



## wwPDB EM Map/Model Validation Report ⓘ

Apr 10, 2016 – 02:26 PM BST

PDB ID : 5FMF  
EMDB ID: : EMD-3114  
Title : the P-lobe of RNA polymerase II pre-initiation complex  
Authors : Murakami, K.; Tsai, K.; Kalisman, N.; Bushnell, D.A.; Asturias, F.J.; Kornberg, R.D.  
Deposited on : 2015-11-03  
Resolution : 6.00 Å(reported)

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

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MolProbity : 4.02b-467  
Mogul : 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

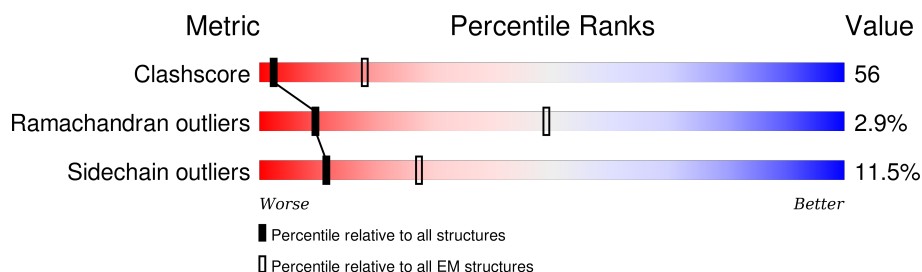
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 6.00 Å.

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







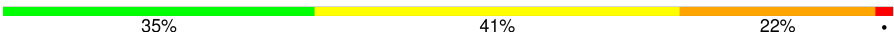

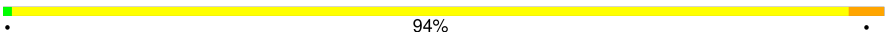

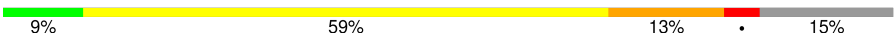

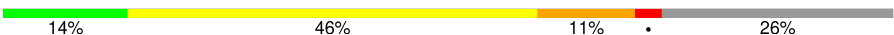
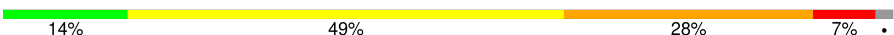
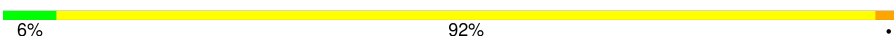




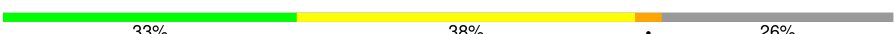
Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ .

Mol	Chain	Length	Quality of chain
1	1	492	35% 52% 8% . .
2	2	174	64% 28% 6% .
3	A	1733	53% 24% . . 18%
4	B	1224	61% 29% . 6%
5	C	266	73% 22% 5%
6	D	178	67% 26% 6% .
7	E	214	74% 24% .
8	F	84	60% 37% .
9	G	171	67% 27% 5% .

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Mol	Chain	Length	Quality of chain
10	H	146	
11	I	119	
12	J	65	
13	K	115	
14	L	46	
15	M	116	
16	N	72	
17	O	122	
18	P	345	
19	Q	180	
20	R	160	
21	S	123	
22	T	72	
23	U	150	
24	V	174	
25	W	62	
26	X	63	
27	Y	778	

## 2 Entry composition

There are 29 unique types of molecules in this entry. The entry contains 55363 atoms, of which 691 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called DNA REPAIR HELICASE RAD25, SSL2.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	1	473	Total	C	N	O	S	0	0
			3797	2390	664	720	23		

- Molecule 2 is a protein called TRANSCRIPTION ELONGATION FACTOR S-II, DST1.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	2	174	Total	C	N	O	S	0	104
			666	454	99	108	5		

- Molecule 3 is a protein called DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB1.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	A	1422	Total	C	N	O	S	0	0
			11174	7036	1954	2122	62		

- Molecule 4 is a protein called DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB2.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	B	1156	Total	C	N	O	S	0	0
			9140	5781	1606	1697	56		

- Molecule 5 is a protein called DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB3.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	C	266	Total	C	N	O	S	0	0
			2095	1317	348	417	13		

- Molecule 6 is a protein called RNA POLYMERASE II PRE-INITIATION COMPLEX, RPB4.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	D	178	Total	C	N	O	S	0	0
			1434	887	257	288	2		

- Molecule 7 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC1, RPB5.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	E	214	Total	C	N	O	S	0	0
			1752	1111	309	321	11		

- Molecule 8 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC2, RPB6.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	F	84	Total	C	N	O	S	0	0
			679	434	115	127	3		

- Molecule 9 is a protein called DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB7.

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

- Molecule 10 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC3, RPB8.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	H	133	Total	C	N	O	S	0	0
			1068	673	180	211	4		

- Molecule 11 is a protein called DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB9.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	I	119	Total	C	N	O	S	0	0
			971	596	179	186	10		

- Molecule 12 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC5, RPB10.

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

- Molecule 13 is a protein called DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB11.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	K	115	Total	C	N	O	S	0	1
			920	590	157	171	2		

- Molecule 14 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC4, RPB12.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	L	46	Total	C	N	O	S	0	0
			363	224	72	63	4		

- Molecule 15 is a protein called RNA POLYMERASE II PRE-INITIATION COMPLEX, TOA1.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	M	116	Total	C	N	O	S	0	0
			956	599	159	195	3		

- Molecule 16 is a DNA chain called NON-TEMPLATE STRAND DNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	N	72	Total	C	N	O	P	0	0
			1500	711	300	417	72		

- Molecule 17 is a protein called TRANSCRIPTION INITIATION FACTOR IIA SUBUNIT 2, TOA2.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	O	101	Total	C	N	O	S	0	0
			792	500	132	156	4		

- Molecule 18 is a protein called TRANSCRIPTION INITIATION FACTOR IIB, SUA7.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	P	293	Total	C	N	O	S	0	0
			2269	1437	386	428	18		

- Molecule 19 is a protein called TATA-BOX-BINDING PROTEIN, TBP.

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

- Molecule 20 is a protein called TRANSCRIPTION INITIATION FACTOR IIE SUBUNIT

ALPHA, TFA1.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	R	118	Total	C	N	O	S	0	0
			960	625	158	172	5		

- Molecule 21 is a protein called TRANSCRIPTION INITIATION FACTOR IIE SUBUNIT BETA, TFA2.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	S	121	Total	C	N	O	S	0	0
			1005	650	164	188	3		

- Molecule 22 is a DNA chain called TEMPLATE STRAND DNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	T	72	Total	C	N	O	P	0	0
			1452	700	233	447	72		

- Molecule 23 is a protein called RNA POLYMERASE II PRE-INITIATION COMPLEX, TFG1.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	U	150	Total	C	N	O	S	0	0
			1248	793	220	232	3		

- Molecule 24 is a protein called TRANSCRIPTION INITIATION FACTOR IIF SUBUNIT BETA, TFG2.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	V	174	Total	C	N	O	S	0	0
			1455	930	250	269	6		

- Molecule 25 is a protein called RNA POLYMERASE II TRANSCRIPTION FACTOR B SUBUNIT 2, TFB2.

Mol	Chain	Residues	Atoms				AltConf	Trace
25	W	62	Total	C	N	O	0	0
			518	334	83	101		

- Molecule 26 is a protein called RNA POLYMERASE II TRANSCRIPTION FACTOR B SUBUNIT 5, TFB5.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	X	63	Total	C	N	O	S	0	0
			499	316	88	93	2		

- Molecule 27 is a protein called DNA REPAIR HELICASE RAD3.

Mol	Chain	Residues	Atoms						AltConf	Trace
27	Y	578	Total	C	H	N	O	S	0	0
			5351	2975	691	790	862	33		

- Molecule 28 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
28	2	1	Total	Mg	0
			1	1	
28	A	1	Total	Mg	0
			1	1	

- Molecule 29 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
29	J	1	Total	Zn	0
			1	1	
29	B	1	Total	Zn	0
			1	1	
29	I	2	Total	Zn	0
			2	2	
29	C	1	Total	Zn	0
			1	1	
29	A	2	Total	Zn	0
			2	2	
29	2	1	Total	Zn	0
			1	1	
29	L	1	Total	Zn	0
			1	1	








THR
SER
PRO
GLY
TYR
ASN
SER
PRO
GLY
SER
PRO
ALA
TYR
SER
GLU
PRO
LYS
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ASP
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LYS
HIS
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GLU
ASN
GLU
ASN
SER
ARG

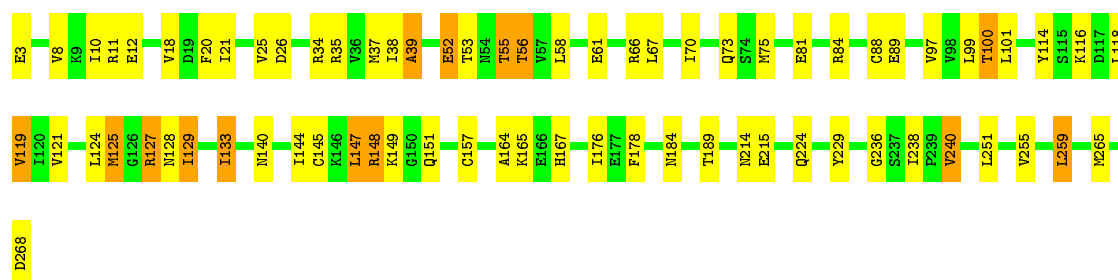
• Molecule 4: DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB2

Chain B: 

THR	SER	PRO	GLY	TYR	ASN	SER	PRO	GLY	SER	PRO	ALA	TYR	SER	GLU	PRO	LYS	GLN	ASP	GLY	GLU	GLN	LYS	HIS	ASN	GLU	ASN	GLU	ASN	SER	ARG
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2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114
2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145

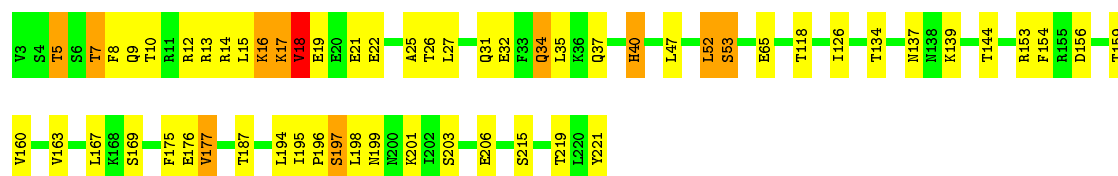
• Molecule 5: DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB3

Chain C: 



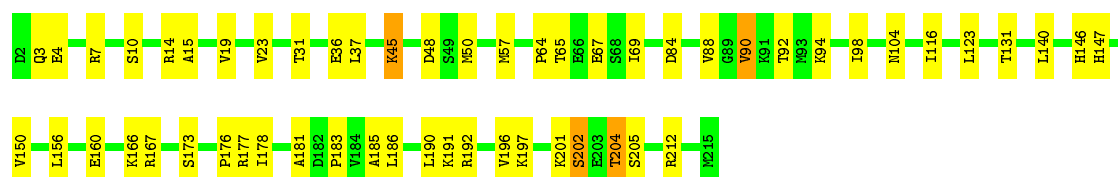
- Molecule 6: RNA POLYMERASE II PRE-INITIATION COMPLEX, RPB4

Chain D: 67% 26% 6% .



- Molecule 7: DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC1, RPB5

Chain E: 74% 24% .



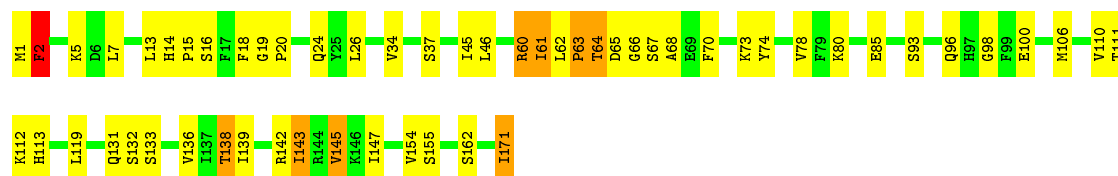
- Molecule 8: DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC2, RPB6

Chain F: 60% 37% .

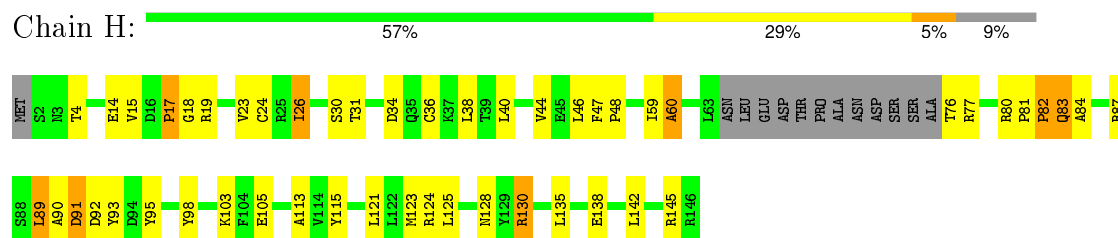


- Molecule 9: DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB7

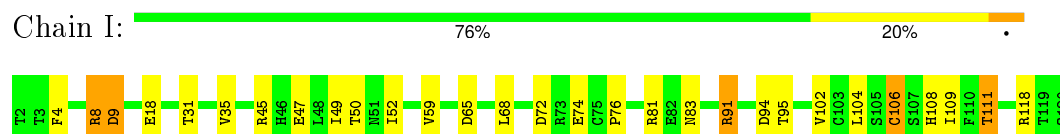
Chain G: 67% 27% 5% .



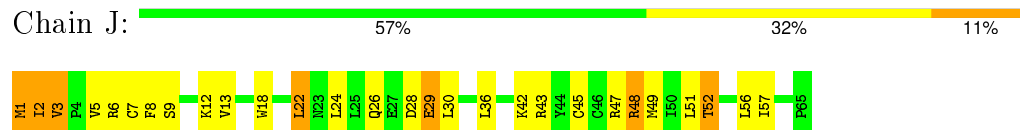
- Molecule 10: DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC3, RPB8



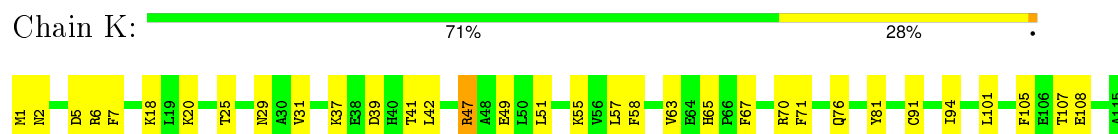
- Molecule 11: DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB9



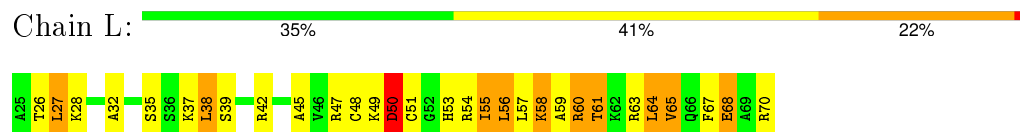
- Molecule 12: DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC5, RPB10



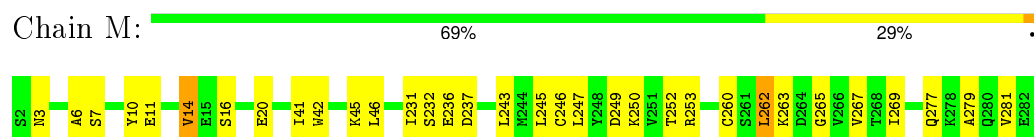
- Molecule 13: DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB11



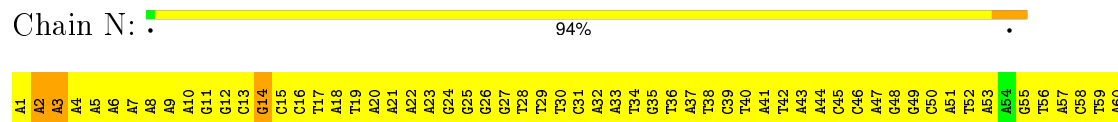
- Molecule 14: DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC4, RPB12



- Molecule 15: RNA POLYMERASE II PRE-INITIATION COMPLEX, TOA1



- Molecule 16: NON-TEMPLATE STRAND DNA




A61  
A62  
G63  
G64  
G65  
G66  
G67  
T68  
G69  
G70  
G71  
G72

- Molecule 17: TRANSCRIPTION INITIATION FACTOR IIA SUBUNIT 2, TOA2

Chain O: 

MET ALA VAL P4 G5 Y6 I15 L19 V20 D21 A22 L23 T25 D29 M38 R39 V40 L41 E42 T43 F44 D45 K46 V47 V48 A49 E50 T51 L52 T56 L60 G64 N65 L66 F71 D74 C83 Q84 V85 T86 V87 E88 ASP SER HIS ARG ASP ALA SER  
GLN ASN GLY SER GLY ASP SER LYS V105 I106 L111 N117 S118 K119 K120 SER GLU

- Molecule 18: TRANSCRIPTION INITIATION FACTOR IIB, SUA7

Chain P: 

MET MET THR GLU SER ILE ASP LYS ARG ALA GLY ARG GLY PRO N17 L18 N19 I20 V21 L22 T23 T24 C24 P25 E26 C27 K28 V29 N30 P31 P32 R33 K34 V35 E36 E37 R38 F38 S39 E40 G41 D42 V43 V44 C45 A46 L47 L48 C49 G49 L50 L51 L52 S53 D54 K55 K56 V57 D58 T59 R60  
S61 S62 W63 F66 SER ASN ASP ASP HIS ASN GLY ASP PRO SER ARG VAL GLY E61 A62 S63 S64 P65 Q66 Q67 Q68 Q69 Q70 Q71 Q72 Q73 Q74 Q75 Q76 Q77 Q78 Q79 Q80 Q81 Q82 Q83 Q84 Q85 Q86 Q87 Q88 Q89 Q90 Q91 Q92 Q93 Q94 Q95 Q96 Q97 Q98 Q99  
K122 D123 N124 E125 Q126 Q127 A128 A129 F130 K131 K132 I133 T134 M135 L136 L137 D138 A139 A140 A141 E142 P143 K144 N145 I146 L147 D148 D149 N150 N151 K152 L153 Y154 K155 R156 C157 K158 H159 D160 E161 T162 D163 K164 K165 K166 K167 M168 M169 E170 S171 L172 M173 A174 Q175 G176 I177 L178 G179 K180 R181  
R182 A183 V184 W185 R186 R187 T188 F189 R190 E191 I192 Q193 T194 L195 I196 H197 V198 R199 T200 K201 E202 F203 G204 K205 T206 L207 N208 N209 K210 K211 N212 I213 L214 L215 L216 L217 L218 L219 L220 L221 L222 L223 L224 L225 L226 L227 D228 D229 E230 E231 G232 G233 G234 G235 G236 G237 G238 G239 G240 G241 G242 G243 G244 G245 G246 G247 G248 G249 G250 G251 G252 G253 G254 G255 A256 E257 Y258 T259 A260 K261 K262 C263 K264 E265 I266 K267 E268 I269 A270 G271 K272 T273 T274 T275 T276 T277 A278 V279 V280 S281 L282 Y283 L284 N285 N286 L287 L288 Q289 Q290 Q291 P292 P293 T294 A295 A296 A297 K298 V299 Q300 Q301 T302 Q303  
V304 T305 E306 G307 T308 T309 K310 K311 S312 G313 K314 K315 K316 V317 E318 R319 R320 A321 R322 L323 L324 D325 P326 Q327 L328 L329 A330 N331 G332 G333 V334 S335 L336 D337 R338 R339 P340 GLY VAL GLU LYS

- Molecule 19: TATA-BOX-BINDING PROTEIN, TBP

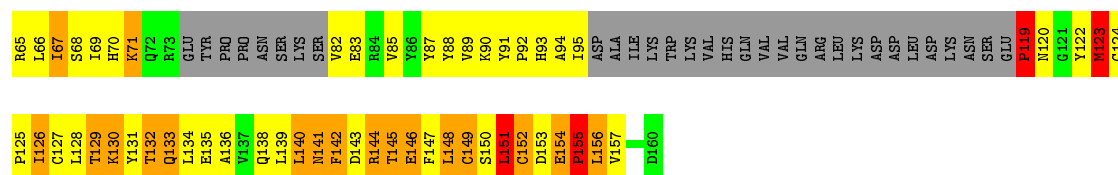
Chain Q: 

S61 P65 Q68 T75 L76 G77 C78 R79 T84 L87 H88 A89 R90 E93 Y94 N95 R98 F99 A100 I103 I106 P109 K110 T111 T112 A113 L114 I115 F116 A117 S118 G119 K120 M121 V122 T123 T124 A135 S136 Y139 A140 R141 I142 I143 Q144 K145 K151  
F152 T153 D154 Q158 N159 C164 D165 V166 P169 I170 R171 L172 E173 G174 L175 A176 F177 S183 E186 P187 E188 L193 I194 I196 T202 V203 L204 L205 G210 K211 T212 V213 T215 G216 A217 R220 E221 Y224 Q225 E228 A229 L230 V233 L234 K239 L240 K151

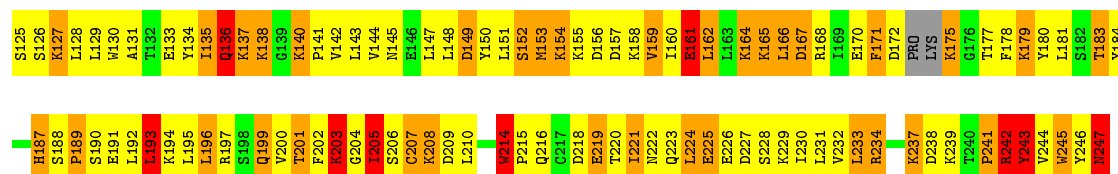
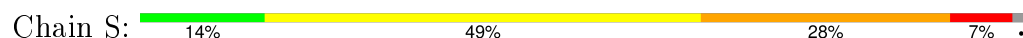
- Molecule 20: TRANSCRIPTION INITIATION FACTOR IIE SUBUNIT ALPHA, TFA1

Chain R: 

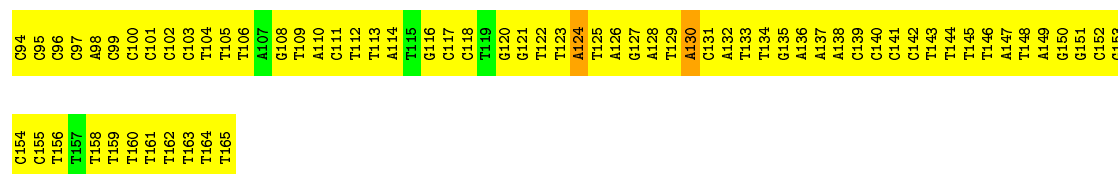
MET ASP ARG PRO ILE ASP ILE VAL LYS ASN L12 L13 L14 F15 V16 V17 R18 R19 G19 F20 Y21 F25 V26 L27 V28 L29 D30 A31 I32 L33 F34 S35 S36 V37 V38 L38 A39 E40 L43 K44 Q45 L46 L47 S48 L49 N50 K51 T52 E53 L54 G55 P56 L57 L58 L61 R62 S63 D64



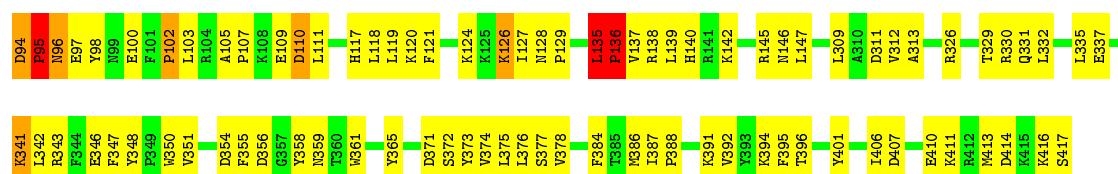
- Molecule 21: TRANSCRIPTION INITIATION FACTOR IIE SUBUNIT BETA, TFA2



- Molecule 22: TEMPLATE STRAND DNA



- Molecule 23: RNA POLYMERASE II PRE-INITIATION COMPLEX, TFG1



- Molecule 24: TRANSCRIPTION INITIATION FACTOR IIF SUBUNIT BETA, TFG2




- Molecule 25: RNA POLYMERASE II TRANSCRIPTION FACTOR B SUBUNIT 2, TFB2

Chain W:  90% 10%



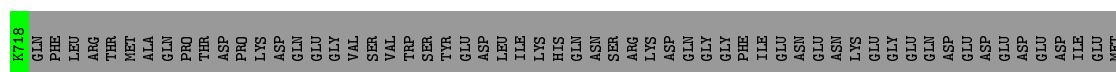
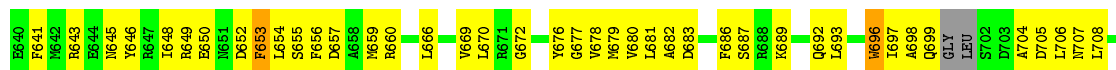
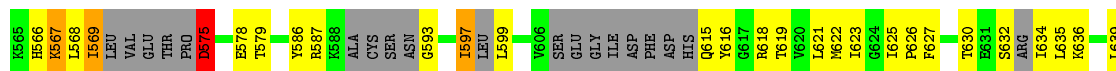
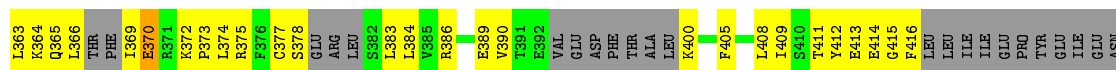
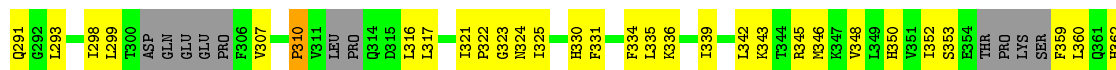
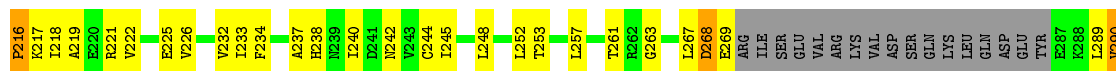
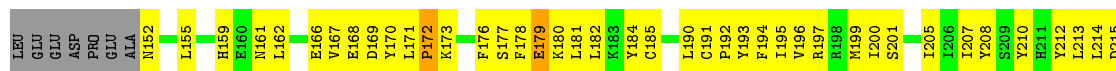
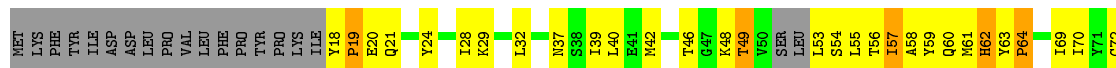
- Molecule 26: RNA POLYMERASE II TRANSCRIPTION FACTOR B SUBUNIT 5, TFB5

Chain X:  90% 10%



- Molecule 27: DNA REPAIR HELICASE RAD3

Chain Y:  33% 38% 26%





## 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	SPARX, Not provided	Depositor
Microscope	OTHER	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	40	Depositor
Minimum defocus (nm)	800	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	Not provided	Depositor
Image detector	GATAN K2 (4K X 4K)	Depositor

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

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

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	4.34	6/3867 (0.2%)	2.05	41/5221 (0.8%)
10	H	0.51	0/1086	0.80	0/1470
11	I	0.47	0/989	0.78	0/1331
12	J	0.54	0/541	0.88	1/727 (0.1%)
13	K	0.47	0/938	0.71	0/1267
14	L	0.54	0/365	0.95	0/485
15	M	0.40	0/970	0.57	0/1310
16	N	1.27	20/1692 (1.2%)	1.41	34/2613 (1.3%)
17	O	0.42	0/800	0.63	0/1080
18	P	4.21	7/2297 (0.3%)	2.23	41/3090 (1.3%)
19	Q	0.41	0/1443	0.62	0/1942
2	2	1.31	4/571 (0.7%)	1.64	7/765 (0.9%)
20	R	9.51	2/978 (0.2%)	3.28	11/1321 (0.8%)
21	S	5.35	7/1017 (0.7%)	3.30	36/1356 (2.7%)
22	T	1.38	45/1618 (2.8%)	1.50	49/2491 (2.0%)
23	U	0.93	4/1273 (0.3%)	0.92	9/1710 (0.5%)
24	V	1.09	3/1481 (0.2%)	0.88	10/1988 (0.5%)
25	W	0.67	0/527	0.68	0/704
26	X	0.60	0/504	0.69	0/679
27	Y	0.88	11/4735 (0.2%)	0.84	19/6369 (0.3%)
3	A	0.57	4/11374 (0.0%)	0.81	11/15384 (0.1%)
4	B	0.49	1/9316 (0.0%)	0.74	4/12564 (0.0%)
5	C	0.49	0/2133	0.78	2/2891 (0.1%)
6	D	0.51	0/1444	0.83	2/1935 (0.1%)
7	E	0.48	0/1788	0.72	0/2406
8	F	0.62	0/691	0.81	0/933
9	G	0.52	0/1368	0.81	0/1844
All	All	2.13	114/55806 (0.2%)	1.23	277/75876 (0.4%)

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

detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	1	1	1
18	P	2	0
2	2	0	2
20	R	1	0
21	S	0	1
27	Y	0	2
3	A	0	2
4	B	0	1
All	All	4	9

All (114) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	R	155	PRO	N-CD	213.23	4.46	1.47
20	R	119	PRO	N-CD	204.92	4.34	1.47
1	1	753	PRO	N-CD	203.03	4.32	1.47
18	P	292	PRO	N-CD	198.01	4.25	1.47
1	1	746	PRO	N-CD	168.34	3.83	1.47
21	S	215	PRO	N-CD	162.76	3.75	1.47
21	S	189	PRO	N-CD	33.30	1.94	1.47
21	S	214	TRP	NE1-CE2	22.76	1.67	1.37
24	V	344	PRO	N-CD	22.21	1.78	1.47
18	P	258	TYR	CE2-CZ	-21.14	1.11	1.38
1	1	645	TYR	CE2-CZ	-20.95	1.11	1.38
27	Y	310	PRO	N-CD	19.56	1.75	1.47
23	U	136	PRO	N-CD	18.33	1.73	1.47
27	Y	470	PRO	N-CD	17.79	1.72	1.47
27	Y	216	PRO	N-CD	17.38	1.72	1.47
24	V	74	PRO	N-CD	17.32	1.72	1.47
21	S	214	TRP	CD1-NE1	17.29	1.67	1.38
24	V	295	PRO	N-CD	17.16	1.71	1.47
2	2	269	PHE	C-N	-16.93	0.95	1.34
23	U	102	PRO	N-CD	16.00	1.70	1.47
27	Y	64	PRO	N-CD	15.94	1.70	1.47
23	U	95	PRO	N-CD	15.73	1.69	1.47
21	S	189	PRO	CG-CD	15.41	2.01	1.50
3	A	1436	ILE	C-N	14.97	1.59	1.33
18	P	340	PRO	N-CD	14.61	1.68	1.47
3	A	95	PHE	C-N	-14.40	1.00	1.34
27	Y	448	PRO	N-CD	14.40	1.68	1.47
27	Y	516	PRO	N-CD	13.90	1.67	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
18	P	258	TYR	CG-CD1	-13.67	1.21	1.39
16	N	1	DA	P-O5'	13.61	1.73	1.59
1	1	645	TYR	CG-CD1	-13.51	1.21	1.39
27	Y	19	PRO	N-CD	12.92	1.66	1.47
27	Y	322	PRO	N-CD	12.58	1.65	1.47
27	Y	494	PRO	N-CD	12.54	1.65	1.47
3	A	234	MET	C-N	-11.64	1.07	1.34
23	U	129	PRO	N-CD	11.25	1.63	1.47
1	1	645	TYR	CE1-CZ	-10.65	1.24	1.38
18	P	258	TYR	CE1-CZ	-10.56	1.24	1.38
27	Y	534	PRO	N-CD	10.52	1.62	1.47
2	2	260	THR	CA-CB	10.44	1.80	1.53
21	S	243	TYR	CG-CD2	10.29	1.52	1.39
21	S	243	TYR	CG-CD1	10.05	1.52	1.39
4	B	973	ILE	C-N	9.22	1.51	1.34
22	T	127	DG	N1-C2	7.76	1.44	1.37
16	N	12	DG	N1-C2	7.72	1.44	1.37
16	N	14	DG	N1-C2	7.71	1.44	1.37
16	N	13	DC	N1-C6	7.58	1.41	1.37
16	N	11	DG	N1-C2	7.57	1.43	1.37
18	P	340	PRO	CG-CD	7.45	1.75	1.50
16	N	6	DA	C6-N6	7.13	1.39	1.33
22	T	161	DT	C2-N3	7.11	1.43	1.37
22	T	130	DA	C6-N6	7.09	1.39	1.33
16	N	2	DA	C6-N6	7.02	1.39	1.33
22	T	126	DA	C6-N6	7.01	1.39	1.33
22	T	128	DA	C6-N6	7.00	1.39	1.33
16	N	1	DA	C6-N6	7.00	1.39	1.33
16	N	9	DA	C6-N6	6.90	1.39	1.33
22	T	125	DT	C2-N3	6.89	1.43	1.37
22	T	165	DT	C2-N3	6.87	1.43	1.37
22	T	162	DT	C2-N3	6.87	1.43	1.37
16	N	3	DA	C6-N6	6.85	1.39	1.33
22	T	159	DT	C2-N3	6.84	1.43	1.37
22	T	163	DT	C2-N3	6.82	1.43	1.37
16	N	4	DA	C6-N6	6.80	1.39	1.33
22	T	124	DA	C6-N6	6.78	1.39	1.33
22	T	164	DT	C2-N3	6.75	1.43	1.37
16	N	8	DA	C6-N6	6.75	1.39	1.33
22	T	160	DT	C2-N3	6.73	1.43	1.37
16	N	7	DA	C6-N6	6.72	1.39	1.33
22	T	158	DT	C2-N3	6.72	1.43	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	T	129	DT	C2-N3	6.71	1.43	1.37
16	N	5	DA	C6-N6	6.66	1.39	1.33
16	N	10	DA	C6-N6	6.55	1.39	1.33
22	T	125	DT	N1-C6	6.48	1.42	1.38
22	T	163	DT	N1-C6	6.48	1.42	1.38
22	T	161	DT	N1-C6	6.45	1.42	1.38
22	T	162	DT	N1-C6	6.40	1.42	1.38
1	1	645	TYR	CD2-CE2	-6.39	1.29	1.39
22	T	165	DT	N1-C6	6.38	1.42	1.38
22	T	160	DT	N1-C2	6.37	1.43	1.38
18	P	258	TYR	CD2-CE2	-6.34	1.29	1.39
22	T	163	DT	N1-C2	6.29	1.43	1.38
3	A	1394	THR	C-N	-6.27	1.21	1.33
22	T	165	DT	N1-C2	6.26	1.43	1.38
22	T	162	DT	N1-C2	6.22	1.43	1.38
22	T	160	DT	N1-C6	6.21	1.42	1.38
22	T	161	DT	N1-C2	6.20	1.43	1.38
22	T	159	DT	N1-C6	6.19	1.42	1.38
22	T	129	DT	N1-C2	6.18	1.43	1.38
22	T	158	DT	N1-C6	6.18	1.42	1.38
22	T	158	DT	N1-C2	6.14	1.43	1.38
22	T	159	DT	N1-C2	6.10	1.43	1.38
22	T	164	DT	N1-C6	6.09	1.42	1.38
22	T	129	DT	N1-C6	6.08	1.42	1.38
2	2	268	ARG	CG-CD	6.05	1.67	1.51
2	2	267	ASP	C-O	6.04	1.34	1.23
22	T	164	DT	N1-C2	6.04	1.42	1.38
22	T	125	DT	N1-C2	5.96	1.42	1.38
22	T	125	DT	N3-C4	5.85	1.43	1.38
22	T	165	DT	N3-C4	5.72	1.43	1.38
22	T	158	DT	N3-C4	5.71	1.43	1.38
16	N	1	DA	P-OP2	5.66	1.58	1.49
16	N	1	DA	P-OP1	5.58	1.58	1.49
27	Y	172	PRO	N-CD	5.58	1.55	1.47
22	T	163	DT	N3-C4	5.57	1.43	1.38
22	T	161	DT	N3-C4	5.49	1.43	1.38
22	T	160	DT	N3-C4	5.44	1.43	1.38
22	T	162	DT	N3-C4	5.42	1.43	1.38
22	T	164	DT	N3-C4	5.38	1.43	1.38
16	N	13	DC	C4-N4	5.35	1.38	1.33
22	T	159	DT	N3-C4	5.28	1.42	1.38
22	T	129	DT	N3-C4	5.27	1.42	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
16	N	11	DG	P-O5'	5.17	1.65	1.59
16	N	14	DG	N9-C8	5.14	1.41	1.37

