T:211:PHE:CZ	27:T:220:PHE:CE2	3.02	0.47
7:7:124:LEU:HD12	7:7:124:LEU:C	2.34	0.47
13:F:91:GLN:HE22	13:F:108:ALA:HA	1.79	0.47
4:4:37:LEU:HD23	4:4:41:THR:HG21	1.96	0.47
23:P:270:LEU:HD22	23:P:340:ASP:HB2	1.96	0.47
21:N:666:GLN:HG2	21:N:875:LEU:CD2	2.43	0.47
21:N:666:GLN:O	21:N:875:LEU:HD22	2.13	0.47
22:O:204:SER:HB3	22:O:209:GLU:HG2	1.96	0.47
15:H:422:VAL:HG13	15:H:446:ALA:HB3	1.95	0.47
19:L:140:LEU:HD23	19:L:158:ILE:HG12	1.96	0.47
8:A:219:SER:H	8:A:222:ASP:HB2	1.79	0.47
2:2:197:GLU:HB2	3:3:142:GLU:OE2	2.14	0.47
29:V:49:VAL:HG12	29:V:73:GLN:HG2	1.95	0.47
17:J:85:LEU:HD23	17:J:95:ILE:HG13	1.96	0.47
17:J:308:GLY:N	17:J:311:ASP:OD1	2.45	0.47
33:Z:474:LEU:O	33:Z:478:VAL:HG23	2.14	0.47
25:R:363:PHE:CE1	32:Y:78:LYS:CD	2.80	0.47
22:O:29:PHE:CE2	22:O:61:LEU:HD11	2.49	0.47
15:H:456:LYS:HD3	16:I:332:GLU:HB3	1.95	0.47
15:H:365:LEU:CD2	15:H:370:ARG:CZ	2.92	0.47
21:N:325:PHE:HE1	29:V:167:ASN:OD1	1.96	0.47
33:Z:846:PHE:HE2	33:Z:901:PHE:HE2	1.61	0.47
21:N:585:ARG:CZ	21:N:589:ILE:HD11	2.44	0.47
24:Q:114:GLN:HG3	24:Q:144:LEU:CD1	2.44	0.47
31:X:104:LYS:HE3	31:X:108:ASN:CG	2.34	0.47
10:C:18:ARG:HH21	11:D:29:ARG:NH2	2.10	0.47
33:Z:850:LEU:HD21	33:Z:854:LEU:CD1	2.43	0.47
26:S:338:MET:O	26:S:342:LEU:HG	2.14	0.47
33:Z:535:VAL:HG22	33:Z:572:ILE:CG2	2.44	0.47
16:I:389:GLY:HA2	16:I:392:ILE:HD12	1.95	0.47
9:B:106:PRO:HD2	9:B:109:LEU:HD12	1.96	0.47
15:H:97:LEU:HB2	15:H:173:ARG:CD	2.44	0.47
8:A:252:ASP:OD2	23:P:85:LYS:CE	2.57	0.47
24:Q:309:ARG:NH2	24:Q:345:SER:OG	2.44	0.47
33:Z:474:LEU:HD22	33:Z:493:LEU:CD2	2.19	0.47
33:Z:474:LEU:HD22	33:Z:493:LEU:CB	2.43	0.47
8:A:220:LYS:HD2	8:A:238:ALA:O	2.14	0.47
17:J:219:VAL:O	17:J:219:VAL:HG12	2.15	0.47
33:Z:744:ALA:O	33:Z:748:LEU:HG	2.14	0.47
22:O:213:LEU:O	22:O:217:LEU:HG	2.14	0.47
20:M:72:ASN:HB2	20:M:156:LEU:HD21	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:C:50:ARG:NH2	10:C:211:LEU:O	2.47	0.47
5:5:104:TYR:CE1	5:5:110:PRO:HD3	2.50	0.47
1:1:51:ASP:OD1	1:1:93:LEU:CD2	2.62	0.47
8:A:18:ILE:HD12	9:B:20:GLN:NE2	2.29	0.47
5:5:179:HIS:CB	5:5:188:HIS:CD2	2.97	0.47
33:Z:294:ILE:HD13	33:Z:320:SER:HB2	1.97	0.47
6:6:6:ILE:HB	6:6:13:VAL:HG22	1.96	0.47
33:Z:469:PRO:CG	33:Z:472:LEU:HD12	2.44	0.47
16:I:358:LYS:NZ	16:I:385:ASP:CA	2.77	0.47
21:N:147:ALA:O	21:N:148:SER:HB2	2.14	0.47
2:2:55:VAL:HG21	2:2:94:ILE:HG21	1.96	0.47
9:B:18:LEU:HB2	9:B:21:ILE:HD12	1.96	0.47
33:Z:574:TYR:CZ	33:Z:584:VAL:CB	2.97	0.47
25:R:411:LEU:HD23	26:S:464:ARG:HH12	1.72	0.47
30:W:52:ILE:HG22	30:W:61:VAL:HA	1.95	0.47
25:R:94:PHE:HZ	25:R:99:TYR:HH	1.60	0.47
25:R:194:VAL:O	25:R:197:MET:SD	2.73	0.47
28:U:67:PHE:CZ	30:W:97:THR:CB	2.98	0.47
15:H:358:PRO:CG	15:H:374:LYS:HZ1	2.27	0.47
5:5:199:LYS:HG2	5:5:203:GLU:OE1	2.15	0.47
21:N:298:TYR:CD1	21:N:768:ILE:HD11	2.50	0.47
4:4:65:LEU:HD11	4:4:69:ARG:HE	1.80	0.47
22:O:131:SER:HB3	22:O:135:ARG:HH12	1.77	0.47
23:P:264:ILE:HG21	23:P:280:LEU:HD11	1.95	0.47
25:R:217:HIS:O	25:R:220:ALA:HB3	2.15	0.47
15:H:286:GLU:CD	15:H:289:ARG:HH21	2.18	0.47
28:U:111:LYS:HA	28:U:118:PRO:HG3	1.95	0.47
15:H:96:PRO:HB2	16:I:111:GLU:OE2	2.14	0.47
5:5:128:CYS:SG	5:5:140:LEU:HD12	2.54	0.47
21:N:436:ASP:O	21:N:439:VAL:HG12	2.14	0.47
13:F:102:LYS:O	13:F:103:LEU:HB3	2.14	0.47
13:F:179:PHE:CE1	13:F:192:ALA:HB2	2.49	0.47
33:Z:50:GLU:OE2	33:Z:55:ARG:NE	2.48	0.47
22:O:62:TYR:HD2	22:O:82:LEU:CD1	2.03	0.47
21:N:584:ARG:HD2	21:N:614:ASN:ND2	2.29	0.47
26:S:151:GLU:OE1	26:S:154:GLN:CB	2.62	0.47
21:N:490:LEU:C	21:N:490:LEU:HD23	2.35	0.47
21:N:762:ARG:CG	21:N:890:PHE:HE2	2.24	0.47
11:D:188:VAL:HG21	11:D:216:LYS:HE2	1.96	0.47
12:E:45:GLY:HA3	12:E:193:LEU:HD13	1.96	0.47
29:V:71:MET:HE1	29:V:83:VAL:HG13	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:C:65:LYS:HA	10:C:67:TYR:CE1	2.49	0.47
13:F:114:ASP:O	13:F:118:LYS:HG3	2.14	0.47
17:J:342:ASN:OD1	17:J:344:ARG:HB2	2.15	0.47
3:3:136:GLN:HB3	3:3:168:ARG:HH21	1.80	0.47
27:T:115:SER:HB2	27:T:180:ILE:HG21	1.96	0.47
22:O:15:ARG:HA	30:W:20:ASP:OD1	2.13	0.47
1:1:19:ARG:HH21	1:1:171:GLY:HA2	1.74	0.47
17:J:332:SER:HB2	17:J:337:LEU:HD12	1.96	0.47
13:F:146:GLU:OE2	13:F:148:GLN:NE2	2.45	0.47
5:5:8:PHE:CD1	5:5:13:ILE:HG12	2.46	0.47
7:7:131:SER:HB3	7:7:134:LEU:CD2	2.45	0.47
9:B:139:HIS:CE1	9:B:145:PHE:CE1	3.03	0.47
20:M:303:ARG:HH12	20:M:307:GLU:CB	2.25	0.47
8:A:30:TYR:CD1	14:G:16:PRO:HB3	2.49	0.47
1:1:175:MET:HB2	1:1:186:LEU:HB2	1.97	0.47
27:T:266:TYR:CD1	27:T:267:ALA:N	2.82	0.47
21:N:682:PHE:CE2	21:N:702:ALA:HB1	2.50	0.47
17:J:376:HIS:CG	25:R:235:LEU:HD22	2.49	0.47
11:D:189:GLU:HG3	11:D:232:TYR:OH	2.14	0.47
21:N:329:HIS:CE1	21:N:363:ALA:HB1	2.49	0.47
24:Q:188:LEU:O	24:Q:189:ARG:HB2	2.15	0.47
33:Z:205:LEU:HD23	33:Z:236:PHE:CE1	2.49	0.47
12:E:220:SER:HA	12:E:231:TYR:CD1	2.49	0.47
14:G:111:PHE:CD1	14:G:114:ARG:CZ	2.97	0.47
24:Q:325:LEU:HD21	24:Q:335:PHE:CE2	2.49	0.47
20:M:74:GLN:O	20:M:77:TYR:CD1	2.66	0.47
33:Z:301:THR:HG22	33:Z:307:HIS:ND1	2.23	0.47
28:U:92:TRP:CZ2	28:U:120:LEU:HD11	2.47	0.47
21:N:362:TRP:CH2	29:V:23:THR:CB	2.97	0.47
25:R:241:ILE:HG22	25:R:242:GLU:CG	2.28	0.47
18:K:161:MET:HE3	18:K:257:VAL:HG21	1.95	0.47
30:W:141:ILE:CG2	30:W:154:LEU:HD13	2.40	0.47
17:J:232:GLU:O	17:J:235:VAL:HB	2.15	0.47
11:D:6:ARG:HH12	13:F:123:TYR:HB2	1.80	0.47
20:M:129:LEU:CD2	20:M:155:ILE:HG13	2.45	0.47
23:P:184:MET:HB2	23:P:223:LEU:CD1	2.38	0.47
30:W:35:PHE:CD2	30:W:182:TYR:CD2	3.02	0.47
3:3:155:PHE:CD1	3:3:189:ARG:HD2	2.50	0.47
25:R:316:LEU:CD2	25:R:322:LEU:HB3	2.43	0.47
19:L:170:MET:CE	19:L:265:GLU:HB3	2.45	0.47
18:K:48:TYR:CE2	21:N:156:ILE:HD11	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:P:143:LEU:HG	23:P:147:LYS:HE3	1.96	0.47
6:6:38:GLY:O	6:6:39:ASP:HB2	2.15	0.47
9:B:67:LEU:CD1	9:B:73:ALA:HB2	2.43	0.47
1:1:175:MET:HE3	1:1:188:PHE:HE1	1.80	0.47
28:U:65:VAL:CG1	30:W:96:LEU:CD1	2.93	0.47
33:Z:436:LEU:CD2	33:Z:455:ILE:CG1	2.92	0.47
16:I:278:ILE:HG21	16:I:325:ILE:CD1	2.44	0.47
4:4:69:ARG:HG2	11:D:90:ARG:HD3	1.95	0.47
23:P:264:ILE:HG22	23:P:280:LEU:HD11	1.97	0.47
19:L:82:ARG:CG	19:L:86:LYS:HE3	2.45	0.47
25:R:397:ASN:ND2	26:S:450:ASN:O	2.48	0.47
27:T:236:ASN:CG	27:T:238:GLN:HB2	2.34	0.47
19:L:92:GLU:HG2	20:M:65:ASN:HD21	1.80	0.47
24:Q:66:VAL:HG11	24:Q:107:VAL:HG23	1.97	0.47
23:P:61:LYS:O	23:P:65:LEU:HG	2.15	0.47
27:T:20:TYR:CE1	27:T:71:GLN:HG3	2.49	0.47
22:O:317:THR:O	22:O:318:HIS:HB2	2.15	0.47
21:N:329:HIS:HB2	29:V:182:LYS:NZ	1.90	0.47
13:F:159:THR:HA	13:F:169:LYS:CD	2.45	0.47
16:I:97:GLU:HB2	16:I:100:ARG:HH21	1.80	0.47
21:N:53:ASP:CB	21:N:58:ARG:HH21	2.27	0.47
20:M:76:PRO:C	20:M:77:TYR:CD1	2.89	0.47
33:Z:985:LYS:CD	33:Z:991:GLU:H	2.28	0.47
7:7:33:ARG:HH21	7:7:46:SER:N	2.09	0.47
10:C:173:GLN:NE2	11:D:52:LEU:HB2	2.29	0.47
19:L:163:THR:OG1	19:L:265:GLU:HG3	2.14	0.47
24:Q:83:GLU:HA	24:Q:86:MET:HG2	1.96	0.47
12:E:14:THR:HG22	12:E:22:PHE:CE2	2.50	0.47
25:R:259:PHE:HE1	25:R:332:GLU:CB	2.28	0.47
1:1:48:SER:O	1:1:52:THR:HG23	2.15	0.47
33:Z:75:ILE:CG2	33:Z:121:ILE:HD13	2.44	0.47
6:6:91:LYS:O	6:6:96:TYR:CD1	2.68	0.47
14:G:111:PHE:HB2	14:G:114:ARG:NH2	2.30	0.47
13:F:12:THR:HG22	13:F:19:LEU:CD2	2.45	0.47
10:C:15:PRO:HG3	15:H:456:LYS:NZ	2.29	0.47
19:L:357:ARG:NH1	19:L:386:PHE:HB2	2.17	0.47
21:N:536:ILE:CD1	21:N:555:ILE:HG13	2.43	0.47
17:J:177:LEU:HD23	17:J:179:ILE:CB	2.44	0.47
24:Q:348:CYS:SG	24:Q:386:PHE:CD1	3.08	0.47
3:3:177:VAL:CG1	3:3:190:TYR:CE1	2.98	0.47
30:W:40:LYS:HZ1	30:W:111:VAL:HG21	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:P:298:SER:O	23:P:302:LEU:HG	2.13	0.47
15:H:246:ILE:HD11	15:H:352:MET:HE3	1.97	0.47
6:6:56:VAL:HG12	6:6:60:LYS:HE3	1.97	0.47
21:N:137:PHE:O	21:N:141:ILE:HG12	2.14	0.47
15:H:423:CYS:HA	15:H:443:PHE:HE1	1.80	0.47
26:S:271:ARG:HG2	26:S:309:PHE:CE1	2.50	0.47
20:M:179:THR:HG1	20:M:182:ASP:CG	2.17	0.47
33:Z:65:GLU:HA	33:Z:111:LEU:HD21	1.96	0.47
33:Z:160:GLU:OE2	33:Z:164:VAL:HG21	2.15	0.47
33:Z:385:PHE:CZ	33:Z:389:PHE:HE2	1.98	0.47
11:D:102:ASP:OD1	11:D:103:PRO:HD2	2.13	0.47
15:H:365:LEU:HA	15:H:370:ARG:NH1	2.30	0.47
33:Z:813:PHE:CD2	33:Z:888:LEU:CD2	2.97	0.47
14:G:164:THR:HA	14:G:168:ARG:HD2	1.98	0.47
7:7:17:ASP:HA	7:7:187:PHE:HA	1.97	0.47
1:1:66:TYR:HE2	1:1:73:PRO:CA	2.27	0.47
24:Q:382:LEU:CD1	25:R:263:ARG:NH1	2.77	0.47
23:P:154:ASP:OD1	23:P:190:LYS:CE	2.62	0.47
33:Z:833:GLN:NE2	33:Z:837:TYR:CZ	2.81	0.47
4:4:95:ARG:CZ	5:5:88:TYR:OH	2.63	0.47
21:N:302:PHE:CE1	21:N:306:ASN:ND2	2.83	0.47
1:1:51:ASP:CG	1:1:93:LEU:HD22	2.35	0.47
4:4:106:TYR:CE2	4:4:185:LYS:HB3	2.50	0.47
15:H:334:LEU:CD1	20:M:285:ALA:HB2	2.44	0.47
26:S:234:ILE:HG13	26:S:257:LEU:HD13	1.97	0.47
31:X:76:VAL:HB	31:X:88:ALA:HB3	1.96	0.47
8:A:237:SER:O	8:A:241:ILE:HG13	2.15	0.47
16:I:78:ASN:O	16:I:82:LEU:HG	2.15	0.47
16:I:119:ILE:HG23	16:I:127:ASP:OD1	2.14	0.46
33:Z:71:LEU:CD2	33:Z:118:VAL:HG13	2.45	0.46
33:Z:497:PHE:CG	33:Z:505:VAL:HG11	2.51	0.46
23:P:203:ILE:HG23	23:P:220:TYR:CE2	2.49	0.46
28:U:19:LEU:HD11	29:V:212:MET:HB2	1.96	0.46
11:D:193:LYS:CG	11:D:197:ARG:CZ	2.93	0.46
21:N:32:VAL:CG2	21:N:64:ILE:HG23	2.45	0.46
16:I:245:LEU:CG	16:I:247:ILE:HD11	2.41	0.46
28:U:20:ASP:CG	28:U:24:ARG:HE	2.12	0.46
7:7:6:MET:HE1	7:7:150:VAL:HG11	1.96	0.46
21:N:368:THR:O	21:N:371:LEU:HB2	2.15	0.46
11:D:37:LYS:HD3	11:D:147:LEU:CB	2.45	0.46
17:J:143:PRO:O	17:J:204:HIS:ND1	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:376:SER:OG	33:Z:379:GLN:HB2	2.14	0.46
22:O:291:ILE:HG23	22:O:292:CYS:N	2.30	0.46
33:Z:124:MET:SD	33:Z:124:MET:C	2.94	0.46
24:Q:373:VAL:HG12	24:Q:377:LEU:CD1	2.45	0.46
28:U:77:ASN:ND2	28:U:81:LYS:HE3	2.30	0.46
22:O:137:TYR:HB3	22:O:141:ASN:HD21	1.80	0.46
23:P:140:THR:HG21	23:P:163:LEU:HD22	1.97	0.46
33:Z:64:TYR:CE1	33:Z:68:LEU:HD21	2.50	0.46
33:Z:493:LEU:HD11	33:Z:497:PHE:HZ	1.55	0.46
33:Z:229:SER:OG	33:Z:233:LEU:HG	2.15	0.46
33:Z:217:GLU:O	33:Z:221:VAL:HG23	2.15	0.46
24:Q:409:TYR:HB2	25:R:399:GLN:HG2	1.96	0.46
22:O:377:VAL:CG2	28:U:200:LEU:CD1	2.88	0.46
3:3:37:TYR:CE1	3:3:59:ARG:HB2	2.49	0.46
33:Z:393:GLY:O	33:Z:394:TYR:HB2	2.16	0.46
2:2:59:ILE:CD1	2:2:82:MET:HB3	2.42	0.46
22:O:356:ARG:NH2	28:U:234:ASN:OD1	2.48	0.46
18:K:67:TYR:CD1	21:N:572:LEU:HB3	2.49	0.46
24:Q:11:ALA:CB	24:Q:27:TYR:CE1	2.98	0.46
24:Q:289:GLU:CD	24:Q:291:TYR:CE1	2.86	0.46