All (277) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	R	155	PRO	CA-N-CD	-66.71	18.11	111.50
20	R	119	PRO	N-CD-CG	-58.68	15.18	103.20
21	S	189	PRO	CA-N-CD	-53.80	36.18	111.50
1	1	753	PRO	N-CD-CG	-48.67	30.19	103.20
18	P	292	PRO	N-CD-CG	-48.02	31.17	103.20
18	P	24	CYS	C-N-CD	-47.85	15.32	120.60
1	1	753	PRO	CA-N-CD	-45.84	47.33	111.50
20	R	119	PRO	CA-N-CD	-42.24	52.37	111.50
1	1	746	PRO	CA-N-CD	-41.05	54.03	111.50
21	S	215	PRO	N-CD-CG	-39.75	43.58	103.20
20	R	155	PRO	N-CD-CG	-38.69	45.16	103.20
1	1	746	PRO	N-CD-CG	-36.38	48.62	103.20
21	S	215	PRO	CA-N-CD	-33.86	64.10	111.50
18	P	292	PRO	CA-N-CD	-33.13	65.11	111.50
21	S	189	PRO	N-CD-CG	29.58	147.56	103.20
21	S	242	ARG	CD-NE-CZ	-28.26	84.03	123.60
27	Y	533	THR	C-N-CD	-28.25	58.45	120.60
1	1	754	ARG	CD-NE-CZ	-28.25	84.06	123.60
1	1	785	ARG	CD-NE-CZ	-28.25	84.06	123.60
1	1	571	ARG	CD-NE-CZ	-28.23	84.08	123.60
18	P	340	PRO	CA-N-CD	-26.85	73.92	111.50
20	R	141	ASN	OD1-CG-ND2	-26.04	62.02	121.90
1	1	747	ASN	OD1-CG-ND2	-25.61	62.99	121.90
21	S	199	GLN	OE1-CD-NE2	-25.61	63.01	121.90
20	R	141	ASN	CB-CG-ND2	-25.24	56.12	116.70
1	1	747	ASN	CB-CG-ND2	-24.80	57.18	116.70
21	S	199	GLN	CG-CD-NE2	-24.78	57.22	116.70
18	P	326	PRO	CA-N-CD	-24.37	77.38	111.50
18	P	30	TYR	C-N-CD	-21.44	73.43	120.60
21	S	243	TYR	CB-CG-CD2	-21.24	108.25	121.00
21	S	189	PRO	CB-CG-CD	-20.75	25.59	106.50
18	P	326	PRO	CA-CB-CG	-20.72	64.63	104.00
21	S	247	ASN	CB-CG-OD1	19.89	161.39	121.60
1	1	567	GLN	CG-CD-OE1	19.86	161.31	121.60
1	1	781	ASN	CB-CG-OD1	19.86	161.31	121.60
21	S	136	GLN	CG-CD-OE1	19.85	161.31	121.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	744	ASN	CB-CG-OD1	19.85	161.30	121.60
1	1	616	GLN	CG-CD-OE1	19.85	161.30	121.60
18	P	229	ASN	CB-CG-OD1	19.85	161.29	121.60
1	1	638	ASN	CB-CG-OD1	19.84	161.28	121.60
18	P	290	GLN	CG-CD-OE1	19.84	161.28	121.60
21	S	216	GLN	CG-CD-OE1	19.83	161.26	121.60
18	P	338	ASN	CB-CG-OD1	19.83	161.26	121.60
18	P	340	PRO	N-CD-CG	19.40	132.30	103.20
2	2	269	PHE	O-C-N	-19.04	92.24	122.70
18	P	303	GLN	N-CA-CB	-18.94	76.50	110.60
18	P	258	TYR	CG-CD2-CE2	17.62	135.40	121.30
1	1	645	TYR	CG-CD2-CE2	17.38	135.21	121.30
18	P	303	GLN	CB-CA-C	-17.07	76.25	110.40
21	S	214	TRP	CE2-CD2-CG	17.04	120.93	107.30
18	P	258	TYR	CB-CG-CD2	16.95	131.17	121.00
2	2	269	PHE	C-N-CA	16.77	163.62	121.70
1	1	638	ASN	OD1-CG-ND2	-16.49	83.97	121.90
1	1	616	GLN	OE1-CD-NE2	-16.49	83.97	121.90
18	P	290	GLN	OE1-CD-NE2	-16.48	83.98	121.90
21	S	136	GLN	OE1-CD-NE2	-16.48	83.98	121.90
1	1	567	GLN	OE1-CD-NE2	-16.48	83.99	121.90
1	1	744	ASN	OD1-CG-ND2	-16.48	83.99	121.90
21	S	247	ASN	OD1-CG-ND2	-16.48	84.00	121.90
1	1	781	ASN	OD1-CG-ND2	-16.48	84.00	121.90
18	P	338	ASN	OD1-CG-ND2	-16.47	84.02	121.90
21	S	216	GLN	OE1-CD-NE2	-16.47	84.02	121.90
18	P	229	ASN	OD1-CG-ND2	-16.46	84.04	121.90
1	1	645	TYR	CB-CG-CD2	16.23	130.74	121.00
2	2	269	PHE	CA-C-N	16.09	152.60	117.20
18	P	338	ASN	CB-CG-ND2	-16.06	78.15	116.70
21	S	216	GLN	CG-CD-NE2	-16.06	78.16	116.70
18	P	229	ASN	CB-CG-ND2	-16.06	78.16	116.70
18	P	290	GLN	CG-CD-NE2	-16.04	78.20	116.70
1	1	744	ASN	CB-CG-ND2	-16.04	78.22	116.70
1	1	616	GLN	CG-CD-NE2	-16.03	78.23	116.70
1	1	638	ASN	CB-CG-ND2	-16.03	78.23	116.70
1	1	781	ASN	CB-CG-ND2	-16.03	78.22	116.70
21	S	136	GLN	CG-CD-NE2	-16.03	78.23	116.70
1	1	567	GLN	CG-CD-NE2	-16.02	78.24	116.70
21	S	247	ASN	CB-CG-ND2	-16.00	78.31	116.70
23	U	94	ASP	C-N-CD	-15.81	85.81	120.60
21	S	214	TRP	CD1-CG-CD2	15.73	118.89	106.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	S	214	TRP	CG-CD1-NE1	-15.44	94.66	110.10
21	S	243	TYR	CB-CG-CD1	-15.02	111.99	121.00
3	A	234	MET	O-C-N	-14.64	99.27	122.70
21	S	214	TRP	NE1-CE2-CD2	-13.48	93.82	107.30
18	P	326	PRO	N-CA-CB	12.47	118.27	103.30
27	Y	493	LEU	C-N-CD	-12.38	93.36	120.60
23	U	135	LEU	C-N-CD	-11.98	94.24	120.60
1	1	645	TYR	CD1-CE1-CZ	11.11	129.80	119.80
18	P	258	TYR	CD1-CE1-CZ	11.10	129.79	119.80
1	1	744	ASN	C-N-CD	-10.92	96.58	120.60
22	T	158	DT	C2-N3-C4	-10.59	120.85	127.20
18	P	325	ASP	C-N-CD	-10.58	97.33	120.60
22	T	165	DT	C2-N3-C4	-10.55	120.87	127.20
1	1	645	TYR	CD1-CG-CD2	-10.51	106.34	117.90
22	T	161	DT	C2-N3-C4	-10.49	120.90	127.20
18	P	258	TYR	CD1-CG-CD2	-10.38	106.48	117.90
22	T	163	DT	C2-N3-C4	-10.32	121.01	127.20
22	T	125	DT	C2-N3-C4	-10.26	121.05	127.20
22	T	129	DT	C2-N3-C4	-10.22	121.07	127.20
18	P	31	PRO	C-N-CD	-10.09	98.41	120.60
22	T	160	DT	C2-N3-C4	-10.04	121.17	127.20
22	T	159	DT	C2-N3-C4	-10.03	121.19	127.20
22	T	164	DT	C2-N3-C4	-10.01	121.19	127.20
22	T	162	DT	C2-N3-C4	-10.01	121.20	127.20
1	1	505	ILE	CB-CA-C	-10.00	91.60	111.60
21	S	243	TYR	CG-CD2-CE2	-9.81	113.45	121.30
16	N	9	DA	N1-C2-N3	-9.60	124.50	129.30
22	T	126	DA	N1-C2-N3	-9.60	124.50	129.30
22	T	124	DA	N1-C2-N3	-9.45	124.57	129.30
16	N	7	DA	N1-C2-N3	-9.40	124.60	129.30
16	N	2	DA	N1-C2-N3	-9.38	124.61	129.30
16	N	4	DA	N1-C2-N3	-9.31	124.64	129.30
16	N	1	DA	C2-N3-C4	9.23	115.22	110.60
21	S	243	TYR	CG-CD1-CE1	-9.23	113.92	121.30
16	N	1	DA	N1-C2-N3	-9.20	124.70	129.30
16	N	8	DA	C2-N3-C4	9.13	115.17	110.60
22	T	128	DA	N1-C2-N3	-9.14	124.73	129.30
16	N	8	DA	N1-C2-N3	-9.10	124.75	129.30
16	N	5	DA	N1-C2-N3	-9.09	124.76	129.30
16	N	10	DA	C2-N3-C4	9.09	115.14	110.60
16	N	5	DA	C2-N3-C4	9.05	115.12	110.60
16	N	6	DA	N1-C2-N3	-9.05	124.78	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	N	3	DA	C2-N3-C4	9.03	115.12	110.60
24	V	344	PRO	CA-N-CD	-9.02	98.88	111.50
16	N	9	DA	C2-N3-C4	9.01	115.11	110.60
22	T	126	DA	C2-N3-C4	8.97	115.09	110.60
22	T	130	DA	C2-N3-C4	8.92	115.06	110.60
18	P	326	PRO	N-CD-CG	-8.91	89.83	103.20
16	N	3	DA	N1-C2-N3	-8.87	124.86	129.30
16	N	2	DA	C2-N3-C4	8.83	115.02	110.60
22	T	130	DA	N1-C2-N3	-8.81	124.89	129.30
16	N	10	DA	N1-C2-N3	-8.80	124.90	129.30
22	T	128	DA	C2-N3-C4	8.78	114.99	110.60
16	N	4	DA	C2-N3-C4	8.75	114.98	110.60
16	N	6	DA	C2-N3-C4	8.74	114.97	110.60
22	T	124	DA	C2-N3-C4	8.71	114.96	110.60
16	N	7	DA	C2-N3-C4	8.69	114.94	110.60
21	S	214	TRP	CG-CD2-CE3	-8.56	126.19	133.90
21	S	188	SER	C-N-CD	8.53	146.31	128.40
18	P	340	PRO	CB-CG-CD	-8.29	74.19	106.50
24	V	74	PRO	N-CA-CB	8.28	113.23	103.30
23	U	102	PRO	N-CA-CB	8.27	113.23	103.30
3	A	234	MET	CA-C-N	8.02	134.85	117.20
3	A	95	PHE	C-N-CA	-8.00	101.69	121.70
24	V	74	PRO	CA-N-CD	-7.97	100.34	111.50
23	U	136	PRO	N-CA-CB	7.93	112.81	103.30
23	U	136	PRO	CA-N-CD	-7.88	100.46	111.50
23	U	102	PRO	CA-N-CD	-7.62	100.83	111.50
3	A	346	ASP	O-C-N	-7.54	110.64	122.70
24	V	295	PRO	CA-N-CD	-7.53	100.95	111.50
1	1	645	TYR	CG-CD1-CE1	-7.43	115.35	121.30
16	N	12	DG	C6-N1-C2	-7.40	120.66	125.10
18	P	258	TYR	CG-CD1-CE1	-7.33	115.44	121.30
22	T	127	DG	C6-N1-C2	-7.32	120.71	125.10
16	N	11	DG	C6-N1-C2	-7.24	120.75	125.10
3	A	399	HIS	N-CA-CB	7.23	123.61	110.60
16	N	14	DG	C6-N1-C2	-7.22	120.77	125.10
24	V	295	PRO	N-CA-CB	7.14	111.87	103.30
20	R	123	MET	CG-SD-CE	-7.12	88.81	100.20
16	N	12	DG	C2-N3-C4	6.95	115.37	111.90
18	P	340	PRO	N-CA-CB	6.87	111.55	103.30
16	N	14	DG	C2-N3-C4	6.84	115.32	111.90
16	N	11	DG	C2-N3-C4	6.82	115.31	111.90
21	S	243	TYR	CD1-CG-CD2	-6.81	110.41	117.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	2	253	LEU	CA-CB-CG	-6.81	99.64	115.30
24	V	344	PRO	N-CA-CB	6.79	111.45	103.30
27	Y	516	PRO	N-CA-CB	6.69	111.33	103.30
27	Y	310	PRO	CA-N-CD	-6.68	102.14	111.50
3	A	234	MET	C-N-CA	6.61	138.23	121.70
22	T	127	DG	C2-N3-C4	6.58	115.19	111.90
27	Y	516	PRO	CA-N-CD	-6.49	102.42	111.50
27	Y	216	PRO	CA-N-CD	-6.41	102.53	111.50
1	1	746	PRO	N-CA-CB	6.35	110.92	103.30
23	U	95	PRO	CA-N-CD	-6.34	102.63	111.50
27	Y	310	PRO	N-CA-CB	6.27	110.82	103.30
1	1	477	LEU	C-N-CA	-6.25	106.08	121.70
23	U	95	PRO	N-CA-CB	6.19	110.72	103.30
3	A	95	PHE	CA-C-N	-6.14	103.70	117.20
6	D	25	ALA	C-N-CA	6.12	136.99	121.70
24	V	343	GLY	C-N-CD	6.11	141.23	128.40
1	1	670	LEU	CB-CG-CD1	-6.10	100.63	111.00
18	P	258	TYR	CZ-CE2-CD2	-6.06	114.35	119.80
27	Y	216	PRO	N-CA-CB	6.06	110.57	103.30
1	1	645	TYR	CZ-CE2-CD2	-6.03	114.37	119.80
1	1	753	PRO	N-CA-CB	5.99	110.49	103.30
2	2	292	PRO	N-CA-C	5.96	127.59	112.10
27	Y	470	PRO	CA-N-CD	-5.93	103.19	111.50
16	N	12	DG	C5-C6-N1	5.93	114.47	111.50
21	S	241	PRO	N-CA-CB	5.90	110.38	103.30
27	Y	448	PRO	CA-N-CD	-5.90	103.24	111.50
21	S	215	PRO	N-CA-CB	5.88	110.36	103.30
21	S	224	LEU	CB-CG-CD1	5.85	120.95	111.00
21	S	224	LEU	CB-CG-CD2	5.85	120.94	111.00
22	T	158	DT	N3-C4-C5	5.83	118.70	115.20
16	N	14	DG	C5-C6-N1	5.83	114.41	111.50
21	S	193	LEU	CB-CG-CD2	5.80	120.87	111.00
22	T	161	DT	N3-C4-C5	5.80	118.68	115.20
18	P	292	PRO	N-CA-CB	5.79	110.24	103.30
21	S	193	LEU	CB-CG-CD1	5.77	120.81	111.00
18	P	328	LEU	CB-CG-CD1	5.74	120.75	111.00
3	A	58	LEU	CA-CB-CG	5.72	128.47	115.30
22	T	127	DG	C5-C6-N1	5.70	114.35	111.50
22	T	165	DT	N3-C4-C5	5.70	118.62	115.20
27	Y	696	TRP	CZ3-CH2-CZ2	5.67	128.41	121.60
4	B	340	ALA	C-N-CA	5.67	135.87	121.70
3	A	194	ALA	C-N-CA	5.66	135.86	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	V	69	TRP	CZ3-CH2-CZ2	5.66	128.39	121.60
16	N	11	DG	C5-C6-N1	5.65	114.33	111.50
23	U	361	TRP	CZ3-CH2-CZ2	5.64	128.37	121.60
24	V	81	TRP	CZ3-CH2-CZ2	5.64	128.37	121.60
22	T	125	DT	N3-C4-C5	5.61	118.56	115.20
18	P	325	ASP	CA-CB-CG	-5.60	101.08	113.40
24	V	313	TRP	CZ3-CH2-CZ2	5.59	128.30	121.60
22	T	129	DT	N3-C4-C5	5.58	118.55	115.20
27	Y	564	TRP	CZ3-CH2-CZ2	5.58	128.29	121.60
1	1	632	PRO	N-CA-CB	5.58	109.99	103.30
21	S	215	PRO	CA-CB-CG	5.55	115.34	104.80
22	T	163	DT	N3-C4-C5	5.53	118.52	115.20
22	T	160	DT	N3-C4-C5	5.52	118.51	115.20
6	D	26	THR	N-CA-C	-5.49	96.19	111.00
27	Y	64	PRO	CA-N-CD	-5.48	103.83	111.50
22	T	164	DT	N3-C4-C5	5.47	118.48	115.20
27	Y	448	PRO	N-CA-CB	5.47	109.86	103.30
4	B	628	THR	C-N-CA	5.46	135.34	121.70
5	C	39	ALA	N-CA-C	5.44	125.69	111.00
22	T	124	DA	O4'-C1'-N9	5.44	111.81	108.00
22	T	159	DT	N3-C4-C5	5.42	118.45	115.20
18	P	328	LEU	CB-CG-CD2	5.42	120.22	111.00
27	Y	470	PRO	N-CA-CB	5.42	109.80	103.30
22	T	162	DT	N3-C4-C5	5.41	118.45	115.20
1	1	746	PRO	CA-CB-CG	5.40	115.06	104.80
22	T	165	DT	C5-C6-N1	-5.33	120.50	123.70
20	R	151	LEU	CB-CG-CD2	5.33	120.06	111.00
20	R	140	LEU	CB-CG-CD1	5.31	120.02	111.00
27	Y	494	PRO	CA-N-CD	-5.31	104.07	111.50
5	C	89	GLU	N-CA-C	-5.29	96.72	111.00
3	A	1394	THR	C-N-CA	5.28	133.39	122.30
27	Y	64	PRO	N-CA-CB	5.28	109.64	103.30
16	N	14	DG	O4'-C1'-N9	5.27	111.69	108.00
22	T	128	DA	O4'-C4'-C3'	5.27	109.16	106.00
22	T	128	DA	C4-C5-N7	5.26	113.33	110.70
20	R	151	LEU	CB-CG-CD1	5.26	119.94	111.00
22	T	127	DG	O4'-C1'-N9	5.25	111.68	108.00
20	R	140	LEU	CB-CG-CD2	5.24	119.91	111.00
18	P	165	GLY	N-CA-C	-5.23	100.02	113.10
22	T	163	DT	C5-C6-N1	-5.23	120.56	123.70
16	N	13	DC	C5-C6-N1	-5.22	118.39	121.00
18	P	318	GLU	CA-CB-CG	-5.20	101.96	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	Y	494	PRO	N-CA-CB	5.19	109.53	103.30
2	2	302	CYS	CA-CB-SG	5.18	123.32	114.00
21	S	214	TRP	C-N-CD	5.16	139.23	128.40
4	B	1181	GLU	N-CA-C	5.15	124.90	111.00
16	N	12	DG	C4-C5-N7	5.14	112.86	110.80
22	T	125	DT	C5-C6-N1	-5.14	120.61	123.70
18	P	292	PRO	CA-CB-CG	5.14	114.56	104.80
1	1	479	GLY	N-CA-C	5.13	125.93	113.10
22	T	163	DT	C4-C5-C6	5.13	121.08	118.00
22	T	161	DT	C5-C6-N1	-5.13	120.62	123.70
16	N	11	DG	C8-N9-C4	-5.12	104.35	106.40
22	T	162	DT	C5-C6-N1	-5.11	120.63	123.70
22	T	127	DG	C1'-O4'-C4'	-5.10	105.00	110.10
22	T	165	DT	O4'-C1'-N1	5.10	111.57	108.00
1	1	502	VAL	CB-CA-C	-5.10	101.71	111.40
2	2	303	GLY	N-CA-C	5.10	125.84	113.10
22	T	129	DT	O4'-C4'-C3'	5.10	109.06	106.00
18	P	318	GLU	CB-CG-CD	-5.08	100.48	114.20
22	T	129	DT	C5-C6-N1	-5.08	120.65	123.70
22	T	160	DT	C5-C6-N1	-5.08	120.65	123.70
1	1	458	SER	N-CA-CB	5.07	118.11	110.50
18	P	161	LYS	N-CA-C	5.07	124.69	111.00
18	P	198	VAL	CB-CA-C	-5.07	101.77	111.40
22	T	165	DT	C4-C5-C6	5.05	121.03	118.00
22	T	164	DT	C5-C6-N1	-5.05	120.67	123.70
27	Y	322	PRO	CA-N-CD	-5.05	104.43	111.50
3	A	346	ASP	CA-C-N	5.03	128.26	117.20
4	B	1156	ASP	N-CA-C	5.02	124.56	111.00
22	T	158	DT	C5-C6-N1	-5.02	120.69	123.70
16	N	9	DA	O4'-C1'-N9	5.02	111.51	108.00
12	J	5	VAL	N-CA-C	-5.01	97.46	111.00

All (4) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	1	690	ILE	CB
18	P	269	ILE	CB
18	P	277	ILE	CB
20	R	126	ILE	CB

All (9) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	1	661	SER	Peptide
2	2	269	PHE	Sidechain,Peptide
3	A	234	MET	Mainchain
3	A	95	PHE	Mainchain
4	B	43	LEU	Mainchain
21	S	243	TYR	Sidechain
27	Y	555	GLN	Peptide
27	Y	593	GLY	Peptide

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

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1	3797	0	3727	916	0
2	2	666	0	546	251	0
3	A	11174	0	11217	712	0
4	B	9140	0	9107	421	0
5	C	2095	0	2051	43	0
6	D	1434	0	1460	69	0
7	E	1752	0	1776	30	0
8	F	679	0	699	94	0
9	G	1340	0	1353	174	0
10	H	1068	0	1040	21	0
11	I	971	0	927	16	0
12	J	532	0	542	14	0
13	K	920	0	929	19	0
14	L	363	0	386	24	0
15	M	956	0	916	32	0
16	N	1500	0	805	235	0
17	O	792	0	806	49	0
18	P	2269	0	2346	1242	0
19	Q	1416	0	1491	154	0
20	R	960	0	969	345	0
21	S	1005	0	1024	580	0
22	T	1452	0	822	273	0
23	U	1248	0	1229	236	0
24	V	1455	0	1465	465	0
25	W	518	0	514	27	0
26	X	499	0	525	12	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
27	Y	4660	691	4743	807	0
28	2	1	0	0	0	0
28	A	1	0	0	0	0
29	2	1	0	0	0	0
29	A	2	0	0	0	0
29	B	1	0	0	0	0
29	C	1	0	0	0	0
29	I	2	0	0	0	0
29	J	1	0	0	0	0
29	L	1	0	0	0	0
All	All	54672	691	53415	6017	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 56.

All (6017) 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)
22:T:134:DT:C6	24:V:323:ARG:HD2	1.24	1.69
18:P:279:VAL:HG23	18:P:302:LEU:CG	1.19	1.66
20:R:34:PHE:CE2	20:R:134:LEU:HD11	1.25	1.65
27:Y:132:LYS:HD3	27:Y:155:LEU:CD1	1.24	1.64
18:P:137:CYS:SG	18:P:142:LEU:HB3	1.34	1.64
21:S:203:LYS:CB	21:S:242:ARG:HG3	1.18	1.64
21:S:129:LEU:HD23	24:V:347:PHE:CD2	1.29	1.63
21:S:203:LYS:HE3	21:S:242:ARG:CZ	1.19	1.63
18:P:223:LEU:HG	19:Q:177:PHE:CZ	1.25	1.63
21:S:130:TRP:CE3	24:V:339:LEU:HG	1.31	1.62
1:1:773:ILE:CD1	1:1:775:VAL:H	1.06	1.62
21:S:129:LEU:HD23	24:V:347:PHE:CE2	1.13	1.61
2:2:253:LEU:HD22	3:A:1132:LYS:CD	1.24	1.60
18:P:142:LEU:HD22	18:P:147:LYS:CG	1.22	1.60
1:1:717:TYR:CE2	1:1:718:TYR:CE1	1.89	1.59
18:P:279:VAL:CB	18:P:302:LEU:CD2	1.77	1.59
21:S:148:LEU:HB3	21:S:154:LYS:CE	1.30	1.59
3:A:1443:VAL:CB	9:G:63:PRO:HA	1.16	1.59
2:2:257:GLN:CG	3:A:1284:MET:CE	1.80	1.59
20:R:46:LEU:HD21	20:R:132:THR:CG2	1.22	1.59
18:P:340:PRO:CG	18:P:340:PRO:CD	1.75	1.58
18:P:310:LYS:HZ3	18:P:340:PRO:CB	1.08	1.58
1:1:561:MET:CB	25:W:450:ARG:HH22	1.13	1.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:639:LEU:HD12	27:Y:653:PHE:CE2	1.32	1.58
2:2:253:LEU:CD2	3:A:1132:LYS:HD3	1.24	1.57
18:P:340:PRO:CD	18:P:340:PRO:N	1.68	1.57
24:V:63:ARG:CG	24:V:215:VAL:HA	1.27	1.57
2:2:260:THR:CA	2:2:260:THR:CB	1.80	1.56
27:Y:400:LYS:HB3	27:Y:437:PHE:CZ	1.37	1.56
20:R:27:LEU:HD22	20:R:129:THR:CA	1.13	1.56
18:P:184:GLU:HB2	18:P:241:ARG:CG	1.13	1.56
20:R:34:PHE:CE2	20:R:134:LEU:CD1	1.80	1.56
21:S:130:TRP:CZ2	24:V:334:ASP:HA	1.40	1.55
1:1:757:ARG:HH22	1:1:760:LEU:CG	1.04	1.55
21:S:207:CYS:SG	21:S:208:LYS:HE2	1.46	1.55
27:Y:639:LEU:CD2	27:Y:649:ARG:HD2	1.30	1.54
1:1:606:ILE:HD12	1:1:690:ILE:CD1	1.33	1.54
21:S:129:LEU:CD2	24:V:347:PHE:CD2	1.87	1.53
1:1:585:PRO:CB	1:1:756:ARG:NH1	1.69	1.53
21:S:234:ARG:NH1	21:S:234:ARG:CB	1.71	1.52
21:S:203:LYS:CD	21:S:204:GLY:N	1.71	1.52
20:R:27:LEU:CD2	20:R:129:THR:HA	1.40	1.52
3:A:1443:VAL:HB	9:G:63:PRO:CA	1.28	1.52
1:1:757:ARG:NH1	1:1:760:LEU:CD2	1.67	1.52
3:A:867:ILE:CD1	3:A:867:ILE:CG1	1.83	1.51
21:S:203:LYS:HB3	21:S:242:ARG:CG	1.10	1.51
18:P:142:LEU:CD2	18:P:147:LYS:CB	1.83	1.50
2:2:204:SER:CA	3:A:1176:LEU:C	1.80	1.50
2:2:269:PHE:CZ	2:2:297:CYS:SG	2.04	1.50
18:P:143:PRO:CB	18:P:182:ARG:HE	1.24	1.50
20:R:123:MET:CA	20:R:130:LYS:NZ	1.69	1.50
27:Y:639:LEU:CD1	27:Y:653:PHE:CE2	1.89	1.50
19:Q:99:PHE:CB	22:T:143:DT:H5'	1.41	1.50
4:B:1185:CYS:SG	6:D:17:LYS:HD3	1.52	1.49
18:P:34:ILE:CD1	18:P:43:VAL:HB	1.36	1.49
18:P:340:PRO:CA	18:P:340:PRO:CD	1.90	1.49
4:B:959:ASP:CB	18:P:182:ARG:NH1	1.71	1.49
2:2:283:GLN:CD	3:A:756:ILE:HD13	1.32	1.48
27:Y:132:LYS:CD	27:Y:155:LEU:HD11	1.40	1.48
21:S:203:LYS:CE	21:S:242:ARG:NH2	1.77	1.48
18:P:142:LEU:CD2	18:P:147:LYS:CG	1.91	1.48
1:1:773:ILE:HD11	1:1:775:VAL:CB	1.38	1.48
21:S:125:SER:N	21:S:127:LYS:HZ3	1.11	1.47
21:S:154:LYS:HZ3	21:S:154:LYS:N	1.01	1.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:1215:ARG:CD	6:D:15:LEU:CD1	1.91	1.47
8:F:92:ARG:NH2	9:G:63:PRO:CB	1.75	1.47
4:B:296:GLU:CD	23:U:124:LYS:NZ	1.67	1.47
8:F:92:ARG:CZ	9:G:63:PRO:HB2	1.44	1.47
18:P:184:GLU:CB	18:P:241:ARG:CG	1.91	1.47
27:Y:639:LEU:CG	27:Y:653:PHE:CE2	1.96	1.46
27:Y:257:LEU:CD2	27:Y:383:LEU:HD11	1.44	1.46
17:O:4:PRO:HD2	24:V:357:LYS:CB	1.42	1.46
27:Y:639:LEU:HD21	27:Y:649:ARG:CD	1.45	1.45
20:R:34:PHE:CE2	20:R:134:LEU:CG	1.98	1.45
21:S:129:LEU:N	24:V:341:LYS:HE3	1.29	1.44
23:U:95:PRO:N	23:U:95:PRO:CD	1.69	1.44
18:P:184:GLU:HB2	18:P:241:ARG:CD	1.42	1.44
18:P:290:GLN:HG2	18:P:331:ASN:ND2	1.30	1.44
2:2:257:GLN:CG	3:A:1284:MET:HE3	1.39	1.44
27:Y:400:LYS:HB3	27:Y:437:PHE:CE2	1.52	1.43
27:Y:190:LEU:HD13	27:Y:195:ILE:CD1	1.47	1.43
18:P:29:VAL:CG1	18:P:32:PRO:CD	1.94	1.43
18:P:279:VAL:CG2	18:P:302:LEU:CG	1.80	1.43
1:1:757:ARG:NH2	1:1:760:LEU:HG	1.17	1.43
27:Y:64:PRO:N	27:Y:64:PRO:CD	1.70	1.43
2:2:248:ILE:CB	3:A:1203:ASN:OD1	1.68	1.42
20:R:124:CYS:N	20:R:130:LYS:NZ	1.68	1.42
1:1:773:ILE:HD12	1:1:775:VAL:N	1.16	1.42
19:Q:99:PHE:HB3	22:T:143:DT:C5'	1.47	1.42
2:2:241:LEU:HD21	3:A:1232:ASN:ND2	1.29	1.42
18:P:223:LEU:CG	19:Q:177:PHE:CZ	2.01	1.42
2:2:253:LEU:HD13	3:A:1132:LYS:NZ	1.24	1.42
24:V:69:TRP:HB2	24:V:219:CYS:SG	1.60	1.42
20:R:126:ILE:CG2	20:R:154:GLU:HG2	1.46	1.41
18:P:143:PRO:HB2	18:P:182:ARG:NE	1.35	1.41
21:S:203:LYS:CE	21:S:242:ARG:CZ	1.99	1.41
21:S:154:LYS:CE	21:S:154:LYS:HA	1.36	1.41
1:1:757:ARG:NH1	1:1:760:LEU:HD23	1.08	1.41
18:P:34:ILE:CD1	18:P:43:VAL:CB	1.98	1.41
2:2:269:PHE:CE2	2:2:297:CYS:SG	2.14	1.40
8:F:96:THR:HG23	9:G:65:ASP:C	1.42	1.40
4:B:449:ASN:HD21	18:P:138:ASP:CG	1.25	1.40
1:1:717:TYR:HE2	1:1:718:TYR:CE1	1.28	1.40
27:Y:639:LEU:HB2	27:Y:653:PHE:CD2	1.57	1.40
19:Q:103:ILE:CG1	22:T:143:DT:H2"	1.44	1.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:132:LYS:CD	27:Y:155:LEU:CD1	1.94	1.39
1:1:757:ARG:CZ	1:1:760:LEU:HD23	1.52	1.39
18:P:190:LYS:HE3	18:P:242:PHE:CE1	1.56	1.39
21:S:164:LYS:CE	21:S:165:LYS:HG2	1.48	1.39
18:P:286:ILE:CG1	18:P:293:ILE:HD11	1.54	1.38
18:P:187:ARG:HB2	18:P:189:PHE:N	1.38	1.38
24:V:295:PRO:CD	24:V:295:PRO:N	1.71	1.38
27:Y:493:LEU:CD2	27:Y:696:TRP:HE1	1.35	1.38
18:P:286:ILE:HD12	18:P:292:PRO:CA	1.51	1.37
21:S:202:PHE:CB	21:S:242:ARG:HH22	1.36	1.37
24:V:74:PRO:CD	24:V:74:PRO:N	1.72	1.37
18:P:340:PRO:CB	18:P:340:PRO:CD	1.98	1.37
1:1:585:PRO:HB2	1:1:756:ARG:CZ	1.50	1.37
27:Y:448:PRO:N	27:Y:448:PRO:CD	1.68	1.37
3:A:1451:VAL:CG1	9:G:20:PRO:HA	1.54	1.37
18:P:143:PRO:O	18:P:147:LYS:CB	1.72	1.37
21:S:130:TRP:HZ2	24:V:334:ASP:CA	1.36	1.37
20:R:27:LEU:CD1	20:R:128:LEU:O	1.69	1.37
21:S:148:LEU:CB	21:S:154:LYS:CE	2.01	1.37
27:Y:493:LEU:HD23	27:Y:696:TRP:NE1	1.34	1.37
18:P:184:GLU:CB	18:P:241:ARG:HG2	1.50	1.36
20:R:27:LEU:CD2	20:R:129:THR:CA	1.93	1.36
27:Y:470:PRO:CD	27:Y:470:PRO:N	1.72	1.36
21:S:237:LYS:CG	21:S:241:PRO:HG2	1.55	1.36
21:S:125:SER:N	21:S:127:LYS:NZ	1.67	1.36
19:Q:103:ILE:HG12	22:T:143:DT:C2'	1.55	1.36
22:T:134:DT:C6	24:V:323:ARG:CD	2.06	1.36
18:P:286:ILE:CD1	18:P:292:PRO:HA	1.52	1.36
20:R:46:LEU:CD2	20:R:132:THR:CG2	2.04	1.36
16:N:23:DA:C2	19:Q:116:PHE:CZ	2.14	1.36
1:1:561:MET:HB2	25:W:450:ARG:NH2	1.37	1.36
18:P:263:CYS:H	18:P:264:LYS:NZ	1.23	1.36
18:P:329:ILE:CG2	18:P:330:ALA:H	1.23	1.35
1:1:561:MET:CB	25:W:450:ARG:NH2	1.89	1.35
1:1:585:PRO:HB2	1:1:756:ARG:NH2	1.40	1.35
2:2:241:LEU:CD2	3:A:1232:ASN:HD22	1.35	1.35
18:P:286:ILE:HG13	18:P:293:ILE:CD1	1.54	1.35
20:R:123:MET:HA	20:R:130:LYS:NZ	1.09	1.35
1:1:561:MET:O	25:W:450:ARG:CZ	1.72	1.35
21:S:234:ARG:HH11	21:S:234:ARG:CB	1.30	1.35
24:V:344:PRO:CD	24:V:344:PRO:N	1.78	1.35

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:V:313:TRP:HB2	24:V:349:TYR:CE1	1.60	1.35
27:Y:683:ASP:O	27:Y:686:PHE:CD2	1.79	1.35
23:U:138:ARG:NH2	24:V:57:LEU:HB2	1.40	1.35
22:T:134:DT:C1'	24:V:323:ARG:HD3	1.54	1.35
18:P:263:CYS:N	18:P:264:LYS:HZ3	1.24	1.35
27:Y:216:PRO:N	27:Y:216:PRO:CD	1.72	1.35
2:2:253:LEU:CG	3:A:1132:LYS:HD3	1.55	1.35
3:A:411:ASP:OD1	18:P:51:VAL:CG1	1.72	1.35
2:2:241:LEU:CD2	3:A:1232:ASN:ND2	1.86	1.35
1:1:575:ARG:NH2	22:T:102:DC:OP1	1.60	1.35
18:P:223:LEU:HG	19:Q:177:PHE:CE1	1.59	1.34
21:S:237:LYS:O	21:S:241:PRO:CD	1.75	1.34
4:B:433:GLN:OE1	23:U:326:ARG:CD	1.74	1.34
18:P:145:ILE:CG1	18:P:182:ARG:HD2	1.57	1.34
4:B:959:ASP:HB2	18:P:182:ARG:NH1	1.01	1.34
18:P:142:LEU:HD23	18:P:147:LYS:CB	1.42	1.34
18:P:142:LEU:CD2	18:P:147:LYS:HG3	1.49	1.34
4:B:1221:SER:OG	6:D:14:ARG:NH1	1.59	1.33
21:S:203:LYS:NZ	21:S:205:ILE:HB	1.43	1.33
4:B:885:MET:HB2	18:P:33:LYS:NZ	1.41	1.33
4:B:959:ASP:OD2	18:P:145:ILE:CD1	1.75	1.33
21:S:175:LYS:CE	21:S:175:LYS:HA	1.32	1.33
27:Y:310:PRO:CD	27:Y:310:PRO:N	1.75	1.33
18:P:279:VAL:CB	18:P:302:LEU:HD23	1.38	1.33
24:V:63:ARG:HB2	24:V:214:ILE:O	1.23	1.33
24:V:63:ARG:HG3	24:V:215:VAL:CA	1.57	1.33
4:B:1215:ARG:HD2	6:D:15:LEU:CD1	1.50	1.33
21:S:214:TRP:CZ3	21:S:218:ASP:OD2	1.80	1.32
21:S:175:LYS:NZ	21:S:175:LYS:CB	1.87	1.32
4:B:1220:ARG:CA	6:D:14:ARG:HH22	1.43	1.32
21:S:170:GLU:O	21:S:179:LYS:CD	1.76	1.32
18:P:226:ASP:OD2	18:P:260:ALA:CB	1.75	1.32
23:U:136:PRO:CD	23:U:136:PRO:N	1.73	1.32
20:R:34:PHE:CD2	20:R:134:LEU:HD11	1.62	1.31
21:S:202:PHE:CB	21:S:242:ARG:NH2	1.87	1.31
18:P:187:ARG:HD3	18:P:189:PHE:CB	1.59	1.31
4:B:1215:ARG:NE	6:D:15:LEU:HD11	1.45	1.31
27:Y:103:PHE:CE1	27:Y:205:ILE:HD12	1.64	1.31
22:T:134:DT:O4'	24:V:323:ARG:CD	1.71	1.31
18:P:310:LYS:NZ	18:P:340:PRO:CB	1.93	1.31
17:O:4:PRO:CD	24:V:357:LYS:HB3	1.59	1.31