26:S:425:ARG:CZ	27:T:153:MET:O	2.63	0.46
6:6:68:PHE:HZ	13:F:67:ASP:CA	2.28	0.46
6:6:68:PHE:HE1	13:F:65:LYS:HG2	1.79	0.46
4:4:43:MET:HE3	4:4:103:ILE:CD1	2.45	0.46
21:N:710:GLY:O	21:N:711:ARG:HB2	2.15	0.46
27:T:130:ASP:HB3	27:T:135:ASN:HD21	1.80	0.46
21:N:193:ALA:O	21:N:197:VAL:HB	2.16	0.46
3:3:133:ALA:O	3:3:137:LEU:HG	2.16	0.46
16:I:190:GLN:OE1	16:I:190:GLN:N	2.46	0.46
15:H:335:GLU:OE1	20:M:249:PRO:HB2	2.15	0.46
21:N:230:VAL:HG22	21:N:265:ALA:HB2	1.97	0.46
25:R:67:CYS:SG	25:R:92:ILE:O	2.73	0.46
18:K:212:TYR:OH	18:K:320:ARG:HA	2.15	0.46
17:J:135:SER:O	17:J:136:LEU:HG	2.14	0.46
14:G:111:PHE:CE2	14:G:115:LEU:CD1	2.98	0.46
22:O:58:ARG:HB2	22:O:61:LEU:HD12	1.97	0.46
22:O:41:LEU:HG	22:O:58:ARG:HD2	1.97	0.46
33:Z:809:MET:CE	33:Z:847:ILE:HD11	2.45	0.46
31:X:104:LYS:HZ1	31:X:107:GLY:C	2.17	0.46
28:U:273:LEU:HD11	29:V:298:ALA:CB	2.45	0.46
21:N:117:TYR:OH	21:N:202:PHE:HA	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:P:315:GLN:OE1	23:P:341:LEU:HD13	2.15	0.46
15:H:367:ARG:NH1	20:M:223:PRO:HB3	2.29	0.46
16:I:290:LYS:NZ	16:I:336:PRO:HD3	2.30	0.46
27:T:270:ILE:HD11	29:V:288:LEU:CD2	2.45	0.46
21:N:85:ALA:O	21:N:86:LYS:HB2	2.16	0.46
10:C:21:GLN:NE2	10:C:129:ARG:HA	2.30	0.46
19:L:331:ASP:OD2	20:M:292:ASP:O	2.33	0.46
2:2:191:LEU:C	2:2:193:PRO:HD3	2.35	0.46
14:G:33:GLY:O	14:G:166:LYS:HG3	2.16	0.46
11:D:214:VAL:HB	11:D:222:VAL:CG1	2.45	0.46
15:H:173:ARG:HH21	16:I:119:ILE:HG21	1.80	0.46
33:Z:187:SER:CA	33:Z:198:GLU:HG2	2.44	0.46
21:N:53:ASP:CA	21:N:58:ARG:NH2	2.60	0.46
16:I:246:ARG:HE	17:J:274:GLU:HB3	1.80	0.46
3:3:60:TYR:HD2	10:C:96:GLN:HB3	1.72	0.46
18:K:132:LYS:HB3	18:K:133:PRO:HD2	1.97	0.46
16:I:76:VAL:HG12	33:Z:621:LEU:CD1	2.45	0.46
31:X:45:PHE:CE2	31:X:67:ILE:HD13	2.51	0.46
33:Z:207:ILE:HA	33:Z:210:TYR:HD2	1.80	0.46
25:R:354:ALA:HA	25:R:364:LEU:CD2	2.45	0.46
27:T:51:TYR:O	27:T:54:ASP:HB2	2.15	0.46
20:M:354:GLU:HG2	20:M:357:ARG:HH22	1.80	0.46
20:M:379:LEU:O	20:M:383:THR:HG23	2.15	0.46
17:J:132:PRO:HG3	17:J:139:VAL:H	1.79	0.46
18:K:212:TYR:CD1	18:K:321:ALA:HB2	2.50	0.46
22:O:185:PHE:CD1	22:O:223:LEU:HD13	2.50	0.46
15:H:329:VAL:HG11	16:I:300:ARG:CZ	2.45	0.46
3:3:37:TYR:HE1	3:3:59:ARG:CG	2.22	0.46
2:2:59:ILE:CD1	2:2:86:HIS:CE1	2.98	0.46
24:Q:315:ASN:OD1	24:Q:339:TYR:HE1	1.99	0.46
3:3:7:THR:CG2	3:3:112:ILE:CD1	2.93	0.46
24:Q:141:LEU:HG	24:Q:145:HIS:NE2	2.30	0.46
28:U:293:GLU:HG2	29:V:277:LYS:HZ2	1.81	0.46
19:L:145:ARG:NE	19:L:162:GLU:CG	2.76	0.46
13:F:67:ASP:OD2	13:F:69:HIS:NE2	2.48	0.46
21:N:10:LEU:HD22	21:N:42:GLU:HG3	1.96	0.46
10:C:107:PRO:HB3	10:C:143:ARG:HH22	1.76	0.46
17:J:193:THR:HB	17:J:316:PHE:HE2	1.80	0.46
9:B:18:LEU:HD12	9:B:21:ILE:HD12	1.98	0.46
28:U:111:LYS:HA	28:U:118:PRO:CG	2.45	0.46
1:1:84:GLU:O	1:1:88:GLU:HG3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:R:209:ARG:CZ	25:R:243:LEU:HD13	2.45	0.46
13:F:3:ARG:NH2	15:H:359:ASN:HD21	1.98	0.46
13:F:159:THR:CB	13:F:169:LYS:HZ3	2.29	0.46
33:Z:212:LEU:HD23	33:Z:217:GLU:HG2	1.97	0.46
17:J:210:PHE:HE2	17:J:212:ARG:HD2	1.79	0.46
28:U:67:PHE:HD2	30:W:100:HIS:HE1	1.58	0.46
33:Z:957:LEU:HB2	33:Z:961:GLU:CD	2.35	0.46
24:Q:382:LEU:CB	25:R:263:ARG:HH12	2.29	0.46
33:Z:866:VAL:HB	33:Z:873:LEU:CD1	2.46	0.46
20:M:160:PRO:HB2	20:M:166:ARG:NH2	2.28	0.46
9:B:48:GLU:CG	9:B:200:VAL:HG11	2.44	0.46
17:J:59:LYS:HG2	17:J:63:ARG:HH12	1.80	0.46
33:Z:440:LEU:HD12	33:Z:455:ILE:HD11	1.97	0.46
11:D:216:LYS:HB3	11:D:217:PRO:HD2	1.97	0.46
27:T:115:SER:HB2	27:T:180:ILE:CG2	2.45	0.46
30:W:89:THR:HG22	30:W:93:ILE:HD12	1.98	0.46
13:F:110:HIS:CE1	14:G:85:ARG:HB3	2.50	0.46
22:O:106:PHE:O	22:O:106:PHE:CG	2.68	0.46
16:I:418:GLN:HB3	16:I:422:ARG:HH12	1.81	0.46
26:S:283:GLN:O	26:S:284:LEU:HB2	2.15	0.46
33:Z:61:SER:HA	33:Z:111:LEU:HD11	1.96	0.46
21:N:427:ILE:CD1	21:N:450:ILE:HG12	2.46	0.46
13:F:101:ARG:NH1	13:F:104:ALA:H	2.14	0.46
27:T:89:TYR:CE2	27:T:102:LYS:HG3	2.51	0.46
16:I:253:ILE:O	16:I:253:ILE:HG22	2.15	0.46
28:U:283:ARG:NH1	29:V:291:ASN:CG	2.65	0.46
25:R:140:TYR:CD2	25:R:141:TYR:CD1	3.03	0.46
25:R:73:ASN:HB2	25:R:76:GLN:NE2	2.31	0.46
23:P:138:ARG:NH1	23:P:141:LYS:HD3	2.31	0.46
21:N:232:LEU:HD12	21:N:237:LEU:HD11	1.97	0.46
24:Q:165:PHE:CE1	24:Q:170:ASP:HB2	2.51	0.46
13:F:65:LYS:CG	13:F:222:PHE:CD2	2.95	0.46
20:M:159:LEU:HB3	20:M:160:PRO:CD	2.45	0.46
23:P:395:ARG:HD2	24:Q:357:VAL:HB	1.96	0.46
11:D:48:ARG:NH1	11:D:57:THR:HB	2.29	0.46
1:1:112:THR:HG21	7:7:27:ARG:HH21	1.81	0.46
26:S:327:ILE:HG21	26:S:349:THR:HG21	1.98	0.46
5:5:4:LEU:HD12	5:5:4:LEU:O	2.15	0.46
33:Z:213:LYS:HA	33:Z:240:ASN:HD21	1.80	0.46
8:A:218:PHE:CD2	8:A:223:LEU:HD21	2.50	0.46
21:N:892:PRO:HA	21:N:905:LEU:HG	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:J:145:SER:OG	17:J:201:ALA:N	2.49	0.46
14:G:122:HIS:ND1	14:G:128:VAL:HG12	2.28	0.46
24:Q:146:TYR:CD1	24:Q:151:TYR:CD1	3.03	0.46
23:P:344:ARG:NH2	23:P:347:GLU:OE2	2.49	0.46
9:B:217:GLU:OE1	9:B:222:LEU:HD21	2.16	0.46
9:B:231:LYS:HD3	9:B:234:ARG:NH2	2.28	0.46
23:P:141:LYS:HG3	23:P:182:GLU:OE2	2.16	0.46
6:6:66:TYR:CE2	6:6:73:LYS:C	2.84	0.46
16:I:317:ASP:CB	16:I:343:ARG:NH2	2.69	0.46
20:M:203:ARG:HD3	20:M:206:LYS:HZ2	1.80	0.46
21:N:21:LYS:HD3	21:N:49:LEU:CD2	2.46	0.46
7:7:13:ILE:CG2	7:7:169:ILE:HG13	2.46	0.46
33:Z:130:GLY:O	33:Z:131:LYS:CG	2.64	0.46
25:R:354:ALA:CB	25:R:364:LEU:HD23	2.44	0.46
22:O:117:ASN:OD1	22:O:118:GLY:N	2.48	0.46
8:A:91:ARG:HH12	8:A:95:LEU:HB2	1.79	0.46
20:M:308:LEU:O	20:M:312:LEU:HG	2.15	0.46
33:Z:165:TYR:CE1	33:Z:190:THR:OG1	2.57	0.46
21:N:443:LEU:HD21	21:N:469:VAL:HG22	1.97	0.46
18:K:280:LYS:CE	18:K:296:LEU:HD22	2.46	0.46
16:I:349:LEU:C	16:I:349:LEU:HD12	2.37	0.46
33:Z:394:TYR:HB3	33:Z:859:LYS:CE	2.46	0.46
33:Z:339:PHE:HB3	33:Z:341:TYR:CE1	2.51	0.46
24:Q:232:TYR:CB	24:Q:272:LEU:HD21	2.39	0.46
27:T:183:SER:HA	27:T:186:ARG:CD	2.45	0.46
3:3:29:ASN:OD1	3:3:174:TRP:HE3	1.99	0.46
14:G:51:LYS:HE2	14:G:63:ASN:CB	2.44	0.46
4:4:59:ILE:O	4:4:63:ILE:HG12	2.16	0.46
18:K:210:LEU:HB2	18:K:334:LEU:HD11	1.98	0.46
15:H:292:ARG:NH1	15:H:296:GLU:OE2	2.48	0.46
1:1:38:HIS:HB3	1:1:41:ILE:HB	1.98	0.46
22:O:370:LEU:HD22	28:U:207:VAL:HG21	1.97	0.46
23:P:131:PHE:CD1	23:P:136:ARG:HD2	2.50	0.46
23:P:369:LEU:HD12	23:P:376:THR:HG23	1.97	0.46
15:H:328:GLU:HG2	15:H:331:ARG:HH21	1.80	0.46
21:N:466:LEU:O	21:N:469:VAL:HB	2.16	0.46
20:M:72:ASN:O	20:M:77:TYR:CE2	2.69	0.46
26:S:286:TYR:OH	26:S:323:LEU:HD22	2.16	0.46
23:P:137:ALA:HB1	23:P:179:PHE:CZ	2.50	0.46
18:K:123:LEU:HD12	18:K:147:VAL:O	2.16	0.46
24:Q:141:LEU:O	24:Q:145:HIS:CD2	2.69	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:U:293:GLU:HG2	29:V:277:LYS:CD	2.46	0.46
28:U:24:ARG:HH22	29:V:66:VAL:HG12	1.81	0.46
7:7:13:ILE:HG21	7:7:169:ILE:HG13	1.98	0.46
33:Z:501:LYS:HG3	33:Z:534:PHE:CD2	2.50	0.46
7:7:178:TYR:OH	7:7:210:LYS:NZ	2.28	0.46
1:1:82:PHE:CB	1:1:113:ILE:CD1	2.94	0.46
8:A:66:PRO:HG2	8:A:67:THR:HG23	1.98	0.46
13:F:85:SER:O	13:F:89:ARG:HG3	2.15	0.46
3:3:75:PRO:HD2	3:3:104:ASN:ND2	2.31	0.46
21:N:256:GLN:OE1	21:N:904:VAL:N	2.49	0.46
33:Z:103:TYR:CZ	33:Z:137:TYR:CD1	3.04	0.45
17:J:337:LEU:N	25:R:204:TRP:HE1	1.98	0.45
33:Z:486:SER:O	33:Z:489:ALA:HB3	2.16	0.45
22:O:277:ILE:HG22	22:O:279:ILE:H	1.81	0.45
11:D:10:ILE:HD11	12:E:10:ARG:HB3	1.99	0.45
11:D:11:PHE:HA	11:D:17:ILE:HD12	1.96	0.45
33:Z:884:THR:CB	33:Z:904:LEU:HD21	2.46	0.45
11:D:193:LYS:HZ2	11:D:236:ILE:HG13	1.80	0.45
5:5:159:ARG:HH11	5:5:200:VAL:HG13	1.81	0.45
14:G:59:VAL:CG2	14:G:60:PRO:HD2	2.45	0.45
31:X:38:ASN:OD1	31:X:43:LEU:CD1	2.64	0.45
27:T:229:VAL:CG1	27:T:230:ASN:N	2.80	0.45
15:H:49:LEU:O	33:Z:765:MET:CE	2.63	0.45
10:C:106:ILE:HG12	10:C:107:PRO:O	2.15	0.45
12:E:68:VAL:HG12	12:E:93:ARG:NH2	2.31	0.45
22:O:122:HIS:C	22:O:166:ARG:HH12	2.20	0.45
26:S:288:THR:CG2	26:S:292:TYR:CE2	2.99	0.45
19:L:118:ILE:HG12	19:L:128:ILE:CD1	2.46	0.45
29:V:247:ILE:HD12	29:V:250:GLN:HB2	1.98	0.45
22:O:33:TYR:CE2	22:O:34:GLU:OE2	2.69	0.45
9:B:35:LEU:C	9:B:35:LEU:HD12	2.37	0.45
15:H:97:LEU:CB	15:H:173:ARG:CG	2.94	0.45
33:Z:65:GLU:N	33:Z:111:LEU:HD21	2.31	0.45
30:W:21:PHE:CE1	30:W:25:ARG:NH2	2.81	0.45
33:Z:138:ARG:CZ	33:Z:157:LEU:HA	2.46	0.45
15:H:59:ILE:CD1	16:I:92:GLU:CD	2.69	0.45
15:H:62:ARG:HH21	16:I:92:GLU:HG2	1.81	0.45
33:Z:748:LEU:HD11	33:Z:782:ILE:O	2.15	0.45
27:T:89:TYR:HB3	27:T:90:PHE:CD1	2.51	0.45
31:X:48:PHE:CG	31:X:68:LEU:HD11	2.51	0.45
12:E:157:HIS:HB3	12:E:167:TYR:CE1	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:H:326:ASP:CA	15:H:329:VAL:HG22	2.45	0.45
23:P:366:ASN:HD21	23:P:373:GLU:CA	2.15	0.45
14:G:200:TYR:CD1	14:G:200:TYR:C	2.89	0.45
18:K:224:LYS:NZ	18:K:236:ARG:NH2	2.51	0.45
23:P:184:MET:SD	23:P:223:LEU:HD12	2.56	0.45
19:L:389:ALA:CA	20:M:339:ARG:HE	2.29	0.45
24:Q:263:LYS:CE	24:Q:295:GLY:HA3	2.43	0.45
25:R:214:TYR:HE2	25:R:226:GLU:O	1.99	0.45
18:K:342:SER:O	18:K:343:LEU:CB	2.62	0.45
21:N:423:LEU:O	21:N:426:ILE:HB	2.16	0.45
9:B:39:ALA:O	9:B:40:THR:HG23	2.16	0.45
21:N:664:LEU:CD2	21:N:672:ASN:ND2	2.80	0.45
23:P:170:SER:HA	23:P:173:MET:HE3	1.98	0.45
23:P:375:GLN:O	23:P:379:TYR:CD2	2.69	0.45
33:Z:403:ASN:ND2	33:Z:406:TRP:HB2	2.31	0.45
26:S:443:ILE:HG22	26:S:445:THR:CG2	2.47	0.45
33:Z:457:ILE:HG23	33:Z:905:ASN:ND2	2.32	0.45
23:P:94:GLN:OE1	23:P:136:ARG:CG	2.62	0.45
33:Z:65:GLU:HA	33:Z:111:LEU:CD2	2.46	0.45
16:I:380:LEU:O	16:I:384:LYS:HG3	2.16	0.45
16:I:416:PHE:O	16:I:420:LYS:HG2	2.16	0.45
14:G:108:ILE:HD12	14:G:146:HIS:HB2	1.97	0.45
24:Q:275:ILE:CG1	24:Q:306:TYR:HD2	2.28	0.45
25:R:161:ALA:O	25:R:162:ILE:HG23	2.17	0.45
26:S:145:PHE:HD2	26:S:152:LEU:HD23	1.81	0.45
33:Z:290:GLU:CG	33:Z:293:MET:CE	2.83	0.45
15:H:311:ILE:CD1	15:H:361:LEU:HD13	2.46	0.45
33:Z:322:GLU:CG	33:Z:464:ASP:OD2	2.53	0.45
21:N:208:ARG:HG2	21:N:232:LEU:HD13	1.97	0.45
31:X:104:LYS:NZ	31:X:107:GLY:O	2.40	0.45
8:A:135:ARG:HD3	14:G:124:LEU:HD23	1.98	0.45
33:Z:761:PHE:HD2	33:Z:780:MET:HE1	1.79	0.45
1:I:82:PHE:HB2	1:I:113:ILE:CD1	2.46	0.45
11:D:146:LYS:HE2	11:D:148:TYR:CE2	2.51	0.45
28:U:298:ASN:O	28:U:302:GLN:HG3	2.16	0.45
17:J:170:HIS:NE2	25:R:124:ASP:HB3	2.32	0.45
15:H:381:ASP:OD1	15:H:381:ASP:C	2.55	0.45
19:L:123:SER:HB3	20:M:125:GLN:HE21	1.82	0.45
33:Z:510:LEU:N	33:Z:511:PRO:HD2	2.31	0.45
19:L:67:HIS:N	19:L:70:TYR:HD2	2.14	0.45