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:130:LYS:HA	20:R:130:LYS:CE	1.39	1.31
21:S:127:LYS:HB2	21:S:153:MET:CE	1.58	1.31
2:2:253:LEU:HD22	3:A:1132:LYS:CG	1.60	1.31
18:P:102:THR:HG21	18:P:104:MET:CE	1.61	1.31
18:P:22:LEU:CD2	18:P:34:ILE:HD13	1.61	1.30
21:S:164:LYS:HE2	21:S:165:LYS:CG	1.29	1.30
24:V:63:ARG:CB	24:V:215:VAL:HA	1.60	1.30
3:A:291:GLU:OE2	18:P:116:LYS:HD3	1.29	1.30
16:N:23:DA:C2	19:Q:116:PHE:CE1	2.18	1.30
21:S:187:HIS:CE1	21:S:225:GLU:HB3	1.65	1.30
3:A:315:LEU:O	18:P:92:LEU:HD23	1.32	1.30
18:P:150:ALA:CB	18:P:178:ILE:HG13	1.60	1.30
3:A:1450:LEU:C	9:G:18:PHE:O	1.70	1.29
4:B:560:GLU:O	24:V:225:MET:CE	1.78	1.29
17:O:4:PRO:HG3	24:V:357:LYS:O	1.12	1.29
18:P:313:TYR:O	18:P:316:LEU:CD2	1.80	1.29
1:1:561:MET:O	25:W:450:ARG:NH1	1.62	1.29
1:1:757:ARG:NH2	1:1:760:LEU:CG	1.76	1.29
18:P:263:CYS:HB2	18:P:264:LYS:NZ	1.40	1.29
21:S:129:LEU:CD2	24:V:347:PHE:CE2	2.08	1.29
16:N:24:DG:H4'	19:Q:118:SER:CB	1.62	1.29
21:S:191:GLU:O	21:S:195:LEU:HD22	1.27	1.29
18:P:320:ARG:HG3	18:P:321:ASP:OD1	1.29	1.29
1:1:773:ILE:CD1	1:1:775:VAL:HB	1.60	1.29
18:P:180:CYS:SG	18:P:187:ARG:HG2	1.73	1.29
18:P:287:LEU:HD12	18:P:338:ASN:OD1	1.26	1.28
21:S:237:LYS:HG3	21:S:241:PRO:CG	1.61	1.28
1:1:621:LYS:HB3	1:1:621:LYS:NZ	1.40	1.28
27:Y:28:ILE:CG2	27:Y:57:ILE:HG13	1.62	1.28
2:2:284:LEU:CB	3:A:1080:THR:HG21	1.63	1.28
18:P:187:ARG:HB2	18:P:188:THR:C	1.52	1.28
18:P:29:VAL:HG11	18:P:32:PRO:CG	1.62	1.28
3:A:1442:ASP:CB	9:G:60:ARG:HH12	1.40	1.28
18:P:184:GLU:OE1	18:P:231:SER:HB3	1.20	1.27
27:Y:257:LEU:HD23	27:Y:383:LEU:CD1	1.62	1.27
3:A:1451:VAL:CG1	9:G:20:PRO:CA	2.13	1.27
4:B:1220:ARG:C	6:D:14:ARG:NH2	1.86	1.27
1:1:754:ARG:CB	1:1:754:ARG:HH11	1.47	1.27
1:1:560:PRO:O	1:1:586:THR:HG21	1.21	1.27
27:Y:193:TYR:CZ	27:Y:197:ARG:HD2	1.69	1.27
20:R:123:MET:C	20:R:130:LYS:NZ	1.84	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:360:LEU:CB	27:Y:375:ARG:HD2	1.63	1.27
20:R:34:PHE:HE2	20:R:134:LEU:CG	1.36	1.27
8:F:105:ALA:CB	9:G:14:HIS:CE1	2.18	1.27
18:P:184:GLU:OE1	18:P:231:SER:CB	1.82	1.27
3:A:291:GLU:CG	18:P:116:LYS:HE2	1.65	1.27
1:1:754:ARG:CB	1:1:754:ARG:NH1	1.98	1.27
18:P:226:ASP:OD2	18:P:260:ALA:HB3	1.29	1.26
18:P:34:ILE:CD1	18:P:43:VAL:CG2	2.14	1.26
20:R:123:MET:CE	20:R:130:LYS:HD2	1.64	1.26
4:B:959:ASP:OD2	18:P:145:ILE:HD13	1.08	1.26
2:2:248:ILE:HG23	3:A:1203:ASN:CG	0.89	1.26
27:Y:405:PHE:HB3	27:Y:437:PHE:CE1	1.69	1.25
18:P:263:CYS:CB	18:P:264:LYS:HZ2	1.48	1.25
18:P:63:TRP:NE1	18:P:81:GLU:HG2	1.50	1.25
3:A:1443:VAL:CG2	9:G:63:PRO:HA	1.66	1.25
3:A:1442:ASP:CB	9:G:60:ARG:NH1	1.94	1.25
21:S:148:LEU:CB	21:S:154:LYS:HE3	1.62	1.25
2:2:253:LEU:HD13	3:A:1132:LYS:CE	1.66	1.25
21:S:207:CYS:SG	21:S:208:LYS:CE	2.22	1.25
21:S:203:LYS:HE3	21:S:203:LYS:N	1.50	1.25
21:S:164:LYS:CE	21:S:165:LYS:CG	1.95	1.25
27:Y:639:LEU:CB	27:Y:653:PHE:CD2	2.19	1.25
18:P:27:CYS:HB3	18:P:47:LEU:CD2	1.66	1.24
3:A:419:LYS:NZ	18:P:47:LEU:O	1.67	1.24
4:B:343:ILE:HG13	22:T:121:DG:C5'	1.65	1.24
1:1:712:ASP:HB3	25:W:447:GLU:OE2	1.08	1.24
21:S:137:LYS:HD2	21:S:137:LYS:N	1.40	1.24
23:U:102:PRO:N	23:U:102:PRO:CD	1.70	1.24
20:R:130:LYS:HE2	20:R:130:LYS:CA	1.02	1.24
3:A:344:ARG:NH2	4:B:1120:GLU:HG3	1.48	1.24
20:R:142:PHE:N	20:R:142:PHE:HD1	0.99	1.24
21:S:140:LYS:NZ	21:S:141:PRO:C	1.90	1.24
27:Y:28:ILE:HG22	27:Y:57:ILE:CG1	1.68	1.24
27:Y:60:GLN:O	27:Y:64:PRO:HD3	1.36	1.24
2:2:241:LEU:CG	3:A:1232:ASN:HD22	1.46	1.24
21:S:143:LEU:HD13	21:S:144:VAL:N	1.53	1.24
18:P:34:ILE:HD12	18:P:43:VAL:CG2	1.68	1.24
18:P:310:LYS:NZ	18:P:340:PRO:HB3	1.49	1.23
21:S:129:LEU:CA	24:V:341:LYS:HE3	1.68	1.23
18:P:263:CYS:N	18:P:264:LYS:NZ	1.81	1.23
21:S:191:GLU:O	21:S:195:LEU:CD2	1.86	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:137:CYS:SG	18:P:142:LEU:CB	2.26	1.23
2:2:257:GLN:HG3	3:A:1284:MET:CE	1.54	1.23
18:P:43:VAL:HG13	18:P:55:LYS:CE	1.66	1.23
24:V:292:ILE:C	24:V:295:PRO:HD2	1.59	1.23
18:P:190:LYS:HE3	18:P:242:PHE:CZ	1.72	1.23
1:1:572:GLU:OE2	1:1:576:LYS:HB3	1.28	1.23
1:1:606:ILE:CD1	1:1:690:ILE:HD11	1.68	1.23
18:P:34:ILE:HD12	18:P:43:VAL:CB	1.59	1.23
21:S:175:LYS:C	21:S:175:LYS:HZ2	1.40	1.23
21:S:221:ILE:CD1	21:S:221:ILE:H	1.48	1.23
24:V:318:LEU:HD21	24:V:349:TYR:OH	1.35	1.23
24:V:307:PHE:CZ	24:V:349:TYR:CE1	2.27	1.22
23:U:94:ASP:C	23:U:95:PRO:CD	2.08	1.22
18:P:94:THR:HG22	18:P:110:LEU:CD2	1.67	1.22
4:B:433:GLN:OE1	23:U:326:ARG:NE	1.71	1.22
4:B:433:GLN:OE1	23:U:326:ARG:HD3	1.27	1.22
21:S:175:LYS:N	21:S:175:LYS:NZ	1.86	1.22
18:P:248:LEU:HD21	18:P:286:ILE:CG1	1.69	1.22
20:R:123:MET:CB	20:R:130:LYS:HD3	1.69	1.22
3:A:1446:ASP:N	9:G:61:ILE:HD11	1.50	1.22
18:P:310:LYS:CE	18:P:340:PRO:HB3	1.69	1.22
2:2:253:LEU:CD1	3:A:1132:LYS:NZ	2.00	1.22
27:Y:244:CYS:CB	27:Y:442:ALA:HB1	1.68	1.22
18:P:34:ILE:CG1	18:P:43:VAL:HB	1.69	1.22
2:2:241:LEU:HD21	3:A:1232:ASN:CG	1.51	1.22
23:U:138:ARG:HH21	24:V:57:LEU:CD1	1.51	1.22
21:S:127:LYS:CB	21:S:153:MET:HE3	1.69	1.21
21:S:125:SER:O	24:V:341:LYS:CG	1.65	1.21
16:N:23:DA:O3'	19:Q:120:LYS:CD	1.85	1.21
18:P:26:GLU:OE1	18:P:50:LEU:CD1	1.88	1.21
4:B:1215:ARG:CD	6:D:15:LEU:HD13	1.62	1.21
18:P:29:VAL:HG11	18:P:32:PRO:CD	1.58	1.21
18:P:224:LYS:NZ	18:P:229:ASN:OD1	1.72	1.21
1:1:717:TYR:CE2	1:1:718:TYR:CD1	2.28	1.21
27:Y:639:LEU:CD1	27:Y:653:PHE:HE2	1.34	1.21
18:P:58:ASP:OD1	18:P:60:ARG:HG2	1.40	1.21
21:S:130:TRP:CE3	24:V:339:LEU:CG	2.23	1.20
2:2:253:LEU:CD2	3:A:1132:LYS:CD	1.96	1.20
1:1:606:ILE:CD1	1:1:690:ILE:CD1	2.19	1.20
21:S:221:ILE:HD13	21:S:221:ILE:N	1.45	1.20
21:S:219:GLU:O	21:S:223:GLN:OE1	1.59	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:141:PRO:HB2	21:S:177:THR:CG2	1.69	1.20
8:F:96:THR:CG2	9:G:65:ASP:O	1.90	1.20
27:Y:400:LYS:CB	27:Y:437:PHE:CZ	2.25	1.20
18:P:257:GLU:CD	18:P:257:GLU:H	1.42	1.20
18:P:303:GLN:NE2	18:P:304:VAL:HG23	1.55	1.20
19:Q:99:PHE:CB	22:T:143:DT:C5'	2.10	1.20
4:B:343:ILE:CG1	22:T:121:DG:H5'	1.70	1.20
23:U:119:LEU:HD21	24:V:135:PHE:CE2	1.76	1.20
20:R:120:ASN:CG	20:R:133:GLN:HB3	1.61	1.20
4:B:296:GLU:OE1	23:U:124:LYS:NZ	1.72	1.20
2:2:277:LYS:CE	3:A:593:GLU:OE2	1.90	1.20
20:R:34:PHE:HZ	20:R:135:GLU:N	1.22	1.19
3:A:411:ASP:OD1	18:P:51:VAL:HG12	1.03	1.19
21:S:137:LYS:H	21:S:137:LYS:CD	1.52	1.19
18:P:87:LEU:CD1	18:P:126:VAL:CG2	2.20	1.19
18:P:187:ARG:HD3	18:P:189:PHE:CA	1.70	1.19
23:U:374:VAL:CG2	24:V:73:LEU:HG	1.72	1.19
21:S:130:TRP:CH2	24:V:333:LEU:O	1.96	1.19
27:Y:639:LEU:HB2	27:Y:653:PHE:CE2	1.77	1.19
3:A:291:GLU:OE2	18:P:116:LYS:CD	1.91	1.19
23:U:372:SER:CB	24:V:80:LYS:NZ	2.06	1.19
18:P:143:PRO:CB	18:P:182:ARG:NE	1.95	1.18
18:P:145:ILE:CG1	18:P:182:ARG:CD	2.21	1.18
21:S:154:LYS:N	21:S:154:LYS:NZ	1.66	1.18
27:Y:639:LEU:CB	27:Y:653:PHE:CE2	2.23	1.18
2:2:235:ASP:CA	2:2:242:LYS:HE2	1.72	1.18
18:P:310:LYS:HZ3	18:P:340:PRO:CG	1.56	1.18
3:A:317:LYS:O	4:B:471:LYS:NZ	1.73	1.18
2:2:277:LYS:HE3	3:A:593:GLU:CD	1.64	1.18
4:B:1215:ARG:NE	6:D:15:LEU:CD1	1.99	1.18
27:Y:331:PHE:CE2	27:Y:335:LEU:HD11	1.78	1.18
4:B:343:ILE:CD1	22:T:121:DG:O3'	1.92	1.18
21:S:201:THR:OG1	21:S:243:TYR:OH	1.57	1.18
18:P:288:LEU:HD13	18:P:288:LEU:C	1.64	1.18
27:Y:639:LEU:HD12	27:Y:653:PHE:CZ	1.77	1.18
1:1:585:PRO:HB3	1:1:756:ARG:NH1	1.33	1.18
21:S:237:LYS:NZ	21:S:241:PRO:HB2	1.57	1.18
16:N:23:DA:O3'	19:Q:120:LYS:HD2	1.01	1.18
27:Y:321:ILE:HD11	27:Y:409:ILE:HG22	1.25	1.18
3:A:227:VAL:CG2	6:D:16:LYS:HE3	1.72	1.18
21:S:170:GLU:O	21:S:179:LYS:HD2	1.39	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:154:TYR:HA	18:P:157:CYS:SG	1.84	1.18
18:P:202:GLU:CG	18:P:205:LYS:HE2	1.73	1.18
20:R:34:PHE:HE2	20:R:134:LEU:CD2	1.56	1.17
2:2:253:LEU:HD13	3:A:1132:LYS:CD	1.72	1.17
20:R:46:LEU:CD2	20:R:132:THR:HG21	1.70	1.17
18:P:184:GLU:CB	18:P:241:ARG:CD	2.19	1.17
18:P:42:ASP:OD1	18:P:54:ASP:HA	1.40	1.17
18:P:289:PHE:CE1	18:P:290:GLN:HB2	1.68	1.17
18:P:43:VAL:HG13	18:P:55:LYS:HE2	1.23	1.17
1:1:527:LEU:HD22	1:1:531:ILE:HD12	1.21	1.17
21:S:234:ARG:HB2	21:S:234:ARG:NH1	0.84	1.17
21:S:130:TRP:HH2	24:V:333:LEU:O	1.22	1.17
21:S:154:LYS:C	21:S:154:LYS:NZ	1.95	1.17
27:Y:405:PHE:CB	27:Y:437:PHE:CE1	2.26	1.17
17:O:4:PRO:CG	24:V:357:LYS:O	1.92	1.17
27:Y:28:ILE:HG22	27:Y:57:ILE:CD1	1.72	1.17
4:B:451:LYS:HZ2	18:P:147:LYS:NZ	1.42	1.17
2:2:253:LEU:O	3:A:1135:ARG:NH2	1.77	1.17
8:F:92:ARG:CZ	9:G:63:PRO:CB	2.12	1.17
18:P:44:VAL:HG23	18:P:50:LEU:O	1.43	1.17
27:Y:60:GLN:O	27:Y:64:PRO:CD	1.90	1.17
23:U:138:ARG:NH2	24:V:57:LEU:CB	2.07	1.17
4:B:1220:ARG:C	6:D:14:ARG:HH22	1.41	1.17
3:A:1450:LEU:O	9:G:18:PHE:O	1.59	1.17
20:R:27:LEU:HD11	20:R:128:LEU:O	1.39	1.17
8:F:92:ARG:HE	9:G:64:THR:N	1.40	1.17
4:B:104:GLU:OE2	14:L:54:ARG:HD3	1.44	1.17
3:A:1451:VAL:HG13	9:G:20:PRO:CA	1.75	1.16
18:P:202:GLU:HG3	18:P:205:LYS:CE	1.75	1.16
4:B:343:ILE:HD12	22:T:121:DG:O3'	1.43	1.16
18:P:94:THR:HG21	18:P:110:LEU:HG	1.27	1.16
1:1:410:LEU:HD11	1:1:457:TYR:HA	1.17	1.16
18:P:152:GLU:HG3	18:P:155:LYS:CE	1.72	1.16
4:B:296:GLU:CG	23:U:124:LYS:NZ	2.07	1.16
1:1:754:ARG:NH1	1:1:754:ARG:HG3	1.49	1.16
1:1:773:ILE:HD11	1:1:775:VAL:CA	1.75	1.16
2:2:284:LEU:HB3	3:A:1080:THR:CG2	1.75	1.16
20:R:34:PHE:CZ	20:R:134:LEU:CD1	2.28	1.16
18:P:142:LEU:CD2	18:P:147:LYS:HB2	1.56	1.16
21:S:135:ILE:HD11	21:S:180:TYR:HD2	1.02	1.16
21:S:137:LYS:N	21:S:137:LYS:CD	2.08	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:329:ILE:CG2	18:P:330:ALA:N	1.99	1.16
18:P:143:PRO:HB3	18:P:182:ARG:NH2	1.61	1.16
8:F:92:ARG:NH2	9:G:63:PRO:HB2	0.84	1.16
1:1:757:ARG:CZ	1:1:760:LEU:HB3	1.76	1.16
3:A:411:ASP:OD1	18:P:51:VAL:N	1.76	1.16
18:P:116:LYS:O	18:P:119:MET:HG2	1.42	1.16
3:A:1443:VAL:HG23	9:G:63:PRO:HB3	1.26	1.15
18:P:22:LEU:HG	18:P:52:LEU:CD1	1.74	1.15
23:U:374:VAL:HG23	24:V:73:LEU:CD2	1.76	1.15
18:P:285:ASN:C	18:P:285:ASN:HD22	1.48	1.15
21:S:203:LYS:HE3	21:S:242:ARG:NE	1.61	1.15
21:S:148:LEU:CB	21:S:154:LYS:HE2	1.67	1.15
27:Y:193:TYR:CE2	27:Y:197:ARG:HD2	1.80	1.15
1:1:487:LEU:HD23	1:1:493:VAL:HG21	1.19	1.15
20:R:127:CYS:SG	20:R:129:THR:HG22	1.87	1.15
21:S:203:LYS:HE2	21:S:242:ARG:NH2	1.49	1.15
4:B:959:ASP:HB2	18:P:182:ARG:CZ	1.76	1.15
21:S:203:LYS:HD2	21:S:204:GLY:N	0.83	1.15
1:1:428:CYS:HB2	1:1:434:ASN:HB2	1.26	1.15
18:P:248:LEU:HD21	18:P:293:ILE:HD11	1.22	1.15
20:R:34:PHE:CZ	20:R:135:GLU:N	2.05	1.15
18:P:22:LEU:CG	18:P:52:LEU:HD13	1.76	1.15
4:B:1215:ARG:CZ	6:D:15:LEU:HD11	1.77	1.15
27:Y:495:MET:HG2	27:Y:686:PHE:HB2	1.29	1.15
16:N:60:DA:H2''	16:N:61:DA:H5'	1.29	1.15
18:P:143:PRO:O	18:P:147:LYS:HB2	1.36	1.14
21:S:203:LYS:HD2	21:S:204:GLY:CA	1.76	1.14
21:S:135:ILE:CG1	21:S:180:TYR:HB2	1.76	1.14
27:Y:639:LEU:CD1	27:Y:653:PHE:CZ	2.28	1.14
18:P:29:VAL:CG1	18:P:32:PRO:HD3	1.67	1.14
18:P:154:TYR:HE1	18:P:171:ILE:CG2	1.59	1.14
18:P:302:LEU:H	18:P:302:LEU:HD12	0.99	1.14
20:R:123:MET:HA	20:R:130:LYS:CE	1.77	1.14
1:1:712:ASP:CB	25:W:447:GLU:OE2	1.94	1.14
16:N:61:DA:H2''	16:N:62:DA:H5'	1.23	1.14
4:B:959:ASP:CA	18:P:182:ARG:NH1	2.10	1.14
27:Y:400:LYS:CB	27:Y:437:PHE:CE2	2.31	1.14
2:2:289:ALA:O	4:B:769:TYR:CE2	1.86	1.14
1:1:474:MET:HB3	1:1:482:TRP:H	1.13	1.14
4:B:885:MET:CB	18:P:33:LYS:NZ	2.09	1.14
18:P:303:GLN:HG2	18:P:304:VAL:HG22	1.15	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:290:GLN:CG	18:P:331:ASN:ND2	2.09	1.13
18:P:187:ARG:HH21	18:P:192:ILE:CG2	1.60	1.13
4:B:1220:ARG:HA	6:D:14:ARG:HH22	1.11	1.13
23:U:119:LEU:HG	24:V:135:PHE:HD2	1.07	1.13
18:P:250:MET:O	18:P:254:THR:HG22	1.48	1.13
20:R:123:MET:HB2	20:R:130:LYS:HD3	1.25	1.13
20:R:34:PHE:CZ	20:R:134:LEU:HG	1.82	1.13
23:U:373:TYR:CE2	24:V:72:ARG:NH1	2.15	1.13
18:P:226:ASP:CG	18:P:260:ALA:HB1	1.67	1.13
18:P:248:LEU:CD2	18:P:286:ILE:HG12	1.77	1.13
20:R:156:LEU:CD2	20:R:156:LEU:H	1.58	1.13
21:S:158:LYS:NZ	21:S:162:LEU:HG	1.60	1.13
21:S:130:TRP:HH2	24:V:337:ALA:HB3	1.07	1.13
1:1:773:ILE:CD1	1:1:775:VAL:N	1.78	1.13
18:P:184:GLU:OE2	18:P:241:ARG:N	1.82	1.13
16:N:23:DA:H4'	19:Q:120:LYS:HD3	1.29	1.13
21:S:175:LYS:CB	21:S:175:LYS:HZ2	1.51	1.13
27:Y:353:SER:HB2	27:Y:378:SER:HB2	1.17	1.13
18:P:87:LEU:HD11	18:P:126:VAL:CG2	1.74	1.13
18:P:100:GLU:OE1	18:P:101:THR:HG23	1.47	1.13
18:P:248:LEU:CD2	18:P:286:ILE:CG1	2.26	1.13
20:R:27:LEU:HD21	20:R:129:THR:N	1.61	1.13
18:P:145:ILE:CD1	18:P:182:ARG:HD2	1.79	1.13
21:S:130:TRP:CD2	24:V:339:LEU:HG	1.63	1.13
18:P:152:GLU:HG3	18:P:155:LYS:HE3	1.23	1.13
18:P:223:LEU:CB	19:Q:177:PHE:CZ	2.32	1.12
2:2:253:LEU:CD1	3:A:1132:LYS:CD	2.27	1.13
18:P:184:GLU:CB	18:P:241:ARG:HD3	1.75	1.13
20:R:46:LEU:HD21	20:R:132:THR:HG22	1.20	1.12
18:P:173:ALA:HA	18:P:176:ILE:HG12	1.30	1.12
18:P:29:VAL:CG1	18:P:32:PRO:HD2	1.72	1.12
24:V:107:LEU:HD11	24:V:119:GLU:HG3	1.28	1.12
21:S:154:LYS:CB	21:S:154:LYS:NZ	2.09	1.12
18:P:223:LEU:HB2	19:Q:177:PHE:CZ	1.82	1.12
4:B:560:GLU:O	24:V:225:MET:HE1	0.95	1.12
3:A:1443:VAL:HG23	9:G:63:PRO:CB	1.80	1.12
3:A:192:GLY:CA	22:T:117:DC:P	2.37	1.12
18:P:279:VAL:CB	18:P:302:LEU:HD22	1.57	1.12
20:R:27:LEU:HD13	20:R:128:LEU:O	1.48	1.12
2:2:257:GLN:HG2	3:A:1284:MET:CE	1.51	1.12
4:B:350:GLN:HG3	23:U:407:ASP:CG	1.68	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:27:LEU:CD2	20:R:129:THR:N	2.13	1.11
27:Y:400:LYS:HD2	27:Y:437:PHE:CE2	1.84	1.11
3:A:1451:VAL:HG13	9:G:20:PRO:CB	1.80	1.11
1:1:621:LYS:CB	1:1:621:LYS:NZ	2.10	1.11
8:F:96:THR:CG2	9:G:65:ASP:C	2.18	1.11
24:V:63:ARG:CG	24:V:215:VAL:CA	2.22	1.11
18:P:27:CYS:CB	18:P:47:LEU:HD21	1.81	1.11
1:1:754:ARG:NH2	1:1:758:GLU:OE2	1.83	1.11
18:P:94:THR:HG22	18:P:110:LEU:HD21	1.13	1.11
3:A:227:VAL:HG21	6:D:16:LYS:HE3	1.18	1.11
1:1:477:LEU:HA	1:1:501:VAL:HB	1.20	1.11
8:F:96:THR:OG1	9:G:64:THR:O	1.65	1.11
27:Y:405:PHE:CB	27:Y:437:PHE:CZ	2.34	1.11
27:Y:495:MET:HG2	27:Y:686:PHE:CB	1.81	1.11
23:U:138:ARG:HH21	24:V:57:LEU:HD12	1.13	1.11
18:P:169:GLU:HG3	18:P:197:HIS:CE1	1.86	1.11
20:R:17:VAL:CG1	20:R:66:LEU:HG	1.79	1.11
4:B:887:HIS:CE1	18:P:38:PHE:HB3	1.84	1.11
18:P:310:LYS:NZ	18:P:340:PRO:CG	2.10	1.11
21:S:135:ILE:HD11	21:S:180:TYR:CD2	1.85	1.11
18:P:223:LEU:CB	19:Q:177:PHE:HZ	1.62	1.11
2:2:258:GLY:N	3:A:1284:MET:H	1.47	1.11
18:P:154:TYR:HE1	18:P:171:ILE:HG23	1.05	1.11
23:U:374:VAL:HG23	24:V:73:LEU:CG	1.80	1.11
1:1:460:VAL:HB	16:N:63:DG:H4'	1.12	1.11
18:P:333:VAL:HG22	18:P:336:LEU:HD12	1.24	1.11
2:2:248:ILE:HG22	3:A:1203:ASN:OD1	1.36	1.11
4:B:343:ILE:HD12	22:T:122:DT:P	1.91	1.11
21:S:141:PRO:HB2	21:S:177:THR:HG21	1.31	1.11
20:R:17:VAL:HG12	20:R:66:LEU:CG	1.79	1.11
18:P:143:PRO:HB3	18:P:182:ARG:HH21	1.07	1.10
21:S:128:LEU:HD22	21:S:162:LEU:HD12	1.29	1.10
27:Y:643:ARG:HB2	27:Y:649:ARG:HB3	1.26	1.10
16:N:27:DG:H3'	24:V:291:SER:C	1.70	1.10
8:F:105:ALA:CA	9:G:14:HIS:HE1	1.64	1.10
1:1:408:ILE:HG12	1:1:475:ASP:HB3	1.28	1.10
18:P:133:ILE:HG13	18:P:151:LYS:HD3	1.26	1.10
21:S:164:LYS:NZ	21:S:165:LYS:HG2	1.65	1.10
27:Y:386:ARG:O	27:Y:390:VAL:HG23	1.51	1.10
18:P:145:ILE:HG12	18:P:182:ARG:HD2	1.29	1.10
21:S:127:LYS:HA	21:S:153:MET:HE1	1.24	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:V:318:LEU:HD21	24:V:349:TYR:CZ	1.87	1.10
2:2:283:GLN:CD	3:A:756:ILE:CD1	2.19	1.10
16:N:24:DG:C4'	19:Q:118:SER:HB3	1.79	1.10
4:B:430:ARG:HA	23:U:326:ARG:NH1	1.66	1.10
3:A:192:GLY:HA2	22:T:117:DC:P	1.91	1.10
8:F:96:THR:HG21	9:G:65:ASP:O	1.48	1.10
18:P:184:GLU:CG	18:P:241:ARG:HG2	1.78	1.10
1:1:757:ARG:CZ	1:1:760:LEU:CD2	2.21	1.10
18:P:22:LEU:HD11	18:P:43:VAL:HG21	1.15	1.10
18:P:22:LEU:HD11	18:P:34:ILE:CD1	1.82	1.10
24:V:69:TRP:CB	24:V:219:CYS:SG	2.40	1.10
18:P:102:THR:HG21	18:P:104:MET:HE2	1.33	1.10
23:U:119:LEU:CD2	24:V:135:PHE:CE2	2.34	1.10
2:2:277:LYS:HE3	3:A:593:GLU:OE1	1.51	1.10
18:P:86:LEU:CD2	18:P:155:LYS:HE2	1.79	1.10
2:2:258:GLY:H	3:A:1284:MET:N	1.48	1.10
1:1:757:ARG:NH2	1:1:760:LEU:CB	2.13	1.10
2:2:248:ILE:HG12	3:A:1203:ASN:ND2	1.65	1.10
24:V:74:PRO:CD	24:V:222:CYS:O	2.00	1.10
18:P:86:LEU:HD23	18:P:155:LYS:HE2	1.25	1.10
18:P:190:LYS:CE	18:P:242:PHE:CZ	2.36	1.09
3:A:404:TYR:OH	18:P:37:ARG:NH2	1.85	1.09
24:V:292:ILE:O	24:V:295:PRO:HD2	1.51	1.09
18:P:202:GLU:HG3	18:P:205:LYS:HE2	1.11	1.09
27:Y:321:ILE:HD11	27:Y:409:ILE:CG2	1.81	1.09
16:N:63:DG:H2''	16:N:64:DG:H5''	1.30	1.09
18:P:313:TYR:O	18:P:316:LEU:HD23	1.51	1.09
20:R:34:PHE:CE2	20:R:134:LEU:HG	1.78	1.09
21:S:128:LEU:C	24:V:341:LYS:HE3	1.73	1.09
21:S:129:LEU:HD22	24:V:347:PHE:CD2	1.77	1.09
18:P:279:VAL:HG11	18:P:309:ILE:HG12	1.33	1.09
3:A:1445:ILE:C	9:G:61:ILE:CD1	2.08	1.09
27:Y:495:MET:HB3	27:Y:686:PHE:CD2	1.86	1.09
18:P:104:MET:HG3	18:P:105:ARG:H	1.09	1.09
27:Y:353:SER:HB2	27:Y:378:SER:CB	1.83	1.09
18:P:94:THR:CG2	18:P:110:LEU:HG	1.82	1.09
4:B:350:GLN:HE21	23:U:411:LYS:CE	1.64	1.09
4:B:350:GLN:HG3	23:U:407:ASP:OD2	1.49	1.09
23:U:103:LEU:HD23	24:V:92:LEU:HD11	1.29	1.09
2:2:266:THR:HG23	3:A:731:ARG:HD3	1.23	1.09
18:P:133:ILE:CG1	18:P:151:LYS:CD	2.31	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:188:THR:HB	18:P:245:HIS:HE1	1.09	1.09
2:2:241:LEU:HD22	3:A:1232:ASN:HA	1.13	1.09
1:1:460:VAL:HG11	16:N:63:DG:C3'	1.79	1.09
1:1:695:ARG:HA	1:1:696:ARG:NH2	1.66	1.09
27:Y:449:VAL:HG12	27:Y:456:VAL:HG21	1.34	1.09
1:1:785:ARG:O	1:1:785:ARG:NE	1.85	1.09
20:R:44:LYS:HG3	20:R:51:LYS:HA	1.12	1.09
21:S:154:LYS:CB	21:S:154:LYS:HZ3	1.65	1.09
4:B:350:GLN:HE21	23:U:411:LYS:HE3	0.94	1.09
18:P:303:GLN:HG2	18:P:304:VAL:CG2	1.83	1.08
18:P:298:VAL:CG1	18:P:302:LEU:HD21	1.82	1.08
18:P:263:CYS:CB	18:P:264:LYS:NZ	2.07	1.08
18:P:196:ILE:HG13	18:P:197:HIS:N	1.58	1.08
18:P:87:LEU:CD1	18:P:126:VAL:HG21	1.77	1.08
1:1:410:LEU:HD22	1:1:477:LEU:HD11	1.35	1.08
21:S:156:ASP:O	21:S:159:VAL:HG13	1.54	1.08
21:S:129:LEU:HD22	24:V:347:PHE:CG	1.88	1.08
18:P:264:LYS:N	18:P:264:LYS:CD	2.16	1.08
18:P:109:GLU:HA	18:P:112:LYS:HE3	1.30	1.08
18:P:207:LEU:HD22	19:Q:186:GLU:OE1	1.51	1.08
21:S:138:LYS:CB	21:S:138:LYS:HZ2	1.66	1.08
1:1:566:TYR:HB2	25:W:450:ARG:HH21	0.92	1.08
2:2:306:TRP:HA	3:A:1360:GLY:CA	1.83	1.08
3:A:411:ASP:CG	18:P:51:VAL:H	1.55	1.08
18:P:263:CYS:CA	18:P:264:LYS:HZ3	1.67	1.08
3:A:317:LYS:N	18:P:92:LEU:HD22	1.69	1.08
27:Y:128:VAL:HG23	27:Y:373:PRO:HD2	1.17	1.08
21:S:203:LYS:HE2	21:S:242:ARG:HH21	0.96	1.08
1:1:757:ARG:CZ	1:1:760:LEU:CG	2.32	1.08
21:S:237:LYS:HZ3	21:S:241:PRO:CB	1.67	1.08
18:P:63:TRP:HE1	18:P:81:GLU:HG2	1.04	1.08
21:S:134:TYR:OH	21:S:138:LYS:HE3	1.53	1.08
1:1:421:ARG:HG2	1:1:430:LEU:HG	1.30	1.08
1:1:476:PHE:HD1	1:1:485:ILE:HD12	1.17	1.08
3:A:192:GLY:HA3	22:T:117:DC:OP1	1.54	1.08
18:P:288:LEU:O	18:P:288:LEU:HD22	1.54	1.08
18:P:321:ASP:N	18:P:321:ASP:OD1	1.76	1.08
2:2:257:GLN:CG	3:A:1284:MET:HE2	1.55	1.08
18:P:29:VAL:HG13	18:P:32:PRO:HD3	1.14	1.08
21:S:231:LEU:CD2	21:S:232:VAL:HG13	1.82	1.08
1:1:455:SER:HB3	1:1:466:ARG:HH11	1.14	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:89:PRO:HG2	3:A:204:THR:HB	1.35	1.08
20:R:43:LEU:HD23	20:R:54:LEU:HD11	1.15	1.07
20:R:126:ILE:CG2	20:R:154:GLU:CG	2.32	1.07
21:S:202:PHE:HB3	21:S:242:ARG:NH2	1.07	1.07
2:2:283:GLN:OE1	3:A:756:ILE:HD13	1.52	1.07
8:F:105:ALA:HB2	9:G:14:HIS:NE2	1.67	1.07
27:Y:360:LEU:HB3	27:Y:375:ARG:HD2	1.09	1.07
23:U:376:LEU:HG	24:V:73:LEU:HD22	1.25	1.07
1:1:408:ILE:HB	1:1:482:TRP:HD1	1.16	1.07
24:V:306:LEU:HD11	24:V:313:TRP:CZ3	1.87	1.07
21:S:129:LEU:CD2	24:V:347:PHE:CG	2.36	1.07
18:P:22:LEU:HD21	18:P:34:ILE:HD13	1.14	1.07
18:P:226:ASP:CG	18:P:260:ALA:CB	2.22	1.07
18:P:102:THR:HG21	18:P:104:MET:HE3	1.32	1.07
18:P:196:ILE:HG13	18:P:197:HIS:H	1.06	1.07
18:P:163:LEU:O	18:P:163:LEU:HD23	1.51	1.07
3:A:836:TYR:OH	3:A:1403:GLU:OE2	1.69	1.07
18:P:133:ILE:HG12	18:P:151:LYS:CG	1.84	1.07
23:U:137:VAL:HG13	24:V:59:LEU:HB3	1.25	1.07
27:Y:405:PHE:HB2	27:Y:437:PHE:CZ	1.89	1.07
18:P:154:TYR:CE1	18:P:171:ILE:HG23	1.89	1.07
18:P:289:PHE:HE1	18:P:290:GLN:CB	1.68	1.07
18:P:142:LEU:HD21	18:P:147:LYS:HA	1.34	1.07
1:1:424:PHE:HB3	1:1:449:GLU:HG2	1.28	1.07
2:2:266:THR:CG2	3:A:731:ARG:HD3	1.83	1.07
24:V:82:ARG:HE	24:V:108:LEU:HD11	1.01	1.07
18:P:329:ILE:HG22	18:P:330:ALA:N	1.60	1.07
20:R:119:PRO:HD3	20:R:120:ASN:ND2	1.70	1.07
27:Y:132:LYS:HD2	27:Y:155:LEU:HD13	1.35	1.07
27:Y:244:CYS:HB3	27:Y:442:ALA:HB1	1.34	1.07
18:P:22:LEU:HD11	18:P:34:ILE:HD11	1.34	1.07
18:P:29:VAL:HG13	18:P:32:PRO:CD	1.69	1.07
1:1:472:LYS:HG2	1:1:473:VAL:HG13	1.37	1.07
21:S:129:LEU:CA	24:V:341:LYS:CE	2.32	1.06
3:A:1443:VAL:CB	9:G:63:PRO:CA	2.01	1.06
3:A:16:GLU:OE1	6:D:14:ARG:NH1	1.86	1.06
18:P:198:VAL:HG12	18:P:198:VAL:O	1.30	1.06
8:F:105:ALA:HA	9:G:14:HIS:HE1	1.18	1.06
4:B:449:ASN:ND2	18:P:138:ASP:CG	2.07	1.06
27:Y:257:LEU:HD23	27:Y:383:LEU:HD11	1.07	1.06
18:P:264:LYS:N	18:P:264:LYS:HD3	1.32	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:284:LEU:HB3	3:A:1080:THR:HG21	1.13	1.06
27:Y:128:VAL:CG2	27:Y:373:PRO:HD2	1.84	1.06
1:1:405:LYS:HD3	1:1:483:GLY:HA3	1.35	1.06
21:S:129:LEU:HA	24:V:341:LYS:CE	1.85	1.06
24:V:318:LEU:HD11	24:V:349:TYR:CE2	1.90	1.06
18:P:195:LEU:O	18:P:196:ILE:HG22	1.54	1.06
23:U:376:LEU:HG	24:V:73:LEU:CD2	1.84	1.06
23:U:372:SER:CB	24:V:80:LYS:HZ1	1.62	1.06
1:1:647:ASP:N	1:1:647:ASP:OD1	1.84	1.06
18:P:143:PRO:O	18:P:147:LYS:HB3	1.49	1.06
21:S:130:TRP:CH2	24:V:337:ALA:HB3	1.89	1.06
27:Y:639:LEU:HG	27:Y:653:PHE:CE2	1.84	1.06
24:V:63:ARG:HB3	24:V:215:VAL:C	1.76	1.06