30:W:21:PHE:HB3	30:W:22:PRO:HD2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:P:203:ILE:HG13	23:P:220:TYR:OH	2.08	0.45
25:R:304:TYR:HD2	25:R:305:PHE:CD1	2.34	0.45
17:J:167:PRO:HA	17:J:174:PHE:CE2	2.47	0.45
15:H:340:LEU:HD12	15:H:370:ARG:HG3	1.95	0.45
33:Z:886:VAL:HG13	33:Z:893:PHE:CE2	2.48	0.45
6:6:34:VAL:HG12	6:6:196:LEU:CD1	2.44	0.45
33:Z:483:THR:HB	33:Z:521:GLU:HG3	1.99	0.45
16:I:103:PRO:CB	17:J:120:TYR:CZ	2.94	0.45
20:M:303:ARG:NH2	20:M:307:GLU:OE1	2.49	0.45
1:1:173:ILE:HD12	1:1:193:TYR:CG	2.51	0.45
18:K:186:GLU:HA	18:K:190:LEU:CD1	2.43	0.45
11:D:120:TYR:CG	11:D:126:VAL:HG21	2.50	0.45
9:B:184:GLU:HG2	9:B:186:GLU:N	2.30	0.45
23:P:287:ASP:HB3	23:P:297:GLU:CD	2.37	0.45
4:4:106:TYR:CZ	4:4:185:LYS:HA	2.52	0.45
28:U:76:MET:SD	29:V:94:MET:HG3	2.56	0.45
11:D:106:VAL:HB	11:D:146:LYS:CE	2.47	0.45
11:D:37:LYS:HG2	11:D:42:VAL:HG23	1.97	0.45
5:5:118:ASP:OD1	5:5:118:ASP:O	2.33	0.45
26:S:138:MET:O	26:S:142:VAL:HG23	2.16	0.45
19:L:190:ILE:O	19:L:194:ARG:HG3	2.16	0.45
2:2:88:PHE:O	2:2:91:GLN:NE2	2.48	0.45
24:Q:309:ARG:NE	24:Q:345:SER:CB	2.51	0.45
33:Z:865:ASP:OD1	33:Z:909:ARG:NH2	2.42	0.45
20:M:203:ARG:HH11	20:M:206:LYS:HZ2	1.63	0.45
27:T:109:TYR:O	27:T:113:LEU:HG	2.17	0.45
21:N:771:PHE:CE2	21:N:773:MET:CG	2.99	0.45
23:P:299:LEU:HD12	23:P:302:LEU:HD12	1.97	0.45
23:P:422:LEU:HD12	28:U:262:GLN:HE22	1.81	0.45
11:D:215:VAL:HG22	11:D:221:ILE:HG12	1.98	0.45
19:L:400:PHE:HZ	20:M:215:PRO:HD3	1.82	0.45
28:U:191:THR:CG2	28:U:195:LYS:HE3	2.47	0.45
21:N:63:LEU:HD22	21:N:88:ARG:HB3	1.99	0.45
22:O:76:LEU:HD22	22:O:124:ASP:N	2.31	0.45
29:V:48:GLU:OE2	29:V:111:HIS:ND1	2.49	0.45
15:H:174:VAL:HG11	15:H:183:ILE:HG21	1.85	0.45
1:1:14:LEU:HD21	1:1:100:ALA:HB3	0.57	0.45
1:1:19:ARG:CZ	1:1:170:GLY:C	2.85	0.45
24:Q:429:LYS:HD2	29:V:269:ARG:CZ	2.46	0.45
15:H:298:ALA:HB2	15:H:306:ILE:HD11	1.98	0.45
27:T:29:PRO:HA	27:T:32:ILE:HD12	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:T:112:ASN:CA	27:T:177:PHE:CZ	3.00	0.45
23:P:440:HIS:CE1	28:U:209:GLU:CB	2.96	0.45
20:M:216:LYS:HZ1	20:M:321:VAL:HB	1.80	0.45
20:M:216:LYS:HZ2	20:M:321:VAL:HB	1.81	0.45
17:J:115:LEU:HD13	17:J:122:LEU:CD2	2.46	0.45
28:U:36:VAL:HB	28:U:54:LEU:HD11	1.99	0.45
3:3:104:ASN:HB3	3:3:107:SER:OG	2.16	0.45
6:6:115:SER:OG	6:6:128:ARG:HG2	2.17	0.45
28:U:138:VAL:CG1	28:U:157:LEU:HD11	2.47	0.45
10:C:221:ASN:ND2	10:C:226:TYR:HE1	2.14	0.45
31:X:7:VAL:HG12	31:X:8:ILE:HG13	1.99	0.45
15:H:171:GLY:O	16:I:129:TYR:CZ	2.70	0.45
23:P:237:VAL:HG12	23:P:267:PHE:CE2	2.51	0.45
17:J:162:GLU:HG2	17:J:166:LEU:CD1	2.46	0.45
33:Z:321:PHE:CE2	33:Z:351:PRO:CG	2.79	0.45
27:T:152:LEU:HD12	27:T:157:TYR:HE1	1.82	0.45
14:G:7:TYR:CD1	14:G:13:VAL:CG2	2.97	0.45
21:N:515:ARG:NE	21:N:741:TYR:CD2	2.85	0.45
21:N:330:THR:HG21	21:N:739:PHE:CZ	2.48	0.45
25:R:127:GLU:HB3	25:R:162:ILE:HD13	1.98	0.45
25:R:128:LEU:HD23	25:R:162:ILE:HD11	1.99	0.45
21:N:324:LYS:CG	21:N:325:PHE:HD2	2.28	0.45
21:N:207:LEU:CD1	21:N:232:LEU:CD2	2.94	0.45
25:R:312:TYR:CE2	25:R:317:ILE:HD11	2.52	0.45
33:Z:286:VAL:HG21	33:Z:317:GLN:HG2	1.98	0.45
19:L:298:ASP:OD1	19:L:301:ILE:CD1	2.63	0.45
5:5:178:TYR:HD2	5:5:185:TRP:CE3	2.35	0.45
26:S:456:ASP:HB2	26:S:457:PRO:HD3	1.98	0.45
12:E:53:ARG:NH1	12:E:209:GLU:OE2	2.50	0.45
18:K:92:VAL:HA	18:K:94:LEU:HG	1.99	0.45
25:R:350:LEU:HB2	25:R:388:VAL:HG23	1.98	0.45
18:K:191:PRO:HG2	18:K:313:LYS:HZ2	1.80	0.45
9:B:96:SER:O	9:B:97:TYR:CD1	2.70	0.45
33:Z:172:ASP:HB3	33:Z:177:THR:OG1	2.16	0.45
15:H:168:ILE:HG22	15:H:172:MET:HA	1.99	0.45
15:H:284:VAL:CG1	20:M:253:GLN:CA	2.94	0.45
22:O:222:LEU:HB3	22:O:280:LEU:CD1	2.46	0.45
25:R:58:GLU:O	25:R:144:ILE:HD12	2.17	0.45
25:R:161:ALA:O	25:R:162:ILE:CG2	2.65	0.45
8:A:154:ILE:HG23	8:A:166:TYR:HB2	1.99	0.45
19:L:193:LEU:HA	19:L:196:VAL:HG22	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:T:104:LYS:O	27:T:108:LEU:HG	2.16	0.45
29:V:154:ASP:CB	29:V:156:PHE:CZ	2.97	0.45
33:Z:436:LEU:CD2	33:Z:455:ILE:HG12	2.46	0.45
8:A:91:ARG:NH1	8:A:95:LEU:HB2	2.32	0.45
14:G:68:VAL:CG1	14:G:69:VAL:N	2.80	0.45
22:O:296:LEU:HD13	22:O:312:ASP:HB3	1.98	0.45
33:Z:49:LEU:HD12	33:Z:49:LEU:C	2.37	0.45
22:O:243:VAL:HG23	22:O:248:TYR:CD2	2.52	0.45
33:Z:75:ILE:HD13	33:Z:121:ILE:HG21	1.99	0.45
17:J:224:GLY:O	17:J:225:GLU:C	2.55	0.45
33:Z:272:TYR:HE2	33:Z:284:LEU:CD1	2.27	0.45
2:2:8:PHE:CD2	2:2:11:GLY:N	2.84	0.45
15:H:244:LYS:HB3	15:H:244:LYS:NZ	2.31	0.45
3:3:63:ASN:O	3:3:67:LEU:HG	2.16	0.45
1:1:-8:LYS:CE	2:2:117:GLY:HA3	2.47	0.45
10:C:4:ARG:NH1	12:E:11:GLY:HA2	2.32	0.45
2:2:63:ILE:O	2:2:66:HIS:HB3	2.17	0.45
4:4:26:VAL:CG1	4:4:28:LYS:O	2.65	0.45
24:Q:165:PHE:CZ	24:Q:173:SER:CB	2.99	0.45
6:6:81:ALA:HB2	6:6:102:ILE:HD11	1.99	0.45
10:C:194:LEU:HD11	10:C:238:ILE:HG22	1.99	0.45
1:1:11:GLY:HA3	1:1:102:TYR:CE1	2.52	0.45
4:4:13:ILE:CG2	4:4:160:LEU:HD11	2.47	0.45
33:Z:506:LEU:HB2	33:Z:534:PHE:CZ	2.47	0.45
4:4:106:TYR:OH	4:4:185:LYS:HB3	2.17	0.45
3:3:158:ILE:HG23	3:3:159:SER:N	2.30	0.45
6:6:190:GLY:O	6:6:191:ASP:HB2	2.17	0.45
21:N:668:THR:HG21	21:N:783:SER:O	2.17	0.45
26:S:461:PHE:CZ	28:U:278:ILE:N	2.85	0.45
33:Z:546:ILE:O	33:Z:550:PHE:CD2	2.70	0.45
22:O:250:TRP:HA	22:O:269:LEU:CG	2.45	0.45
15:H:382:LEU:HD23	15:H:385:ARG:HH11	1.82	0.45
11:D:11:PHE:HE2	12:E:26:TYR:C	2.19	0.45
1:1:57:ASP:CA	8:A:106:TYR:HE1	2.29	0.45
18:K:67:TYR:CD1	21:N:572:LEU:HD22	2.52	0.45
6:6:68:PHE:CE2	13:F:66:CYS:O	2.70	0.45
24:Q:263:LYS:HE2	24:Q:295:GLY:CA	2.42	0.45
21:N:539:MET:HE2	21:N:551:GLY:N	2.32	0.45
21:N:31:VAL:CG2	21:N:35:LEU:CD1	2.94	0.45
18:K:174:VAL:CG2	18:K:177:LEU:HD11	2.47	0.45
25:R:397:ASN:HD22	26:S:451:ILE:C	2.20	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:O:96:LEU:HD22	22:O:137:TYR:CE1	2.51	0.45
25:R:72:VAL:HG12	25:R:72:VAL:O	2.16	0.45
18:K:196:ASP:O	18:K:200:GLN:HG3	2.17	0.45
18:K:344:ARG:HE	18:K:380:GLY:N	2.15	0.45
33:Z:463:HIS:HE1	33:Z:497:PHE:HE1	1.63	0.44
33:Z:562:TRP:CE2	33:Z:566:LEU:CG	2.91	0.44
22:O:253:GLN:OE1	22:O:269:LEU:HG	2.17	0.44
33:Z:911:LYS:CB	33:Z:962:ARG:HG3	2.47	0.44
13:F:65:LYS:HG3	13:F:222:PHE:HD2	1.77	0.44
22:O:310:PHE:HE1	22:O:348:VAL:HG22	1.81	0.44
13:F:74:LEU:HD22	13:F:81:ALA:HB1	1.98	0.44
25:R:259:PHE:O	25:R:259:PHE:CD1	2.70	0.44
3:3:1:GLY:HA3	3:3:33:LYS:HZ3	1.81	0.44
15:H:282:LYS:N	16:I:257:LEU:HG	2.32	0.44
25:R:417:TYR:CZ	28:U:292:ILE:HG21	2.52	0.44
12:E:51:GLU:HG2	12:E:53:ARG:HG3	1.99	0.44
33:Z:457:ILE:HD11	33:Z:902:TYR:CG	2.52	0.44
9:B:221:LEU:HD11	9:B:236:ARG:HD2	1.99	0.44
17:J:109:ALA:O	17:J:110:SER:HB2	2.17	0.44
30:W:16:SER:HA	30:W:25:ARG:HB3	1.99	0.44
25:R:171:MET:HG3	25:R:209:ARG:NH1	2.32	0.44
19:L:416:MET:HB3	19:L:420:ARG:HH12	1.82	0.44
19:L:88:TYR:O	19:L:91:THR:HB	2.18	0.44
26:S:188:TYR:OH	26:S:240:ASP:CB	2.66	0.44
19:L:361:PHE:CE1	19:L:391:ILE:HD12	2.47	0.44
33:Z:812:ILE:CG2	33:Z:847:ILE:HG22	2.47	0.44
22:O:373:TRP:CZ3	28:U:200:LEU:CD2	3.00	0.44
20:M:129:LEU:HD12	20:M:129:LEU:C	2.38	0.44
23:P:176:LYS:NZ	23:P:206:LYS:NZ	2.64	0.44
7:7:17:ASP:OD1	7:7:17:ASP:C	2.56	0.44
20:M:358:ALA:O	20:M:362:GLN:HG2	2.16	0.44
20:M:397:GLU:O	20:M:400:MET:HB2	2.18	0.44
33:Z:440:LEU:HD23	33:Z:440:LEU:C	2.37	0.44
21:N:376:LYS:HA	21:N:411:ILE:HG12	1.98	0.44
16:I:257:LEU:HD13	16:I:304:ARG:HD3	1.99	0.44
8:A:42:SER:HB2	8:A:171:THR:CG2	2.47	0.44
30:W:76:LEU:C	30:W:79:THR:HG23	2.37	0.44
33:Z:59:ASP:O	33:Z:60:ASP:HB2	2.17	0.44
26:S:147:TRP:CE3	26:S:148:ASP:HB2	2.51	0.44
25:R:249:ILE:HG23	25:R:250:ALA:N	2.33	0.44
21:N:255:ALA:O	21:N:259:PHE:HD2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:64:TYR:CD2	33:Z:111:LEU:HD11	2.25	0.44
30:W:29:GLN:NE2	30:W:115:CYS:SG	2.90	0.44
17:J:377:VAL:CG1	17:J:382:PHE:CZ	3.01	0.44
15:H:62:ARG:HH12	16:I:95:GLN:HB2	1.82	0.44
29:V:159:ILE:HD11	29:V:188:LEU:HD11	1.98	0.44
14:G:168:ARG:NE	14:G:172:LYS:HZ1	2.07	0.44
18:K:237:VAL:CG1	18:K:242:PHE:HZ	2.31	0.44
3:3:59:ARG:NH2	10:C:100:LYS:HA	2.32	0.44
22:O:59:LEU:CD2	22:O:85:SER:HB2	2.47	0.44
18:K:123:LEU:HD11	18:K:147:VAL:HA	1.99	0.44
21:N:770:LYS:HE3	21:N:917:ILE:CD1	2.43	0.44
10:C:147:GLN:HB3	10:C:149:TYR:HE1	1.83	0.44
21:N:539:MET:CE	21:N:551:GLY:CA	2.88	0.44
9:B:160:LYS:HB3	10:C:58:GLU:HG2	1.99	0.44
9:B:180:ASN:HD22	24:Q:168:LEU:HD23	1.83	0.44
11:D:37:LYS:HD3	11:D:147:LEU:HB3	2.00	0.44
7:7:31:VAL:HG11	7:7:49:ILE:HD12	1.99	0.44
3:3:69:GLU:HG3	3:3:71:ARG:H	1.82	0.44
30:W:118:ILE:CD1	30:W:153:LEU:HD12	2.47	0.44
14:G:205:ASP:O	14:G:206:ASN:OD1	2.35	0.44
7:7:16:ALA:HB3	7:7:34:LEU:HG	2.00	0.44
16:I:124:THR:O	16:I:125:MET:HB2	2.18	0.44
6:6:37:CYS:HG	6:6:59:PHE:HD2	1.65	0.44
33:Z:623:ARG:HG2	33:Z:739:ALA:HB2	1.99	0.44
13:F:52:ASN:ND2	13:F:54:ASP:O	2.51	0.44
15:H:149:LEU:HD22	15:H:177:ASP:HB3	2.00	0.44
20:M:290:ARG:HH11	20:M:294:GLU:HB3	1.82	0.44
26:S:315:LYS:CE	26:S:345:TYR:HE1	2.27	0.44
21:N:739:PHE:CD1	21:N:743:PHE:O	2.70	0.44
21:N:584:ARG:NH1	21:N:614:ASN:ND2	2.35	0.44
25:R:164:THR:CG2	25:R:199:GLU:OE1	2.65	0.44
31:X:46:TRP:HE1	31:X:132:SER:CA	2.30	0.44
33:Z:339:PHE:HB3	33:Z:341:TYR:CZ	2.53	0.44
33:Z:363:ASP:O	33:Z:366:LYS:HE2	2.16	0.44
19:L:193:LEU:CD2	19:L:347:VAL:HG21	2.47	0.44
19:L:114:GLU:HB3	19:L:137:ARG:CD	2.45	0.44
27:T:53:ASN:H	27:T:57:ILE:HB	1.83	0.44
23:P:241:LEU:HD23	23:P:264:ILE:HG12	2.00	0.44
21:N:641:LEU:HD12	21:N:660:LEU:HD23	1.98	0.44
17:J:193:THR:HG23	17:J:355:GLY:H	1.81	0.44
29:V:247:ILE:O	29:V:247:ILE:HG13	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:752:ILE:O	33:Z:756:MET:HG2	2.17	0.44
15:H:152:ILE:O	15:H:153:ALA:HB3	2.17	0.44
30:W:25:ARG:O	30:W:29:GLN:HG3	2.17	0.44
25:R:301:TYR:CD1	25:R:305:PHE:CE1	3.03	0.44
17:J:167:PRO:HB3	17:J:174:PHE:CD2	2.44	0.44
27:T:188:GLU:O	27:T:192:ASN:ND2	2.50	0.44
17:J:135:SER:O	18:K:293:GLN:NE2	2.42	0.44
29:V:127:LYS:O	29:V:131:GLN:HG2	2.16	0.44
17:J:210:PHE:CE2	17:J:212:ARG:CG	3.00	0.44
19:L:189:GLN:HE21	19:L:350:PRO:HD2	1.69	0.44
25:R:197:MET:HB3	25:R:198:ILE:H	1.55	0.44
24:Q:343:LEU:CD1	24:Q:368:LEU:HD11	2.36	0.44
5:5:111:THR:HG21	5:5:113:TYR:CE2	2.51	0.44
24:Q:38:SER:CB	24:Q:88:PHE:CE1	2.99	0.44
24:Q:373:VAL:HG12	24:Q:377:LEU:HD12	1.99	0.44
2:2:54:ALA:CB	3:3:87:TYR:CE1	3.00	0.44
20:M:131:MET:SD	20:M:137:PRO:HB3	2.57	0.44
17:J:101:ASP:C	17:J:102:ILE:HG23	2.38	0.44
22:O:60:ARG:HH21	22:O:94:GLU:CD	2.20	0.44