27:Y:479:LEU:O	27:Y:479:LEU:HD22	1.55	1.06
27:Y:650:GLU:HA	27:Y:653:PHE:CE1	1.91	1.06
18:P:187:ARG:CD	18:P:189:PHE:HA	1.85	1.06
2:2:306:TRP:HA	3:A:1360:GLY:HA3	1.08	1.06
21:S:170:GLU:O	21:S:179:LYS:HD3	1.49	1.06
27:Y:353:SER:CB	27:Y:378:SER:HB2	1.86	1.06
3:A:192:GLY:CA	22:T:117:DC:OP1	2.03	1.06
18:P:298:VAL:HG12	18:P:302:LEU:CD2	1.85	1.05
20:R:46:LEU:HD21	20:R:132:THR:HG23	1.32	1.05
18:P:187:ARG:HD3	18:P:189:PHE:HA	1.35	1.05
16:N:21:DA:H2"	16:N:22:DA:H5'	1.33	1.05
18:P:248:LEU:HD21	18:P:286:ILE:HG13	1.12	1.05
24:V:306:LEU:HD11	24:V:313:TRP:CE3	1.92	1.05
27:Y:495:MET:SD	27:Y:696:TRP:CE3	2.49	1.05
21:S:194:LYS:HZ2	21:S:210:LEU:HD11	1.16	1.05
3:A:317:LYS:H	18:P:92:LEU:HD22	1.16	1.05
18:P:298:VAL:HG12	18:P:302:LEU:HD21	1.08	1.05
21:S:129:LEU:N	24:V:341:LYS:CE	2.18	1.05
21:S:148:LEU:HB3	21:S:154:LYS:HE3	1.21	1.05
3:A:1443:VAL:HB	9:G:63:PRO:N	1.71	1.05
23:U:137:VAL:HG11	24:V:61:LEU:HD21	1.35	1.05
21:S:231:LEU:HD23	21:S:232:VAL:CG1	1.86	1.05
1:1:621:LYS:HB3	1:1:621:LYS:HZ3	0.95	1.05
1:1:502:VAL:HG11	1:1:530:LEU:HB3	1.35	1.05
3:A:1443:VAL:CG1	9:G:61:ILE:HG22	1.86	1.05
3:A:1443:VAL:HG12	9:G:61:ILE:CG2	1.86	1.05
18:P:34:ILE:HD11	18:P:43:VAL:CB	1.83	1.05
2:2:248:ILE:CD1	3:A:1203:ASN:HD21	1.68	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:124:CYS:H	20:R:130:LYS:NZ	1.36	1.05
21:S:127:LYS:HB2	21:S:153:MET:SD	1.97	1.05
3:A:1445:ILE:C	9:G:61:ILE:HD11	1.54	1.05
2:2:235:ASP:CA	2:2:242:LYS:CE	2.34	1.05
1:1:578:MET:SD	1:1:779:ALA:O	2.15	1.05
21:S:127:LYS:CB	21:S:153:MET:CE	2.27	1.04
18:P:223:LEU:HB2	19:Q:177:PHE:HZ	0.94	1.04
8:F:132:LEU:HB3	9:G:61:ILE:HG21	1.37	1.04
18:P:187:ARG:HB2	18:P:189:PHE:CA	1.87	1.04
16:N:19:DT:H2"	16:N:20:DA:H5'	1.38	1.04
18:P:94:THR:HG22	18:P:110:LEU:CG	1.86	1.04
23:U:137:VAL:CG1	24:V:59:LEU:HB3	1.87	1.04
27:Y:248:LEU:HD21	27:Y:445:ALA:HB2	1.37	1.04
2:2:241:LEU:HG	3:A:1232:ASN:HD22	1.13	1.04
27:Y:128:VAL:CG2	27:Y:372:LYS:HA	1.88	1.04
22:T:134:DT:N1	24:V:323:ARG:CD	2.21	1.04
18:P:254:THR:C	18:P:257:GLU:OE1	1.96	1.04
18:P:279:VAL:CA	18:P:302:LEU:HD23	1.86	1.04
21:S:127:LYS:HB2	21:S:153:MET:HE3	1.21	1.04
3:A:1442:ASP:HB3	9:G:60:ARG:NH1	1.12	1.04
24:V:63:ARG:CB	24:V:215:VAL:CA	2.36	1.04
1:1:756:ARG:HH11	1:1:756:ARG:CG	1.69	1.04
21:S:194:LYS:NZ	21:S:210:LEU:HD11	1.70	1.04
18:P:150:ALA:HB2	18:P:178:ILE:HG13	1.10	1.04
18:P:150:ALA:CB	18:P:178:ILE:CG1	2.34	1.04
21:S:138:LYS:NZ	21:S:138:LYS:HB3	1.70	1.04
21:S:138:LYS:CB	21:S:138:LYS:NZ	2.16	1.04
23:U:119:LEU:HG	24:V:135:PHE:CD2	1.93	1.04
1:1:505:ILE:HG22	1:1:507:ALA:H	1.21	1.04
27:Y:28:ILE:CG2	27:Y:57:ILE:CG1	2.32	1.04
21:S:183:THR:HA	21:S:222:ASN:ND2	1.73	1.04
8:F:105:ALA:HB2	9:G:14:HIS:CE1	1.91	1.04
27:Y:42:MET:SD	27:Y:48:LYS:HG2	1.96	1.04
18:P:287:LEU:CD1	18:P:338:ASN:OD1	2.05	1.03
18:P:279:VAL:HG22	18:P:298:VAL:HG12	1.39	1.03
20:R:126:ILE:HG21	20:R:154:GLU:HG2	1.08	1.03
2:2:248:ILE:HG23	3:A:1203:ASN:CB	1.88	1.03
18:P:94:THR:CG2	18:P:110:LEU:CG	2.35	1.03
3:A:78:PRO:O	4:B:1201:LYS:NZ	1.89	1.03
2:2:306:TRP:CA	3:A:1360:GLY:HA3	1.89	1.03
4:B:1220:ARG:CA	6:D:14:ARG:NH2	2.14	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:537:MET:SD	27:Y:621:LEU:HD13	1.98	1.03
1:1:515:ALA:C	1:1:681:ARG:HD3	1.76	1.03
24:V:333:LEU:O	24:V:337:ALA:HB3	1.58	1.03
18:P:27:CYS:HB3	18:P:47:LEU:HD21	1.28	1.03
1:1:568:GLU:O	1:1:571:ARG:NH1	1.65	1.03
20:R:144:ARG:NH1	20:R:144:ARG:HA	1.52	1.03
20:R:28:VAL:HG13	20:R:43:LEU:HD21	1.37	1.03
18:P:172:MET:O	18:P:176:ILE:HG23	1.59	1.03
4:B:296:GLU:HG3	23:U:124:LYS:NZ	1.74	1.03
27:Y:215:ASP:O	27:Y:218:ILE:HG22	1.59	1.03
27:Y:495:MET:HG2	27:Y:686:PHE:CG	1.93	1.03
3:A:1451:VAL:HG11	9:G:20:PRO:HA	1.13	1.03
27:Y:360:LEU:CG	27:Y:375:ARG:HD2	1.89	1.03
21:S:143:LEU:CD1	21:S:145:ASN:H	1.72	1.03
4:B:350:GLN:NE2	23:U:411:LYS:HE3	1.72	1.03
3:A:89:PRO:CG	3:A:204:THR:HB	1.88	1.03
3:A:63:ARG:O	18:P:20:ILE:HG12	1.58	1.03
4:B:902:GLY:O	14:L:65:VAL:HG11	1.59	1.03
27:Y:28:ILE:HG22	27:Y:57:ILE:HG13	1.19	1.03
27:Y:683:ASP:O	27:Y:686:PHE:HD2	1.26	1.03
23:U:135:LEU:C	23:U:136:PRO:CD	2.26	1.03
1:1:303:ARG:HG2	1:1:504:THR:HB	1.40	1.03
16:N:58:DC:H2''	16:N:59:DT:H5'	1.40	1.03
22:T:135:DG:H2'	22:T:136:DA:C8	1.94	1.02
18:P:279:VAL:CG1	18:P:309:ILE:HG12	1.88	1.02
1:1:566:TYR:HB2	25:W:450:ARG:NH2	1.73	1.02
18:P:180:CYS:SG	18:P:187:ARG:CG	2.46	1.02
1:1:757:ARG:NH1	1:1:760:LEU:CB	2.22	1.02
16:N:18:DA:H2''	16:N:19:DT:H5'	1.38	1.02
19:Q:114:LEU:HB3	22:T:143:DT:O2	1.59	1.02
27:Y:494:PRO:HD2	27:Y:679:MET:O	1.59	1.02
21:S:237:LYS:NZ	21:S:241:PRO:CB	2.21	1.02
27:Y:289:LEU:HD22	27:Y:348:VAL:HG12	1.41	1.02
3:A:344:ARG:CZ	4:B:1120:GLU:HG3	1.88	1.02
20:R:27:LEU:HD21	20:R:128:LEU:C	1.79	1.02
18:P:142:LEU:CD2	18:P:147:LYS:CA	2.37	1.02
21:S:135:ILE:CD1	21:S:180:TYR:HD2	1.70	1.02
22:T:145:DT:C6	22:T:146:DT:H72	1.95	1.02
3:A:317:LYS:O	4:B:471:LYS:CE	2.06	1.02
21:S:133:GLU:HG3	21:S:137:LYS:HE3	1.34	1.02
18:P:252:VAL:HG13	18:P:285:ASN:ND2	1.73	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:102:THR:CG2	18:P:104:MET:CE	2.37	1.02
18:P:257:GLU:OE1	18:P:257:GLU:N	1.92	1.02
18:P:329:ILE:HG23	18:P:330:ALA:H	1.24	1.02
1:1:757:ARG:HH22	1:1:760:LEU:CB	1.70	1.02
18:P:43:VAL:HG22	18:P:55:LYS:HZ3	1.22	1.02
27:Y:190:LEU:HD13	27:Y:195:ILE:HD11	1.42	1.02
27:Y:495:MET:HG3	27:Y:681:LEU:HB2	1.38	1.02
4:B:433:GLN:OE1	23:U:326:ARG:CZ	2.07	1.02
18:P:225:ILE:C	18:P:225:ILE:HD12	1.80	1.02
27:Y:103:PHE:CD1	27:Y:205:ILE:HD12	1.95	1.02
18:P:170:SER:OG	18:P:205:LYS:HE3	1.59	1.02
18:P:93:SER:HB3	18:P:114:GLN:OE1	1.59	1.02
1:1:460:VAL:HB	16:N:63:DG:C4'	1.77	1.02
2:2:291:GLU:N	2:2:292:PRO:HD2	1.72	1.02
21:S:203:LYS:HZ2	21:S:204:GLY:C	1.60	1.02
21:S:203:LYS:HG3	21:S:242:ARG:NE	1.75	1.02
16:N:23:DA:H2''	19:Q:120:LYS:HB2	1.42	1.02
21:S:234:ARG:CZ	21:S:234:ARG:CB	2.37	1.01
21:S:234:ARG:HB2	21:S:234:ARG:CZ	1.90	1.01
18:P:184:GLU:CD	18:P:241:ARG:N	2.12	1.01
18:P:188:THR:HB	18:P:245:HIS:CE1	1.96	1.01
4:B:1185:CYS:SG	6:D:17:LYS:CD	2.48	1.01
21:S:233:LEU:HD13	21:S:245:TRP:O	1.60	1.01
1:1:754:ARG:HH11	1:1:754:ARG:HG3	1.05	1.01
1:1:425:LEU:HG	1:1:429:THR:HA	1.40	1.01
18:P:310:LYS:HE2	18:P:340:PRO:HB3	1.38	1.01
20:R:156:LEU:HD23	20:R:156:LEU:H	1.21	1.01
18:P:133:ILE:HG12	18:P:151:LYS:HG2	1.38	1.01
18:P:130:PHE:O	18:P:133:ILE:HG22	1.60	1.01
21:S:203:LYS:NZ	21:S:204:GLY:C	2.14	1.01
21:S:151:LEU:O	21:S:151:LEU:HD23	1.60	1.01
2:2:283:GLN:OE1	3:A:756:ILE:CD1	2.07	1.01
1:1:588:PHE:CZ	1:1:621:LYS:HE2	1.95	1.01
1:1:588:PHE:CE2	1:1:621:LYS:NZ	2.26	1.01
21:S:127:LYS:CA	21:S:153:MET:CE	2.38	1.01
4:B:1215:ARG:HD2	6:D:15:LEU:HD13	1.03	1.01
27:Y:681:LEU:HD22	27:Y:696:TRP:CZ3	1.95	1.01
18:P:227:THR:HG22	18:P:227:THR:O	1.61	1.01
4:B:105:SER:HB2	18:P:183:ALA:CB	1.90	1.01
18:P:29:VAL:HG11	18:P:32:PRO:HG3	1.36	1.01
3:A:291:GLU:HG2	18:P:116:LYS:CE	1.89	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:198:VAL:O	18:P:198:VAL:CG1	2.07	1.01
3:A:227:VAL:HG11	6:D:16:LYS:CG	1.90	1.01
22:T:117:DC:H2"	22:T:118:DC:H5'	1.38	1.01
27:Y:360:LEU:CB	27:Y:375:ARG:CD	2.39	1.01
23:U:119:LEU:CG	24:V:135:PHE:CD2	2.44	1.01
23:U:374:VAL:HG23	24:V:73:LEU:HD21	1.41	1.01
27:Y:449:VAL:CG1	27:Y:456:VAL:HG21	1.91	1.01
18:P:193:GLN:NE2	18:P:203:PHE:CD2	2.29	1.01
22:T:108:DG:H2"	22:T:109:DT:H5'	1.42	1.01
18:P:280:VAL:CG1	18:P:313:TYR:HA	1.91	1.00
21:S:203:LYS:HZ3	21:S:205:ILE:CB	1.73	1.00
3:A:1443:VAL:HG12	9:G:61:ILE:HG22	1.40	1.00
18:P:26:GLU:OE1	18:P:50:LEU:HD11	1.60	1.00
27:Y:70:ILE:HB	27:Y:208:TYR:HE2	1.23	1.00
2:2:241:LEU:CD2	3:A:1232:ASN:HA	1.89	1.00
3:A:291:GLU:HG2	18:P:116:LYS:HE2	1.01	1.00
20:R:30:ASP:OD1	20:R:151:LEU:HD12	1.59	1.00
21:S:129:LEU:HG	24:V:341:LYS:HE2	1.42	1.00
18:P:184:GLU:OE2	18:P:241:ARG:CA	2.09	1.00
1:1:757:ARG:CZ	1:1:760:LEU:CB	2.39	1.00
1:1:756:ARG:HG2	1:1:756:ARG:NH1	1.53	1.00
16:N:23:DA:N3	19:Q:116:PHE:CE1	2.28	1.00
4:B:430:ARG:HA	23:U:326:ARG:HH12	1.20	1.00
16:N:56:DT:H2"	16:N:57:DA:H5'	1.41	1.00
16:N:58:DC:H2'	16:N:59:DT:C6	1.96	1.00
18:P:329:ILE:HG22	18:P:330:ALA:H	0.86	1.00
18:P:133:ILE:HG13	18:P:151:LYS:CD	1.89	1.00
2:2:253:LEU:CD2	3:A:1132:LYS:HB3	1.90	1.00
21:S:219:GLU:CB	21:S:222:ASN:HD22	1.73	1.00
8:F:105:ALA:HA	9:G:14:HIS:CE1	1.95	1.00
1:1:384:ILE:HD13	1:1:511:LEU:HD11	1.41	1.00
18:P:130:PHE:C	18:P:133:ILE:HG22	1.82	1.00
3:A:1386:ARG:NH1	3:A:1403:GLU:OE1	1.95	1.00
21:S:133:GLU:HA	21:S:137:LYS:HE2	1.41	1.00
1:1:460:VAL:CB	16:N:63:DG:H4'	1.92	1.00
27:Y:132:LYS:CD	27:Y:155:LEU:HD13	1.85	1.00
19:Q:114:LEU:HD13	22:T:143:DT:C2	1.96	1.00
2:2:248:ILE:CG1	3:A:1203:ASN:HD21	1.74	1.00
27:Y:678:VAL:HG11	27:Y:708:LEU:HG	1.41	0.99
24:V:74:PRO:HD2	24:V:222:CYS:O	1.58	0.99
16:N:35:DG:H2"	16:N:36:DT:H71	1.43	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:560:PRO:O	1:1:586:THR:CG2	2.09	0.99
18:P:34:ILE:HD12	18:P:43:VAL:HB	1.17	0.99
18:P:225:ILE:HD13	18:P:227:THR:N	1.76	0.99
4:B:343:ILE:HG13	22:T:121:DG:H5'	1.02	0.99
21:S:134:TYR:CZ	21:S:138:LYS:HE3	1.97	0.99
23:U:374:VAL:CG2	24:V:73:LEU:CG	2.37	0.99
3:A:192:GLY:HA2	22:T:116:DG:O3'	1.61	0.99
27:Y:360:LEU:HB3	27:Y:375:ARG:CD	1.91	0.99
27:Y:481:LYS:HD3	27:Y:483:TYR:CE2	1.97	0.99
18:P:310:LYS:NZ	18:P:340:PRO:HG3	1.76	0.99
21:S:154:LYS:C	21:S:154:LYS:HZ2	1.59	0.99
21:S:128:LEU:HG	24:V:341:LYS:NZ	1.76	0.99
3:A:1451:VAL:HG13	9:G:20:PRO:CG	1.92	0.99
1:1:459:MET:HB2	1:1:464:ARG:HD2	1.41	0.99
1:1:460:VAL:HG11	16:N:63:DG:H3'	1.39	0.99
1:1:376:ASN:H	1:1:380:ARG:HB2	1.22	0.99
3:A:1443:VAL:CG2	9:G:63:PRO:CA	2.33	0.99
21:S:126:SER:O	24:V:339:LEU:HB3	1.62	0.99
27:Y:400:LYS:HD2	27:Y:437:PHE:CD2	1.97	0.99
2:2:252:ASN:ND2	3:A:1206:ASP:OD1	1.95	0.99
18:P:187:ARG:HH21	18:P:192:ILE:HG21	1.22	0.99
21:S:131:ALA:O	21:S:135:ILE:CG2	2.11	0.99
21:S:214:TRP:HZ3	21:S:218:ASP:OD2	1.27	0.99
21:S:131:ALA:O	21:S:135:ILE:HG22	1.62	0.99
18:P:22:LEU:CD2	18:P:34:ILE:HG21	1.93	0.99
21:S:133:GLU:HG3	21:S:137:LYS:CE	1.92	0.99
18:P:310:LYS:HZ3	18:P:340:PRO:HB3	1.03	0.98
18:P:133:ILE:HG12	18:P:151:LYS:CD	1.91	0.98
21:S:158:LYS:HZ3	21:S:162:LEU:HG	1.16	0.98
18:P:173:ALA:HA	18:P:176:ILE:CG1	1.93	0.98
3:A:416:ARG:HH12	18:P:37:ARG:HE	1.10	0.98
22:T:133:DT:O2	24:V:323:ARG:NH1	1.90	0.98
20:R:127:CYS:SG	20:R:129:THR:CG2	2.51	0.98
27:Y:245:ILE:HG23	27:Y:439:CYS:O	1.63	0.98
18:P:184:GLU:OE2	18:P:241:ARG:HA	1.62	0.98
27:Y:128:VAL:HG23	27:Y:373:PRO:CD	1.93	0.98
1:1:376:ASN:HB2	1:1:380:ARG:HD3	1.45	0.98
27:Y:639:LEU:CD2	27:Y:649:ARG:CD	2.20	0.98
18:P:27:CYS:SG	18:P:47:LEU:HD21	2.03	0.98
18:P:102:THR:CG2	18:P:104:MET:HE2	1.91	0.98
18:P:285:ASN:ND2	18:P:285:ASN:C	2.15	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:43:VAL:HG22	18:P:55:LYS:NZ	1.78	0.98
16:N:39:DC:H2'	16:N:40:DT:C6	1.99	0.98
20:R:123:MET:HE2	20:R:130:LYS:HD2	1.39	0.98
4:B:105:SER:HB2	18:P:183:ALA:HB1	1.46	0.98
4:B:1217:TYR:OH	6:D:15:LEU:HA	1.64	0.98
1:1:408:ILE:HB	1:1:482:TRP:CD1	1.98	0.98
1:1:410:LEU:HB2	1:1:466:ARG:HH22	1.26	0.98
18:P:152:GLU:CG	18:P:155:LYS:HE3	1.94	0.98
27:Y:136:MET:HE2	27:Y:159:HIS:HD2	1.25	0.98
3:A:344:ARG:HD2	4:B:1118:PRO:O	1.64	0.98
2:2:248:ILE:CG1	3:A:1203:ASN:ND2	2.26	0.98
27:Y:331:PHE:CZ	27:Y:335:LEU:HD11	1.99	0.98
24:V:82:ARG:NE	24:V:108:LEU:HD11	1.78	0.98
18:P:310:LYS:HZ3	18:P:340:PRO:CA	1.77	0.98
27:Y:495:MET:HB3	27:Y:686:PHE:CE2	1.98	0.98
18:P:225:ILE:CD1	18:P:227:THR:N	2.26	0.98
1:1:477:LEU:CA	1:1:501:VAL:HB	1.92	0.98
18:P:188:THR:CB	18:P:245:HIS:CE1	2.47	0.97
27:Y:190:LEU:HD13	27:Y:195:ILE:HD12	1.46	0.97
18:P:63:TRP:HE1	18:P:81:GLU:CG	1.77	0.97
1:1:668:THR:HG21	1:1:694:LYS:HB2	1.44	0.97
22:T:134:DT:N1	24:V:323:ARG:HD3	1.76	0.97
18:P:250:MET:O	18:P:254:THR:CG2	2.11	0.97
18:P:288:LEU:HD21	18:P:328:LEU:CD1	1.93	0.97
18:P:320:ARG:HH21	18:P:337:ASP:HB2	1.28	0.97
18:P:145:ILE:HG12	18:P:182:ARG:CD	1.90	0.97
18:P:206:THR:O	18:P:209:ILE:HG12	1.64	0.97
21:S:134:TYR:OH	21:S:138:LYS:CE	2.12	0.97
27:Y:193:TYR:OH	27:Y:221:ARG:NH2	1.97	0.97
22:T:104:DT:H2''	22:T:105:DT:H5'	1.46	0.97
18:P:193:GLN:NE2	18:P:203:PHE:CE2	2.32	0.97
21:S:203:LYS:CE	21:S:242:ARG:NE	2.23	0.97
18:P:263:CYS:H	18:P:264:LYS:HZ1	1.08	0.97
21:S:183:THR:CG2	21:S:184:TYR:HD1	1.77	0.97
8:F:92:ARG:HE	9:G:64:THR:CA	1.77	0.97
21:S:231:LEU:HD23	21:S:232:VAL:HG13	0.99	0.97
2:2:253:LEU:CG	3:A:1132:LYS:CD	2.36	0.97
18:P:187:ARG:HD3	18:P:189:PHE:HB3	1.44	0.97
18:P:22:LEU:HD23	18:P:22:LEU:O	1.64	0.97
1:1:476:PHE:CD1	1:1:485:ILE:HD12	1.98	0.97
27:Y:185:CYS:HB2	27:Y:192:PRO:HG3	1.47	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:310:LYS:HZ1	18:P:340:PRO:HG3	1.27	0.97
21:S:127:LYS:HE3	21:S:127:LYS:H	1.24	0.97
21:S:135:ILE:HG13	21:S:180:TYR:HB2	1.46	0.97
23:U:119:LEU:CG	24:V:135:PHE:HD2	1.75	0.97
18:P:87:LEU:HD13	18:P:126:VAL:CG2	1.94	0.97
18:P:173:ALA:CA	18:P:176:ILE:HG12	1.93	0.97
18:P:187:ARG:CB	18:P:188:THR:C	2.32	0.97
18:P:291:ILE:H	18:P:291:ILE:HD13	1.30	0.96
18:P:142:LEU:HD21	18:P:147:LYS:CA	1.92	0.96
4:B:1215:ARG:CD	6:D:15:LEU:HD11	1.74	0.96
16:N:22:DA:C2	19:Q:122:VAL:HG11	2.00	0.96
1:1:297:ILE:HG22	1:1:308:ASP:HB2	1.47	0.96
4:B:451:LYS:NZ	18:P:147:LYS:NZ	2.11	0.96
1:1:757:ARG:NH1	1:1:760:LEU:CG	2.27	0.96
27:Y:237:ALA:CB	27:Y:458:ILE:HG23	1.95	0.96
4:B:449:ASN:ND2	18:P:138:ASP:OD1	1.99	0.96
2:2:241:LEU:HG	3:A:1232:ASN:ND2	1.79	0.96
4:B:72:GLU:OE2	23:U:311:ASP:O	1.81	0.96
18:P:248:LEU:HD21	18:P:293:ILE:CD1	1.94	0.96
27:Y:190:LEU:CD1	27:Y:195:ILE:CD1	2.42	0.96
18:P:198:VAL:HG11	18:P:202:GLU:OE1	1.65	0.96
18:P:87:LEU:CD2	18:P:126:VAL:HG21	1.94	0.96
18:P:184:GLU:CA	18:P:241:ARG:HD3	1.95	0.96
18:P:263:CYS:CA	18:P:264:LYS:NZ	2.27	0.96
21:S:142:VAL:HG21	21:S:147:LEU:HG	1.45	0.96
18:P:252:VAL:O	18:P:285:ASN:OD1	1.83	0.96
18:P:24:CYS:HB2	18:P:48:CYS:SG	2.06	0.96
18:P:171:ILE:HD13	18:P:209:ILE:HD12	1.47	0.96
27:Y:128:VAL:HG21	27:Y:372:LYS:HA	1.46	0.96
27:Y:193:TYR:CE2	27:Y:197:ARG:CD	2.48	0.96
18:P:150:ALA:HB1	18:P:178:ILE:CG1	1.95	0.96
27:Y:128:VAL:CG2	27:Y:373:PRO:CD	2.42	0.96
27:Y:639:LEU:HB2	27:Y:653:PHE:HD2	1.19	0.96
22:T:147:DA:H2''	22:T:148:DT:H5'	1.45	0.96
18:P:87:LEU:HD11	18:P:126:VAL:HG21	1.37	0.96
20:R:44:LYS:HA	20:R:44:LYS:HE2	1.44	0.96
20:R:43:LEU:HB3	20:R:54:LEU:HD21	1.48	0.96
18:P:142:LEU:O	18:P:147:LYS:HD3	1.64	0.96
1:1:474:MET:H	1:1:481:GLU:H	1.07	0.96
18:P:143:PRO:CG	18:P:182:ARG:HE	1.77	0.96
27:Y:244:CYS:HB2	27:Y:442:ALA:HB1	1.44	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:87:LEU:HD11	18:P:126:VAL:HG23	1.48	0.96
1:1:495:ALA:HB3	1:1:498:PHE:HD2	1.29	0.96
1:1:572:GLU:OE2	1:1:576:LYS:CB	2.13	0.95
21:S:237:LYS:O	21:S:241:PRO:HD2	0.79	0.95
21:S:133:GLU:CD	24:V:330:LYS:HD3	1.85	0.95
1:1:397:ILE:HG23	1:1:427:TRP:CZ2	2.01	0.95
27:Y:541:PHE:CE1	27:Y:599:LEU:HD22	1.99	0.95
18:P:145:ILE:HD11	18:P:182:ARG:HD2	1.48	0.95
18:P:223:LEU:CD1	19:Q:173:GLU:HB2	1.95	0.95
23:U:138:ARG:NH2	24:V:57:LEU:HD12	1.80	0.95
1:1:588:PHE:CZ	1:1:621:LYS:CE	2.49	0.95
1:1:656:LYS:HD2	1:1:656:LYS:O	1.66	0.95
21:S:129:LEU:HD23	24:V:347:PHE:CZ	2.01	0.95
23:U:138:ARG:HH22	24:V:57:LEU:HB2	1.22	0.95
16:N:22:DA:H2	19:Q:122:VAL:HG11	1.29	0.95
1:1:585:PRO:CB	1:1:756:ARG:CZ	2.22	0.95
18:P:34:ILE:CD1	18:P:43:VAL:HG21	1.95	0.95
21:S:127:LYS:HA	21:S:153:MET:CE	1.97	0.95
18:P:26:GLU:OE1	18:P:50:LEU:HD13	1.66	0.95
2:2:241:LEU:HD22	3:A:1232:ASN:CA	1.97	0.95
3:A:320:ARG:HH12	18:P:81:GLU:HB2	1.30	0.95
23:U:374:VAL:HG22	24:V:73:LEU:HG	1.47	0.95
27:Y:136:MET:CE	27:Y:159:HIS:HD2	1.78	0.95
18:P:140:ALA:O	18:P:141:GLU:HG2	1.64	0.95
4:B:583:ASN:HD21	4:B:628:THR:HG22	1.27	0.95
1:1:584:ASN:HD21	1:1:586:THR:CG2	1.78	0.95
1:1:458:SER:HA	1:1:465:ASN:HB2	1.47	0.95
18:P:276:THR:O	18:P:280:VAL:HG23	1.67	0.95
1:1:561:MET:HB3	25:W:450:ARG:NH2	1.81	0.95
27:Y:350:HIS:HB2	27:Y:384:LEU:HD12	1.46	0.95
21:S:203:LYS:HG3	21:S:242:ARG:HE	1.27	0.95
18:P:169:GLU:HG3	18:P:197:HIS:HE1	1.30	0.95
1:1:376:ASN:HB3	1:1:380:ARG:H	1.31	0.95
20:R:34:PHE:HE2	20:R:134:LEU:HD21	1.32	0.95
18:P:22:LEU:CD1	18:P:34:ILE:CD1	2.44	0.95
21:S:187:HIS:HE1	21:S:225:GLU:HB3	1.32	0.95
18:P:142:LEU:HG	18:P:143:PRO:HD2	1.46	0.94
20:R:119:PRO:CD	20:R:120:ASN:HD22	1.78	0.94
21:S:154:LYS:CA	21:S:154:LYS:NZ	0.80	0.94
18:P:187:ARG:HA	18:P:188:THR:HB	1.46	0.94
21:S:126:SER:N	21:S:127:LYS:HZ2	1.65	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:159:VAL:HG22	21:S:160:ILE:HG23	1.46	0.94
1:1:407:VAL:HG13	1:1:452:LEU:H	1.29	0.94
20:R:17:VAL:HG12	20:R:66:LEU:HG	1.37	0.94
27:Y:495:MET:HB3	27:Y:686:PHE:CG	2.01	0.94
18:P:320:ARG:HH21	18:P:337:ASP:CB	1.79	0.94
21:S:125:SER:O	21:S:129:LEU:HD12	1.32	0.94
24:V:306:LEU:HG	24:V:313:TRP:CE2	2.03	0.94
1:1:474:MET:HB2	1:1:480:ARG:CA	1.97	0.94
8:F:92:ARG:NE	9:G:64:THR:N	2.15	0.94
18:P:23:THR:O	18:P:25:PRO:HD3	1.65	0.94
24:V:74:PRO:HD2	24:V:223:GLN:HA	1.47	0.94
1:1:421:ARG:HA	1:1:424:PHE:HD2	1.29	0.94
4:B:350:GLN:NE2	23:U:411:LYS:CE	2.27	0.94
18:P:248:LEU:HD22	18:P:286:ILE:HG12	1.46	0.94
18:P:326:PRO:HD2	18:P:328:LEU:H	1.27	0.94
3:A:416:ARG:NH2	18:P:37:ARG:HH21	1.64	0.94
17:O:87:VAL:HG12	17:O:88:GLU:H	1.32	0.94
22:T:134:DT:H6	24:V:323:ARG:HD2	1.15	0.94
2:2:248:ILE:HG21	3:A:1203:ASN:OD1	1.13	0.94
27:Y:666:LEU:HD23	27:Y:679:MET:SD	2.07	0.94
18:P:263:CYS:HB2	18:P:264:LYS:HZ2	0.88	0.94
18:P:264:LYS:HD3	18:P:264:LYS:H	1.18	0.94
23:U:138:ARG:NH2	24:V:57:LEU:CD1	2.31	0.94
4:B:885:MET:HB2	18:P:33:LYS:HZ3	1.00	0.94
18:P:171:ILE:CD1	18:P:209:ILE:HD12	1.97	0.94
23:U:119:LEU:HD21	24:V:135:PHE:CD2	2.03	0.94
18:P:329:ILE:HG23	18:P:330:ALA:N	1.81	0.94
2:2:253:LEU:HD22	3:A:1132:LYS:CB	1.96	0.94
18:P:264:LYS:CD	18:P:264:LYS:H	1.72	0.94
27:Y:28:ILE:HG21	27:Y:57:ILE:HG21	1.47	0.94
3:A:315:LEU:C	18:P:92:LEU:HD23	1.87	0.94
3:A:1450:LEU:HD11	9:G:15:PRO:O	1.66	0.94
27:Y:517:SER:O	27:Y:522:TYR:HD2	1.51	0.94
27:Y:649:ARG:O	27:Y:653:PHE:CD1	2.21	0.93
18:P:133:ILE:CG1	18:P:151:LYS:HG2	1.98	0.93
24:V:313:TRP:HB2	24:V:349:TYR:HE1	1.01	0.93
27:Y:162:LEU:HD23	27:Y:195:ILE:HG13	1.48	0.93
1:1:712:ASP:N	25:W:449:ASP:OD2	2.02	0.93
18:P:200:THR:HG23	18:P:201:LYS:H	1.33	0.93
18:P:248:LEU:HD22	18:P:252:VAL:HG11	1.48	0.93
3:A:315:LEU:O	18:P:92:LEU:CD2	2.16	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:34:PHE:HZ	20:R:135:GLU:H	1.17	0.93
18:P:34:ILE:HG13	18:P:43:VAL:HB	1.49	0.93
18:P:263:CYS:HB2	18:P:264:LYS:CE	1.98	0.93
8:F:105:ALA:CB	9:G:14:HIS:HE1	1.64	0.93
27:Y:18:TYR:CB	27:Y:19:PRO:HD3	1.98	0.93
18:P:184:GLU:OE2	18:P:231:SER:C	2.06	0.93
1:1:584:ASN:OD1	1:1:586:THR:HG22	1.67	0.93
18:P:104:MET:O	18:P:107:THR:HG22	1.66	0.93
18:P:154:TYR:CE1	18:P:171:ILE:CG2	2.48	0.93
1:1:588:PHE:CE2	1:1:621:LYS:HE2	2.02	0.93
21:S:133:GLU:OE1	24:V:330:LYS:HD3	1.69	0.93
1:1:466:ARG:HB2	1:1:477:LEU:HD22	1.48	0.93
1:1:297:ILE:CG2	1:1:308:ASP:HB2	1.99	0.93
18:P:302:LEU:N	18:P:302:LEU:HD12	1.84	0.93
18:P:299:GLY:O	18:P:303:GLN:OE1	1.86	0.93
3:A:227:VAL:HG11	6:D:16:LYS:HG3	1.50	0.93
18:P:261:LYS:HB3	18:P:261:LYS:NZ	1.80	0.93
18:P:145:ILE:HG13	18:P:182:ARG:CD	1.97	0.93
2:2:252:ASN:ND2	3:A:1206:ASP:HA	1.82	0.93
23:U:372:SER:OG	24:V:80:LYS:CE	2.15	0.93
18:P:193:GLN:HG2	18:P:199:LYS:HG3	1.50	0.93
18:P:184:GLU:HB2	18:P:241:ARG:HG2	0.93	0.93
18:P:188:THR:CB	18:P:245:HIS:HE1	1.81	0.93
27:Y:28:ILE:CB	27:Y:57:ILE:HG13	1.96	0.93
27:Y:657:ASP:OD1	27:Y:660:ARG:NH2	2.02	0.93
16:N:36:DT:H2"	16:N:37:DA:C8	2.04	0.93
20:R:120:ASN:ND2	20:R:133:GLN:HB3	1.83	0.93
18:P:224:LYS:CE	18:P:229:ASN:OD1	2.17	0.93
21:S:210:LEU:HB3	21:S:214:TRP:HH2	1.34	0.93
18:P:128:ALA:HB1	18:P:132:LYS:NZ	1.83	0.93
1:1:410:LEU:HD11	1:1:457:TYR:CA	1.99	0.93
18:P:292:PRO:C	18:P:293:ILE:HD13	1.89	0.93
27:Y:62:HIS:HD2	27:Y:63:TYR:N	1.66	0.93
21:S:175:LYS:HZ3	21:S:175:LYS:CB	1.66	0.93
21:S:183:THR:HG23	21:S:184:TYR:HD1	1.30	0.93
27:Y:450:PHE:HZ	27:Y:475:PHE:HA	1.33	0.93
21:S:148:LEU:HB3	21:S:154:LYS:HE2	0.93	0.92
2:2:253:LEU:HD13	3:A:1132:LYS:HZ2	1.14	0.92
27:Y:639:LEU:HD23	27:Y:649:ARG:HB2	1.50	0.92
18:P:43:VAL:CG1	18:P:55:LYS:CE	2.47	0.92
27:Y:103:PHE:HE1	27:Y:205:ILE:HD12	1.19	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:277:LYS:NZ	3:A:593:GLU:OE2	2.01	0.92
18:P:187:ARG:CB	18:P:189:PHE:N	2.32	0.92
27:Y:492:PHE:CE2	27:Y:707:ASN:OD1	2.21	0.92
1:1:439:THR:HG22	1:1:440:SER:H	1.34	0.92
3:A:64:ASN:OD1	18:P:18:LEU:HB3	1.68	0.92
24:V:307:PHE:HZ	24:V:349:TYR:CE1	1.86	0.92
21:S:219:GLU:OE1	21:S:219:GLU:HA	1.69	0.92
20:R:17:VAL:HG11	20:R:29:LEU:HD22	1.52	0.92
27:Y:569:ILE:HA	27:Y:575:ASP:HB2	1.52	0.92
18:P:277:ILE:O	18:P:277:ILE:HD13	1.69	0.92
8:F:105:ALA:HB2	9:G:14:HIS:HE2	1.32	0.92
1:1:621:LYS:HZ2	1:1:621:LYS:HB3	1.35	0.92
27:Y:18:TYR:HB2	27:Y:19:PRO:CD	1.99	0.92
4:B:1109:GLY:HA2	18:P:39:SER:O	1.68	0.92
22:T:152:DC:H2''	22:T:153:DG:H5'	1.51	0.92
18:P:184:GLU:CB	18:P:241:ARG:HG3	1.97	0.92
1:1:585:PRO:CG	1:1:756:ARG:NH1	2.32	0.92
4:B:885:MET:H	18:P:33:LYS:HZ2	1.05	0.92
21:S:133:GLU:CA	21:S:137:LYS:HE2	1.98	0.92
1:1:424:PHE:CE1	1:1:450:SER:HB3	2.04	0.92
24:V:86:ASN:HD21	24:V:92:LEU:HB3	1.35	0.92
2:2:281:TYR:HH	3:A:755:PHE:HE2	1.05	0.92
18:P:258:TYR:CZ	18:P:262:LYS:HE3	2.04	0.92
18:P:320:ARG:HG3	18:P:321:ASP:N	1.84	0.92
21:S:127:LYS:CA	21:S:153:MET:HE1	1.96	0.92
2:2:258:GLY:N	3:A:1284:MET:N	2.13	0.92
18:P:184:GLU:HA	18:P:241:ARG:HD3	1.50	0.92
18:P:26:GLU:CD	18:P:50:LEU:HD21	1.90	0.92
21:S:214:TRP:CE3	21:S:218:ASP:OD2	2.22	0.92
18:P:94:THR:CG2	18:P:110:LEU:CD2	2.47	0.92
16:N:63:DG:H2''	16:N:64:DG:C5'	1.99	0.92
18:P:268:GLU:C	18:P:269:ILE:HD12	1.90	0.92
16:N:69:DG:H3'	26:X:63:TYR:HE1	1.35	0.92
21:S:203:LYS:CG	21:S:242:ARG:NE	2.33	0.92
3:A:416:ARG:HH22	18:P:37:ARG:NH2	1.67	0.92
18:P:34:ILE:HD11	18:P:43:VAL:HG21	1.46	0.92
1:1:424:PHE:HB3	1:1:449:GLU:CG	2.00	0.92
27:Y:42:MET:SD	27:Y:53:LEU:HD12	2.10	0.92
16:N:69:DG:H3'	26:X:63:TYR:CE1	2.05	0.92
16:N:41:DA:H2''	16:N:42:DT:H5''	1.52	0.92
21:S:148:LEU:HB2	21:S:154:LYS:CE	1.99	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:773:ILE:CD1	1:1:775:VAL:CA	2.40	0.92
21:S:183:THR:HA	21:S:222:ASN:HD21	1.27	0.92
2:2:284:LEU:HB2	3:A:1080:THR:HG21	1.50	0.92
1:1:368:LYS:HD2	1:1:372:LYS:HE2	1.50	0.92
18:P:316:LEU:HD23	18:P:317:TYR:N	1.85	0.91
18:P:290:GLN:HE21	18:P:331:ASN:HD21	0.97	0.91
2:2:241:LEU:CD2	3:A:1232:ASN:CA	2.47	0.91
23:U:376:LEU:HD11	24:V:73:LEU:HD13	1.49	0.91
18:P:293:ILE:HD13	18:P:293:ILE:N	1.85	0.91
18:P:223:LEU:HG	19:Q:177:PHE:CE2	2.05	0.91
27:Y:342:LEU:HD23	27:Y:345:ARG:NH2	1.83	0.91
20:R:126:ILE:HG23	20:R:154:GLU:HG2	1.48	0.91
1:1:403:ILE:CG2	1:1:405:LYS:HG2	2.00	0.91
21:S:164:LYS:CD	21:S:165:LYS:HG2	2.00	0.91
16:N:60:DA:H2''	16:N:61:DA:C5'	2.00	0.91
27:Y:400:LYS:CD	27:Y:437:PHE:CE2	2.53	0.91
23:U:371:ASP:OD1	24:V:75:MET:O	1.87	0.91
1:1:397:ILE:HG23	1:1:427:TRP:CH2	2.05	0.91
18:P:302:LEU:H	18:P:302:LEU:CD1	1.80	0.91
18:P:143:PRO:HB2	18:P:182:ARG:HE	0.87	0.91
21:S:202:PHE:HB2	21:S:242:ARG:HH22	1.36	0.91
1:1:585:PRO:HB2	1:1:756:ARG:HH22	1.28	0.91
3:A:416:ARG:HH22	18:P:37:ARG:HH21	0.96	0.91
18:P:22:LEU:CD1	18:P:34:ILE:HD11	2.01	0.91
27:Y:185:CYS:CB	27:Y:192:PRO:HG3	1.99	0.91
4:B:430:ARG:CA	23:U:326:ARG:HH12	1.82	0.91
2:2:277:LYS:CE	3:A:593:GLU:CD	2.35	0.91
1:1:477:LEU:HA	1:1:501:VAL:CB	2.00	0.91
1:1:474:MET:HB3	1:1:482:TRP:N	1.85	0.91
1:1:527:LEU:HD22	1:1:531:ILE:CD1	2.00	0.91
18:P:338:ASN:ND2	18:P:338:ASN:H	1.65	0.91
27:Y:70:ILE:HD12	27:Y:208:TYR:OH	1.70	0.91
1:1:408:ILE:HD11	1:1:466:ARG:HD3	1.53	0.91
21:S:129:LEU:HA	24:V:341:LYS:HE2	1.53	0.91
21:S:130:TRP:CD1	21:S:151:LEU:HG	2.05	0.91
16:N:58:DC:H2''	16:N:59:DT:C5'	2.01	0.91
4:B:887:HIS:HE1	18:P:38:PHE:HB3	1.29	0.91
22:T:134:DT:H2''	24:V:323:ARG:O	1.71	0.91
18:P:320:ARG:CG	18:P:321:ASP:OD1	2.18	0.91
21:S:135:ILE:HG12	21:S:180:TYR:HB2	1.53	0.91
8:F:96:THR:OG1	9:G:64:THR:C	2.08	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:403:ILE:HG22	1:1:405:LYS:HG2	1.53	0.91
1:1:429:THR:HB	1:1:432:PRO:HD2	1.50	0.91
20:R:156:LEU:HD23	20:R:156:LEU:N	1.86	0.91
21:S:154:LYS:HZ3	21:S:154:LYS:CA	0.57	0.91
18:P:187:ARG:NH2	18:P:192:ILE:CG2	2.31	0.91
21:S:138:LYS:HZ2	21:S:138:LYS:HB2	1.33	0.91
27:Y:237:ALA:HB1	27:Y:458:ILE:HG23	1.51	0.91
1:1:307:ASP:HB2	1:1:323:VAL:HB	1.53	0.91
18:P:223:LEU:CD1	19:Q:173:GLU:CB	2.49	0.90
1:1:585:PRO:CB	1:1:756:ARG:NH2	2.31	0.90
21:S:134:TYR:CZ	21:S:138:LYS:CE	2.54	0.90
18:P:289:PHE:CZ	18:P:291:ILE:HG12	2.05	0.90
2:2:279:VAL:HG22	2:2:299:CYS:HA	1.51	0.90
4:B:1220:ARG:HA	6:D:14:ARG:NH2	1.82	0.90
8:F:105:ALA:HB1	9:G:14:HIS:CE1	2.04	0.90
1:1:588:PHE:CE2	1:1:621:LYS:CE	2.53	0.90
2:2:284:LEU:HD13	3:A:1080:THR:HG22	1.53	0.90
17:O:86:THR:HG22	17:O:105:VAL:HG22	1.53	0.90
18:P:143:PRO:HD3	18:P:185:VAL:HG11	1.54	0.90
2:2:253:LEU:CD1	3:A:1132:LYS:HD2	2.01	0.90
23:U:119:LEU:CD2	24:V:135:PHE:CD2	2.53	0.90
20:R:17:VAL:CG1	20:R:66:LEU:CD1	2.50	0.90
18:P:190:LYS:CE	18:P:242:PHE:CE1	2.51	0.90
3:A:1451:VAL:HG11	9:G:20:PRO:CA	1.90	0.90
21:S:219:GLU:HB2	21:S:222:ASN:HD22	1.33	0.90
21:S:141:PRO:HB2	21:S:177:THR:HG23	1.52	0.90
27:Y:317:LEU:HD23	27:Y:409:ILE:CG2	2.01	0.90
2:2:253:LEU:CD1	3:A:1132:LYS:HZ3	1.72	0.90
2:2:258:GLY:H	3:A:1284:MET:H	0.97	0.90
2:2:252:ASN:CB	3:A:1206:ASP:HB2	2.01	0.90
24:V:292:ILE:CA	24:V:295:PRO:HD2	2.02	0.90
1:1:467:SER:N	1:1:477:LEU:HD23	1.86	0.90
18:P:193:GLN:HG2	18:P:199:LYS:CG	2.02	0.90
1:1:516:THR:HA	1:1:681:ARG:CZ	2.01	0.90
21:S:125:SER:O	21:S:129:LEU:CD1	2.18	0.90
21:S:210:LEU:HB3	21:S:214:TRP:CH2	2.05	0.90
21:S:133:GLU:CD	24:V:330:LYS:CD	2.40	0.90
27:Y:532:ILE:C	27:Y:534:PRO:HD3	1.91	0.90
18:P:257:GLU:CD	18:P:257:GLU:N	2.24	0.90
1:1:588:PHE:CZ	1:1:621:LYS:NZ	2.39	0.90
18:P:63:TRP:CD1	18:P:81:GLU:HG2	2.05	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:44:LYS:CD	20:R:54:LEU:HB2	2.02	0.90
21:S:131:ALA:HA	21:S:151:LEU:HD12	1.51	0.90
4:B:885:MET:N	18:P:33:LYS:NZ	2.18	0.90
27:Y:360:LEU:CG	27:Y:375:ARG:CD	2.49	0.90
1:1:459:MET:HB2	1:1:464:ARG:CD	2.01	0.90
16:N:61:DA:C2'	16:N:62:DA:H5'	2.01	0.90
27:Y:646:TYR:HB2	27:Y:648:ILE:HG12	1.51	0.90
3:A:1443:VAL:CG1	9:G:61:ILE:CG2	2.49	0.90
18:P:26:GLU:OE1	18:P:50:LEU:CD2	2.20	0.90
24:V:299:ILE:HD11	24:V:324:GLN:OE1	1.72	0.90
21:S:183:THR:CA	21:S:222:ASN:HD21	1.85	0.90
27:Y:103:PHE:CE1	27:Y:205:ILE:CD1	2.53	0.90
21:S:137:LYS:H	21:S:137:LYS:HD3	1.35	0.90
1:1:487:LEU:CD2	1:1:490:VAL:HG23	2.02	0.90
27:Y:103:PHE:HE1	27:Y:205:ILE:CD1	1.85	0.89
18:P:150:ALA:HB2	18:P:178:ILE:CG1	1.99	0.89
21:S:143:LEU:HD13	21:S:144:VAL:H	1.37	0.89
27:Y:400:LYS:CD	27:Y:437:PHE:CD2	2.55	0.89
27:Y:495:MET:CB	27:Y:686:PHE:CD1	2.55	0.89
16:N:23:DA:C3'	19:Q:120:LYS:HD2	2.02	0.89
4:B:885:MET:N	18:P:33:LYS:HZ2	1.70	0.89
18:P:94:THR:CG2	18:P:110:LEU:HD21	2.01	0.89
18:P:143:PRO:CD	18:P:185:VAL:HG11	2.02	0.89
27:Y:171:LEU:HB2	27:Y:172:PRO:HD3	1.52	0.89
3:A:313:GLN:CD	18:P:98:LYS:HD3	1.92	0.89
16:N:24:DG:H4'	19:Q:118:SER:HB3	0.90	0.89
21:S:194:LYS:NZ	21:S:210:LEU:CD1	2.35	0.89
27:Y:317:LEU:HD23	27:Y:409:ILE:HG22	1.53	0.89
1:1:417:VAL:HG13	1:1:454:VAL:CG1	2.01	0.89
1:1:516:THR:N	1:1:681:ARG:HD3	1.83	0.89
18:P:223:LEU:HD12	19:Q:173:GLU:HB2	1.55	0.89
27:Y:346:MET:HB3	27:Y:384:LEU:HD21	1.53	0.89
27:Y:131:GLU:OE1	27:Y:134:ARG:NH1	2.06	0.89
16:N:23:DA:H2	19:Q:116:PHE:CE1	1.81	0.89
22:T:135:DG:H2''	22:T:136:DA:H5'	1.52	0.89
20:R:34:PHE:CZ	20:R:134:LEU:CG	2.40	0.89
24:V:307:PHE:CZ	24:V:349:TYR:CZ	2.60	0.89
18:P:286:ILE:CD1	18:P:292:PRO:CA	2.23	0.89
18:P:325:ASP:N	18:P:325:ASP:OD1	2.00	0.89
20:R:28:VAL:HG13	20:R:43:LEU:CD2	2.03	0.89
1:1:757:ARG:NH1	1:1:760:LEU:HB3	1.85	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:1451:VAL:CG1	9:G:20:PRO:CB	2.46	0.89
21:S:138:LYS:HZ3	21:S:138:LYS:HB3	1.38	0.89
20:R:44:LYS:HG3	20:R:51:LYS:CA	1.99	0.89
1:1:588:PHE:HE2	1:1:621:LYS:HZ1	0.95	0.89
1:1:347:HIS:CD2	1:1:348:ARG:HG3	2.08	0.89
1:1:405:LYS:HD3	1:1:483:GLY:CA	2.03	0.89
21:S:153:MET:C	21:S:154:LYS:NZ	2.25	0.89
16:N:18:DA:H2"	16:N:19:DT:C5'	2.03	0.89
18:P:22:LEU:HD21	18:P:34:ILE:CD1	2.01	0.89
3:A:227:VAL:CG2	6:D:16:LYS:CE	2.50	0.89
27:Y:248:LEU:CD2	27:Y:445:ALA:HB2	2.03	0.88
2:2:204:SER:CA	3:A:1176:LEU:O	2.21	0.88
21:S:187:HIS:NE2	21:S:225:GLU:HB3	1.87	0.88
20:R:17:VAL:CG1	20:R:66:LEU:CG	2.46	0.88
20:R:142:PHE:CD1	20:R:142:PHE:N	1.76	0.88
2:2:253:LEU:CD1	3:A:1132:LYS:HZ2	1.77	0.88
21:S:133:GLU:OE2	24:V:330:LYS:NZ	2.06	0.88
3:A:1438:THR:HG22	4:B:1144:ALA:HB3	1.52	0.88
24:V:306:LEU:HD12	24:V:313:TRP:CZ2	2.07	0.88
8:F:132:LEU:CD2	9:G:66:GLY:O	2.21	0.88
19:Q:99:PHE:HB2	22:T:143:DT:O5'	1.71	0.88
27:Y:190:LEU:HD13	27:Y:195:ILE:HD13	1.52	0.88
8:F:76:LYS:HA	8:F:79:ARG:HD3	1.56	0.88
27:Y:400:LYS:CG	27:Y:437:PHE:CE2	2.56	0.88
18:P:34:ILE:HD12	18:P:43:VAL:HG23	1.54	0.88
4:B:343:ILE:HD11	22:T:121:DG:O3'	1.73	0.88
1:1:408:ILE:HG21	1:1:475:ASP:CA	2.04	0.88
24:V:104:ILE:CG2	24:V:122:LEU:HD22	2.03	0.88
18:P:333:VAL:CG2	18:P:336:LEU:HD12	2.03	0.88
18:P:142:LEU:C	18:P:147:LYS:HD3	1.93	0.88
21:S:126:SER:O	24:V:339:LEU:CB	2.20	0.88
3:A:411:ASP:OD1	18:P:51:VAL:CA	2.22	0.88
1:1:457:TYR:HB3	1:1:498:PHE:CD1	2.08	0.88
18:P:340:PRO:HA	18:P:340:PRO:CD	2.01	0.88
4:B:959:ASP:HB2	18:P:182:ARG:HH11	1.26	0.88
18:P:143:PRO:HB3	18:P:182:ARG:CZ	2.04	0.88
24:V:333:LEU:HD22	24:V:349:TYR:CD2	2.08	0.88
18:P:280:VAL:CG1	18:P:313:TYR:CA	2.51	0.88
18:P:187:ARG:CB	18:P:189:PHE:HA	2.04	0.88
3:A:416:ARG:HH12	18:P:37:ARG:NE	1.72	0.88
3:A:411:ASP:CG	18:P:51:VAL:HG12	1.92	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:27:DG:H2'	24:V:291:SER:O	1.71	0.88
27:Y:495:MET:CB	27:Y:686:PHE:CG	2.56	0.88
1:1:477:LEU:HG	1:1:501:VAL:HG11	1.56	0.88
16:N:56:DT:H2''	16:N:57:DA:C5'	2.03	0.88
2:2:290:ASP:C	4:B:766:ARG:NH2	2.27	0.88
21:S:155:LYS:O	21:S:159:VAL:HG12	1.73	0.88
27:Y:639:LEU:HD11	27:Y:649:ARG:NH1	1.89	0.88
21:S:207:CYS:SG	21:S:208:LYS:NZ	2.46	0.88
27:Y:124:ARG:HG2	27:Y:374:LEU:CA	2.04	0.88
1:1:362:ILE:HG23	1:1:366:GLN:HB2	1.54	0.88
21:S:128:LEU:HB3	24:V:341:LYS:HD2	1.53	0.88
18:P:100:GLU:CD	18:P:101:THR:HG23	1.95	0.88
27:Y:650:GLU:HA	27:Y:653:PHE:HE1	1.34	0.87
24:V:63:ARG:CB	24:V:214:ILE:O	2.18	0.87
27:Y:70:ILE:HB	27:Y:208:TYR:CE2	2.09	0.87
21:S:214:TRP:CZ3	21:S:218:ASP:CG	2.47	0.87
1:1:460:VAL:CG1	16:N:63:DG:C3'	2.44	0.87
4:B:451:LYS:HZ2	18:P:147:LYS:HZ3	1.22	0.87
21:S:127:LYS:CA	21:S:153:MET:HE3	2.01	0.87
8:F:105:ALA:CA	9:G:14:HIS:CE1	2.48	0.87
27:Y:124:ARG:HG3	27:Y:373:PRO:O	1.72	0.87
23:U:374:VAL:O	24:V:73:LEU:HD23	1.73	0.87
1:1:446:PHE:HB2	1:1:452:LEU:HD21	1.54	0.87
22:T:134:DT:O4'	24:V:323:ARG:HD3	0.96	0.87
18:P:195:LEU:O	18:P:196:ILE:CG2	2.20	0.87
1:1:424:PHE:CD1	1:1:450:SER:HB3	2.10	0.87
1:1:427:TRP:CH2	1:1:450:SER:HB2	2.10	0.87
16:N:63:DG:C2'	16:N:64:DG:H5''	2.03	0.87
18:P:289:PHE:CE1	18:P:291:ILE:CD1	2.57	0.87
18:P:289:PHE:HE1	18:P:290:GLN:HB2	1.04	0.87
24:V:306:LEU:CD1	24:V:313:TRP:CH2	2.57	0.87
24:V:306:LEU:CD2	24:V:318:LEU:HD23	2.03	0.87
23:U:135:LEU:HB2	23:U:136:PRO:CD	2.04	0.87
21:S:130:TRP:CE3	24:V:338:THR:C	2.48	0.87
24:V:318:LEU:HD11	24:V:349:TYR:CD2	2.09	0.87
2:2:253:LEU:HD11	3:A:1129:GLU:OE1	1.74	0.87
27:Y:360:LEU:HG	27:Y:375:ARG:CD	2.03	0.87
27:Y:506:ILE:HB	27:Y:522:TYR:CE2	2.10	0.87
3:A:1445:ILE:CA	9:G:68:ALA:HB2	1.76	0.87
3:A:411:ASP:OD1	18:P:51:VAL:CB	2.22	0.87
27:Y:493:LEU:CD2	27:Y:696:TRP:NE1	2.10	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:144:VAL:HG22	21:S:178:PHE:HE2	1.40	0.87
18:P:279:VAL:HG21	18:P:303:GLN:NE2	1.90	0.87
21:S:203:LYS:HB3	21:S:242:ARG:CD	2.04	0.87
1:1:717:TYR:CE2	1:1:718:TYR:HE1	1.56	0.87
18:P:225:ILE:CD1	18:P:225:ILE:C	2.42	0.87
1:1:421:ARG:HA	1:1:424:PHE:CD2	2.09	0.87
16:N:60:DA:H2'	16:N:61:DA:C8	2.10	0.87
19:Q:145:LYS:HA	19:Q:145:LYS:HE3	1.55	0.87
16:N:39:DC:H2'	16:N:40:DT:H71	1.57	0.87
20:R:123:MET:CB	20:R:130:LYS:CD	2.52	0.87
27:Y:692:GLN:O	27:Y:693:LEU:HD22	1.75	0.87
18:P:104:MET:HG3	18:P:105:ARG:N	1.90	0.87
1:1:621:LYS:CB	1:1:621:LYS:HZ3	1.74	0.87
27:Y:360:LEU:HG	27:Y:375:ARG:NE	1.89	0.87
20:R:27:LEU:CD2	20:R:128:LEU:C	2.41	0.87
24:V:318:LEU:CD1	24:V:349:TYR:CE2	2.57	0.87
1:1:376:ASN:HB2	1:1:380:ARG:CD	2.05	0.87
3:A:91:PHE:HB3	3:A:96:ILE:HG13	1.56	0.87
4:B:1113:VAL:HG22	18:P:57:VAL:HG23	1.55	0.87
22:T:130:DA:C5	22:T:131:DC:C2	2.62	0.86
18:P:21:VAL:HG22	18:P:23:THR:H	1.40	0.86
1:1:410:LEU:CD2	1:1:477:LEU:HD11	2.05	0.86
1:1:477:LEU:HG	1:1:501:VAL:CG1	2.04	0.86
18:P:288:LEU:CD1	18:P:288:LEU:C	2.41	0.86
20:R:119:PRO:CD	20:R:120:ASN:ND2	2.36	0.86
23:U:137:VAL:CG1	24:V:61:LEU:HD21	2.04	0.86
24:V:104:ILE:HD12	24:V:124:LEU:HD21	1.55	0.86
3:A:64:ASN:OD1	18:P:18:LEU:HD13	1.75	0.86
21:S:203:LYS:CB	21:S:242:ARG:CD	2.51	0.86
18:P:188:THR:O	18:P:188:THR:HG22	1.74	0.86
1:1:584:ASN:HD21	1:1:586:THR:HG23	1.39	0.86
4:B:104:GLU:OE2	14:L:54:ARG:CD	2.22	0.86
18:P:277:ILE:C	18:P:277:ILE:CD1	2.44	0.86
27:Y:538:VAL:HG13	27:Y:597:ILE:HG22	1.58	0.86
1:1:634:GLN:OE1	1:1:634:GLN:HA	1.75	0.86
21:S:125:SER:O	24:V:341:LYS:HG3	1.05	0.86
19:Q:100:ALA:N	22:T:142:DC:O2	2.08	0.86
18:P:226:ASP:OD2	18:P:260:ALA:HB1	1.65	0.86
27:Y:375:ARG:NH1	27:Y:377:CYS:SG	2.48	0.86
21:S:141:PRO:CB	21:S:177:THR:CG2	2.53	0.86
18:P:200:THR:HG23	18:P:201:LYS:N	1.89	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:T:132:DA:H2''	22:T:133:DT:H72	1.55	0.86
18:P:184:GLU:HB2	18:P:241:ARG:HD3	1.37	0.86
23:U:386:MET:HE3	24:V:75:MET:SD	2.16	0.86
1:1:383:ILE:HG22	1:1:512:GLY:HA3	1.57	0.86
18:P:207:LEU:CD1	19:Q:188:GLU:OE2	2.24	0.86
27:Y:124:ARG:HG2	27:Y:374:LEU:HA	1.55	0.86
18:P:128:ALA:C	18:P:132:LYS:HZ3	1.79	0.86
1:1:425:LEU:HG	1:1:429:THR:HG23	1.57	0.86
21:S:131:ALA:N	21:S:151:LEU:HD11	1.91	0.86
1:1:757:ARG:NH2	1:1:760:LEU:HB3	1.83	0.86
2:2:248:ILE:HG12	3:A:1203:ASN:HD21	1.33	0.86
18:P:170:SER:CB	18:P:205:LYS:HE3	2.05	0.86
21:S:203:LYS:NZ	21:S:205:ILE:CB	2.34	0.86
24:V:318:LEU:CD2	24:V:349:TYR:OH	2.21	0.86
27:Y:495:MET:CG	27:Y:686:PHE:CG	2.58	0.86
21:S:170:GLU:C	21:S:179:LYS:HD2	1.94	0.86
18:P:207:LEU:HD13	19:Q:188:GLU:OE2	1.74	0.86
22:T:121:DG:H2''	22:T:122:DT:H5'	1.58	0.86
1:1:470:SER:CA	1:1:478:THR:HG23	2.05	0.86
2:2:290:ASP:HA	4:B:766:ARG:NH2	1.89	0.86
22:T:108:DG:H2''	22:T:109:DT:C5'	2.05	0.86
20:R:120:ASN:CG	20:R:133:GLN:CB	2.45	0.86
1:1:717:TYR:CD2	1:1:718:TYR:CE1	2.64	0.86
24:V:74:PRO:HD3	24:V:222:CYS:O	1.73	0.86
18:P:87:LEU:CD1	18:P:126:VAL:HG23	2.04	0.86
23:U:98:TYR:CZ	24:V:96:ARG:NH2	2.43	0.86
20:R:30:ASP:CG	20:R:151:LEU:HD11	1.96	0.85
27:Y:248:LEU:HD11	27:Y:445:ALA:HB2	1.58	0.85
18:P:22:LEU:HD11	18:P:43:VAL:CG2	2.05	0.85
18:P:93:SER:CB	18:P:114:GLN:OE1	2.24	0.85
20:R:17:VAL:HG12	20:R:66:LEU:CD1	2.04	0.85
27:Y:18:TYR:HB2	27:Y:19:PRO:HD3	1.57	0.85
18:P:187:ARG:CD	18:P:189:PHE:CA	2.50	0.85
3:A:413:ILE:HA	18:P:49:GLY:O	1.76	0.85
21:S:233:LEU:C	21:S:233:LEU:HD22	1.97	0.85
22:T:132:DA:C2'	22:T:133:DT:H72	2.06	0.85
21:S:158:LYS:HZ3	21:S:162:LEU:CG	1.90	0.85
27:Y:656:PHE:HD1	27:Y:659:MET:SD	1.98	0.85
27:Y:267:LEU:O	27:Y:268:ASP:HB2	1.76	0.85
1:1:447:GLN:N	1:1:452:LEU:HD13	1.89	0.85
1:1:474:MET:SD	1:1:506:ALA:HB3	2.16	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:V:104:ILE:HG22	24:V:122:LEU:HD22	1.56	0.85
18:P:137:CYS:SG	18:P:142:LEU:HD22	2.16	0.85
2:2:253:LEU:CD2	3:A:1132:LYS:CB	2.51	0.85
1:1:757:ARG:NH1	1:1:760:LEU:HD22	1.88	0.85
2:2:252:ASN:HD22	3:A:1206:ASP:CG	1.78	0.85
21:S:210:LEU:CB	21:S:214:TRP:HH2	1.90	0.85
18:P:289:PHE:CZ	18:P:291:ILE:HD11	2.12	0.85
18:P:143:PRO:CB	18:P:182:ARG:CZ	2.54	0.85
18:P:142:LEU:CD2	18:P:147:LYS:HA	2.04	0.85
27:Y:493:LEU:HD23	27:Y:696:TRP:HE1	0.68	0.85
27:Y:566:HIS:CE1	27:Y:569:ILE:HG13	2.11	0.85
18:P:258:TYR:OH	18:P:262:LYS:HE3	1.74	0.85
2:2:190:THR:CA	7:E:50:MET:CE	2.55	0.85
18:P:290:GLN:HE21	18:P:331:ASN:ND2	1.70	0.85
21:S:203:LYS:C	21:S:203:LYS:HD2	1.95	0.85
21:S:153:MET:C	21:S:154:LYS:HZ1	1.80	0.85
23:U:140:HIS:HB3	24:V:57:LEU:HD22	1.57	0.85
20:R:91:TYR:HB3	20:R:92:PRO:HD3	1.59	0.85
18:P:208:ASN:O	18:P:211:LYS:HG2	1.76	0.85
2:2:265:VAL:CG1	2:2:278:LYS:HA	2.06	0.85
24:V:63:ARG:HG3	24:V:215:VAL:HA	0.85	0.85
16:N:69:DG:OP1	26:X:63:TYR:HA	1.74	0.85
20:R:43:LEU:HD23	20:R:54:LEU:CD1	2.05	0.85
18:P:34:ILE:HD11	18:P:43:VAL:CG2	1.90	0.85
1:1:328:LYS:HD3	1:1:530:LEU:CD2	2.07	0.85
1:1:487:LEU:CD2	1:1:493:VAL:HG21	2.05	0.85
20:R:32:ILE:CG2	20:R:89:VAL:HG23	2.07	0.85
18:P:130:PHE:O	18:P:133:ILE:CG2	2.24	0.84
3:A:291:GLU:CD	18:P:116:LYS:CD	2.44	0.84
27:Y:353:SER:CB	27:Y:378:SER:CA	2.55	0.84
1:1:417:VAL:HG13	1:1:454:VAL:HG11	1.57	0.84
1:1:487:LEU:HD22	1:1:490:VAL:HG23	1.59	0.84
18:P:290:GLN:HG2	18:P:331:ASN:HD22	1.41	0.84
16:N:28:DT:C6	24:V:291:SER:O	2.21	0.84
27:Y:493:LEU:HD21	27:Y:666:LEU:HG	1.57	0.84
27:Y:321:ILE:CD1	27:Y:409:ILE:HG22	2.05	0.84
1:1:407:VAL:HG13	1:1:452:LEU:N	1.93	0.84
16:N:16:DC:H2''	16:N:17:DT:H5'	1.57	0.84
27:Y:681:LEU:CD2	27:Y:696:TRP:CZ3	2.60	0.84
1:1:470:SER:C	1:1:478:THR:HG23	1.97	0.84
3:A:11:LEU:HD11	4:B:1195:HIS:CD2	2.11	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:566:TYR:CB	25:W:450:ARG:HH21	1.86	0.84
18:P:173:ALA:HA	18:P:176:ILE:CD1	2.06	0.84
27:Y:539:VAL:CG1	27:Y:623:ILE:HG12	2.07	0.84
18:P:223:LEU:CG	19:Q:177:PHE:CE1	2.43	0.84
1:1:756:ARG:HH11	1:1:756:ARG:HG2	0.75	0.84
18:P:313:TYR:O	18:P:316:LEU:HD22	1.77	0.84
1:1:606:ILE:HD12	1:1:690:ILE:HD12	1.58	0.84
1:1:457:TYR:HB3	1:1:498:PHE:CE1	2.12	0.84
16:N:22:DA:H5''	19:Q:158:GLN:NE2	1.91	0.84
3:A:315:LEU:HD12	18:P:95:ARG:O	1.77	0.84
1:1:456:THR:HB	1:1:465:ASN:CG	1.98	0.84
1:1:785:ARG:NH1	1:1:785:ARG:CG	2.18	0.84
3:A:902:LEU:HG	3:A:926:GLN:HG3	1.59	0.84
20:R:123:MET:CG	20:R:130:LYS:CD	2.56	0.84
16:N:16:DC:H2'	16:N:17:DT:C6	2.12	0.84
27:Y:257:LEU:CD2	27:Y:383:LEU:CD1	2.32	0.84
27:Y:60:GLN:O	27:Y:64:PRO:HD2	1.77	0.84
16:N:28:DT:OP2	24:V:291:SER:O	1.95	0.84
18:P:171:ILE:CD1	18:P:209:ILE:CD1	2.55	0.84
21:S:136:GLN:CD	21:S:137:LYS:HZ2	1.81	0.84
23:U:374:VAL:HG21	24:V:75:MET:SD	2.17	0.84
21:S:203:LYS:HZ3	21:S:205:ILE:HB	0.78	0.84
24:V:307:PHE:CE2	24:V:349:TYR:CZ	2.65	0.84
19:Q:99:PHE:CB	22:T:143:DT:O5'	2.23	0.84
27:Y:346:MET:CA	27:Y:384:LEU:HD21	2.08	0.84
1:1:425:LEU:HG	1:1:429:THR:CA	2.07	0.84
24:V:306:LEU:HD11	24:V:313:TRP:CH2	2.12	0.84
3:A:419:LYS:HZ1	18:P:47:LEU:HG	1.41	0.84
16:N:25:DG:P	19:Q:79:ARG:HH22	2.00	0.84
27:Y:289:LEU:HB3	27:Y:348:VAL:HG11	1.59	0.84
27:Y:257:LEU:HD23	27:Y:383:LEU:HD12	1.58	0.83
3:A:344:ARG:HA	4:B:1129:ARG:HA	1.57	0.83
27:Y:541:PHE:HE1	27:Y:599:LEU:HD22	1.37	0.83
20:R:31:ALA:HB3	20:R:43:LEU:HD11	1.58	0.83
21:S:234:ARG:HH22	21:S:242:ARG:HG2	1.43	0.83
1:1:421:ARG:HE	1:1:430:LEU:HD11	1.41	0.83
1:1:473:VAL:H	1:1:478:THR:HG22	1.42	0.83
27:Y:400:LYS:CG	27:Y:437:PHE:CD2	2.61	0.83
18:P:193:GLN:CG	18:P:199:LYS:HG3	2.08	0.83
24:V:89:GLY:O	24:V:90:GLN:HB2	1.78	0.83
18:P:252:VAL:HG13	18:P:285:ASN:CG	1.98	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:176:ILE:HD12	18:P:187:ARG:HH22	1.43	0.83
3:A:414:ASP:CB	18:P:44:VAL:HG11	2.08	0.83
18:P:63:TRP:NE1	18:P:81:GLU:CG	2.35	0.83
1:1:466:ARG:NH2	1:1:477:LEU:HD13	1.92	0.83
1:1:476:PHE:CE1	1:1:502:VAL:HG22	2.13	0.83
18:P:86:LEU:CD2	18:P:155:LYS:CE	2.56	0.83
21:S:171:PHE:N	21:S:171:PHE:CD1	2.40	0.83
21:S:164:LYS:CD	21:S:165:LYS:CG	2.56	0.83
27:Y:405:PHE:CG	27:Y:437:PHE:CZ	2.66	0.83
16:N:19:DT:H2'	16:N:20:DA:C8	2.14	0.83
18:P:225:ILE:HD13	18:P:227:THR:H	1.40	0.83
1:1:408:ILE:HG21	1:1:475:ASP:HA	1.60	0.83
1:1:372:LYS:O	1:1:380:ARG:HB3	1.78	0.83
3:A:53:LEU:HD23	3:A:54:ASN:H	1.44	0.83
18:P:290:GLN:CG	18:P:331:ASN:HD22	1.91	0.83
20:R:126:ILE:HG23	20:R:154:GLU:CG	2.03	0.83
18:P:133:ILE:CG1	18:P:151:LYS:CG	2.53	0.83
18:P:87:LEU:HD21	18:P:126:VAL:HG21	1.58	0.83
18:P:294:THR:OG1	18:P:297:LYS:HG3	1.78	0.83
18:P:145:ILE:HG13	18:P:182:ARG:HD3	1.58	0.83
18:P:22:LEU:CD1	18:P:34:ILE:HD13	2.07	0.83
4:B:885:MET:H	18:P:33:LYS:NZ	1.73	0.83
1:1:407:VAL:CG1	1:1:451:GLY:HA2	2.08	0.83
20:R:17:VAL:HG11	20:R:66:LEU:HG	1.57	0.83
20:R:44:LYS:CG	20:R:51:LYS:HA	2.03	0.83
18:P:145:ILE:CG1	18:P:182:ARG:HD3	2.08	0.83
18:P:223:LEU:HD11	19:Q:173:GLU:CB	2.09	0.83
4:B:1184:GLY:O	6:D:17:LYS:NZ	2.12	0.83
16:N:23:DA:C4'	19:Q:120:LYS:HD3	2.09	0.83
21:S:175:LYS:CA	21:S:175:LYS:HZ2	0.24	0.83
18:P:150:ALA:CB	18:P:178:ILE:CD1	2.56	0.83
18:P:150:ALA:HA	18:P:178:ILE:CD1	2.08	0.83
27:Y:353:SER:HB3	27:Y:378:SER:N	1.94	0.83
21:S:143:LEU:HD12	21:S:145:ASN:H	1.41	0.83
3:A:1443:VAL:CG2	9:G:63:PRO:CB	2.57	0.83
27:Y:639:LEU:HD11	27:Y:649:ARG:HH11	1.43	0.83
3:A:313:GLN:HG3	18:P:98:LYS:CE	2.08	0.83
4:B:350:GLN:HG3	23:U:407:ASP:CB	2.08	0.83
20:R:44:LYS:HD2	20:R:54:LEU:HB2	1.61	0.82
18:P:34:ILE:HD12	18:P:43:VAL:O	1.77	0.82
1:1:505:ILE:HG22	1:1:507:ALA:N	1.94	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:72:CYS:SG	27:Y:234:PHE:CD1	2.72	0.82
1:1:376:ASN:N	1:1:380:ARG:HB2	1.92	0.82
16:N:39:DC:H2'	16:N:40:DT:C5	2.13	0.82
18:P:252:VAL:HG13	18:P:285:ASN:HD21	1.38	0.82
20:R:43:LEU:HB3	20:R:54:LEU:CD2	2.09	0.82
21:S:234:ARG:HB2	21:S:234:ARG:HH12	1.41	0.82
21:S:221:ILE:HD13	21:S:221:ILE:H	0.66	0.82
21:S:233:LEU:HD22	21:S:233:LEU:O	1.79	0.82
27:Y:86:LEU:HD22	27:Y:103:PHE:CE1	2.15	0.82
5:C:148:ARG:H	5:C:151:GLN:HG3	1.43	0.82
21:S:218:ASP:HB2	21:S:223:GLN:NE2	1.93	0.82
21:S:142:VAL:CG2	21:S:147:LEU:HG	2.09	0.82
1:1:335:TYR:HD1	1:1:336:PRO:HD3	1.44	0.82
20:R:30:ASP:CG	20:R:151:LEU:CD1	2.47	0.82
4:B:959:ASP:OD2	18:P:145:ILE:HD11	1.79	0.82
24:V:306:LEU:CD1	24:V:313:TRP:CZ2	2.62	0.82
18:P:171:ILE:HD13	18:P:209:ILE:CD1	2.08	0.82
8:F:132:LEU:HD21	9:G:66:GLY:O	1.79	0.82
8:F:132:LEU:HD22	9:G:61:ILE:HG23	1.62	0.82
27:Y:639:LEU:HG	27:Y:653:PHE:CZ	2.15	0.82
27:Y:208:TYR:CE1	27:Y:213:LEU:HB2	2.15	0.82
27:Y:42:MET:CG	27:Y:48:LYS:HG2	2.09	0.82
18:P:102:THR:CG2	18:P:104:MET:HE3	2.06	0.82
18:P:289:PHE:CZ	18:P:291:ILE:CG1	2.62	0.82
24:V:63:ARG:HB3	24:V:215:VAL:O	1.77	0.82
1:1:478:THR:HG22	1:1:479:GLY:H	1.43	0.82
2:2:266:THR:HG23	3:A:731:ARG:CD	2.09	0.82
18:P:280:VAL:HG13	18:P:313:TYR:CA	2.08	0.82
18:P:45:CYS:SG	18:P:49:GLY:N	2.52	0.82
1:1:695:ARG:HA	1:1:696:ARG:CZ	2.09	0.82
27:Y:518:ILE:HG23	27:Y:550:ILE:HD13	1.60	0.82
20:R:12:LEU:O	20:R:16:VAL:HG23	1.80	0.82
21:S:151:LEU:HD22	21:S:153:MET:HG3	1.61	0.82
4:B:885:MET:CA	18:P:33:LYS:NZ	2.41	0.82
21:S:172:ASP:OD2	21:S:179:LYS:HG3	1.80	0.82
2:2:291:GLU:H	2:2:292:PRO:HD2	1.42	0.82
27:Y:481:LYS:HD3	27:Y:483:TYR:CD2	2.15	0.82
18:P:320:ARG:NH2	18:P:337:ASP:H	1.77	0.82
27:Y:244:CYS:HB2	27:Y:442:ALA:CB	2.09	0.82
3:A:227:VAL:HG21	6:D:16:LYS:CE	2.07	0.82