17:J:79:VAL:HG22	17:J:83:LYS:O	2.17	0.44
33:Z:56:LEU:HD22	33:Z:68:LEU:HD23	1.90	0.44
22:O:72:LYS:HG2	22:O:73:ILE:HG12	1.99	0.44
21:N:329:HIS:O	21:N:332:VAL:HG12	2.18	0.44
33:Z:135:LEU:HD21	33:Z:195:PHE:HA	2.00	0.44
3:3:52:THR:CG2	4:4:84:ARG:CZ	2.94	0.44
16:I:97:GLU:HA	16:I:100:ARG:HE	1.83	0.44
33:Z:911:LYS:HB3	33:Z:962:ARG:HG3	2.00	0.44
21:N:697:PHE:CE1	21:N:739:PHE:CZ	3.05	0.44
21:N:222:TYR:CZ	21:N:253:LEU:HD21	2.53	0.44
25:R:105:LYS:HE2	25:R:109:LYS:CE	2.47	0.44
23:P:272:PRO:O	23:P:273:TYR:CE1	2.67	0.44
21:N:32:VAL:HG21	21:N:64:ILE:HG23	2.00	0.44
25:R:252:TYR:CE2	25:R:321:TYR:HD2	2.35	0.44
26:S:156:VAL:HG22	26:S:187:ILE:HG23	1.99	0.44
18:K:209:VAL:CG1	18:K:338:ILE:HD12	2.48	0.44
33:Z:598:ALA:O	33:Z:601:VAL:HG22	2.17	0.44
33:Z:249:MET:HE3	33:Z:268:ALA:HB2	1.98	0.44
21:N:758:VAL:HG23	21:N:874:ILE:HD13	1.99	0.44
26:S:295:ALA:HA	26:S:298:ARG:HE	1.81	0.44
26:S:302:HIS:CD2	26:S:303:ASN:CG	2.91	0.44
6:6:14:LEU:HD22	6:6:42:VAL:HG23	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:E:52:LYS:HE2	12:E:217:ALA:O	2.17	0.44
15:H:168:ILE:HG22	15:H:172:MET:SD	2.58	0.44
33:Z:53:VAL:CG2	33:Z:91:PHE:CD2	3.01	0.44
25:R:209:ARG:HH21	25:R:243:LEU:CD2	2.31	0.44
33:Z:518:LEU:CD1	33:Z:562:TRP:HE3	2.28	0.44
22:O:384:MET:HE1	28:U:189:ARG:HB3	2.00	0.44
21:N:515:ARG:NH2	21:N:738:GLN:CD	2.65	0.44
25:R:335:ARG:CA	25:R:371:PHE:CE2	3.01	0.44
25:R:158:LEU:HD21	25:R:197:MET:CE	2.48	0.44
10:C:4:ARG:HD3	12:E:125:GLU:HG3	2.00	0.44
27:T:26:LEU:HB3	27:T:30:ILE:HD11	1.99	0.44
19:L:289:ARG:CD	19:L:334:ASP:OD1	2.66	0.44
2:2:36:ARG:NH2	2:2:39:PRO:N	2.66	0.44
33:Z:207:ILE:HA	33:Z:210:TYR:CD2	2.53	0.44
30:W:65:PHE:HZ	30:W:98:LEU:HD23	1.83	0.44
25:R:55:LYS:HG2	25:R:98:LEU:HD13	2.00	0.44
24:Q:262:LEU:HD23	24:Q:296:ILE:CD1	2.47	0.44
18:K:423:LYS:HE3	18:K:424:PHE:CE2	2.48	0.44
21:N:123:PHE:CD1	21:N:129:ILE:HD13	2.53	0.44
25:R:224:PHE:CE2	25:R:328:PHE:CE1	3.05	0.44
33:Z:397:ASP:HB2	33:Z:425:ILE:HG21	1.99	0.44
24:Q:171:LYS:HB2	24:Q:172:PRO:HD3	1.99	0.44
24:Q:278:VAL:O	24:Q:282:LEU:HG	2.17	0.44
15:H:267:THR:O	15:H:268:ASP:HB3	2.18	0.44
16:I:126:PRO:HB2	16:I:128:TYR:CE2	2.39	0.44
17:J:248:ASP:O	17:J:249:GLU:CB	2.66	0.44
21:N:584:ARG:HH11	21:N:614:ASN:HD22	0.71	0.44
25:R:34:THR:HG22	25:R:70:TYR:HB2	2.00	0.44
18:K:85:GLU:O	18:K:89:ILE:HG12	2.17	0.44
2:2:83:LEU:CD1	2:2:100:VAL:HG21	2.48	0.44
27:T:15:PHE:CZ	27:T:67:LEU:CB	2.94	0.44
23:P:245:TYR:CE2	23:P:257:TRP:NE1	2.86	0.44
13:F:43:HIS:CE1	13:F:218:LYS:HB3	2.53	0.44
19:L:389:ALA:HA	20:M:339:ARG:HE	1.83	0.44
16:I:106:ILE:HD13	16:I:160:LEU:CD2	2.48	0.44
33:Z:312:TYR:CE1	33:Z:348:LEU:CD2	2.99	0.44
27:T:245:TYR:O	27:T:246:GLU:HB3	2.15	0.44
15:H:223:GLU:HB3	20:M:400:MET:HE3	1.99	0.44
25:R:258:LEU:HD22	25:R:296:LEU:HD12	1.99	0.44
16:I:257:LEU:HB2	16:I:304:ARG:NH2	2.33	0.44
6:6:195:ILE:HG22	6:6:197:ILE:HG13	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:S:204:ASP:O	26:S:208:ILE:HD12	2.17	0.44
16:I:137:ASP:H	16:I:140:LEU:HD12	1.82	0.44
5:5:4:LEU:HD11	5:5:15:ALA:HB3	2.00	0.44
2:2:171:SER:OG	2:2:172:ASN:N	2.49	0.44
33:Z:100:CYS:SG	33:Z:137:TYR:OH	2.63	0.44
30:W:14:GLU:O	30:W:18:ASN:ND2	2.51	0.44
15:H:284:VAL:HG12	20:M:253:GLN:CA	2.47	0.44
33:Z:234:PRO:HA	33:Z:271:ILE:HG12	2.00	0.44
33:Z:863:THR:CG2	33:Z:911:LYS:HZ2	2.14	0.44
22:O:41:LEU:HD12	22:O:41:LEU:C	2.39	0.44
29:V:23:THR:N	29:V:167:ASN:HB2	2.33	0.44
3:3:37:TYR:OH	3:3:55:ASN:O	2.35	0.44
33:Z:269:TYR:CZ	33:Z:293:MET:HB3	2.53	0.44
30:W:46:GLU:O	30:W:47:ASN:ND2	2.50	0.44
25:R:312:TYR:HA	25:R:316:LEU:HD12	1.98	0.44
27:T:139:ASP:CB	27:T:142:LEU:HD12	2.46	0.44
2:2:104:ASP:HB3	2:2:105:PRO:CD	2.45	0.44
10:C:49:GLU:HG3	10:C:210:ARG:O	2.18	0.44
27:T:108:LEU:HD23	27:T:174:PHE:CD1	2.53	0.44
25:R:62:TYR:CZ	25:R:180:PHE:CB	2.99	0.44
4:4:51:ASP:OD1	5:5:88:TYR:CE1	2.71	0.44
9:B:196:LEU:O	9:B:200:VAL:HG22	2.18	0.44
15:H:223:GLU:HB3	20:M:400:MET:HE1	1.97	0.44
2:2:213:LEU:HB2	3:3:192:LYS:HB2	2.00	0.44
11:D:146:LYS:HB3	11:D:148:TYR:CE2	2.52	0.44
6:6:17:ASP:OD1	6:6:17:ASP:C	2.56	0.44
33:Z:64:TYR:CE2	33:Z:68:LEU:CD1	2.88	0.43
21:N:328:PHE:HB2	29:V:181:ASN:CG	2.38	0.43
3:3:129:VAL:HG21	3:3:138:PHE:CD1	2.50	0.43
17:J:377:VAL:HG11	17:J:382:PHE:CZ	2.52	0.43
21:N:492:THR:C	21:N:528:ARG:HH11	2.20	0.43
24:Q:429:LYS:CB	29:V:269:ARG:NH2	2.57	0.43
18:K:95:VAL:HG12	19:L:127:TYR:CE1	2.53	0.43
25:R:31:PHE:CD1	25:R:320:LYS:HG2	2.53	0.43
21:N:602:VAL:HG11	21:N:625:LEU:HD23	2.00	0.43
26:S:205:ASN:OD1	27:T:44:LEU:HD22	2.18	0.43
21:N:925:ASP:O	21:N:925:ASP:OD1	2.36	0.43
15:H:156:VAL:HA	15:H:181:TYR:CZ	2.53	0.43
25:R:408:ASP:OD1	26:S:464:ARG:NH1	2.46	0.43
22:O:15:ARG:NH2	22:O:73:ILE:CD1	2.71	0.43
30:W:21:PHE:CE1	30:W:25:ARG:HG3	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:H:62:ARG:HD2	16:I:96:LEU:CD2	2.49	0.43
17:J:135:SER:OG	18:K:280:LYS:HD3	2.17	0.43
33:Z:766:HIS:CD2	33:Z:767:TYR:CD1	3.06	0.43
27:T:89:TYR:CZ	27:T:102:LYS:HB2	2.53	0.43
13:F:7:ASP:HB3	13:F:21:GLN:NE2	2.34	0.43
33:Z:301:THR:CG2	33:Z:307:HIS:ND1	2.81	0.43
22:O:190:TYR:CE2	22:O:194:LEU:HD11	2.53	0.43
9:B:239:THR:O	9:B:243:ILE:HG13	2.19	0.43
6:6:10:ASP:OD1	6:6:11:PHE:CD1	2.60	0.43
20:M:384:ASP:N	20:M:386:PHE:CD1	2.86	0.43
5:5:7:ARG:CZ	5:5:110:PRO:HG2	2.48	0.43
33:Z:972:SER:OG	33:Z:976:HIS:N	2.50	0.43
6:6:2:THR:N	6:6:46:ASN:HD21	2.16	0.43
33:Z:415:MET:HG2	33:Z:446:GLU:HB2	1.99	0.43
21:N:109:TYR:CE1	21:N:129:ILE:HD12	2.50	0.43
11:D:67:ILE:HD11	11:D:73:LEU:HB2	2.00	0.43
18:K:88:ARG:HH11	29:V:149:GLY:HA3	1.82	0.43
23:P:350:LEU:HD13	23:P:383:LEU:HD12	2.00	0.43
16:I:204:HIS:CB	16:I:207:LEU:HB2	2.26	0.43
16:I:207:LEU:CG	33:Z:930:GLY:HA2	2.48	0.43
22:O:384:MET:CE	28:U:190:LEU:HA	2.48	0.43
15:H:155:PHE:CE2	20:M:76:PRO:HB2	2.53	0.43
7:7:91:VAL:HG12	7:7:102:LEU:HD11	1.99	0.43
20:M:130:PRO:HD2	20:M:154:LEU:CD2	2.47	0.43
23:P:138:ARG:HH11	23:P:141:LYS:HD3	1.83	0.43
33:Z:473:LEU:C	33:Z:477:TYR:CD2	2.92	0.43
30:W:178:PRO:O	30:W:179:ARG:HB2	2.17	0.43
19:L:85:GLU:HG3	20:M:58:MET:CE	2.48	0.43
25:R:422:ARG:NH1	26:S:474:GLU:CG	2.81	0.43
11:D:203:VAL:O	11:D:204:GLN:CB	2.66	0.43
15:H:282:LYS:HB2	16:I:257:LEU:HB3	1.99	0.43
1:1:82:PHE:HB2	1:1:113:ILE:HD13	2.00	0.43
29:V:41:GLY:HA2	29:V:49:VAL:CG2	2.48	0.43
17:J:79:VAL:O	17:J:104:VAL:HG21	2.17	0.43
13:F:215:ILE:HG22	13:F:223:THR:O	2.19	0.43
23:P:265:VAL:HG12	23:P:296:GLN:HE21	1.83	0.43
21:N:344:THR:HG22	21:N:344:THR:O	2.18	0.43
23:P:415:TRP:HD1	28:U:265:LEU:HB2	1.83	0.43
15:H:99:VAL:O	15:H:173:ARG:CD	2.65	0.43
33:Z:100:CYS:O	33:Z:103:TYR:HB3	2.18	0.43
31:X:75:TRP:CH2	31:X:125:MET:HE3	2.26	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:114:PRO:CG	1:1:118:SER:HB2	2.45	0.43
6:6:91:LYS:HB2	6:6:96:TYR:CE1	2.47	0.43
14:G:111:PHE:HB2	14:G:114:ARG:HH21	1.83	0.43
33:Z:301:THR:HG22	33:Z:307:HIS:NE2	2.26	0.43
18:K:131:LEU:HA	18:K:135:MET:SD	2.58	0.43
7:7:187:PHE:CE2	7:7:204:LEU:CD1	3.02	0.43
31:X:37:PRO:HB3	31:X:46:TRP:CE3	2.53	0.43
17:J:177:LEU:HD23	17:J:179:ILE:HG22	1.93	0.43
33:Z:900:LEU:HB3	33:Z:903:MET:HE2	2.00	0.43
33:Z:762:GLY:HA2	33:Z:765:MET:CE	2.49	0.43
9:B:48:GLU:HB3	9:B:50:LYS:HE3	1.99	0.43
25:R:338:TYR:CE1	25:R:377:LEU:HD13	2.53	0.43
3:3:17:ASP:C	3:3:17:ASP:OD1	2.57	0.43
25:R:421:VAL:O	25:R:422:ARG:CB	2.66	0.43
21:N:641:LEU:HD13	21:N:660:LEU:HD23	1.99	0.43
3:3:-2:ASN:HA	3:3:21:GLY:H	1.83	0.43
19:L:67:HIS:HD2	19:L:68:ARG:HG3	1.82	0.43
17:J:71:TYR:HE1	18:K:118:TYR:HE2	1.66	0.43
23:P:129:LYS:O	23:P:130:ILE:HB	2.19	0.43
16:I:128:TYR:HD2	16:I:154:MET:HG3	1.81	0.43
1:1:83:LYS:HZ2	1:1:118:SER:CA	2.15	0.43
20:M:258:GLU:O	20:M:262:LEU:HG	2.18	0.43
33:Z:518:LEU:HD11	33:Z:562:TRP:CD2	2.54	0.43
21:N:525:ASN:ND2	21:N:554:THR:HG23	2.33	0.43
19:L:170:MET:HE1	19:L:265:GLU:HB3	1.99	0.43
33:Z:383:SER:HA	33:Z:849:ARG:NH1	2.33	0.43
10:C:144:TYR:CB	10:C:147:GLN:NE2	2.79	0.43
10:C:162:ALA:CB	10:C:176:LEU:HD21	2.47	0.43
6:6:141:LEU:CD1	6:6:145:VAL:CG2	2.95	0.43
33:Z:249:MET:HE1	33:Z:268:ALA:HB2	2.00	0.43
15:H:317:ALA:HB2	15:H:360:THR:HB	2.00	0.43
20:M:263:VAL:HG21	20:M:304:THR:HG23	1.99	0.43
9:B:205:ASN:O	9:B:209:ILE:HG13	2.18	0.43
19:L:353:ASN:HB2	19:L:356:GLY:H	1.84	0.43
15:H:168:ILE:HG21	15:H:172:MET:O	2.18	0.43
15:H:147:ILE:HG23	15:H:181:TYR:HD2	1.83	0.43
15:H:328:GLU:HA	15:H:331:ARG:CZ	2.49	0.43
13:F:72:LEU:HD12	13:F:72:LEU:C	2.39	0.43
27:T:89:TYR:CE1	27:T:102:LYS:CD	2.97	0.43
15:H:144:LYS:HB2	20:M:74:GLN:CD	2.39	0.43
2:2:160:GLN:HG3	2:2:164:TRP:CD1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:G:59:VAL:HG23	14:G:60:PRO:HD2	1.99	0.43
31:X:37:PRO:O	31:X:38:ASN:CB	2.67	0.43
21:N:67:LYS:HG3	21:N:97:PHE:CE1	2.53	0.43
10:C:66:LEU:HD12	10:C:212:GLU:HG2	1.99	0.43
4:4:153:THR:HG21	4:4:182:ILE:HD13	2.00	0.43
28:U:13:LEU:HD11	29:V:36:LYS:CG	2.45	0.43
33:Z:368:VAL:HG12	33:Z:369:PHE:N	2.32	0.43
23:P:302:LEU:HD11	23:P:314:VAL:HG11	2.01	0.43
22:O:4:ASN:HB2	22:O:39:PHE:CD1	2.54	0.43
6:6:112:ALA:HB1	6:6:114:TYR:CE1	2.53	0.43
2:2:163:ILE:HG23	2:2:170:GLY:HA2	2.01	0.43
20:M:164:ASP:CG	20:M:165:SER:H	2.22	0.43
26:S:227:ASN:HB2	26:S:263:ASP:OD2	2.18	0.43
33:Z:64:TYR:HB3	33:Z:111:LEU:HD11	2.01	0.43
33:Z:103:TYR:CE1	33:Z:116:ALA:HB2	2.47	0.43
29:V:135:ARG:CD	29:V:157:ARG:NH1	2.80	0.43
19:L:336:ALA:O	19:L:342:ARG:NH1	2.47	0.43
21:N:58:ARG:HG3	21:N:59:GLU:N	2.34	0.43
33:Z:958:ASN:N	33:Z:961:GLU:OE2	2.45	0.43
33:Z:394:TYR:CB	33:Z:859:LYS:NZ	2.81	0.43
12:E:208:MET:SD	12:E:210:GLU:O	2.77	0.43
20:M:195:GLU:HG3	20:M:199:LEU:HD12	2.01	0.43
18:K:411:TYR:O	18:K:415:VAL:HG22	2.18	0.43
31:X:61:LEU:HD22	31:X:97:TYR:CD2	2.53	0.43
1:1:11:GLY:HA2	1:1:102:TYR:CE1	2.53	0.43
33:Z:312:TYR:CZ	33:Z:348:LEU:CD2	3.02	0.43
24:Q:355:GLU:CG	24:Q:397:LEU:HG	2.47	0.43
29:V:153:ILE:O	29:V:154:ASP:OD1	2.37	0.43
1:1:54:ALA:HB1	2:2:88:PHE:CE1	2.53	0.43
13:F:54:ASP:HB3	13:F:57:SER:H	1.83	0.43
28:U:173:HIS:CE1	29:V:150:LYS:HB2	2.54	0.43
19:L:166:LEU:HD22	19:L:168:TYR:CZ	2.54	0.43
7:7:180:ASP:OD1	7:7:182:ARG:HB2	2.18	0.43
26:S:180:ASN:OD1	26:S:182:LYS:HG3	2.18	0.43
21:N:627:ILE:HG23	21:N:717:LEU:HD21	2.01	0.43
27:T:157:TYR:CD1	27:T:185:ILE:HG23	2.54	0.43
33:Z:763:HIS:C	33:Z:766:HIS:ND1	2.71	0.43
26:S:321:GLN:O	26:S:324:MET:HG2	2.19	0.43
25:R:241:ILE:HG22	25:R:242:GLU:N	2.34	0.43