20:R:27:LEU:HD21	20:R:127:CYS:O	1.80	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:108:LYS:O	18:P:112:LYS:HG2	1.80	0.81
1:1:300:ASP:OD2	1:1:480:ARG:HD3	1.80	0.81
1:1:373:MET:HG3	1:1:381:SER:HA	1.61	0.81
1:1:410:LEU:HD21	1:1:457:TYR:CD2	2.15	0.81
2:2:288:SER:O	2:2:292:PRO:HD3	1.80	0.81
3:A:68:GLN:O	3:A:68:GLN:NE2	2.11	0.81
21:S:167:ASP:N	21:S:167:ASP:OD1	2.08	0.81
27:Y:135:ARG:NH1	27:Y:370:GLU:OE2	2.10	0.81
21:S:129:LEU:H	24:V:341:LYS:HG3	1.45	0.81
3:A:1445:ILE:C	9:G:68:ALA:HB2	2.01	0.81
8:F:96:THR:CB	9:G:64:THR:O	2.27	0.81
8:F:92:ARG:HH22	9:G:63:PRO:HB2	1.02	0.81
18:P:189:PHE:H	18:P:241:ARG:NH2	1.77	0.81
18:P:184:GLU:OE1	18:P:241:ARG:N	2.13	0.81
27:Y:28:ILE:CG2	27:Y:57:ILE:CD1	2.58	0.81
3:A:344:ARG:NH2	4:B:1120:GLU:CG	2.39	0.81
21:S:131:ALA:CA	21:S:151:LEU:HD12	2.09	0.81
2:2:253:LEU:CB	3:A:1132:LYS:HD3	2.09	0.81
22:T:141:DC:H2''	22:T:142:DC:H5'	1.61	0.81
23:U:135:LEU:HD12	23:U:355:PHE:CE1	2.15	0.81
18:P:113:ALA:O	18:P:116:LYS:HG2	1.79	0.81
1:1:458:SER:CB	1:1:467:SER:HB3	2.11	0.81
3:A:55:ASP:HA	3:A:58:LEU:HB2	1.63	0.81
16:N:70:DG:OP2	26:X:63:TYR:OH	1.97	0.81
5:C:148:ARG:HD3	5:C:149:LYS:HG2	1.62	0.81
27:Y:248:LEU:HD11	27:Y:445:ALA:CB	2.10	0.81
21:S:237:LYS:HG3	21:S:241:PRO:HG2	0.82	0.81
21:S:136:GLN:CD	21:S:137:LYS:NZ	2.33	0.81
23:U:372:SER:OG	24:V:80:LYS:NZ	0.68	0.81
1:1:331:GLN:HE22	1:1:378:ARG:HD2	1.45	0.81
27:Y:42:MET:SD	27:Y:48:LYS:CG	2.69	0.81
20:R:123:MET:HE3	20:R:130:LYS:HD2	1.60	0.81
3:A:1445:ILE:C	9:G:61:ILE:HD12	2.01	0.81
16:N:23:DA:C2	19:Q:116:PHE:HZ	1.93	0.81
21:S:181:LEU:HD21	21:S:183:THR:O	1.81	0.81
21:S:183:THR:HA	21:S:222:ASN:CG	2.00	0.81
3:A:312:PRO:HA	18:P:96:ILE:HG21	1.63	0.81
1:1:474:MET:HA	1:1:478:THR:O	1.79	0.81
4:B:445:LYS:O	18:P:139:ALA:HB1	1.79	0.81
27:Y:257:LEU:HD22	27:Y:383:LEU:HD11	1.61	0.81
16:N:24:DG:P	19:Q:120:LYS:HD2	2.21	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:18:TYR:CB	27:Y:19:PRO:CD	2.57	0.81
18:P:286:ILE:CG1	18:P:293:ILE:CD1	2.33	0.81
18:P:326:PRO:HD2	18:P:328:LEU:N	1.93	0.81
27:Y:639:LEU:CG	27:Y:653:PHE:CZ	2.60	0.81
27:Y:244:CYS:CB	27:Y:442:ALA:CB	2.57	0.81
1:1:384:ILE:HD13	1:1:511:LEU:CD1	2.10	0.81
1:1:502:VAL:HA	1:1:505:ILE:CD1	2.10	0.81
20:R:123:MET:CA	20:R:130:LYS:HD3	2.11	0.81
2:2:248:ILE:CG2	3:A:1203:ASN:OD1	0.51	0.81
18:P:154:TYR:CA	18:P:157:CYS:SG	2.69	0.81
2:2:207:ILE:CA	3:A:1172:LEU:HD22	2.10	0.81
21:S:184:TYR:HA	21:S:221:ILE:H	1.32	0.81
27:Y:346:MET:CB	27:Y:384:LEU:HD21	2.09	0.81
15:M:236:GLU:HG3	15:M:237:ASP:H	1.46	0.81
16:N:35:DG:C2'	16:N:36:DT:H71	2.11	0.81
22:T:132:DA:H2''	22:T:133:DT:C7	2.10	0.81
18:P:316:LEU:HD23	18:P:317:TYR:H	1.44	0.81
1:1:428:CYS:HB2	1:1:434:ASN:CB	2.08	0.81
21:S:129:LEU:HG	24:V:341:LYS:CE	2.09	0.80
3:A:1445:ILE:O	9:G:68:ALA:CB	2.28	0.80
3:A:320:ARG:HH12	18:P:81:GLU:CB	1.94	0.80
1:1:410:LEU:HA	1:1:466:ARG:HH12	1.46	0.80
23:U:365:TYR:CE1	23:U:391:LYS:HD2	2.17	0.80
1:1:627:ILE:HB	1:1:654:LEU:HD23	1.62	0.80
2:2:235:ASP:CA	2:2:242:LYS:CG	2.58	0.80
4:B:1221:SER:OG	6:D:14:ARG:CZ	2.28	0.80
23:U:135:LEU:HB2	23:U:136:PRO:HD2	1.63	0.80
21:S:141:PRO:CB	21:S:177:THR:HG23	2.10	0.80
21:S:130:TRP:HE3	24:V:339:LEU:HG	0.99	0.80
22:T:147:DA:H2''	22:T:148:DT:C5'	2.10	0.80
21:S:187:HIS:CE1	21:S:225:GLU:CB	2.59	0.80
27:Y:353:SER:HA	27:Y:375:ARG:HG2	1.64	0.80
27:Y:353:SER:CB	27:Y:378:SER:N	2.45	0.80
4:B:416:LEU:HD23	4:B:457:LEU:HD23	1.61	0.80
18:P:150:ALA:HA	18:P:178:ILE:HD12	1.60	0.80
1:1:466:ARG:HB2	1:1:477:LEU:CD2	2.10	0.80
16:N:69:DG:P	26:X:62:ILE:O	2.40	0.80
20:R:34:PHE:CE2	20:R:134:LEU:HD21	2.12	0.80
2:2:252:ASN:HD22	3:A:1206:ASP:CB	1.95	0.80
27:Y:659:MET:SD	27:Y:692:GLN:HG2	2.21	0.80
16:N:23:DA:H2''	19:Q:120:LYS:CB	2.10	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:221:ILE:CD1	21:S:221:ILE:N	2.17	0.80
21:S:200:VAL:CG1	21:S:200:VAL:O	2.29	0.80
1:1:458:SER:CA	1:1:465:ASN:HB2	2.12	0.80
1:1:502:VAL:CG1	1:1:530:LEU:HB3	2.12	0.80
1:1:578:MET:O	1:1:582:ILE:HG13	1.81	0.80
1:1:584:ASN:ND2	1:1:586:THR:HG23	1.96	0.80
2:2:241:LEU:CD2	3:A:1232:ASN:CG	2.32	0.80
21:S:175:LYS:C	21:S:175:LYS:NZ	2.13	0.80
23:U:386:MET:CE	24:V:75:MET:SD	2.70	0.80
4:B:350:GLN:CG	23:U:407:ASP:OD2	2.28	0.80
21:S:130:TRP:CH2	24:V:333:LEU:C	2.54	0.80
27:Y:317:LEU:HA	27:Y:321:ILE:HD13	1.63	0.80
18:P:289:PHE:CE1	18:P:291:ILE:HG12	2.16	0.80
2:2:257:GLN:HG3	3:A:1284:MET:HE2	0.81	0.80
27:Y:162:LEU:HD21	27:Y:191:CYS:HB3	1.64	0.80
18:P:196:ILE:CG1	18:P:197:HIS:H	1.76	0.80
4:B:849:GLY:HA2	4:B:852:ARG:HD2	1.63	0.80
20:R:141:ASN:C	20:R:142:PHE:HD1	1.84	0.80
21:S:203:LYS:HB3	21:S:242:ARG:CB	2.12	0.80
21:S:130:TRP:HE3	24:V:339:LEU:CG	1.76	0.80
1:1:757:ARG:NH2	1:1:760:LEU:CD2	2.41	0.80
27:Y:62:HIS:CD2	27:Y:63:TYR:N	2.49	0.80
18:P:202:GLU:HG3	18:P:205:LYS:NZ	1.96	0.80
3:A:227:VAL:CG1	6:D:16:LYS:HG2	2.11	0.80
1:1:502:VAL:HA	1:1:505:ILE:HD11	1.64	0.80
15:M:16:SER:O	15:M:20:GLU:HG2	1.81	0.80
22:T:135:DG:H2''	22:T:136:DA:C5'	2.11	0.80
18:P:255:SER:HA	18:P:325:ASP:OD2	1.81	0.80
18:P:325:ASP:O	18:P:326:PRO:HG3	1.81	0.80
20:R:156:LEU:CD2	20:R:156:LEU:N	2.35	0.80
20:R:43:LEU:CD2	20:R:54:LEU:HD11	2.05	0.80
27:Y:639:LEU:CA	27:Y:653:PHE:CD2	2.65	0.80
27:Y:310:PRO:HG2	27:Y:335:LEU:HD23	1.62	0.80
21:S:200:VAL:HG12	21:S:200:VAL:O	1.81	0.80
1:1:378:ARG:HH21	1:1:508:HIS:HA	1.45	0.80
1:1:353:ASP:OD2	1:1:405:LYS:HA	1.80	0.80
18:P:140:ALA:O	18:P:141:GLU:CG	2.30	0.80
24:V:333:LEU:C	24:V:337:ALA:HB3	2.02	0.79
2:2:253:LEU:HD13	3:A:1132:LYS:HD2	1.62	0.79
2:2:269:PHE:HZ	2:2:297:CYS:SG	1.97	0.79
1:1:398:THR:O	1:1:402:THR:HG23	1.83	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:443:SER:HB2	27:Y:474:ASN:HB2	1.64	0.79
8:F:96:THR:HA	9:G:64:THR:O	1.82	0.79
18:P:173:ALA:C	18:P:176:ILE:HG12	2.02	0.79
24:V:56:SER:O	24:V:57:LEU:HB2	1.81	0.79
22:T:102:DC:H2'	22:T:103:DC:C6	2.17	0.79
22:T:102:DC:H2''	22:T:103:DC:H5'	1.64	0.79
18:P:104:MET:CG	18:P:105:ARG:H	1.92	0.79
22:T:117:DC:H2'	22:T:118:DC:C6	2.16	0.79
3:A:836:TYR:HH	3:A:1403:GLU:CD	1.84	0.79
27:Y:479:LEU:O	27:Y:479:LEU:CD2	2.31	0.79
27:Y:586:TYR:HD1	27:Y:616:TYR:CE2	1.99	0.79
18:P:279:VAL:HG22	18:P:298:VAL:CG1	2.12	0.79
27:Y:193:TYR:HE2	27:Y:197:ARG:HH11	1.29	0.79
27:Y:212:TYR:OH	27:Y:222:VAL:HG22	1.81	0.79
18:P:29:VAL:HG13	18:P:31:PRO:HA	1.65	0.79
27:Y:298:ILE:CD1	27:Y:345:ARG:HD2	2.11	0.79
21:S:140:LYS:NZ	21:S:141:PRO:O	2.14	0.79
1:1:425:LEU:CG	1:1:429:THR:HA	2.12	0.79
1:1:459:MET:O	1:1:464:ARG:HG3	1.81	0.79
21:S:130:TRP:HB3	21:S:151:LEU:HD21	1.62	0.79
3:A:1444:MET:HE1	8:F:135:ARG:HB2	1.62	0.79
18:P:22:LEU:HD22	18:P:34:ILE:HG21	1.63	0.79
21:S:170:GLU:C	21:S:179:LYS:CD	2.38	0.79
1:1:327:LYS:HA	1:1:327:LYS:HE3	1.65	0.79
18:P:291:ILE:N	18:P:291:ILE:HD13	1.94	0.79
20:R:34:PHE:CZ	20:R:134:LEU:HD12	2.18	0.79
21:S:148:LEU:CD1	21:S:154:LYS:HE3	2.12	0.79
8:F:96:THR:HG23	9:G:65:ASP:O	1.63	0.79
21:S:219:GLU:HB3	21:S:222:ASN:HD22	1.47	0.79
1:1:458:SER:HA	1:1:465:ASN:CB	2.12	0.79
18:P:286:ILE:CD1	18:P:293:ILE:HD13	2.13	0.79
21:S:164:LYS:HE2	21:S:165:LYS:HG3	1.58	0.79
4:B:1215:ARG:HD2	6:D:15:LEU:HD12	1.60	0.79
4:B:29:ASP:HB3	4:B:658:ILE:HG12	1.64	0.79
18:P:279:VAL:HA	18:P:302:LEU:HD23	1.63	0.79
20:R:30:ASP:OD1	20:R:151:LEU:CD1	2.30	0.79
19:Q:103:ILE:CG1	22:T:143:DT:C2'	2.22	0.79
27:Y:331:PHE:CE2	27:Y:335:LEU:CD1	2.65	0.79
18:P:193:GLN:HG2	18:P:199:LYS:CD	2.12	0.79
18:P:289:PHE:CE1	18:P:290:GLN:CB	2.39	0.79
21:S:127:LYS:N	24:V:339:LEU:O	2.16	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:O:4:PRO:CD	24:V:357:LYS:CB	2.34	0.79
1:1:494:PRO:HB2	1:1:519:ARG:NH1	1.98	0.79
3:A:192:GLY:C	22:T:117:DC:OP1	2.21	0.79
1:1:785:ARG:HH11	1:1:785:ARG:HG2	1.47	0.79
27:Y:42:MET:CG	27:Y:48:LYS:CG	2.59	0.79
18:P:286:ILE:CD1	18:P:293:ILE:CD1	2.61	0.79
18:P:142:LEU:HB3	18:P:147:LYS:CD	2.12	0.79
1:1:621:LYS:CB	1:1:621:LYS:HZ2	1.89	0.79
16:N:55:DG:C2'	16:N:56:DT:H72	2.13	0.79
3:A:89:PRO:HB2	3:A:204:THR:CG2	2.13	0.79
21:S:151:LEU:HD22	21:S:153:MET:HE2	1.64	0.79
27:Y:400:LYS:HG3	27:Y:437:PHE:CD2	2.18	0.79
18:P:35:VAL:HG12	18:P:37:ARG:H	1.45	0.79
18:P:124:ASN:OD1	18:P:128:ALA:HB2	1.83	0.79
20:R:149:CYS:SG	20:R:151:LEU:HD22	2.24	0.78
2:2:257:GLN:CD	3:A:1284:MET:CE	2.51	0.78
1:1:584:ASN:ND2	1:1:586:THR:CG2	2.45	0.78
18:P:22:LEU:HA	18:P:52:LEU:HD11	1.64	0.78
2:2:283:GLN:CG	3:A:756:ILE:HD13	2.12	0.78
16:N:28:DT:OP2	24:V:292:ILE:C	2.21	0.78
1:1:400:ALA:HB1	1:1:449:GLU:O	1.82	0.78
1:1:473:VAL:H	1:1:478:THR:CG2	1.96	0.78
18:P:277:ILE:HD13	18:P:277:ILE:C	2.03	0.78
1:1:362:ILE:HG22	1:1:363:ARG:O	1.81	0.78
4:B:900:ALA:HB3	14:L:61:THR:HG23	1.64	0.78
18:P:285:ASN:ND2	18:P:286:ILE:N	2.30	0.78
1:1:773:ILE:HD11	1:1:775:VAL:HB	0.81	0.78
27:Y:321:ILE:CD1	27:Y:409:ILE:CG2	2.61	0.78
18:P:86:LEU:HD21	18:P:155:LYS:CE	2.13	0.78
18:P:279:VAL:HG23	18:P:302:LEU:HG	1.57	0.78
18:P:338:ASN:ND2	18:P:338:ASN:N	2.27	0.78
21:S:154:LYS:CA	21:S:154:LYS:CE	2.13	0.78
24:V:63:ARG:HB2	24:V:214:ILE:C	2.04	0.78
27:Y:405:PHE:HB3	27:Y:437:PHE:CD1	2.18	0.78
3:A:419:LYS:NZ	18:P:47:LEU:C	2.36	0.78
21:S:210:LEU:CB	21:S:214:TRP:CH2	2.66	0.78
1:1:439:THR:HG23	1:1:465:ASN:ND2	1.97	0.78
18:P:152:GLU:O	18:P:155:LYS:HG2	1.83	0.78
27:Y:257:LEU:HD21	27:Y:383:LEU:HD11	1.64	0.78
24:V:107:LEU:CD1	24:V:119:GLU:HG3	2.12	0.78
27:Y:526:LEU:HD13	27:Y:623:ILE:HD11	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:39:ILE:HG12	27:Y:458:ILE:HB	1.63	0.78
27:Y:569:ILE:CG2	27:Y:579:THR:OG1	2.32	0.78
18:P:222:PHE:O	18:P:223:LEU:HB2	1.84	0.78
18:P:43:VAL:HG13	18:P:55:LYS:NZ	1.98	0.78
27:Y:18:TYR:HB3	27:Y:19:PRO:HD3	1.66	0.78
27:Y:408:LEU:HD22	27:Y:634:ILE:HG13	1.64	0.78
18:P:289:PHE:CZ	18:P:291:ILE:CD1	2.66	0.78
21:S:203:LYS:CE	21:S:204:GLY:N	2.47	0.78
18:P:187:ARG:CB	18:P:189:PHE:CA	2.62	0.78
27:Y:215:ASP:HB3	27:Y:218:ILE:CG2	2.14	0.78
1:1:485:ILE:CD1	1:1:510:LYS:HG2	2.14	0.78
22:T:117:DC:H2''	22:T:118:DC:C5'	2.13	0.78
12:J:48:ARG:HE	12:J:49:MET:HE2	1.47	0.78
21:S:203:LYS:HE3	21:S:203:LYS:CA	2.14	0.78
21:S:130:TRP:CZ3	24:V:338:THR:N	2.52	0.78
21:S:183:THR:CG2	21:S:184:TYR:CD1	2.65	0.78
21:S:184:TYR:H	21:S:222:ASN:ND2	1.81	0.78
18:P:193:GLN:NE2	18:P:203:PHE:CG	2.51	0.78
1:1:376:ASN:CB	1:1:380:ARG:H	1.97	0.78
18:P:288:LEU:HD13	18:P:289:PHE:N	1.98	0.78
20:R:156:LEU:H	20:R:156:LEU:HD22	1.47	0.78
16:N:56:DT:H2'	16:N:57:DA:C8	2.19	0.78
18:P:130:PHE:HA	18:P:133:ILE:CG2	2.14	0.78
8:F:92:ARG:NH2	9:G:63:PRO:CA	2.46	0.78
27:Y:111:ARG:NE	27:Y:129:VAL:HG21	1.98	0.78
22:T:104:DT:C2'	22:T:105:DT:H5'	2.13	0.78
4:B:433:GLN:CD	23:U:326:ARG:HD3	2.03	0.78
16:N:39:DC:H2''	16:N:40:DT:H5'	1.66	0.78
18:P:188:THR:OG1	18:P:241:ARG:HB3	1.84	0.78
18:P:26:GLU:CD	18:P:50:LEU:CD2	2.51	0.78
27:Y:681:LEU:HD22	27:Y:696:TRP:HZ3	1.45	0.78
21:S:219:GLU:HB2	21:S:222:ASN:ND2	1.99	0.78
27:Y:289:LEU:HD22	27:Y:348:VAL:CG1	2.13	0.78
1:1:425:LEU:HG	1:1:429:THR:CB	2.13	0.78
1:1:516:THR:HA	1:1:681:ARG:NE	1.99	0.78
27:Y:136:MET:CE	27:Y:159:HIS:CD2	2.67	0.78
16:N:65:DG:H1'	16:N:66:DG:H5'	1.66	0.78
21:S:166:LEU:HD12	21:S:168:ARG:H	1.46	0.78
2:2:271:CYS:SG	2:2:304:ASN:ND2	2.57	0.78
18:P:290:GLN:NE2	18:P:331:ASN:HD21	1.79	0.77
2:2:252:ASN:ND2	3:A:1206:ASP:CB	2.47	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:T:121:DG:C2'	22:T:122:DT:H5'	2.14	0.77
1:1:476:PHE:HA	1:1:485:ILE:HB	1.66	0.77
18:P:296:ALA:O	18:P:300:GLN:NE2	2.16	0.77
27:Y:359:PHE:CE2	27:Y:363:LEU:HD11	2.19	0.77
18:P:288:LEU:O	18:P:288:LEU:HD13	1.84	0.77
4:B:451:LYS:NZ	18:P:147:LYS:HZ1	1.82	0.77
21:S:160:ILE:C	21:S:160:ILE:HD12	2.05	0.77
2:2:255:ASN:HB2	3:A:1204:ASP:O	1.84	0.77
27:Y:298:ILE:HD11	27:Y:345:ARG:HD2	1.66	0.77
1:1:425:LEU:CD1	1:1:429:THR:HG23	2.15	0.77
18:P:152:GLU:HG3	18:P:155:LYS:NZ	1.98	0.77
1:1:363:ARG:HH21	1:1:366:GLN:HE22	1.32	0.77
18:P:45:CYS:SG	18:P:48:CYS:N	2.57	0.77
4:B:885:MET:CA	18:P:33:LYS:HZ1	1.97	0.77
18:P:225:ILE:O	18:P:225:ILE:HD12	1.84	0.77
18:P:116:LYS:O	18:P:119:MET:CG	2.30	0.77
18:P:268:GLU:O	18:P:315:ILE:CG2	2.32	0.77
18:P:303:GLN:CD	18:P:304:VAL:HG23	2.04	0.77
18:P:268:GLU:O	18:P:269:ILE:HD12	1.85	0.77
27:Y:37:ASN:O	27:Y:477:THR:OG1	2.02	0.77
18:P:303:GLN:CG	18:P:304:VAL:CG2	2.62	0.77
21:S:203:LYS:C	21:S:203:LYS:CD	2.49	0.77
27:Y:54:SER:O	27:Y:57:ILE:HG22	1.85	0.77
18:P:225:ILE:HD11	18:P:227:THR:C	2.05	0.77
1:1:310:ILE:HD13	1:1:313:VAL:CG2	2.15	0.77
8:F:92:ARG:CZ	9:G:63:PRO:HB3	2.11	0.77
2:2:252:ASN:HD21	3:A:1203:ASN:HA	1.50	0.77
1:1:656:LYS:CD	1:1:656:LYS:O	2.33	0.77
2:2:265:VAL:HG13	2:2:278:LYS:HA	1.65	0.77
23:U:375:LEU:HD21	24:V:70:LEU:HD13	1.67	0.77
1:1:574:ALA:HB1	1:1:774:GLU:CD	2.03	0.77
3:A:1451:VAL:HG13	9:G:20:PRO:HG3	1.67	0.77
21:S:134:TYR:CE1	21:S:138:LYS:HE3	2.19	0.77
1:1:407:VAL:CG2	1:1:451:GLY:HA2	2.15	0.77
2:2:290:ASP:CA	4:B:766:ARG:NH2	2.47	0.77
2:2:281:TYR:OH	3:A:755:PHE:HE2	1.66	0.77
1:1:310:ILE:HD13	1:1:313:VAL:HG23	1.67	0.77
21:S:203:LYS:CB	21:S:242:ARG:CG	2.02	0.77
27:Y:639:LEU:HD23	27:Y:649:ARG:CB	2.15	0.77
23:U:94:ASP:C	23:U:95:PRO:HD3	2.02	0.77
27:Y:212:TYR:OH	27:Y:222:VAL:CG2	2.33	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:346:MET:O	27:Y:384:LEU:HG	1.84	0.77
21:S:144:VAL:HG22	21:S:178:PHE:CE2	2.19	0.77
21:S:200:VAL:O	21:S:201:THR:HG23	1.84	0.77
21:S:166:LEU:HD12	21:S:168:ARG:N	2.00	0.77
18:P:288:LEU:O	18:P:288:LEU:CD2	2.32	0.77
18:P:339:LEU:C	18:P:340:PRO:CD	2.52	0.77
27:Y:369:ILE:O	27:Y:370:GLU:HB2	1.85	0.77
21:S:203:LYS:NZ	21:S:242:ARG:NH2	2.32	0.77
21:S:157:ASP:O	21:S:162:LEU:HD23	1.84	0.77
2:2:248:ILE:CG2	3:A:1203:ASN:CG	1.75	0.77
16:N:28:DT:OP2	24:V:293:ARG:N	2.17	0.77
3:A:313:GLN:HG3	18:P:98:LYS:HD3	1.67	0.77
1:1:406:SER:HB3	1:1:482:TRP:CE3	2.20	0.77
18:P:303:GLN:CG	18:P:304:VAL:HG22	2.08	0.77
24:V:333:LEU:O	24:V:337:ALA:CB	2.32	0.77
18:P:189:PHE:CD1	18:P:241:ARG:NH2	2.53	0.77
19:Q:112:THR:HG21	22:T:144:DT:H4'	1.67	0.77
19:Q:114:LEU:HD22	22:T:143:DT:C2'	2.15	0.77
23:U:96:ASN:HD21	24:V:99:LYS:N	1.83	0.77
21:S:127:LYS:HE3	21:S:127:LYS:N	2.00	0.76
24:V:306:LEU:HD12	24:V:313:TRP:CH2	2.20	0.76
2:2:257:GLN:HG2	3:A:1284:MET:HE3	0.77	0.76
22:T:102:DC:H2''	22:T:103:DC:C5'	2.15	0.76
1:1:326:VAL:HG11	1:1:503:SER:OG	1.83	0.76
27:Y:639:LEU:CD2	27:Y:649:ARG:HB2	2.13	0.76
24:V:59:LEU:CD2	24:V:214:ILE:HD11	2.16	0.76
18:P:42:ASP:OD1	18:P:54:ASP:CA	2.28	0.76
21:S:237:LYS:HZ2	21:S:241:PRO:HB2	1.47	0.76
1:1:425:LEU:HG	1:1:429:THR:CG2	2.15	0.76
3:A:95:PHE:O	3:A:96:ILE:C	2.13	0.76
21:S:166:LEU:CD1	21:S:168:ARG:H	1.96	0.76
21:S:130:TRP:HH2	24:V:337:ALA:CB	1.93	0.76
24:V:313:TRP:CB	24:V:349:TYR:HE1	1.92	0.76
4:B:885:MET:CB	18:P:33:LYS:HZ2	1.95	0.76
21:S:175:LYS:NZ	21:S:175:LYS:CA	0.85	0.76
18:P:103:ASP:HB2	18:P:107:THR:HB	1.66	0.76
18:P:198:VAL:CG1	18:P:202:GLU:OE1	2.32	0.76
3:A:313:GLN:CG	18:P:98:LYS:HD3	2.14	0.76
20:R:66:LEU:O	20:R:89:VAL:HG13	1.85	0.76
1:1:568:GLU:HA	1:1:571:ARG:HG3	1.67	0.76
27:Y:240:ILE:HG22	27:Y:473:LEU:CD1	2.16	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:279:VAL:HG23	18:P:302:LEU:CB	2.15	0.76
18:P:299:GLY:CA	18:P:302:LEU:HD13	2.13	0.76
18:P:184:GLU:CD	18:P:231:SER:OG	2.23	0.76
27:Y:360:LEU:CD1	27:Y:364:LYS:HD2	2.15	0.76
21:S:142:VAL:C	21:S:177:THR:OG1	2.23	0.76
23:U:376:LEU:CG	24:V:73:LEU:HD22	2.10	0.76
23:U:98:TYR:CE1	24:V:96:ARG:NH2	2.53	0.76
23:U:146:ASN:HA	23:U:348:TYR:OH	1.86	0.76
3:A:368:LYS:HE2	3:A:399:HIS:HB2	1.66	0.76
16:N:39:DC:C2'	16:N:40:DT:H71	2.16	0.76
21:S:158:LYS:NZ	21:S:162:LEU:CG	2.43	0.76
18:P:187:ARG:CD	18:P:189:PHE:CB	2.54	0.76
19:Q:99:PHE:HB2	22:T:143:DT:C5'	2.09	0.76
19:Q:114:LEU:HD13	22:T:143:DT:O2	1.86	0.76
27:Y:493:LEU:HD23	27:Y:696:TRP:CE2	2.20	0.76
1:1:380:ARG:HA	1:1:535:LEU:HD22	1.65	0.76
18:P:142:LEU:HD23	18:P:147:LYS:HB2	0.77	0.76
2:2:248:ILE:CD1	3:A:1203:ASN:ND2	2.46	0.76
1:1:413:SER:O	1:1:417:VAL:HG23	1.85	0.76
1:1:446:PHE:C	1:1:452:LEU:HD22	2.06	0.76
1:1:447:GLN:H	1:1:452:LEU:HD13	1.49	0.76
1:1:474:MET:HE2	1:1:482:TRP:N	1.99	0.76
1:1:485:ILE:HD11	1:1:510:LYS:HG2	1.67	0.76
16:N:55:DG:H2"	16:N:56:DT:C7	2.16	0.76
6:D:40:HIS:HB3	9:G:73:LYS:HE3	1.67	0.76
18:P:279:VAL:CG2	18:P:302:LEU:CB	2.63	0.76
27:Y:627:PHE:CD1	27:Y:654:LEU:HD11	2.21	0.76
23:U:137:VAL:HG13	24:V:59:LEU:CB	2.12	0.76
24:V:61:LEU:CD2	24:V:214:ILE:HD12	2.16	0.76
18:P:44:VAL:CG2	18:P:50:LEU:O	2.31	0.76
1:1:354:ILE:H	1:1:447:GLN:HE22	1.34	0.76
3:A:1116:LEU:HD12	3:A:1329:THR:HB	1.67	0.76
8:F:93:ILE:HD11	8:F:134:ILE:HD11	1.66	0.76
21:S:237:LYS:NZ	21:S:241:PRO:CG	2.49	0.76
1:1:378:ARG:NH2	1:1:508:HIS:HA	2.01	0.76
1:1:425:LEU:CG	1:1:429:THR:HG23	2.16	0.76
16:N:59:DT:C2	16:N:60:DA:C8	2.74	0.76
20:R:14:LYS:O	20:R:17:VAL:HG22	1.86	0.76
3:A:64:ASN:OD1	18:P:18:LEU:HD22	1.86	0.76
27:Y:136:MET:HE2	27:Y:159:HIS:CD2	2.16	0.76
3:A:1433:MET:CE	4:B:1145:SER:OG	2.33	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:162:LEU:N	21:S:162:LEU:HD22	2.01	0.76
8:F:92:ARG:HH21	9:G:64:THR:H	1.31	0.76
3:A:1445:ILE:O	9:G:68:ALA:HB1	1.86	0.76
20:R:46:LEU:HD11	20:R:132:THR:HG23	1.68	0.76
4:B:106:ASP:HA	18:P:184:GLU:HG2	1.67	0.76
27:Y:28:ILE:HG22	27:Y:57:ILE:HD12	1.68	0.76
23:U:377:SER:OG	24:V:70:LEU:HD22	1.85	0.76
20:R:123:MET:CG	20:R:130:LYS:HD2	2.15	0.75
18:P:42:ASP:HB3	18:P:51:VAL:HG23	1.66	0.75
18:P:86:LEU:HD21	18:P:155:LYS:HE2	1.68	0.75
27:Y:569:ILE:CA	27:Y:575:ASP:HB2	2.14	0.75
1:1:335:TYR:CD1	1:1:336:PRO:HD3	2.21	0.75
23:U:120:LYS:HG2	24:V:132:GLU:HG2	1.66	0.75
1:1:596:GLN:NE2	1:1:746:PRO:HD3	2.01	0.75
3:A:65:LEU:HD13	18:P:19:ASN:O	1.86	0.75
20:R:124:CYS:CB	20:R:129:THR:HG23	2.16	0.75
21:S:234:ARG:NH1	21:S:234:ARG:HB3	1.96	0.75
21:S:130:TRP:CH2	24:V:337:ALA:CB	2.67	0.75
1:1:717:TYR:CD2	1:1:718:TYR:CD1	2.73	0.75
18:P:187:ARG:NH2	18:P:192:ILE:HB	2.01	0.75
1:1:410:LEU:HB2	1:1:466:ARG:NH2	2.01	0.75
3:A:22:PHE:HB2	4:B:1211:ASN:CG	2.06	0.75
17:O:19:LEU:HD22	17:O:23:LEU:HD22	1.68	0.75
18:P:279:VAL:CA	18:P:302:LEU:CD2	2.56	0.75
24:V:307:PHE:HZ	24:V:349:TYR:CD1	2.04	0.75
18:P:184:GLU:CD	18:P:241:ARG:CG	2.54	0.75
24:V:292:ILE:O	24:V:295:PRO:CD	2.33	0.75
18:P:150:ALA:HB1	18:P:178:ILE:CD1	2.17	0.75
27:Y:128:VAL:HG22	27:Y:373:PRO:HD3	1.67	0.75
1:1:425:LEU:O	1:1:425:LEU:HD23	1.87	0.75
5:C:147:LEU:HB3	5:C:151:GLN:HB2	1.66	0.75
18:P:118:VAL:O	18:P:118:VAL:HG22	1.85	0.75
18:P:35:VAL:HG12	18:P:37:ARG:N	2.00	0.75
21:S:172:ASP:C	21:S:175:LYS:HZ1	1.89	0.75
2:2:307:LYS:HG3	3:A:1359:ASP:O	1.86	0.75
1:1:410:LEU:HD22	1:1:477:LEU:CD1	2.15	0.75
3:A:192:GLY:C	22:T:117:DC:P	2.64	0.75
1:1:368:LYS:HZ2	1:1:372:LYS:HD2	1.51	0.75
21:S:219:GLU:CB	21:S:222:ASN:ND2	2.49	0.75
1:1:410:LEU:HD13	1:1:477:LEU:CD1	2.15	0.75
1:1:487:LEU:HD23	1:1:493:VAL:CG2	2.10	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:476:PHE:HZ	1:1:493:VAL:HG11	1.51	0.75
24:V:108:LEU:HD12	24:V:118:HIS:CE1	2.22	0.75
1:1:297:ILE:HD11	1:1:346:ASP:OD2	1.86	0.75
16:N:69:DG:OP2	26:X:62:ILE:O	2.04	0.75
16:N:39:DC:H2'	16:N:40:DT:C7	2.15	0.75
22:T:134:DT:C1'	24:V:323:ARG:CD	2.25	0.75
18:P:286:ILE:HD12	18:P:293:ILE:HD13	1.68	0.75
21:S:202:PHE:C	21:S:203:LYS:HE3	2.06	0.75
21:S:128:LEU:HG	24:V:341:LYS:HZ1	1.51	0.75
1:1:458:SER:HB3	1:1:467:SER:HB3	1.68	0.75
20:R:44:LYS:CE	20:R:54:LEU:HB2	2.16	0.75
18:P:198:VAL:HG21	18:P:202:GLU:OE1	1.87	0.75
18:P:202:GLU:O	18:P:205:LYS:HG2	1.87	0.75
21:S:196:LEU:HD12	21:S:196:LEU:C	2.07	0.75
20:R:144:ARG:HB3	20:R:146:GLU:CD	2.07	0.75
18:P:148:ASP:HA	18:P:151:LYS:HE2	1.68	0.75
21:S:130:TRP:HH2	24:V:333:LEU:C	1.89	0.75
27:Y:405:PHE:HB2	27:Y:437:PHE:CE1	2.07	0.75
18:P:189:PHE:HD1	18:P:241:ARG:NH2	1.84	0.75
27:Y:693:LEU:HG	27:Y:696:TRP:CZ2	2.21	0.75
3:A:1451:VAL:HG13	9:G:20:PRO:N	2.01	0.75
1:1:519:ARG:HG3	1:1:524:ILE:CG2	2.17	0.75
1:1:368:LYS:HD2	1:1:372:LYS:CE	2.16	0.75
21:S:166:LEU:CD1	21:S:166:LEU:C	2.55	0.75
24:V:306:LEU:CD1	24:V:313:TRP:CE2	2.70	0.75
18:P:193:GLN:NE2	18:P:203:PHE:CZ	2.54	0.75
27:Y:532:ILE:O	27:Y:534:PRO:HD3	1.85	0.75
8:F:92:ARG:HH21	9:G:64:THR:N	1.85	0.74
4:B:430:ARG:CB	23:U:326:ARG:HH12	2.00	0.74
27:Y:353:SER:CB	27:Y:378:SER:CB	2.53	0.74
3:A:1390:ASN:O	3:A:1399:ARG:CD	2.34	0.74
27:Y:185:CYS:HB3	27:Y:190:LEU:O	1.86	0.74
18:P:227:THR:O	18:P:227:THR:CG2	2.32	0.74
20:R:17:VAL:CG1	20:R:66:LEU:HD11	2.15	0.74
20:R:90:LYS:HB3	20:R:93:HIS:CB	2.17	0.74
4:B:902:GLY:O	14:L:65:VAL:CG1	2.36	0.74
1:1:315:SER:O	1:1:323:VAL:HG13	1.87	0.74
23:U:98:TYR:CE1	24:V:96:ARG:CZ	2.70	0.74
1:1:561:MET:C	25:W:450:ARG:CZ	2.55	0.74
19:Q:114:LEU:HD22	22:T:143:DT:C1'	2.16	0.74
1:1:333:ILE:O	1:1:333:ILE:HD13	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:152:GLU:HA	18:P:155:LYS:HE3	1.68	0.74
2:2:290:ASP:O	4:B:766:ARG:NH2	2.19	0.74
1:1:297:ILE:HG13	1:1:344:ARG:HB2	1.69	0.74
17:O:87:VAL:HG12	17:O:88:GLU:N	2.01	0.74
27:Y:131:GLU:CD	27:Y:134:ARG:HH12	1.91	0.74
27:Y:586:TYR:CD1	27:Y:616:TYR:CE2	2.75	0.74
18:P:145:ILE:HD11	18:P:182:ARG:CD	2.16	0.74
15:M:253:ARG:NH2	22:T:145:DT:OP1	2.20	0.74
2:2:257:GLN:HG2	3:A:1284:MET:HB2	1.67	0.74
18:P:184:GLU:OE1	18:P:231:SER:OG	2.06	0.74
18:P:266:ILE:HG22	18:P:266:ILE:O	1.88	0.74
24:V:313:TRP:CB	24:V:349:TYR:CE1	2.57	0.74
24:V:63:ARG:HG3	24:V:215:VAL:CB	2.16	0.74
16:N:27:DG:C2'	24:V:291:SER:O	2.36	0.74