33:Z:805:LEU:HD22	33:Z:841:GLU:OE1	2.14	0.43
28:U:46:ILE:HG23	28:U:90:ILE:HD12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:H:351:VAL:HG12	15:H:353:PHE:CD1	2.51	0.43
7:7:133:THR:HG21	7:7:148:ARG:HG2	2.01	0.43
33:Z:968:ASP:OD2	33:Z:983:LEU:HD21	2.19	0.43
21:N:602:VAL:HG12	21:N:625:LEU:CD2	2.48	0.43
9:B:160:LYS:HE3	10:C:56:LEU:HD23	2.00	0.43
7:7:8:TYR:CZ	7:7:11:GLY:CA	3.01	0.43
28:U:290:ASP:OD2	29:V:281:SER:HA	2.19	0.43
19:L:218:VAL:HB	19:L:324:ILE:HG12	2.00	0.43
33:Z:410:THR:CG2	33:Z:414:GLY:HA3	2.49	0.43
30:W:8:LEU:HD11	30:W:113:PHE:HE2	1.84	0.43
20:M:368:MET:HG3	20:M:369:THR:O	2.18	0.43
23:P:237:VAL:HG11	23:P:267:PHE:CE2	2.53	0.43
16:I:395:MET:SD	16:I:420:LYS:HE2	2.58	0.43
11:D:159:TRP:CZ3	12:E:59:LEU:CD1	2.97	0.43
33:Z:893:PHE:HB3	33:Z:894:MET:H	1.53	0.43
29:V:145:GLN:CG	29:V:148:LYS:HE3	2.31	0.43
20:M:81:ASN:HB2	20:M:163:PHE:CE1	2.53	0.43
3:3:100:VAL:CG2	3:3:115:PHE:CE1	3.01	0.43
16:I:164:ALA:O	16:I:165:ASP:CB	2.62	0.43
28:U:286:ILE:HG21	29:V:261:LEU:HD23	2.00	0.43
21:N:302:PHE:CZ	21:N:757:THR:CB	3.01	0.43
23:P:263:HIS:ND1	23:P:325:ASP:OD1	2.51	0.43
28:U:62:ASN:CG	28:U:65:VAL:HG23	2.39	0.43
19:L:278:ILE:HG22	19:L:280:MET:HG3	2.00	0.43
22:O:255:LEU:O	22:O:255:LEU:HD23	2.18	0.43
26:S:443:ILE:HG22	26:S:445:THR:HG23	2.00	0.43
12:E:182:GLU:OE1	12:E:203:ILE:HG12	2.19	0.43
13:F:6:TYR:HB2	13:F:20:PHE:HD2	1.84	0.43
33:Z:519:PRO:HD3	33:Z:556:ILE:HG23	1.99	0.43
26:S:455:GLU:H	28:U:274:MET:CE	2.32	0.43
31:X:122:TYR:O	31:X:126:ILE:HG12	2.19	0.43
33:Z:401:VAL:HG22	33:Z:439:TYR:HE2	1.84	0.43
13:F:145:LEU:HD23	13:F:146:GLU:N	2.33	0.43
23:P:72:TRP:CD2	23:P:104:LEU:HD23	2.53	0.43
22:O:40:GLN:HB2	22:O:58:ARG:HE	1.81	0.43
7:7:92:MET:SD	7:7:106:ILE:HD12	2.59	0.43
33:Z:394:TYR:CG	33:Z:859:LYS:NZ	2.83	0.43
7:7:193:ASP:OD1	7:7:195:ASN:N	2.43	0.43
26:S:425:ARG:NH1	27:T:155:GLY:HA2	2.29	0.43
21:N:145:LEU:CB	21:N:173:LYS:NZ	2.79	0.43
15:H:291:VAL:O	15:H:295:PHE:HD1	2.02	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:177:VAL:HG12	1:1:179:THR:CG2	2.44	0.43
12:E:67:ILE:HG22	12:E:228:PHE:HZ	1.83	0.43
13:F:128:TYR:HB3	13:F:130:VAL:HG12	2.00	0.43
1:1:141:ASN:CB	1:1:154:PHE:HE1	2.27	0.43
28:U:175:LEU:HD21	29:V:213:LEU:HB2	1.99	0.43
24:Q:167:LYS:HG3	24:Q:168:LEU:HG	2.01	0.43
5:5:32:LYS:O	5:5:33:ARG:HG2	2.18	0.43
12:E:166:ARG:HB2	13:F:60:GLN:NE2	2.34	0.43
24:Q:412:ALA:O	24:Q:416:VAL:HG23	2.18	0.43
20:M:330:VAL:HG13	20:M:330:VAL:O	2.19	0.43
16:I:285:ASP:OD1	16:I:286:ALA:N	2.52	0.43
28:U:121:LEU:HD11	28:U:134:THR:CG2	2.48	0.43
11:D:60:THR:HG22	11:D:61:PRO:O	2.18	0.43
33:Z:103:TYR:CE2	33:Z:137:TYR:CE1	3.07	0.42
33:Z:744:ALA:CA	33:Z:783:VAL:HG22	2.48	0.42
17:J:199:ALA:CB	17:J:210:PHE:CE1	3.01	0.42
12:E:165:TYR:CE2	20:M:434:ALA:HB2	2.53	0.42
7:7:33:ARG:NH2	7:7:45:ILE:C	2.73	0.42
33:Z:886:VAL:HA	33:Z:893:PHE:CZ	2.50	0.42
26:S:428:ARG:CA	27:T:195:LEU:HD22	2.42	0.42
33:Z:805:LEU:CD2	33:Z:841:GLU:CD	2.72	0.42
3:3:7:THR:HG21	3:3:125:LYS:HB3	2.01	0.42
23:P:212:LYS:HD3	23:P:247:THR:CG2	2.46	0.42
23:P:315:GLN:O	23:P:319:GLU:HG3	2.19	0.42
4:4:142:LEU:HD12	4:4:146:HIS:ND1	2.33	0.42
20:M:396:VAL:O	20:M:400:MET:HG2	2.18	0.42
17:J:374:ARG:HH21	17:J:381:ASP:CG	2.21	0.42
24:Q:148:LYS:O	24:Q:149:LYS:CB	2.66	0.42
2:2:6:VAL:CG1	2:2:13:VAL:HB	2.49	0.42
13:F:86:ASN:HA	13:F:89:ARG:NH2	2.34	0.42
33:Z:410:THR:HG22	33:Z:414:GLY:HA3	1.99	0.42
15:H:402:ILE:HG13	15:H:440:GLU:HG2	1.99	0.42
4:4:167:LEU:O	4:4:171:MET:HB3	2.19	0.42
29:V:93:ASP:O	29:V:96:LYS:HB3	2.19	0.42
23:P:266:TYR:CE1	23:P:322:LEU:HA	2.54	0.42
33:Z:584:VAL:O	33:Z:588:ILE:HG13	2.19	0.42
15:H:156:VAL:CG2	15:H:181:TYR:CZ	2.83	0.42
15:H:285:GLY:H	15:H:331:ARG:NH1	2.15	0.42
21:N:596:LEU:CD2	21:N:717:LEU:HD13	2.42	0.42
15:H:102:CYS:HB2	15:H:105:ILE:CD1	2.27	0.42
22:O:223:LEU:HD23	22:O:280:LEU:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:3:63:ASN:CB	10:C:96:GLN:NE2	2.82	0.42
19:L:290:ARG:CZ	19:L:293:GLU:HA	2.49	0.42
15:H:311:ILE:HD12	15:H:361:LEU:HD13	2.00	0.42
1:1:-2:LEU:C	1:1:-2:LEU:HD12	2.39	0.42
5:5:35:ILE:HG21	5:5:56:GLU:HB2	2.01	0.42
6:6:36:ASP:OD1	6:6:38:GLY:N	2.51	0.42
13:F:14:SER:OG	13:F:18:ARG:O	2.35	0.42
23:P:281:ILE:HD11	23:P:297:GLU:HG3	2.00	0.42
19:L:149:ASP:CB	19:L:152:THR:HB	2.48	0.42
33:Z:542:ILE:HG21	33:Z:573:LEU:HD11	2.01	0.42
2:2:87:LEU:HD23	2:2:94:ILE:HB	2.00	0.42
26:S:201:ILE:HD13	26:S:205:ASN:HD22	1.84	0.42
21:N:669:GLU:O	21:N:670:LYS:HB2	2.19	0.42
21:N:303:LEU:HD13	21:N:342:GLY:HA3	2.01	0.42
8:A:21:PRO:HB3	9:B:23:TYR:CE1	2.54	0.42
24:Q:245:SER:O	24:Q:249:LEU:HG	2.18	0.42
12:E:56:SER:OG	12:E:59:LEU:HB2	2.19	0.42
21:N:221:ASP:HA	21:N:894:ARG:NH1	2.34	0.42
16:I:172:LYS:HD3	17:J:231:ARG:HH12	1.84	0.42
21:N:162:ARG:HD3	21:N:165:ILE:HG13	1.97	0.42
18:K:346:ARG:CG	18:K:349:ARG:HH22	2.25	0.42
1:1:66:TYR:HE2	1:1:73:PRO:HA	1.85	0.42
1:1:46:SER:OG	1:1:96:GLY:O	2.33	0.42
9:B:43:VAL:HG11	9:B:137:ALA:CB	2.41	0.42
10:C:50:ARG:HH12	10:C:232:PRO:HG3	1.85	0.42
5:5:34:VAL:HG11	5:5:42:LEU:HD22	2.00	0.42
10:C:18:ARG:NH2	11:D:29:ARG:HH22	2.11	0.42
8:A:18:ILE:HD12	9:B:20:GLN:HE22	1.84	0.42
24:Q:190:ASN:HD21	24:Q:193:LYS:HE3	1.85	0.42
17:J:349:LYS:NZ	17:J:383:GLU:HB2	2.35	0.42
2:2:197:GLU:O	3:3:142:GLU:OE2	2.37	0.42
22:O:291:ILE:HD12	22:O:294:MET:HE1	2.00	0.42
24:Q:373:VAL:O	24:Q:377:LEU:HG	2.19	0.42
6:6:171:VAL:O	6:6:175:VAL:HG23	2.20	0.42
22:O:365:LYS:HB3	22:O:369:ARG:HH12	1.83	0.42
9:B:2:THR:HB	14:G:127:SER:OG	2.19	0.42
15:H:210:ASP:HA	15:H:388:ILE:HG12	2.00	0.42
33:Z:112:LYS:HA	33:Z:115:LEU:HD12	2.01	0.42
26:S:461:PHE:HA	28:U:281:LEU:HD11	2.01	0.42
16:I:128:TYR:CE2	16:I:154:MET:HG3	2.53	0.42
15:H:284:VAL:CG2	20:M:254:MET:CA	2.79	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:N:745:LEU:O	21:N:748:PHE:CD1	2.73	0.42
33:Z:224:LEU:HD21	33:Z:236:PHE:HD2	1.76	0.42
21:N:525:ASN:HA	21:N:528:ARG:HD3	2.01	0.42
13:F:7:ASP:O	13:F:21:GLN:NE2	2.52	0.42
20:M:75:LEU:HD22	20:M:77:TYR:O	2.19	0.42
21:N:4:THR:HG21	26:S:215:MET:SD	2.60	0.42
19:L:125:PRO:HB2	19:L:127:TYR:HE2	1.72	0.42
10:C:13:PHE:CD1	10:C:19:LEU:HD21	2.54	0.42
26:S:223:LEU:O	26:S:224:LYS:HD3	2.19	0.42
3:3:7:THR:HG23	3:3:112:ILE:HD13	2.01	0.42
23:P:95:TYR:CE2	23:P:96:MET:CE	3.00	0.42
9:B:43:VAL:HG21	9:B:146:SER:O	2.19	0.42
8:A:18:ILE:HB	9:B:20:GLN:NE2	2.33	0.42
1:1:36:ARG:HD3	1:1:42:TRP:CZ2	2.54	0.42
12:E:166:ARG:HB2	13:F:60:GLN:CD	2.40	0.42
15:H:423:CYS:HA	15:H:443:PHE:CE1	2.54	0.42
18:K:197:LEU:HD23	18:K:200:GLN:OE1	2.20	0.42
20:M:401:ILE:HG12	20:M:404:ARG:NH2	2.35	0.42
19:L:141:LYS:O	19:L:144:VAL:HG23	2.18	0.42
17:J:301:ASP:O	17:J:304:LEU:HB2	2.19	0.42
23:P:303:PHE:CZ	23:P:345:VAL:HG22	2.46	0.42
13:F:101:ARG:HG2	13:F:103:LEU:N	2.19	0.42
23:P:326:ASP:OD1	23:P:327:LEU:HG	2.20	0.42
21:N:207:LEU:CD1	21:N:232:LEU:HD23	2.49	0.42
1:1:63:LEU:HD22	1:1:73:PRO:HG3	2.01	0.42
21:N:770:LYS:CD	21:N:917:ILE:HG21	2.50	0.42
24:Q:52:ASN:HD21	24:Q:92:LYS:NZ	2.18	0.42
23:P:101:MET:HE2	23:P:119:ILE:HD11	2.01	0.42
33:Z:354:PRO:O	33:Z:357:ILE:CG1	2.66	0.42
3:3:42:LEU:HD22	3:3:78:PHE:HZ	1.83	0.42
8:A:52:VAL:CG1	8:A:203:VAL:HG22	2.49	0.42
2:2:97:TYR:CZ	2:2:115:ALA:CB	3.02	0.42
23:P:422:LEU:CD1	28:U:262:GLN:NE2	2.82	0.42
26:S:436:ILE:HG23	27:T:197:TYR:CD2	2.55	0.42
14:G:175:LEU:O	14:G:179:VAL:HG23	2.19	0.42
2:2:55:VAL:HG21	2:2:94:ILE:CG2	2.49	0.42
21:N:106:ILE:O	21:N:110:VAL:HG23	2.19	0.42
8:A:87:ILE:O	8:A:87:ILE:CG2	2.67	0.42
20:M:221:TYR:O	20:M:349:PHE:HD1	2.03	0.42
28:U:12:PRO:HD2	28:U:167:GLU:OE2	2.19	0.42
33:Z:89:LEU:CD1	33:Z:125:THR:CG2	2.97	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Q:151:TYR:CD2	24:Q:188:LEU:HD21	2.55	0.42
18:K:280:LYS:NZ	18:K:293:GLN:OE1	2.50	0.42
22:O:58:ARG:CB	22:O:61:LEU:HD12	2.49	0.42
26:S:343:LEU:CG	26:S:347:HIS:HE1	2.30	0.42
21:N:211:PHE:O	21:N:215:MET:HG2	2.18	0.42
23:P:154:ASP:OD1	23:P:190:LYS:HD3	2.20	0.42
26:S:162:VAL:HG12	26:S:167:LEU:HD22	2.00	0.42
8:A:83:VAL:HG11	8:A:90:ALA:HA	2.01	0.42
12:E:50:VAL:HG22	12:E:67:ILE:CD1	2.45	0.42
23:P:324:GLU:O	23:P:325:ASP:CG	2.58	0.42
9:B:75:TYR:HB3	9:B:134:LEU:CD2	2.49	0.42
33:Z:407:VAL:HG12	33:Z:415:MET:CE	2.50	0.42
3:3:6:MET:HE1	3:3:157:THR:HG22	2.02	0.42
12:E:46:VAL:HG11	12:E:145:ALA:CB	2.47	0.42
17:J:247:MET:HE2	17:J:272:MET:HG3	2.01	0.42
15:H:56:LEU:HD21	33:Z:768:GLY:HA2	2.01	0.42
22:O:46:THR:CG2	22:O:50:ASP:OD2	2.68	0.42
29:V:88:GLN:NE2	29:V:89:ALA:HB2	2.34	0.42
8:A:123:ASN:HB3	9:B:84:VAL:HG22	2.01	0.42
25:R:411:LEU:HD22	26:S:464:ARG:NH1	2.21	0.42
28:U:278:ILE:HA	28:U:281:LEU:HD12	2.01	0.42
31:X:79:LYS:HE3	31:X:98:PHE:CD2	2.51	0.42
16:I:207:LEU:CD2	33:Z:930:GLY:HA2	2.49	0.42
33:Z:497:PHE:CD2	33:Z:505:VAL:CB	3.02	0.42
16:I:395:MET:HG3	16:I:420:LYS:CD	2.44	0.42
5:5:135:PHE:CE2	5:5:163:ALA:CB	2.83	0.42
15:H:101:ARG:NH2	15:H:150:LYS:HG3	2.35	0.42
18:K:385:ALA:HA	19:L:340:PRO:HD2	2.01	0.42
19:L:221:TYR:OH	19:L:348:GLU:HB3	2.20	0.42
18:K:220:THR:HG22	18:K:224:LYS:HE3	2.01	0.42
6:6:48:PHE:CE2	6:6:50:ALA:CB	2.95	0.42
27:T:183:SER:O	27:T:186:ARG:HG2	2.19	0.42
25:R:31:PHE:CE1	25:R:35:GLN:HG3	2.54	0.42
10:C:72:LYS:HG2	10:C:225:VAL:HG11	2.01	0.42
13:F:74:LEU:HD12	13:F:74:LEU:C	2.40	0.42
12:E:180:GLN:HA	12:E:183:LEU:HD12	2.02	0.42
21:N:394:ARG:HA	21:N:401:LYS:HZ3	1.84	0.42
24:Q:9:GLU:CG	24:Q:13:ARG:HH12	2.32	0.42
22:O:138:LEU:HG	22:O:146:ALA:HB1	2.00	0.42
1:1:55:ILE:HD12	1:1:95:ALA:HB2	2.00	0.42
33:Z:532:HIS:CD2	33:Z:572:ILE:HD13	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:J:183:LYS:O	17:J:276:LEU:HD13	2.20	0.42
5:5:4:LEU:C	5:5:4:LEU:HD12	2.40	0.42
28:U:195:LYS:HB3	29:V:233:LYS:HD3	2.02	0.42
21:N:45:ASP:O	21:N:48:ALA:HB3	2.19	0.42
9:B:122:THR:OG1	9:B:129:PRO:HG3	2.19	0.42
25:R:392:ARG:HG3	25:R:394:ASP:O	2.20	0.42
17:J:377:VAL:CG1	17:J:378:THR:N	2.82	0.42
27:T:157:TYR:HB3	27:T:189:ILE:HD11	2.02	0.42
14:G:111:PHE:CG	14:G:114:ARG:NH2	2.85	0.42
16:I:320:GLY:HA2	16:I:323:LYS:NZ	2.34	0.42
25:R:73:ASN:N	25:R:76:GLN:HE21	2.17	0.42
18:K:156:SER:HB3	18:K:253:MET:SD	2.60	0.42
31:X:100:TRP:CZ3	31:X:102:GLN:CA	2.92	0.42
13:F:65:LYS:CA	13:F:222:PHE:CE2	3.02	0.42
33:Z:357:ILE:HD11	33:Z:980:VAL:HG21	2.01	0.42
7:7:70:ASN:N	7:7:71:PRO:HD3	2.33	0.42
8:A:54:ILE:CD1	8:A:207:ILE:HG13	2.49	0.42
29:V:140:VAL:HG11	29:V:156:PHE:HE2	1.83	0.42
28:U:62:ASN:OD1	28:U:64:ASP:N	2.46	0.42
33:Z:408:TYR:CE1	33:Z:411:LYS:NZ	2.88	0.42
3:3:36:HIS:HB3	3:3:41:PHE:CD2	2.55	0.42
21:N:405:LEU:CD1	21:N:446:ALA:HB2	2.49	0.42
1:1:6:VAL:HG13	1:1:142:PHE:CD1	2.54	0.42
19:L:169:ASN:ND2	19:L:262:ILE:HD13	2.34	0.42
28:U:173:HIS:ND1	29:V:150:LYS:HA	2.35	0.42
6:6:175:VAL:HG13	6:6:179:PHE:HE2	1.84	0.42
5:5:57:THR:HG21	6:6:82:ARG:NH1	2.35	0.42
12:E:15:PHE:HZ	13:F:126:ARG:NH2	2.13	0.42
23:P:369:LEU:CD1	23:P:376:THR:HG23	2.49	0.42
25:R:171:MET:HG3	25:R:209:ARG:HH11	1.84	0.42
25:R:334:ARG:HH11	25:R:363:PHE:HZ	1.60	0.42
11:D:19:GLN:OE1	11:D:128:PRO:HD3	2.20	0.42
21:N:324:LYS:HD2	21:N:325:PHE:CE2	2.55	0.42
1:1:57:ASP:HB3	8:A:106:TYR:OH	2.19	0.42
4:4:28:LYS:HE2	4:4:31:ASP:HB2	2.01	0.42
26:S:258:GLU:O	26:S:259:TYR:CG	2.73	0.42
31:X:45:PHE:CZ	31:X:67:ILE:HD13	2.55	0.42
33:Z:483:THR:HG22	33:Z:521:GLU:HG3	2.02	0.42
18:K:241:GLU:CA	19:L:303:ARG:NH1	2.72	0.42
9:B:239:THR:CG2	9:B:240:SER:N	2.83	0.42
27:T:112:ASN:HA	27:T:177:PHE:CZ	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:L:178:ILE:HD11	19:L:230:LEU:O	2.20	0.42
21:N:302:PHE:HD1	21:N:871:MET:HG3	1.83	0.42
27:T:254:ASP:HB2	27:T:257:THR:OG1	2.19	0.42
4:4:181:LYS:HE2	4:4:190:GLN:HG2	2.01	0.42
19:L:93:ASN:O	19:L:96:LYS:HB2	2.20	0.42
21:N:229:VAL:HG11	21:N:238:ALA:HB2	2.02	0.42
27:T:158:GLN:OE1	27:T:210:PHE:HE1	2.03	0.42
8:A:63:LEU:HD21	14:G:176:GLU:HA	2.02	0.42
28:U:8:VAL:CG1	28:U:10:ILE:HD11	2.50	0.42
31:X:79:LYS:HD3	31:X:98:PHE:HE2	1.84	0.42
22:O:250:TRP:CG	22:O:269:LEU:HD23	2.53	0.42
33:Z:392:LEU:HD13	33:Z:424:SER:C	2.38	0.42
16:I:384:LYS:NZ	16:I:420:LYS:HZ1	2.10	0.42
33:Z:823:ASN:O	33:Z:827:LEU:HD12	2.20	0.42
16:I:172:LYS:HE2	17:J:278:GLN:HB2	2.01	0.42
7:7:145:PRO:CA	7:7:148:ARG:HH21	2.32	0.42
24:Q:165:PHE:HE1	24:Q:170:ASP:HB2	1.85	0.42
21:N:338:PHE:HZ	21:N:736:PHE:HE1	1.67	0.42
31:X:49:GLU:HG2	31:X:65:SER:OG	2.20	0.42
13:F:65:LYS:CE	13:F:222:PHE:HD2	2.25	0.42
2:2:7:LYS:O	2:2:146:LEU:CD2	2.63	0.42
21:N:21:LYS:HD3	21:N:49:LEU:HD22	2.02	0.42
21:N:489:MET:HE1	21:N:494:LYS:HG3	2.00	0.42
4:4:13:ILE:CG2	4:4:160:LEU:CD1	2.97	0.42
13:F:211:LEU:HD12	13:F:234:ILE:HD11	2.01	0.42
4:4:65:LEU:O	4:4:69:ARG:HG3	2.19	0.42
19:L:149:ASP:OD2	19:L:152:THR:CB	2.68	0.42
21:N:645:THR:HG22	21:N:656:ALA:HB1	2.02	0.42
6:6:193:LEU:HD21	6:6:195:ILE:HD11	2.02	0.42
18:K:187:ALA:O	18:K:313:LYS:NZ	2.53	0.42
25:R:118:GLN:O	25:R:122:GLU:HG3	2.20	0.42
15:H:247:LEU:HB2	15:H:371:ILE:HG21	2.02	0.42
18:K:140:HIS:ND1	18:K:143:SER:N	2.68	0.42
25:R:225:LYS:O	25:R:228:ALA:HB3	2.19	0.42
19:L:224:PRO:O	20:M:342:ARG:NH1	2.37	0.42
2:2:1:THR:HG21	2:2:33:LYS:HE3	2.02	0.42
8:A:78:THR:HG22	8:A:231:ASP:C	2.40	0.42
17:J:84:VAL:HG23	17:J:98:VAL:CG1	2.49	0.42
24:Q:146:TYR:HD1	24:Q:184:VAL:HG22	1.84	0.41
6:6:91:LYS:HD2	6:6:96:TYR:OH	2.08	0.41
33:Z:827:LEU:HD13	33:Z:855:LEU:HD22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:N:739:PHE:HD1	21:N:743:PHE:O	2.02	0.41
22:O:41:LEU:HG	22:O:58:ARG:CG	2.50	0.41
19:L:383:SER:HB3	19:L:386:PHE:HD2	1.85	0.41
3:3:60:TYR:CD2	10:C:96:GLN:CB	2.83	0.41
10:C:2:GLY:HA2	13:F:123:TYR:CZ	2.55	0.41
1:1:3:ILE:HD12	1:1:44:CYS:HB2	2.02	0.41
24:Q:141:LEU:CG	24:Q:145:HIS:CD2	2.99	0.41
29:V:186:GLN:HG2	29:V:190:HIS:HD2	1.85	0.41
9:B:249:ALA:CB	24:Q:94:VAL:HG12	2.50	0.41
24:Q:419:LEU:CD2	28:U:289:ASP:OD2	2.68	0.41
8:A:54:ILE:HD12	8:A:206:ALA:HB3	2.01	0.41
19:L:282:GLU:OE2	20:M:306:LEU:CD1	2.67	0.41
28:U:65:VAL:CG1	30:W:96:LEU:HD11	2.49	0.41
12:E:223:THR:HB	12:E:226:ASP:OD1	2.20	0.41
29:V:51:GLY:HA2	29:V:71:MET:HG3	2.02	0.41
20:M:424:ALA:O	20:M:425:ARG:CB	2.64	0.41
22:O:166:ARG:HG3	22:O:167:ILE:N	2.35	0.41
33:Z:591:ILE:HG22	33:Z:593:HIS:HD2	1.85	0.41
12:E:184:LEU:HA	13:F:56:LEU:HD11	2.02	0.41
15:H:278:GLU:CD	16:I:262:ARG:HH11	2.22	0.41
20:M:283:LEU:O	20:M:283:LEU:HG	2.19	0.41
22:O:133:ILE:HG23	22:O:134:ALA:N	2.34	0.41
21:N:414:GLY:HA3	21:N:728:LYS:HE2	2.02	0.41
23:P:131:PHE:CB	23:P:136:ARG:NH1	2.80	0.41
15:H:147:ILE:HG13	15:H:183:ILE:CD1	2.50	0.41
15:H:168:ILE:HD12	15:H:187:LEU:CD1	2.42	0.41
33:Z:497:PHE:HB2	33:Z:533:VAL:CG2	2.46	0.41
13:F:11:VAL:HG22	13:F:120:THR:O	2.20	0.41
33:Z:392:LEU:HD11	33:Z:427:GLN:OE1	2.20	0.41
13:F:72:LEU:HD23	13:F:88:LEU:HD23	2.01	0.41
28:U:189:ARG:CZ	29:V:296:LEU:HD22	2.50	0.41
21:N:293:LEU:HD22	21:N:379:LEU:CD1	2.27	0.41
33:Z:303:ASP:N	33:Z:307:HIS:NE2	2.67	0.41
31:X:91:PHE:O	31:X:96:ARG:NE	2.42	0.41
16:I:320:GLY:HA2	16:I:323:LYS:HZ3	1.85	0.41
25:R:73:ASN:N	25:R:76:GLN:NE2	2.68	0.41
19:L:361:PHE:CE2	19:L:391:ILE:HD12	2.51	0.41
3:3:63:ASN:HB3	10:C:96:GLN:NE2	2.35	0.41
25:R:237:THR:O	25:R:246:TYR:CE1	2.72	0.41
15:H:379:LEU:HD23	15:H:415:THR:HG22	1.95	0.41
20:M:148:VAL:HG22	20:M:155:ILE:CG1	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:L:163:THR:HG21	19:L:264:ARG:NH2	2.34	0.41
24:Q:38:SER:OG	24:Q:39:SER:N	2.45	0.41
16:I:245:LEU:HG	16:I:247:ILE:CD1	2.43	0.41
5:5:54:PHE:HB2	6:6:85:GLN:HE22	1.85	0.41
25:R:367:ASP:OD1	25:R:370:LYS:HD2	2.19	0.41
22:O:321:LYS:O	22:O:325:GLU:HG3	2.20	0.41
3:3:100:VAL:CG2	3:3:115:PHE:HE1	2.33	0.41
30:W:2:VAL:HG23	30:W:4:GLU:HG3	2.02	0.41
29:V:202:ASP:OD1	29:V:203:TYR:N	2.53	0.41
3:3:140:MET:HE3	3:3:144:LEU:HD11	2.00	0.41
26:S:388:ILE:HG21	26:S:422:MET:HE3	2.03	0.41
27:T:92:ASN:O	27:T:130:ASP:OD1	2.38	0.41
25:R:298:ALA:O	25:R:299:SER:HB3	2.20	0.41
25:R:131:ALA:O	25:R:135:ILE:HG13	2.20	0.41
30:W:129:ALA:O	30:W:161:VAL:HG23	2.20	0.41
30:W:37:PHE:CE2	30:W:69:PHE:HB3	2.55	0.41
24:Q:120:LYS:O	24:Q:123:GLU:HB2	2.20	0.41
22:O:15:ARG:NH1	22:O:72:LYS:HG2	2.35	0.41
17:J:166:LEU:O	17:J:174:PHE:CE1	2.74	0.41
13:F:101:ARG:HH11	13:F:104:ALA:H	1.68	0.41
31:X:48:PHE:HE1	31:X:128:VAL:HG11	1.85	0.41
15:H:206:VAL:CG2	15:H:261:ARG:NE	2.64	0.41
14:G:168:ARG:HH21	14:G:172:LYS:HZ1	1.68	0.41
10:C:4:ARG:NH1	12:E:125:GLU:HG3	2.36	0.41
20:M:152:SER:O	20:M:154:LEU:HG	2.20	0.41
20:M:200:PRO:HB2	20:M:319:ASP:OD2	2.20	0.41
5:5:159:ARG:NH1	5:5:200:VAL:HG13	2.35	0.41
24:Q:343:LEU:O	24:Q:347:LEU:HG	2.20	0.41
14:G:61:GLN:HG2	14:G:214:GLU:OE1	2.20	0.41
22:O:23:HIS:CG	22:O:24:PRO:HD2	2.55	0.41
3:3:116:ASP:CG	3:3:117:LEU:H	2.23	0.41
10:C:86:ILE:O	10:C:90:THR:HG23	2.20	0.41
24:Q:369:ASP:OD1	24:Q:369:ASP:C	2.59	0.41
25:R:37:LYS:HG3	25:R:38:VAL:HG23	2.01	0.41
7:7:137:GLY:O	7:7:140:ALA:HB3	2.19	0.41
13:F:194:VAL:O	13:F:197:ILE:HG22	2.20	0.41
13:F:37:GLY:HA2	13:F:46:LEU:HD23	2.02	0.41
33:Z:103:TYR:CE2	33:Z:137:TYR:HE1	2.38	0.41
15:H:331:ARG:HD2	20:M:252:VAL:HG11	2.01	0.41
33:Z:562:TRP:CE2	33:Z:566:LEU:CD2	2.91	0.41
21:N:406:TYR:CE1	21:N:448:LEU:HD13	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:153:TYR:CZ	33:Z:157:LEU:HD22	2.55	0.41
13:F:101:ARG:NH2	13:F:103:LEU:CD1	2.82	0.41
26:S:323:LEU:HD21	26:S:383:LEU:HD23	2.02	0.41
28:U:67:PHE:CE1	30:W:97:THR:CG2	3.04	0.41
20:M:196:ALA:CA	20:M:345:ARG:HH21	2.32	0.41
18:K:234:PHE:CE2	18:K:236:ARG:HB2	2.56	0.41
11:D:127:ARG:O	11:D:127:ARG:HD2	2.19	0.41
29:V:69:PHE:C	29:V:108:TYR:HH	2.24	0.41
33:Z:483:THR:CB	33:Z:521:GLU:HG3	2.51	0.41
17:J:177:LEU:CD2	17:J:179:ILE:HB	2.51	0.41
6:6:43:MET:HG3	6:6:102:ILE:CG2	2.41	0.41
8:A:137:LEU:HD21	14:G:124:LEU:HD11	2.03	0.41
13:F:14:SER:HB2	13:F:15:PRO:HD2	2.02	0.41
22:O:383:LYS:NZ	27:T:252:GLU:HG3	2.34	0.41
27:T:57:ILE:CG2	27:T:58:THR:N	2.83	0.41
3:3:-2:ASN:ND2	3:3:48:ALA:HB2	2.36	0.41
17:J:349:LYS:HZ3	17:J:383:GLU:HB2	1.85	0.41
3:3:65:TYR:CD2	3:3:73:ILE:HG22	2.54	0.41
10:C:244:ILE:O	10:C:244:ILE:HG22	2.21	0.41
19:L:284:ASP:HB2	20:M:295:LYS:HE3	2.03	0.41
10:C:208:TYR:HB3	10:C:239:LEU:HD12	2.00	0.41
23:P:130:ILE:O	23:P:130:ILE:CG2	2.65	0.41
30:W:21:PHE:HZ	30:W:25:ARG:HH12	1.58	0.41
25:R:243:LEU:O	25:R:244:THR:HB	2.20	0.41
33:Z:865:ASP:CG	33:Z:909:ARG:CZ	2.81	0.41
15:H:382:LEU:HD22	15:H:408:SER:C	2.41	0.41
15:H:62:ARG:CD	16:I:96:LEU:HD21	2.50	0.41
7:7:5:SER:OG	7:7:119:LEU:HD11	2.20	0.41
23:P:72:TRP:CE3	23:P:104:LEU:CD2	3.03	0.41
16:I:172:LYS:NZ	17:J:234:PHE:CE2	2.89	0.41
10:C:177:GLN:HE22	11:D:52:LEU:HB3	1.84	0.41
2:2:43:CYS:SG	2:2:100:VAL:HG22	2.61	0.41
20:M:197:ILE:C	20:M:200:PRO:HD2	2.40	0.41
15:H:61:ALA:O	15:H:65:GLU:HG3	2.21	0.41
33:Z:452:LEU:HD22	33:Z:477:TYR:CD2	2.56	0.41
27:T:28:PRO:O	27:T:31:LYS:HB2	2.20	0.41
24:Q:348:CYS:SG	24:Q:380:MET:HG3	2.60	0.41
24:Q:88:PHE:CE2	24:Q:89:ALA:CB	3.04	0.41
25:R:378:ASN:HB3	25:R:391:ASN:CG	2.40	0.41
33:Z:971:ILE:HG22	33:Z:972:SER:O	2.20	0.41
4:4:55:PHE:O	4:4:59:ILE:HG12	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:I:354:ASP:C	16:I:354:ASP:OD1	2.59	0.41
28:U:288:PHE:CE2	28:U:292:ILE:HD11	2.56	0.41
12:E:35:SER:HG	12:E:53:ARG:HE	1.63	0.41
6:6:14:LEU:CD2	6:6:42:VAL:HG23	2.50	0.41
11:D:16:HIS:HB2	11:D:21:GLU:OE2	2.20	0.41
31:X:31:GLY:HA2	31:X:53:THR:HG23	2.02	0.41
17:J:91:GLU:HB3	17:J:94:TYR:OH	2.20	0.41
28:U:277:TYR:OH	29:V:295:VAL:HG12	2.19	0.41
16:I:128:TYR:CD2	16:I:154:MET:CG	3.01	0.41
16:I:126:PRO:CG	16:I:154:MET:HE2	2.47	0.41
4:4:117:GLN:NE2	4:4:130:GLY:HA3	2.34	0.41
25:R:140:TYR:CD2	25:R:141:TYR:CE1	3.08	0.41
22:O:266:PHE:CE1	22:O:284:GLU:OE1	2.73	0.41
11:D:174:PHE:CZ	11:D:197:ARG:HB3	2.56	0.41
16:I:104:LEU:HD21	16:I:149:LEU:N	2.36	0.41
23:P:119:ILE:HD13	23:P:143:LEU:HB2	2.02	0.41
24:Q:88:PHE:CD2	24:Q:89:ALA:CB	3.04	0.41
21:N:205:SER:O	21:N:209:LYS:HG3	2.20	0.41
22:O:310:PHE:CD2	22:O:346:GLU:HA	2.56	0.41
11:D:48:ARG:HH12	11:D:57:THR:CB	2.30	0.41
33:Z:436:LEU:CD2	33:Z:455:ILE:HG13	2.49	0.41
6:6:19:ARG:HE	6:6:190:GLY:HA3	1.85	0.41
21:N:340:HIS:HB3	21:N:374:ILE:HG12	2.03	0.41
6:6:56:VAL:O	6:6:60:LYS:HG3	2.20	0.41
21:N:892:PRO:CA	21:N:905:LEU:HG	2.51	0.41
25:R:308:LEU:HD13	25:R:333:MET:HE2	2.03	0.41
5:5:66:HIS:CE1	5:5:70:GLU:CD	2.94	0.41
22:O:225:ASP:HA	22:O:287:LEU:HD21	2.02	0.41
21:N:321:LEU:HD12	21:N:321:LEU:C	2.41	0.41
25:R:381:ILE:O	25:R:381:ILE:HG13	2.21	0.41
20:M:278:ILE:HB	20:M:323:VAL:HG22	2.02	0.41
21:N:692:GLU:O	21:N:696:LYS:HG3	2.20	0.41
16:I:371:LEU:HA	16:I:411:VAL:H	1.86	0.41
25:R:304:TYR:HD2	25:R:305:PHE:HD1	1.69	0.41
22:O:384:MET:CE	28:U:189:ARG:C	2.84	0.41
33:Z:763:HIS:CD2	33:Z:766:HIS:CE1	3.07	0.41
21:N:379:LEU:O	21:N:380:LEU:HD23	2.21	0.41
22:O:116:ASN:HB3	22:O:127:LEU:CG	2.50	0.41
15:H:326:ASP:C	15:H:329:VAL:HG22	2.40	0.41
7:7:33:ARG:HH21	7:7:45:ILE:C	2.24	0.41
7:7:33:ARG:NH2	7:7:46:SER:C	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:888:LEU:CB	33:Z:901:PHE:HE1	2.19	0.41
9:B:58:SER:HA	9:B:61:LEU:HD12	2.03	0.41
15:H:308:PHE:CD1	15:H:351:VAL:CG1	3.03	0.41
5:5:162:LEU:HD23	5:5:200:VAL:HG11	2.03	0.41
10:C:50:ARG:HH21	10:C:209:ASP:HA	1.86	0.41
25:R:264:THR:HA	25:R:267:LYS:HE2	2.02	0.41
25:R:224:PHE:CE2	25:R:328:PHE:CZ	3.08	0.41
11:D:214:VAL:HB	11:D:222:VAL:HG13	2.03	0.41
21:N:87:ASP:OD1	21:N:88:ARG:HG2	2.20	0.41
28:U:172:GLU:O	28:U:176:ARG:HG3	2.20	0.41
11:D:151:GLU:HB2	11:D:152:PRO:HD2	2.02	0.41
11:D:27:VAL:HG21	11:D:132:SER:OG	2.20	0.41
26:S:164:ILE:HB	26:S:165:PRO:CD	2.51	0.41
17:J:213:VAL:HG11	17:J:233:LEU:CD2	2.51	0.41
28:U:32:ARG:NE	28:U:94:HIS:HE1	2.14	0.41
32:Y:83:ARG:HB2	32:Y:86:ARG:NH2	2.35	0.41
16:I:214:LYS:NZ	16:I:318:ASP:O	2.37	0.41
27:T:15:PHE:HZ	27:T:67:LEU:HB3	1.77	0.41
12:E:86:ARG:HH12	12:E:90:GLU:CB	2.21	0.41
19:L:163:THR:OG1	19:L:265:GLU:CG	2.69	0.41
19:L:283:VAL:HA	19:L:286:ILE:HG12	2.02	0.41
8:A:64:LEU:CD1	14:G:157:TRP:HD1	2.33	0.41
33:Z:857:LEU:HD21	33:Z:908:ILE:CD1	2.47	0.41
21:N:535:LEU:O	21:N:539:MET:HG3	2.21	0.41
9:B:211:LEU:CD2	9:B:238:LEU:HD12	2.47	0.41
33:Z:306:MET:HE2	33:Z:310:LEU:HD11	2.01	0.41
33:Z:415:MET:HB3	33:Z:446:GLU:CB	2.47	0.41
2:2:3:ILE:HG13	2:2:99:ILE:CD1	2.50	0.41
21:N:771:PHE:HD2	21:N:772:GLN:O	2.04	0.41
17:J:28:GLN:HG3	26:S:225:HIS:CE1	2.56	0.41
22:O:102:LEU:O	22:O:103:LYS:CG	2.68	0.41
8:A:91:ARG:HG2	14:G:156:TYR:OH	2.21	0.41
8:A:91:ARG:NH2	14:G:113:ASP:OD2	2.45	0.41
17:J:183:LYS:HD2	17:J:308:GLY:O	2.21	0.41
28:U:77:ASN:HD21	28:U:81:LYS:HE3	1.85	0.41
22:O:211:GLN:HE22	22:O:248:TYR:HE2	1.69	0.41
21:N:270:LEU:O	21:N:274:VAL:HG23	2.20	0.41
15:H:218:ILE:O	15:H:222:ARG:HG3	2.21	0.41
7:7:112:GLN:HG2	7:7:114:ASN:H	1.86	0.41
15:H:161:GLU:HA	15:H:184:GLU:OE1	2.21	0.41
15:H:168:ILE:CD1	15:H:187:LEU:HD12	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Z:71:LEU:CD2	33:Z:118:VAL:HG11	2.48	0.41
12:E:15:PHE:CZ	13:F:126:ARG:CZ	3.04	0.41
30:W:20:ASP:CB	30:W:25:ARG:CZ	2.92	0.41
31:X:75:TRP:HE1	31:X:122:TYR:HA	1.86	0.41
20:M:290:ARG:NH1	20:M:294:GLU:HB3	2.35	0.41
33:Z:187:SER:CA	33:Z:201:LEU:HD12	2.51	0.41
33:Z:246:CYS:SG	33:Z:271:ILE:HG22	2.50	0.41
13:F:105:VAL:HG22	13:F:145:LEU:CB	2.45	0.41
29:V:188:LEU:CD1	29:V:188:LEU:C	2.89	0.41
21:N:697:PHE:CZ	21:N:701:VAL:HG21	2.56	0.41
19:L:383:SER:HB3	19:L:386:PHE:CD2	2.55	0.41
1:1:-8:LYS:HD3	2:2:116:HIS:O	2.20	0.41
22:O:374:ASN:OD1	28:U:200:LEU:HB3	2.21	0.41
12:E:125:GLU:H	13:F:124:GLY:HA3	1.85	0.41
23:P:431:HIS:HE1	28:U:137:TYR:HE1	1.67	0.41
28:U:48:VAL:HG22	28:U:90:ILE:HD11	2.02	0.41
21:N:346:ASN:O	21:N:350:LYS:HG3	2.20	0.41
26:S:343:LEU:HB3	26:S:344:PRO:CD	2.49	0.41
10:C:13:PHE:HZ	11:D:127:ARG:HH12	1.58	0.41
8:A:174:LYS:HG3	8:A:214:LEU:HD23	2.03	0.41
21:N:572:LEU:O	21:N:576:VAL:HG23	2.21	0.41
18:K:71:GLU:O	18:K:75:LEU:HG	2.20	0.41
25:R:316:LEU:HD11	25:R:329:PHE:CZ	2.52	0.41
2:2:36:ARG:NE	2:2:38:SER:C	2.74	0.41
2:2:38:SER:HB2	2:2:39:PRO:HD2	2.02	0.41
20:M:281:ASP:O	20:M:282:GLU:HB2	2.20	0.41
33:Z:383:SER:CA	33:Z:849:ARG:NH1	2.84	0.41
23:P:392:LYS:HE2	24:Q:354:PHE:CE2	2.56	0.41
1:1:87:TYR:HA	1:1:116:GLY:O	2.21	0.41
4:4:13:ILE:HG21	4:4:160:LEU:CD1	2.50	0.41
4:4:174:ASP:CG	4:4:176:LYS:NZ	2.75	0.41
8:A:54:ILE:HD12	8:A:206:ALA:HB1	2.03	0.41
29:V:156:PHE:CD1	29:V:198:SER:HA	2.55	0.41
21:N:43:LEU:HD11	21:N:69:TYR:CZ	2.56	0.41
4:4:65:LEU:HD11	4:4:69:ARG:NE	2.36	0.41
16:I:336:PRO:HA	16:I:339:ILE:HD12	2.02	0.41
16:I:136:VAL:HG11	16:I:159:VAL:CG1	2.50	0.41
22:O:189:TYR:CE1	22:O:193:LEU:HD11	2.56	0.41
19:L:214:PRO:HD2	19:L:216:LYS:HZ2	1.83	0.41
21:N:664:LEU:HD21	21:N:672:ASN:ND2	2.36	0.41
7:7:180:ASP:OD1	7:7:182:ARG:N	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:W:8:LEU:HD21	30:W:33:VAL:HG22	2.03	0.41
25:R:102:LEU:HD23	25:R:102:LEU:C	2.41	0.41
16:I:233:ALA:O	16:I:236:VAL:HG12	2.20	0.41
7:7:153:ARG:HG3	7:7:155:SER:OG	2.20	0.41
22:O:304:ASN:HD22	28:U:261:LEU:HA	1.86	0.41
33:Z:449:ALA:HB1	33:Z:485:ILE:HG23	2.03	0.41
20:M:376:TRP:CD2	20:M:377:GLN:N	2.89	0.41
15:H:147:ILE:CD1	15:H:181:TYR:HB3	2.43	0.41
26:S:461:PHE:CE1	28:U:278:ILE:HA	2.55	0.41
26:S:461:PHE:CG	28:U:277:TYR:HB3	2.56	0.41
22:O:71:ASP:O	30:W:18:ASN:CB	2.64	0.41
33:Z:493:LEU:HD21	33:Z:497:PHE:HE2	1.85	0.41
12:E:229:LYS:O	12:E:231:TYR:CD1	2.74	0.41
24:Q:331:THR:CG2	24:Q:335:PHE:CZ	3.04	0.41
22:O:223:LEU:HD22	22:O:279:ILE:HB	2.02	0.41
25:R:237:THR:CG2	25:R:275:GLU:OE1	2.68	0.41
25:R:158:LEU:O	25:R:161:ALA:HB2	2.21	0.41
18:K:220:THR:CG2	18:K:224:LYS:HE3	2.51	0.41
20:M:195:GLU:CA	20:M:199:LEU:HD12	2.39	0.41
15:H:400:ARG:HH22	33:Z:366:LYS:HD2	1.85	0.41
27:T:229:VAL:CG1	27:T:230:ASN:H	2.34	0.41
7:7:157:ILE:HB	7:7:158:PRO:HD3	2.03	0.41
28:U:65:VAL:HG21	30:W:92:GLN:OE1	2.21	0.41
9:B:184:GLU:CG	9:B:185:LEU:N	2.84	0.41
21:N:508:THR:CG2	21:N:510:HIS:H	2.32	0.41
18:K:425:ASP:OD1	18:K:428:LYS:NZ	2.52	0.41
21:N:482:ALA:HB1	21:N:517:LEU:CD2	2.50	0.41
24:Q:215:VAL:O	24:Q:218:LEU:HB2	2.21	0.41
30:W:59:PRO:HG2	30:W:89:THR:CG2	2.51	0.41
26:S:201:ILE:HD13	26:S:205:ASN:ND2	2.35	0.41
21:N:23:TYR:HE2	27:T:41:ILE:HG23	1.86	0.41
33:Z:308:LYS:NZ	33:Z:919:GLU:OE1	2.54	0.41
23:P:239:GLN:HG2	23:P:276:LEU:HD11	2.03	0.41
21:N:9:LEU:HD22	21:N:27:SER:HB2	2.03	0.41
28:U:270:ASN:O	28:U:274:MET:HG3	2.20	0.40
33:Z:823:ASN:CG	33:Z:856:HIS:ND1	2.73	0.40
17:J:219:VAL:HB	18:K:281:ARG:HB3	2.02	0.40
33:Z:327:GLN:HE22	33:Z:346:LEU:HD11	1.84	0.40
25:R:63:TYR:HE2	25:R:94:PHE:CA	2.10	0.40
24:Q:36:SER:H	24:Q:46:VAL:HG23	1.86	0.40
22:O:228:TYR:HA	22:O:290:LYS:CE	2.48	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:J:277:ASN:ND2	17:J:309:ARG:NH2	2.67	0.40
21:N:207:LEU:HD13	21:N:232:LEU:HD23	2.02	0.40
24:Q:51:ARG:HG2	24:Q:85:MET:SD	2.61	0.40
13:F:43:HIS:CE1	13:F:218:LYS:CB	3.04	0.40
9:B:190:HIS:CE1	24:Q:94:VAL:HG21	2.54	0.40
21:N:300:ASN:O	21:N:304:LEU:HG	2.20	0.40
21:N:14:ARG:HH21	21:N:42:GLU:CD	2.21	0.40
9:B:94:HIS:CD2	9:B:98:LYS:NZ	2.89	0.40
24:Q:198:LEU:CD2	24:Q:225:LEU:HD12	2.52	0.40
26:S:159:ASN:HB3	26:S:183:LEU:HD11	2.03	0.40
23:P:178:GLN:HA	23:P:181:LEU:HD12	2.01	0.40
21:N:130:ASP:OD2	21:N:133:LEU:HG	2.21	0.40
11:D:138:PHE:CE1	11:D:215:VAL:HG12	2.55	0.40
5:5:17:ASP:OD1	5:5:17:ASP:C	2.59	0.40
5:5:128:CYS:SG	5:5:140:LEU:CD1	3.09	0.40
26:S:295:ALA:HA	26:S:298:ARG:HH21	1.85	0.40
25:R:309:LEU:HD13	32:Y:79:ALA:HB2	2.03	0.40
17:J:64:LEU:HD21	18:K:121:ARG:NE	2.36	0.40
15:H:327:ASN:O	15:H:331:ARG:HG3	2.21	0.40
11:D:70:HIS:CE1	11:D:97:ARG:NH2	2.87	0.40
28:U:190:LEU:C	28:U:190:LEU:HD23	2.41	0.40
17:J:249:GLU:O	17:J:249:GLU:CG	2.62	0.40
22:O:217:LEU:HD13	22:O:238:ILE:HG21	2.03	0.40
13:F:7:ASP:HB3	13:F:21:GLN:HE22	1.86	0.40
10:C:15:PRO:HG3	15:H:456:LYS:HZ2	1.85	0.40
18:K:89:ILE:HD13	29:V:148:LYS:HB3	2.03	0.40
23:P:141:LYS:HE3	23:P:182:GLU:OE2	2.22	0.40
20:M:197:ILE:HB	20:M:322:LYS:HE2	1.98	0.40
27:T:26:LEU:O	27:T:30:ILE:HG13	2.21	0.40
9:B:146:SER:HB2	9:B:148:TYR:CE2	2.56	0.40
24:Q:51:ARG:CZ	24:Q:55:GLU:OE2	2.69	0.40
23:P:98:GLN:OE1	23:P:139:VAL:HG23	2.22	0.40
8:A:135:ARG:HH11	14:G:124:LEU:CD2	2.34	0.40
23:P:353:ILE:HG22	23:P:402:PHE:CZ	2.57	0.40
22:O:99:LEU:HD11	22:O:132:GLU:CG	2.46	0.40
21:N:761:ILE:HD13	21:N:768:ILE:HG12	2.04	0.40
33:Z:501:LYS:HD3	33:Z:537:THR:HG21	2.02	0.40
26:S:475:TYR:HE1	28:U:291:LEU:O	1.98	0.40
33:Z:57:LYS:HG2	33:Z:98:ASP:OD2	2.21	0.40
14:G:136:ILE:HG12	14:G:149:MET:SD	2.62	0.40
15:H:200:VAL:HG13	15:H:270:THR:HG23	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:K:210:LEU:CB	18:K:334:LEU:HD11	2.51	0.40
27:T:158:GLN:OE1	27:T:210:PHE:CE1	2.74	0.40
8:A:170:ALA:HB2	8:A:178:ILE:HG21	2.01	0.40
25:R:271:ILE:HB	25:R:293:THR:HG21	2.03	0.40
33:Z:278:LEU:HD22	33:Z:297:VAL:CG2	2.51	0.40
12:E:165:TYR:CG	12:E:167:TYR:OH	2.73	0.40
26:S:323:LEU:HD23	26:S:383:LEU:HD23	2.03	0.40
2:2:86:HIS:O	2:2:90:TYR:HD2	2.04	0.40
7:7:187:PHE:CD2	7:7:204:LEU:HB2	2.56	0.40
31:X:9:LYS:HE2	31:X:34:GLU:OE2	2.22	0.40
21:N:529:GLN:HB3	21:N:530:GLU:OE1	2.21	0.40
26:S:234:ILE:HG22	26:S:238:LEU:CD1	2.50	0.40
24:Q:302:VAL:HG13	24:Q:314:PHE:CD1	2.55	0.40
14:G:118:TYR:CE2	14:G:131:PHE:HZ	2.39	0.40
23:P:170:SER:O	23:P:173:MET:HE3	2.22	0.40
17:J:208:CYS:SG	17:J:244:ILE:HG12	2.60	0.40
21:N:240:GLN:O	21:N:244:LYS:HG2	2.21	0.40
33:Z:574:TYR:OH	33:Z:584:VAL:HG13	2.19	0.40
15:H:147:ILE:CG1	15:H:183:ILE:HD11	2.51	0.40
1:1:12:VAL:HG22	1:1:14:LEU:CD1	2.50	0.40
16:I:204:HIS:HB3	16:I:207:LEU:CG	2.51	0.40
21:N:729:SER:O	21:N:733:LEU:HG	2.22	0.40
13:F:120:THR:OG1	14:G:129:ARG:NH1	2.44	0.40
22:O:62:TYR:CE2	22:O:82:LEU:HD22	2.57	0.40
15:H:455:LYS:O	15:H:456:LYS:HB2	2.22	0.40
33:Z:812:ILE:HG22	33:Z:847:ILE:HG22	2.03	0.40
18:K:132:LYS:N	18:K:135:MET:SD	2.94	0.40
22:O:301:PHE:HZ	28:U:234:ASN:HA	1.84	0.40
27:T:27:LEU:HB2	27:T:28:PRO:HD3	2.03	0.40
21:N:529:GLN:NE2	21:N:558:ALA:O	2.51	0.40
8:A:54:ILE:CD1	8:A:206:ALA:HB3	2.51	0.40
8:A:54:ILE:HD13	8:A:207:ILE:CG1	2.52	0.40
3:3:158:ILE:CG2	3:3:159:SER:N	2.85	0.40
22:O:131:SER:CB	22:O:135:ARG:HH12	2.34	0.40
8:A:34:ALA:C	8:A:35:THR:HG23	2.41	0.40
24:Q:220:LEU:O	24:Q:224:ILE:HG13	2.21	0.40
18:K:105:GLN:HG3	18:K:106:ASN:ND2	2.37	0.40
24:Q:122:ILE:O	24:Q:126:LYS:HG3	2.22	0.40
25:R:249:ILE:CG2	25:R:250:ALA:N	2.84	0.40
15:H:182:ASN:ND2	15:H:184:GLU:OE2	2.49	0.40
21:N:337:GLY:O	21:N:373:VAL:CG1	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:V:161:THR:HB	29:V:162:GLY:H	1.65	0.40
14:G:243:GLN:O	14:G:243:GLN:HG3	2.20	0.40
8:A:43:LEU:C	8:A:43:LEU:HD12	2.42	0.40
4:4:168:GLU:OE2	4:4:177:GLY:N	2.54	0.40
4:4:15:ALA:HB1	4:4:178:VAL:HG21	2.03	0.40
6:6:138:MET:HB3	6:6:139:PRO:HD3	2.03	0.40
18:K:112:SER:HB2	18:K:116:MET:O	2.22	0.40
31:X:117:LYS:HG2	31:X:118:ASP:H	1.86	0.40
25:R:209:ARG:NE	25:R:243:LEU:CD2	2.75	0.40
33:Z:138:ARG:NH1	33:Z:157:LEU:HA	2.37	0.40
2:2:8:PHE:HZ	2:2:11:GLY:HA3	1.68	0.40
25:R:237:THR:C	25:R:246:TYR:HE1	2.23	0.40
26:S:428:ARG:HG3	27:T:195:LEU:HD22	2.03	0.40
8:A:164:VAL:CB	9:B:61:LEU:CD2	2.94	0.40
33:Z:866:VAL:CB	33:Z:873:LEU:HG	2.43	0.40
24:Q:4:PRO:CB	24:Q:50:ARG:HH11	2.31	0.40
33:Z:371:SER:O	33:Z:372:ALA:HB3	2.17	0.40
8:A:92:ASN:ND2	14:G:117:GLN:HE22	2.19	0.40
25:R:258:LEU:HD11	25:R:288:SER:CA	2.51	0.40
25:R:262:GLU:HA	25:R:336:LYS:HZ3	1.86	0.40
16:I:432:LEU:N	16:I:433:GLU:OE1	2.54	0.40
9:B:123:GLN:NE2	10:C:86:ILE:HG13	2.35	0.40
17:J:170:HIS:HB2	17:J:173:LEU:HD12	2.04	0.40
20:M:376:TRP:CG	20:M:377:GLN:N	2.89	0.40
26:S:176:LEU:HD22	26:S:228:GLU:H	1.87	0.40
15:H:98:GLN:HE21	15:H:194:SER:HB3	1.85	0.40
33:Z:108:ASP:HA	33:Z:109:PRO:HD3	1.92	0.40
33:Z:329:ILE:HG23	33:Z:330:ILE:N	2.37	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	1	203/215 (94%)	188 (93%)	11 (5%)	4 (2%)	9	51
2	2	221/261 (85%)	211 (96%)	10 (4%)	0	100	100
3	3	202/205 (98%)	184 (91%)	15 (7%)	3 (2%)	13	57
4	4	196/198 (99%)	180 (92%)	13 (7%)	3 (2%)	13	57
5	5	210/287 (73%)	197 (94%)	10 (5%)	3 (1%)	14	58
6	6	220/241 (91%)	205 (93%)	11 (5%)	4 (2%)	11	53
7	7	231/266 (87%)	212 (92%)	17 (7%)	2 (1%)	21	67
8	A	241/252 (96%)	226 (94%)	12 (5%)	3 (1%)	16	61
9	B	248/250 (99%)	233 (94%)	12 (5%)	3 (1%)	16	61
10	C	243/258 (94%)	229 (94%)	11 (4%)	3 (1%)	16	61
11	D	240/254 (94%)	224 (93%)	14 (6%)	2 (1%)	24	69
12	E	241/260 (93%)	223 (92%)	14 (6%)	4 (2%)	11	55
13	F	231/234 (99%)	214 (93%)	12 (5%)	5 (2%)	8	49
14	G	243/288 (84%)	226 (93%)	13 (5%)	4 (2%)	12	56
15	H	353/467 (76%)	305 (86%)	27 (8%)	21 (6%)	2	27
16	I	358/437 (82%)	318 (89%)	29 (8%)	11 (3%)	5	42
17	J	369/405 (91%)	334 (90%)	26 (7%)	9 (2%)	7	47
18	K	377/428 (88%)	338 (90%)	32 (8%)	7 (2%)	10	52
19	L	359/437 (82%)	318 (89%)	36 (10%)	5 (1%)	14	58
20	M	363/434 (84%)	323 (89%)	29 (8%)	11 (3%)	5	42
21	N	843/945 (89%)	786 (93%)	49 (6%)	8 (1%)	21	67
22	O	385/393 (98%)	340 (88%)	31 (8%)	14 (4%)	4	38
23	P	413/445 (93%)	382 (92%)	19 (5%)	12 (3%)	6	43
24	Q	429/434 (99%)	395 (92%)	23 (5%)	11 (3%)	7	45
25	R	398/429 (93%)	354 (89%)	32 (8%)	12 (3%)	5	42
26	S	351/523 (67%)	312 (89%)	29 (8%)	10 (3%)	6	44
27	T	270/274 (98%)	240 (89%)	18 (7%)	12 (4%)	3	33
28	U	245/338 (72%)	237 (97%)	7 (3%)	1 (0%)	39	80
29	V	239/306 (78%)	222 (93%)	10 (4%)	7 (3%)	6	43
30	W	195/268 (73%)	171 (88%)	14 (7%)	10 (5%)	2	30
31	X	125/156 (80%)	106 (85%)	14 (11%)	5 (4%)	4	35
32	Y	17/89 (19%)	17 (100%)	0	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
33	Z	807/993 (81%)	722 (90%)	52 (6%)	33 (4%)	3	35
All	All	10066/11670 (86%)	9172 (91%)	652 (6%)	242 (2%)	12	47

All (242) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
8	A	168	ALA
11	D	204	GLN
13	F	41	ASN
15	H	183	ILE
15	H	185	LEU
15	H	188	PRO
15	H	303	ALA
15	H	396	MET
16	I	125	MET
16	I	130	VAL
17	J	134	VAL
17	J	249	GLU
19	L	253	ASP
20	M	256	ILE
20	M	339	ARG
21	N	17	GLN
22	O	15	ARG
22	O	228	TYR
23	P	53	ALA
23	P	130	ILE
23	P	232	ARG
23	P	321	VAL
23	P	333	ALA
24	Q	354	PHE
24	Q	356	CYS
25	R	197	MET
25	R	244	THR
25	R	271	ILE
26	S	151	GLU
27	T	48	ASN
27	T	94	HIS
27	T	243	ALA
27	T	246	GLU
27	T	250	MET
27	T	254	ASP
28	U	43	SER

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Mol	Chain	Res	Type
29	V	163	ALA
30	W	179	ARG
31	X	78	ILE
33	Z	60	ASP
33	Z	259	PRO
33	Z	318	LYS
33	Z	372	ALA
33	Z	464	ASP
33	Z	482	ASP
1	1	19	ARG
3	3	31	PHE
3	3	93	PRO
4	4	175	PHE
5	5	145	LYS
11	D	218	ASP
12	E	53	ARG
13	F	202	ARG
14	G	184	GLU
15	H	104	LYS
15	H	167	ASP
15	H	189	PRO
15	H	323	ALA
15	H	370	ARG
16	I	135	PHE
16	I	162	ASP
16	I	298	GLY
17	J	207	ASP
17	J	225	GLU
18	K	248	GLY
18	K	397	LYS
20	M	385	GLU
20	M	423	GLN
20	M	431	SER
21	N	614	ASN
21	N	721	ASP
22	O	82	LEU
23	P	85	LYS
23	P	170	SER
23	P	289	ASN
23	P	290	LEU
25	R	92	ILE
25	R	162	ILE

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Mol	Chain	Res	Type
25	R	241	ILE
26	S	144	LEU
26	S	204	ASP
26	S	452	TYR
27	T	117	ASN
29	V	181	ASN
30	W	47	ASN
30	W	136	ASN
30	W	190	ILE
31	X	38	ASN
31	X	116	ALA
33	Z	80	SER
33	Z	82	MET
33	Z	110	ASN
33	Z	132	HIS
33	Z	442	VAL
33	Z	466	GLU
33	Z	609	THR
1	1	92	ASN
4	4	111	ASN
6	6	10	ASP
6	6	157	GLY
6	6	211	LYS
7	7	221	GLY
9	B	3	ASP
9	B	102	GLY
9	B	215	GLY
10	C	220	ALA
10	C	225	VAL
12	E	122	ARG
12	E	216	ASN
14	G	71	ARG
15	H	164	SER
15	H	325	GLY
16	I	228	GLY
16	I	320	GLY
17	J	194	GLY
17	J	317	PRO
18	K	343	LEU
18	K	427	TYR
20	M	167	VAL
20	M	227	GLY

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Mol	Chain	Res	Type
20	M	282	GLU
21	N	742	TRP
21	N	769	PRO
21	N	781	ALA
22	O	107	GLN
22	O	142	ASP
22	O	247	ASN
22	O	304	ASN
23	P	231	LYS
24	Q	37	GLN
24	Q	48	ASP
24	Q	149	LYS
24	Q	399	VAL
25	R	37	LYS
26	S	199	GLU
26	S	284	LEU
27	T	90	PHE
29	V	194	ARG
30	W	101	ARG
33	Z	184	SER
33	Z	228	GLU
33	Z	338	HIS
33	Z	443	ASP
33	Z	524	ALA
33	Z	920	GLY
33	Z	974	THR
1	1	-7	LYS
1	1	145	ASN
3	3	148	ASN
5	5	118	ASP
8	A	13	ASP
8	A	198	SER
13	F	222	PHE
14	G	186	LEU
15	H	172	MET
15	H	191	ILE
18	K	278	ALA
21	N	86	LYS
22	O	302	VAL
22	O	358	ILE
22	O	360	GLY
24	Q	38	SER

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Mol	Chain	Res	Type
24	Q	42	ALA
25	R	326	ALA
26	S	146	LEU
26	S	303	ASN
27	T	244	ASP
29	V	72	PRO
29	V	78	VAL
30	W	57	ALA
30	W	149	GLN
30	W	164	PRO
30	W	169	SER
33	Z	76	LYS
33	Z	142	ASP
33	Z	893	PHE
5	5	173	GLY
6	6	40	ASN
13	F	69	HIS
14	G	70	ASP
15	H	107	LYS
15	H	143	ALA
15	H	170	GLU
15	H	357	ARG
16	I	165	ASP
16	I	341	PRO
17	J	258	VAL
18	K	160	VAL
18	K	424	PHE
19	L	164	ASP
20	M	425	ARG
22	O	203	THR
24	Q	89	ALA
24	Q	273	ASN
25	R	39	SER
25	R	182	ASN
25	R	222	ARG
26	S	174	ARG
26	S	375	ASP
27	T	73	PHE
27	T	172	SER
29	V	161	THR
31	X	28	PRO
33	Z	75	ILE

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Mol	Chain	Res	Type
33	Z	287	ARG
33	Z	957	LEU
7	7	30	GLY
10	C	52	VAL
12	E	190	SER
13	F	103	LEU
15	H	105	ILE
15	H	161	GLU
16	I	205	PRO
17	J	126	LEU
19	L	175	GLN
19	L	183	ILE
24	Q	131	VAL
25	R	198	ILE
27	T	167	GLY
31	X	37	PRO
33	Z	183	LYS
33	Z	919	GLU
33	Z	929	VAL
33	Z	930	GLY
21	N	353	LEU
23	P	396	PRO
30	W	189	PRO
33	Z	469	PRO
22	O	353	VAL
15	H	243	PRO
19	L	287	GLY
20	M	252	VAL
20	M	350	PRO
22	O	164	PRO
29	V	247	ILE
33	Z	578	GLY
4	4	149	PRO
17	J	281	GLY
22	O	238	ILE
23	P	211	PRO
16	I	428	VAL
33	Z	462	VAL

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	1	169/178 (95%)	169 (100%)	0	100	100
2	2	182/214 (85%)	182 (100%)	0	100	100
3	3	172/173 (99%)	172 (100%)	0	100	100
4	4	175/175 (100%)	175 (100%)	0	100	100
5	5	169/235 (72%)	167 (99%)	2 (1%)	78	90
6	6	185/201 (92%)	185 (100%)	0	100	100
7	7	199/224 (89%)	199 (100%)	0	100	100
8	A	207/210 (99%)	207 (100%)	0	100	100
9	B	209/209 (100%)	209 (100%)	0	100	100
10	C	204/216 (94%)	204 (100%)	0	100	100
11	D	214/226 (95%)	214 (100%)	0	100	100
12	E	199/215 (93%)	199 (100%)	0	100	100
13	F	192/193 (100%)	192 (100%)	0	100	100
14	G	201/239 (84%)	200 (100%)	1 (0%)	92	96
15	H	303/399 (76%)	302 (100%)	1 (0%)	94	96
16	I	319/385 (83%)	318 (100%)	1 (0%)	94	96
17	J	325/352 (92%)	325 (100%)	0	100	100
18	K	334/374 (89%)	333 (100%)	1 (0%)	94	96
19	L	308/377 (82%)	307 (100%)	1 (0%)	94	96
20	M	315/375 (84%)	315 (100%)	0	100	100
21	N	713/797 (90%)	713 (100%)	0	100	100
22	O	363/368 (99%)	363 (100%)	0	100	100
23	P	388/415 (94%)	387 (100%)	1 (0%)	94	96
24	Q	388/391 (99%)	388 (100%)	0	100	100
25	R	351/379 (93%)	351 (100%)	0	100	100
26	S	330/489 (68%)	330 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
27	T	254/256 (99%)	254 (100%)	0	100	100
28	U	234/308 (76%)	233 (100%)	1 (0%)	93	96
29	V	217/268 (81%)	217 (100%)	0	100	100
30	W	171/230 (74%)	171 (100%)	0	100	100
31	X	116/144 (81%)	116 (100%)	0	100	100
32	Y	18/81 (22%)	18 (100%)	0	100	100
33	Z	692/850 (81%)	692 (100%)	0	100	100
All	All	8816/10146 (87%)	8807 (100%)	9 (0%)	95	97

All (9) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
5	5	19	ARG
5	5	104	TYR
14	G	217	TRP
15	H	164	SER
16	I	257	LEU
18	K	246	TYR
19	L	253	ASP
23	P	31	ASP
28	U	61	LYS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (154) such sidechains are listed below:

Mol	Chain	Res	Type
1	1	69	GLN
1	1	120	HIS
1	1	157	HIS
2	2	9	ASN
3	3	104	ASN
3	3	160	GLN
4	4	145	HIS
4	4	146	HIS
4	4	165	GLN
5	5	62	GLN
5	5	66	HIS
5	5	176	ASN
5	5	190	ASN

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Mol	Chain	Res	Type
6	6	46	ASN
6	6	70	HIS
6	6	71	ASN
7	7	53	GLN
7	7	70	ASN
7	7	112	GLN
7	7	114	ASN
8	A	36	ASN
8	A	84	ASN
8	A	92	ASN
9	B	20	GLN
9	B	94	HIS
9	B	123	GLN
9	B	180	ASN
10	C	21	GLN
10	C	31	HIS
10	C	96	GLN
10	C	125	HIS
10	C	177	GLN
11	D	19	GLN
11	D	55	GLN
12	E	108	ASN
12	E	114	GLN
13	F	21	GLN
13	F	60	GLN
13	F	91	GLN
13	F	121	GLN
13	F	210	ASN
14	G	11	ASN
14	G	122	HIS
15	H	98	GLN
15	H	217	GLN
15	H	348	ASN
15	H	359	ASN
16	I	102	ASN
16	I	295	ASN
16	I	312	GLN
17	J	156	GLN
17	J	240	HIS
17	J	278	GLN
17	J	331	HIS
17	J	379	GLN

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Mol	Chain	Res	Type
18	K	98	GLN
18	K	106	ASN
18	K	182	GLN
18	K	238	ASN
18	K	414	GLN
19	L	67	HIS
19	L	99	GLN
19	L	133	ASN
19	L	189	GLN
19	L	311	GLN
20	M	81	ASN
20	M	125	GLN
20	M	250	GLN
20	M	311	GLN
20	M	423	GLN
21	N	96	GLN
21	N	176	GLN
21	N	268	GLN
21	N	300	ASN
21	N	306	ASN
21	N	308	ASN
21	N	529	GLN
21	N	614	ASN
21	N	679	ASN
21	N	878	GLN
21	N	900	ASN
22	O	4	ASN
22	O	28	GLN
22	O	105	GLN
22	O	211	GLN
22	O	229	ASN
22	O	235	HIS
22	O	236	HIS
23	P	38	GLN
23	P	48	GLN
23	P	86	HIS
23	P	164	GLN
23	P	277	GLN
23	P	296	GLN
23	P	342	GLN
23	P	366	ASN
23	P	425	HIS

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Mol	Chain	Res	Type
23	P	431	HIS
24	Q	52	ASN
24	Q	405	GLN
25	R	73	ASN
25	R	76	GLN
25	R	89	ASN
25	R	130	GLN
25	R	325	HIS
25	R	340	GLN
25	R	397	ASN
26	S	302	HIS
26	S	317	HIS
26	S	337	ASN
26	S	378	GLN
26	S	417	GLN
27	T	84	GLN
27	T	135	ASN
27	T	158	GLN
27	T	204	ASN
27	T	272	ASN
28	U	21	HIS
28	U	42	ASN
28	U	77	ASN
28	U	84	ASN
28	U	94	HIS
28	U	127	GLN
28	U	230	GLN
28	U	262	GLN
28	U	297	GLN
29	V	109	HIS
29	V	131	GLN
29	V	190	HIS
29	V	291	ASN
30	W	47	ASN
30	W	80	GLN
30	W	95	GLN
30	W	106	GLN
30	W	163	ASN
31	X	38	ASN
31	X	105	ASN
31	X	108	ASN
32	Y	89	GLN

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Mol	Chain	Res	Type
33	Z	214	HIS
33	Z	240	ASN
33	Z	317	GLN
33	Z	327	GLN
33	Z	338	HIS
33	Z	379	GLN
33	Z	387	ASN
33	Z	577	GLN
33	Z	580	GLN
33	Z	766	HIS
33	Z	810	ASN
33	Z	833	GLN
33	Z	852	GLN
33	Z	897	HIS
33	Z	899	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

There are no ligands in this entry.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.