1:1:431:GLN:HB2	1:1:432:PRO:HD3	1.67	0.74
21:S:203:LYS:CE	21:S:203:LYS:N	2.41	0.74
20:R:46:LEU:CG	20:R:132:THR:CG2	2.66	0.74
18:P:27:CYS:HB3	18:P:47:LEU:HD22	1.68	0.74
17:O:4:PRO:HD2	24:V:357:LYS:HB2	1.64	0.74
3:A:227:VAL:CG1	6:D:16:LYS:CG	2.65	0.74
18:P:133:ILE:CG1	18:P:151:LYS:HD2	2.17	0.74
21:S:148:LEU:HB2	21:S:154:LYS:HE3	1.59	0.74
18:P:43:VAL:CG1	18:P:55:LYS:HE2	2.13	0.74
20:R:17:VAL:HG12	20:R:66:LEU:HD11	1.70	0.74
15:M:284:GLU:HG2	15:M:286:VAL:HG23	1.69	0.74
18:P:162:THR:HG23	18:P:162:THR:O	1.86	0.74
20:R:119:PRO:HD3	20:R:120:ASN:HD21	1.53	0.74
16:N:19:DT:H2''	16:N:20:DA:C5'	2.15	0.74
1:1:470:SER:HA	1:1:478:THR:HG23	1.67	0.74
1:1:453:VAL:HG21	1:1:482:TRP:CZ2	2.22	0.74
18:P:208:ASN:HA	18:P:211:LYS:HE3	1.70	0.74
20:R:144:ARG:O	20:R:146:GLU:OE2	2.03	0.74
21:S:234:ARG:CZ	21:S:234:ARG:HB3	2.18	0.74
18:P:43:VAL:CG2	18:P:55:LYS:HZ3	1.98	0.74
27:Y:495:MET:HB3	27:Y:686:PHE:CZ	2.23	0.74
1:1:429:THR:HB	1:1:432:PRO:CD	2.17	0.74
22:T:152:DC:H2''	22:T:153:DG:C5'	2.18	0.73
18:P:35:VAL:O	18:P:43:VAL:HG12	1.86	0.73
2:2:235:ASP:CA	2:2:242:LYS:HG2	2.16	0.73
21:S:175:LYS:HZ3	21:S:175:LYS:HB2	1.50	0.73
21:S:190:SER:C	21:S:226:GLU:OE1	2.27	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:356:LEU:HG	1:1:427:TRP:HD1	1.53	0.73
3:A:346:ASP:OD1	4:B:1106:ARG:NE	2.21	0.73
18:P:121:LYS:O	18:P:122:LYS:HG2	1.87	0.73
24:V:69:TRP:CZ3	24:V:220:HIS:HD2	2.04	0.73
27:Y:346:MET:O	27:Y:384:LEU:CG	2.35	0.73
16:N:59:DT:C2	16:N:60:DA:N7	2.56	0.73
3:A:497:THR:HG22	4:B:1146:PHE:HD1	1.52	0.73
27:Y:248:LEU:CG	27:Y:445:ALA:HB2	2.18	0.73
27:Y:193:TYR:OH	27:Y:221:ARG:CZ	2.36	0.73
16:N:28:DT:OP2	24:V:295:PRO:CD	2.36	0.73
18:P:279:VAL:CG2	18:P:298:VAL:HG12	2.05	0.73
4:B:451:LYS:NZ	18:P:147:LYS:HZ3	1.80	0.73
21:S:125:SER:N	21:S:127:LYS:HZ1	1.81	0.73
24:V:306:LEU:CG	24:V:313:TRP:CE2	2.72	0.73
21:S:130:TRP:CE3	24:V:338:THR:O	2.40	0.73
2:2:256:ALA:O	3:A:1284:MET:HG3	1.87	0.73
4:B:1221:SER:N	6:D:14:ARG:NH2	2.36	0.73
23:U:135:LEU:CB	23:U:136:PRO:CD	2.66	0.73
18:P:206:THR:O	18:P:209:ILE:CG1	2.36	0.73
23:U:119:LEU:CD2	24:V:135:PHE:HE2	2.00	0.73
4:B:773:MET:HE1	4:B:985:GLY:HA2	1.70	0.73
20:R:123:MET:HA	20:R:130:LYS:CD	2.18	0.73
18:P:223:LEU:HD11	19:Q:173:GLU:HB2	1.69	0.73
8:F:96:THR:CA	9:G:64:THR:O	2.36	0.73
27:Y:639:LEU:HD23	27:Y:649:ARG:HD2	1.62	0.73
27:Y:248:LEU:CD1	27:Y:445:ALA:HB2	2.18	0.73
22:T:140:DC:C2'	22:T:141:DC:H5	2.01	0.73
17:O:4:PRO:CD	24:V:357:LYS:O	2.37	0.73
27:Y:162:LEU:CD2	27:Y:195:ILE:HG13	2.17	0.73
27:Y:190:LEU:HD12	27:Y:190:LEU:O	1.88	0.73
27:Y:128:VAL:HG22	27:Y:372:LYS:HA	1.68	0.73
3:A:320:ARG:NH1	18:P:81:GLU:HB2	1.94	0.73
1:1:476:PHE:CE1	1:1:487:LEU:HD21	2.23	0.73
18:P:322:LYS:N	18:P:322:LYS:CE	2.51	0.73
3:A:1446:ASP:N	9:G:61:ILE:CD1	2.37	0.73
24:V:295:PRO:O	24:V:299:ILE:HG13	1.88	0.73
27:Y:307:VAL:C	27:Y:310:PRO:HD2	2.07	0.73
18:P:133:ILE:HG12	18:P:151:LYS:HD2	1.70	0.73
2:2:252:ASN:ND2	3:A:1206:ASP:CA	2.50	0.73
1:1:785:ARG:CG	1:1:785:ARG:HH11	1.73	0.73
16:N:21:DA:H2''	16:N:22:DA:C5'	2.15	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:568:GLU:HA	1:1:571:ARG:CG	2.17	0.73
21:S:128:LEU:HD22	21:S:162:LEU:CD1	2.15	0.73
24:V:349:TYR:CD1	24:V:349:TYR:O	2.41	0.73
23:U:135:LEU:HD12	23:U:355:PHE:HE1	1.53	0.73
1:1:383:ILE:HG13	1:1:517:LEU:HD13	1.71	0.73
27:Y:449:VAL:CG1	27:Y:456:VAL:CG2	2.65	0.73
3:A:836:TYR:CZ	3:A:1403:GLU:OE2	2.41	0.73
27:Y:462:THR:HG22	27:Y:660:ARG:HG3	1.71	0.73
27:Y:532:ILE:C	27:Y:534:PRO:CD	2.56	0.73
3:A:91:PHE:HB3	3:A:96:ILE:CG1	2.18	0.73
18:P:57:VAL:O	18:P:57:VAL:HG13	1.88	0.73
8:F:92:ARG:HD2	9:G:64:THR:OG1	1.89	0.73
18:P:187:ARG:CD	18:P:189:PHE:HB3	2.17	0.73
27:Y:208:TYR:CE1	27:Y:213:LEU:CB	2.72	0.73
2:2:289:ALA:O	4:B:769:TYR:CD2	2.42	0.73
27:Y:324:ASN:HB3	27:Y:408:LEU:HD11	1.70	0.73
18:P:248:LEU:CD2	18:P:286:ILE:HG13	1.98	0.73
20:R:141:ASN:HD21	20:R:142:PHE:HE1	1.32	0.73
4:B:959:ASP:HA	18:P:182:ARG:NH1	2.02	0.73
24:V:306:LEU:HD11	24:V:313:TRP:CD2	2.23	0.73
18:P:224:LYS:HE3	18:P:229:ASN:OD1	1.88	0.73
3:A:1443:VAL:C	9:G:61:ILE:HG22	2.04	0.73
16:N:28:DT:H6	24:V:291:SER:O	1.71	0.73
1:1:447:GLN:O	1:1:452:LEU:HB3	1.88	0.73
1:1:455:SER:OG	1:1:466:ARG:HG3	1.89	0.73
22:T:134:DT:C6	24:V:323:ARG:HB2	2.24	0.72
18:P:288:LEU:HD11	18:P:328:LEU:HD11	1.71	0.72
3:A:1443:VAL:HB	9:G:62:LEU:C	2.09	0.72
3:A:416:ARG:NH2	18:P:37:ARG:NH2	2.33	0.72
2:2:248:ILE:CG1	3:A:1203:ASN:OD1	2.36	0.72
2:2:252:ASN:HB2	3:A:1206:ASP:HB2	1.69	0.72
23:U:138:ARG:CZ	24:V:57:LEU:HB2	2.19	0.72
21:S:143:LEU:CD1	21:S:144:VAL:N	2.45	0.72
2:2:277:LYS:HE2	3:A:593:GLU:OE2	1.84	0.72
18:P:320:ARG:NE	18:P:337:ASP:OD2	2.22	0.72
20:R:145:THR:C	20:R:146:GLU:OE1	2.26	0.72
21:S:127:LYS:CE	21:S:127:LYS:H	2.02	0.72
18:P:37:ARG:NH2	18:P:40:GLU:HB2	2.04	0.72
4:B:1124:ARG:HG2	18:P:60:ARG:HE	1.54	0.72
24:V:86:ASN:ND2	24:V:92:LEU:HB3	2.02	0.72
18:P:261:LYS:HB3	18:P:261:LYS:HZ2	1.53	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:35:ILE:HA	3:A:52:GLY:O	1.89	0.72
19:Q:153:THR:HG22	19:Q:154:ASP:N	2.04	0.72
18:P:184:GLU:CD	18:P:241:ARG:HG2	2.08	0.72
21:S:233:LEU:H	21:S:233:LEU:HD13	1.52	0.72
27:Y:353:SER:CA	27:Y:375:ARG:HG2	2.19	0.72
1:1:351:ASP:HB2	1:1:482:TRP:HZ3	1.52	0.72
18:P:100:GLU:OE1	18:P:101:THR:CG2	2.33	0.72
22:T:134:DT:C5	24:V:323:ARG:HD2	2.15	0.72
18:P:286:ILE:HD12	18:P:292:PRO:HA	0.76	0.72
20:R:34:PHE:HZ	20:R:134:LEU:HG	1.48	0.72
21:S:131:ALA:CA	21:S:151:LEU:CD1	2.67	0.72
24:V:61:LEU:HD22	24:V:214:ILE:HD12	1.71	0.72
22:T:140:DC:H2"	22:T:141:DC:C5	2.24	0.72
27:Y:162:LEU:HA	27:Y:195:ILE:HG12	1.69	0.72
21:S:210:LEU:CA	21:S:214:TRP:CH2	2.71	0.72
4:B:952:VAL:O	14:L:58:LYS:HB2	1.89	0.72
13:K:58:PHE:HB3	13:K:76:GLN:HB3	1.71	0.72
20:R:123:MET:SD	20:R:130:LYS:HD2	2.30	0.72
21:S:151:LEU:HD22	21:S:153:MET:CG	2.18	0.72
21:S:183:THR:HA	21:S:222:ASN:OD1	1.90	0.72
27:Y:128:VAL:CG2	27:Y:373:PRO:HD3	2.19	0.72
1:1:428:CYS:CB	1:1:434:ASN:HB2	2.15	0.72
16:N:57:DA:H2"	16:N:58:DC:C5	2.25	0.72
3:A:64:ASN:CG	18:P:18:LEU:HD13	2.09	0.72
6:D:203:SER:HB3	6:D:206:GLU:HB2	1.70	0.72
24:V:333:LEU:HD22	24:V:349:TYR:HD2	1.53	0.72
27:Y:643:ARG:HB2	27:Y:649:ARG:CB	2.14	0.72
2:2:248:ILE:HD13	3:A:1203:ASN:HD21	1.53	0.72
1:1:362:ILE:CG2	1:1:366:GLN:HB2	2.17	0.72
27:Y:290:VAL:HG22	27:Y:291:GLN:N	2.04	0.72
16:N:35:DG:H2"	16:N:36:DT:C7	2.19	0.72
18:P:279:VAL:CG2	18:P:302:LEU:CD1	2.65	0.72
21:S:162:LEU:CD2	21:S:162:LEU:H	2.02	0.72
1:1:606:ILE:CD1	1:1:690:ILE:HD12	2.18	0.72
27:Y:161:ASN:O	27:Y:167:VAL:HG21	1.90	0.72
3:A:1450:LEU:CA	9:G:18:PHE:O	2.37	0.72
1:1:446:PHE:HB2	1:1:452:LEU:CD2	2.18	0.72
1:1:475:ASP:HB2	1:1:478:THR:H	1.54	0.72
18:P:280:VAL:CG1	18:P:313:TYR:N	2.53	0.72
20:R:124:CYS:N	20:R:130:LYS:HZ1	1.85	0.72
20:R:27:LEU:HD22	20:R:129:THR:CB	2.17	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:148:ASP:HA	18:P:151:LYS:CE	2.19	0.72
18:P:43:VAL:CG2	18:P:55:LYS:NZ	2.50	0.72
16:N:27:DG:C3'	24:V:291:SER:C	2.45	0.72
1:1:495:ALA:CB	1:1:498:PHE:HD2	2.03	0.72
24:V:306:LEU:HD23	24:V:318:LEU:CD2	2.19	0.72
23:U:94:ASP:CA	23:U:95:PRO:CD	2.68	0.72
16:N:23:DA:C2	19:Q:116:PHE:HE1	2.01	0.72
3:A:317:LYS:O	4:B:471:LYS:HE3	1.89	0.72
3:A:313:GLN:HG3	18:P:98:LYS:CD	2.20	0.72
18:P:333:VAL:HG22	18:P:336:LEU:CD1	2.12	0.72
10:H:84:ALA:HA	10:H:87:ARG:HB2	1.71	0.72
20:R:126:ILE:O	20:R:128:LEU:HD22	1.89	0.72
27:Y:643:ARG:CB	27:Y:649:ARG:HB3	2.14	0.72
18:P:184:GLU:HB3	18:P:241:ARG:CG	2.15	0.72
1:1:373:MET:HA	1:1:381:SER:HA	1.72	0.72
1:1:473:VAL:N	1:1:478:THR:HG22	2.05	0.72
1:1:474:MET:HA	1:1:478:THR:C	2.10	0.72
20:R:32:ILE:HG21	20:R:89:VAL:HG23	1.71	0.72
3:A:726:ARG:HD3	3:A:766:GLY:HA3	1.72	0.72
15:M:262:LEU:HB2	15:M:279:ALA:HB3	1.72	0.72
18:P:313:TYR:C	18:P:316:LEU:CD2	2.58	0.71
21:S:129:LEU:CD2	24:V:347:PHE:CZ	2.68	0.71
1:1:773:ILE:HD12	1:1:774:GLU:C	2.06	0.71
1:1:606:ILE:HD12	1:1:690:ILE:HD11	0.72	0.71
27:Y:193:TYR:HH	27:Y:221:ARG:CZ	2.03	0.71
27:Y:495:MET:HB2	27:Y:686:PHE:CD1	2.24	0.71
18:P:226:ASP:OD1	18:P:260:ALA:CB	2.36	0.71
27:Y:72:CYS:SG	27:Y:234:PHE:HA	2.30	0.71
22:T:130:DA:C6	22:T:131:DC:O2	2.44	0.71
1:1:717:TYR:HE2	1:1:718:TYR:HE1	0.76	0.71
8:F:132:LEU:HD22	9:G:61:ILE:CG2	2.20	0.71
1:1:585:PRO:CB	1:1:756:ARG:HH22	1.96	0.71
4:B:430:ARG:HG2	23:U:326:ARG:NH1	2.05	0.71
1:1:429:THR:CB	1:1:432:PRO:HD2	2.20	0.71
16:N:39:DC:C3'	16:N:40:DT:H71	2.21	0.71
18:P:325:ASP:O	18:P:326:PRO:CG	2.38	0.71
27:Y:467:ASP:C	27:Y:470:PRO:HD2	2.10	0.71
16:N:25:DG:P	19:Q:79:ARG:NH2	2.60	0.71
18:P:105:ARG:HA	18:P:108:LYS:HE3	1.71	0.71
18:P:128:ALA:C	18:P:132:LYS:NZ	2.42	0.71
4:B:350:GLN:CG	23:U:407:ASP:HB3	2.19	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:368:LYS:CD	1:1:372:LYS:HE2	2.19	0.71
1:1:380:ARG:CA	1:1:535:LEU:HD22	2.20	0.71
27:Y:240:ILE:HG22	27:Y:473:LEU:HD11	1.72	0.71
22:T:130:DA:C6	22:T:131:DC:C2	2.79	0.71
20:R:146:GLU:OE1	20:R:146:GLU:N	2.22	0.71
21:S:154:LYS:HZ1	21:S:154:LYS:CA	1.41	0.71
22:T:140:DC:C2'	22:T:141:DC:C5	2.73	0.71
18:P:150:ALA:CA	18:P:178:ILE:CD1	2.67	0.71
27:Y:449:VAL:HG12	27:Y:456:VAL:CG2	2.17	0.71
1:1:613:TYR:OH	1:1:762:GLU:HG2	1.91	0.71
20:R:120:ASN:OD1	20:R:133:GLN:CG	2.39	0.71
20:R:27:LEU:CD2	20:R:129:THR:CB	2.68	0.71
21:S:129:LEU:HA	24:V:341:LYS:HE3	1.51	0.71
18:P:187:ARG:HB2	18:P:189:PHE:HA	1.61	0.71
3:A:315:LEU:CD1	18:P:95:ARG:O	2.38	0.71
1:1:408:ILE:HG12	1:1:475:ASP:CB	2.13	0.71
5:C:66:ARG:NH2	12:J:3:VAL:O	2.23	0.71
1:1:773:ILE:HD12	1:1:775:VAL:H	0.54	0.71
2:2:257:GLN:CD	3:A:1284:MET:HE3	2.08	0.71
4:B:1215:ARG:NE	6:D:15:LEU:HD13	1.83	0.71
27:Y:28:ILE:HB	27:Y:57:ILE:HG13	1.71	0.71
2:2:289:ALA:O	4:B:766:ARG:CZ	2.38	0.71
18:P:194:SER:OG	18:P:199:LYS:NZ	2.22	0.71
27:Y:532:ILE:O	27:Y:534:PRO:CD	2.38	0.71
3:A:50:ILE:O	3:A:52:GLY:N	2.22	0.71
23:U:347:PHE:CD2	23:U:416:LYS:HB3	2.26	0.71
2:2:254:TYR:O	3:A:706:HIS:HB2	1.90	0.71
23:U:94:ASP:N	23:U:95:PRO:CD	2.53	0.71
27:Y:212:TYR:CE2	27:Y:222:VAL:HG21	2.24	0.71
21:S:233:LEU:HD13	21:S:233:LEU:N	2.05	0.71
23:U:375:LEU:HD22	24:V:134:VAL:HG11	1.73	0.71
21:S:130:TRP:CZ3	24:V:338:THR:O	2.44	0.71
1:1:561:MET:HB2	25:W:450:ARG:HH22	0.54	0.71
3:A:414:ASP:HB3	18:P:44:VAL:HG11	1.73	0.71
27:Y:171:LEU:HD21	27:Y:181:LEU:HD22	1.72	0.71
18:P:198:VAL:HG13	18:P:202:GLU:HB3	1.72	0.71
27:Y:346:MET:C	27:Y:384:LEU:HD21	2.11	0.71
3:A:227:VAL:HG22	6:D:16:LYS:CE	2.20	0.71
16:N:55:DG:H2''	16:N:56:DT:H72	1.71	0.71
21:S:234:ARG:CG	21:S:234:ARG:HH11	2.04	0.71
4:B:1215:ARG:HD3	6:D:15:LEU:CD1	2.16	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:343:ILE:HG13	22:T:121:DG:H5"	1.68	0.71
1:1:516:THR:N	1:1:681:ARG:CD	2.52	0.71
3:A:91:PHE:HB2	3:A:96:ILE:HD11	1.72	0.71
21:S:203:LYS:CA	21:S:242:ARG:HG3	2.18	0.71
21:S:226:GLU:HG3	21:S:227:ASP:N	2.05	0.71
1:1:785:ARG:NH1	1:1:785:ARG:HG2	2.01	0.71
18:P:261:LYS:NZ	18:P:261:LYS:CB	2.53	0.71
22:T:151:DG:H2"	22:T:152:DC:C5	2.26	0.70
20:R:27:LEU:HD11	20:R:128:LEU:C	2.10	0.70
21:S:151:LEU:CD2	21:S:153:MET:HE2	2.20	0.70
18:P:187:ARG:HH21	18:P:192:ILE:CB	2.02	0.70
27:Y:167:VAL:HG22	27:Y:190:LEU:HD22	1.73	0.70
27:Y:122:LYS:HD3	27:Y:218:ILE:HD13	1.73	0.70
27:Y:692:GLN:C	27:Y:693:LEU:HD22	2.10	0.70
16:N:23:DA:H4'	19:Q:120:LYS:CD	2.16	0.70
3:A:291:GLU:CD	18:P:116:LYS:HD2	2.11	0.70
1:1:668:THR:CG2	1:1:694:LYS:HB2	2.21	0.70
23:U:96:ASN:HD22	23:U:97:GLU:N	1.89	0.70
18:P:280:VAL:HG11	18:P:313:TYR:N	2.05	0.70
27:Y:244:CYS:SG	27:Y:446:ILE:HD13	2.32	0.70
24:V:292:ILE:HA	24:V:295:PRO:CD	2.21	0.70
18:P:128:ALA:CB	18:P:132:LYS:NZ	2.53	0.70
1:1:485:ILE:HG21	1:1:505:ILE:HD13	1.72	0.70
4:B:1198:TYR:CE2	4:B:1201:LYS:HE3	2.25	0.70
27:Y:481:LYS:CD	27:Y:483:TYR:CE2	2.74	0.70
4:B:429:PHE:HA	4:B:432:MET:HE2	1.73	0.70
21:S:128:LEU:CB	24:V:341:LYS:HD2	2.20	0.70
21:S:135:ILE:CD1	21:S:180:TYR:CD2	2.60	0.70
27:Y:167:VAL:CG1	27:Y:195:ILE:CG2	2.68	0.70
27:Y:62:HIS:ND1	27:Y:69:ILE:CG1	2.54	0.70
21:S:187:HIS:CE1	21:S:222:ASN:O	2.44	0.70
23:U:355:PHE:O	23:U:356:ASP:HB3	1.89	0.70
1:1:455:SER:CB	1:1:466:ARG:HG3	2.21	0.70
1:1:476:PHE:CA	1:1:485:ILE:HB	2.20	0.70
2:2:291:GLU:N	2:2:292:PRO:CD	2.53	0.70
20:R:17:VAL:HG11	20:R:29:LEU:CD2	2.21	0.70
27:Y:450:PHE:CZ	27:Y:475:PHE:CD2	2.80	0.70
21:S:162:LEU:CD2	21:S:162:LEU:N	2.54	0.70
8:F:96:THR:HG23	9:G:66:GLY:N	2.06	0.70
2:2:248:ILE:CG1	3:A:1203:ASN:CG	2.57	0.70
4:B:430:ARG:HG2	23:U:326:ARG:HH12	1.55	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:T:134:DT:H6	24:V:323:ARG:HB2	1.55	0.70
18:P:290:GLN:O	18:P:292:PRO:HG3	1.92	0.70
20:R:142:PHE:O	20:R:144:ARG:NH2	2.25	0.70
21:S:203:LYS:CE	21:S:203:LYS:CA	2.70	0.70
21:S:130:TRP:CZ2	24:V:333:LEU:O	2.45	0.70
24:V:318:LEU:CD2	24:V:349:TYR:CZ	2.72	0.70
1:1:474:MET:HB2	1:1:480:ARG:N	2.07	0.70
1:1:500:ARG:HA	1:1:500:ARG:HE	1.56	0.70
1:1:477:LEU:HG	1:1:501:VAL:CB	2.20	0.70
20:R:144:ARG:O	20:R:145:THR:OG1	2.09	0.70
1:1:754:ARG:HH11	1:1:754:ARG:CG	0.10	0.70
1:1:754:ARG:NH1	1:1:754:ARG:CG	0.82	0.70
1:1:495:ALA:HB3	1:1:498:PHE:CD2	2.21	0.70
15:M:3:ASN:HD22	15:M:6:ALA:H	1.36	0.70
18:P:288:LEU:HD21	18:P:328:LEU:HD11	1.72	0.70
21:S:151:LEU:O	21:S:152:SER:OG	2.10	0.70
27:Y:193:TYR:OH	27:Y:221:ARG:NH1	2.24	0.70
18:P:154:TYR:CE1	18:P:171:ILE:HG21	2.27	0.70
18:P:207:LEU:O	18:P:210:MET:HG2	1.92	0.70
3:A:313:GLN:N	18:P:96:ILE:HG12	2.05	0.70
1:1:356:LEU:HG	1:1:427:TRP:CD1	2.26	0.70
24:V:82:ARG:HE	24:V:108:LEU:CD1	1.91	0.70
1:1:354:ILE:H	1:1:447:GLN:NE2	1.89	0.70
24:V:107:LEU:HG	24:V:119:GLU:HA	1.73	0.70
3:A:64:ASN:OD1	18:P:18:LEU:CB	2.40	0.70
27:Y:237:ALA:CB	27:Y:458:ILE:CG2	2.69	0.70
8:F:75:PRO:HG2	8:F:78:GLN:HB2	1.72	0.70
20:R:123:MET:HG3	20:R:130:LYS:CD	2.21	0.70
4:B:959:ASP:CG	18:P:145:ILE:HD13	2.09	0.70
18:P:145:ILE:O	18:P:149:CYS:SG	2.50	0.70
23:U:119:LEU:HD22	23:U:395:PHE:CE1	2.27	0.70
27:Y:485:MET:HG3	27:Y:486:THR:HG23	1.72	0.70
27:Y:639:LEU:CG	27:Y:653:PHE:CD2	2.62	0.70
27:Y:389:GLU:O	27:Y:400:LYS:HG2	1.92	0.70
27:Y:405:PHE:CG	27:Y:437:PHE:CE2	2.80	0.70
1:1:475:ASP:HB2	1:1:478:THR:N	2.06	0.70
1:1:474:MET:HB2	1:1:480:ARG:HA	1.73	0.70
16:N:42:DT:O4	22:T:124:DA:N1	2.25	0.69
18:P:243:CYS:SG	18:P:253:THR:HG22	2.32	0.69
18:P:22:LEU:CG	18:P:34:ILE:HD13	2.22	0.69
27:Y:111:ARG:CD	27:Y:129:VAL:HG21	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:215:ASP:O	27:Y:218:ILE:CG2	2.39	0.69
3:A:89:PRO:HG2	3:A:204:THR:CB	2.16	0.69
27:Y:463:ILE:HD11	27:Y:469:TYR:CD1	2.27	0.69
4:B:563:MET:HE2	4:B:580:VAL:HB	1.74	0.69
20:R:124:CYS:HB3	20:R:129:THR:CG2	2.21	0.69
20:R:128:LEU:N	20:R:128:LEU:HD22	2.07	0.69
27:Y:185:CYS:SG	27:Y:192:PRO:HA	2.33	0.69
27:Y:495:MET:CB	27:Y:686:PHE:CE1	2.75	0.69
23:U:373:TYR:CE2	24:V:74:PRO:HG3	2.27	0.69
21:S:175:LYS:HZ3	21:S:175:LYS:CA	1.35	0.69
18:P:326:PRO:CD	18:P:328:LEU:H	2.03	0.69
8:F:96:THR:HG23	9:G:65:ASP:CA	2.23	0.69
16:N:19:DT:OP1	19:Q:194:ILE:HD13	1.91	0.69
16:N:27:DG:H2'	16:N:28:DT:C6	2.27	0.69
21:S:183:THR:HG23	21:S:184:TYR:CD1	2.22	0.69
1:1:421:ARG:NE	1:1:430:LEU:HD11	2.07	0.69
1:1:362:ILE:HG23	1:1:366:GLN:CB	2.23	0.69
18:P:160:GLU:O	18:P:161:LYS:HG2	1.91	0.69
3:A:870:GLU:HB2	7:E:204:THR:HG21	1.75	0.69
18:P:138:ASP:OD1	18:P:139:ALA:N	2.25	0.69
18:P:187:ARG:NH2	18:P:192:ILE:CB	2.55	0.69
3:A:261:ASP:OD1	18:P:81:GLU:HB3	1.92	0.69
22:T:122:DT:C2'	22:T:123:DT:H72	2.22	0.69
1:1:373:MET:CG	1:1:381:SER:HA	2.22	0.69
1:1:410:LEU:HD22	1:1:476:PHE:CD2	2.27	0.69
1:1:466:ARG:CB	1:1:477:LEU:HB2	2.22	0.69
23:U:342:LEU:HD23	23:U:348:TYR:CE1	2.27	0.69
5:C:18:VAL:HG23	5:C:240:VAL:HB	1.74	0.69
22:T:135:DG:OP2	24:V:319:LYS:HE3	1.93	0.69
18:P:320:ARG:HG3	18:P:321:ASP:H	1.56	0.69
20:R:147:PHE:HB3	20:R:156:LEU:HD11	1.74	0.69
21:S:234:ARG:HH22	21:S:242:ARG:CG	2.05	0.69
1:1:400:ALA:CB	1:1:450:SER:HA	2.22	0.69
1:1:397:ILE:CD1	1:1:423:GLN:HE21	2.05	0.69
1:1:467:SER:HA	1:1:501:VAL:HG12	1.74	0.69
18:P:261:LYS:HB3	18:P:261:LYS:HZ1	1.55	0.69
18:P:130:PHE:CA	18:P:133:ILE:HG22	2.21	0.69
3:A:1446:ASP:H	9:G:61:ILE:HD11	1.50	0.69
3:A:411:ASP:OD2	18:P:51:VAL:O	2.10	0.69
4:B:296:GLU:HG3	23:U:124:LYS:HZ1	1.56	0.69
27:Y:656:PHE:CD1	27:Y:659:MET:SD	2.84	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:191:GLU:N	21:S:226:GLU:OE1	2.25	0.69
21:S:143:LEU:CD1	21:S:145:ASN:N	2.52	0.69
18:P:60:ARG:O	18:P:62:GLU:OE1	2.09	0.69
1:1:351:ASP:HB2	1:1:482:TRP:CZ3	2.28	0.69
1:1:408:ILE:HG21	1:1:476:PHE:N	2.07	0.69
1:1:475:ASP:OD2	1:1:478:THR:HB	1.93	0.69
1:1:496:ALA:HA	1:1:499:ARG:HH12	1.57	0.69
18:P:243:CYS:CB	18:P:253:THR:HG22	2.23	0.69
20:R:46:LEU:CG	20:R:132:THR:HG23	2.22	0.69
3:A:404:TYR:OH	18:P:40:GLU:CB	2.40	0.69
18:P:226:ASP:CG	18:P:260:ALA:HB3	2.02	0.69
18:P:150:ALA:HB1	18:P:178:ILE:HD11	1.75	0.69
4:B:1124:ARG:HB3	18:P:60:ARG:HH21	1.58	0.69
18:P:313:TYR:HA	18:P:316:LEU:HD21	1.74	0.69
21:S:203:LYS:CE	21:S:203:LYS:C	2.61	0.69
19:Q:99:PHE:CG	22:T:143:DT:C5'	2.76	0.69
27:Y:215:ASP:HB3	27:Y:218:ILE:HG21	1.75	0.69
27:Y:495:MET:HB2	27:Y:686:PHE:CE1	2.27	0.69
21:S:233:LEU:CD1	21:S:245:TRP:O	2.40	0.69
18:P:207:LEU:CD2	19:Q:186:GLU:OE1	2.36	0.69
21:S:143:LEU:HD13	21:S:145:ASN:H	1.58	0.69
1:1:407:VAL:HG12	1:1:448:THR:HA	1.74	0.69
27:Y:72:CYS:SG	27:Y:234:PHE:HD1	2.14	0.69
27:Y:564:TRP:CD1	27:Y:599:LEU:HD12	2.28	0.69
3:A:1197:LEU:HD11	3:A:1238:ILE:HD11	1.74	0.69
24:V:140:LEU:O	24:V:210:LYS:CB	2.40	0.69
1:1:316:PHE:CZ	1:1:321:GLU:HA	2.27	0.69
9:G:1:MET:SD	9:G:2:PHE:N	2.63	0.69
1:1:386:LEU:HB3	1:1:387:PRO:HD2	1.75	0.69
9:G:1:MET:HE1	9:G:80:LYS:O	1.92	0.69
18:P:88:ASP:OD1	18:P:89:GLY:N	2.26	0.69
20:R:71:LYS:O	20:R:71:LYS:HD2	1.93	0.69
16:N:41:DA:H2"	16:N:42:DT:C5'	2.23	0.69
3:A:291:GLU:CG	18:P:116:LYS:CE	2.57	0.69
24:V:306:LEU:CD1	24:V:313:TRP:CZ3	2.72	0.68
1:1:561:MET:N	25:W:450:ARG:HH12	1.91	0.68
4:B:430:ARG:CG	23:U:326:ARG:HH12	2.07	0.68
27:Y:267:LEU:O	27:Y:268:ASP:CB	2.40	0.68
25:W:447:GLU:N	26:X:13:ASP:OD2	2.26	0.68
3:A:227:VAL:HG11	6:D:16:LYS:HG2	1.69	0.68
1:1:298:GLY:O	1:1:346:ASP:HB2	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:53:LEU:CD2	3:A:54:ASN:H	2.06	0.68
23:U:375:LEU:CD2	24:V:134:VAL:HG11	2.23	0.68
25:W:488:LYS:NZ	26:X:35:LEU:O	2.26	0.68
18:P:185:VAL:HG13	18:P:186:ALA:N	2.08	0.68
4:B:106:ASP:HA	18:P:184:GLU:CG	2.24	0.68
22:T:139:DC:H2'	22:T:140:DC:C6	2.28	0.68
2:2:307:LYS:HE2	3:A:1359:ASP:O	1.93	0.68
27:Y:538:VAL:HG22	27:Y:597:ILE:HB	1.74	0.68
21:S:130:TRP:HE3	24:V:338:THR:C	1.97	0.68
4:B:106:ASP:HB2	18:P:231:SER:OG	1.94	0.68
18:P:29:VAL:HG12	18:P:32:PRO:HD2	1.74	0.68
24:V:69:TRP:HB2	24:V:219:CYS:HG	1.56	0.68
16:N:27:DG:C3'	24:V:291:SER:O	2.41	0.68
4:B:885:MET:HB2	18:P:33:LYS:HZ1	1.55	0.68
1:1:516:THR:CA	1:1:681:ARG:NE	2.44	0.68
21:S:166:LEU:HD13	21:S:167:ASP:N	2.08	0.68
21:S:164:LYS:HZ3	21:S:165:LYS:HG2	1.56	0.68
27:Y:62:HIS:CD2	27:Y:62:HIS:C	2.67	0.68
1:1:448:THR:O	1:1:452:LEU:HB2	1.92	0.68
1:1:473:VAL:O	1:1:478:THR:HB	1.92	0.68
1:1:485:ILE:HD11	1:1:510:LYS:CG	2.24	0.68
21:S:166:LEU:C	21:S:166:LEU:HD12	2.14	0.68
7:E:185:ALA:HA	7:E:190:LEU:HD12	1.74	0.68
2:2:283:GLN:NE2	3:A:756:ILE:HD13	2.06	0.68
23:U:94:ASP:CA	23:U:95:PRO:HD3	2.23	0.68
21:S:184:TYR:HB3	21:S:219:GLU:HG3	1.75	0.68
4:B:343:ILE:CD1	22:T:122:DT:P	2.74	0.68
1:1:571:ARG:HD3	1:1:571:ARG:N	2.08	0.68
3:A:1443:VAL:CG2	9:G:63:PRO:HB3	2.16	0.68
18:P:51:VAL:HG22	18:P:52:LEU:N	2.09	0.68
18:P:263:CYS:C	18:P:264:LYS:HD3	2.13	0.68
21:S:230:ILE:HG22	21:S:232:VAL:CG1	2.24	0.68
1:1:373:MET:HG3	1:1:381:SER:CA	2.23	0.68
1:1:456:THR:O	1:1:465:ASN:HB3	1.94	0.68
1:1:439:THR:HG23	1:1:465:ASN:HD22	1.58	0.68
1:1:476:PHE:CD1	1:1:487:LEU:HD11	2.28	0.68
23:U:103:LEU:CD2	24:V:92:LEU:HD11	2.16	0.68
1:1:310:ILE:CD1	1:1:313:VAL:HG23	2.24	0.68
18:P:302:LEU:N	18:P:303:GLN:OE1	2.14	0.68
18:P:314:LYS:O	18:P:318:GLU:OE2	2.11	0.68
21:S:203:LYS:NZ	21:S:204:GLY:O	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:248:LEU:HD21	27:Y:445:ALA:CB	2.20	0.68
21:S:179:LYS:H	21:S:179:LYS:HD3	1.58	0.68
1:1:405:LYS:CD	1:1:483:GLY:HA3	2.19	0.68
22:T:134:DT:OP2	24:V:320:GLU:O	2.12	0.68
24:V:306:LEU:HG	24:V:313:TRP:CD2	2.29	0.68
27:Y:244:CYS:SG	27:Y:446:ILE:HB	2.34	0.68
18:P:30:TYR:CD2	18:P:30:TYR:O	2.47	0.68
2:2:190:THR:CA	7:E:50:MET:HE2	2.24	0.68
27:Y:95:LYS:NZ	27:Y:173:LYS:O	2.26	0.68
3:A:445:ASN:HB2	3:A:455:MET:HG2	1.76	0.68
21:S:203:LYS:HZ2	21:S:203:LYS:C	1.97	0.68
27:Y:167:VAL:CG1	27:Y:195:ILE:HG21	2.23	0.68
1:1:466:ARG:HB2	1:1:477:LEU:HB2	1.76	0.68
1:1:476:PHE:HA	1:1:485:ILE:CB	2.24	0.68
1:1:476:PHE:HB2	1:1:485:ILE:HB	1.76	0.68
1:1:522:ASP:HA	1:1:524:ILE:CD1	2.24	0.68
7:E:4:GLU:HB3	7:E:7:ARG:HE	1.59	0.68
19:Q:109:PRO:HG2	19:Q:135:ALA:HB2	1.74	0.68
20:R:123:MET:HG3	20:R:130:LYS:HD2	1.76	0.68
24:V:306:LEU:CD2	24:V:318:LEU:CD2	2.72	0.68
27:Y:62:HIS:ND1	27:Y:69:ILE:HG12	2.08	0.68
3:A:1451:VAL:CG1	9:G:20:PRO:HB3	2.24	0.68
1:1:383:ILE:HG22	1:1:512:GLY:CA	2.24	0.68
1:1:695:ARG:CA	1:1:696:ARG:CZ	2.71	0.68
17:O:38:MET:O	17:O:42:GLU:HG3	1.94	0.68
18:P:164:LYS:HG2	18:P:166:LYS:CA	2.23	0.68
1:1:740:HIS:CD2	1:1:740:HIS:O	2.47	0.68
18:P:289:PHE:CE1	18:P:291:ILE:CG1	2.78	0.67
21:S:164:LYS:NZ	21:S:165:LYS:CG	2.42	0.67
18:P:154:TYR:O	18:P:157:CYS:SG	2.52	0.67
1:1:477:LEU:CB	1:1:501:VAL:HB	2.24	0.67
3:A:140:THR:HA	3:A:143:LYS:HE2	1.75	0.67
3:A:347:PHE:HE1	3:A:375:THR:HG22	1.60	0.67
5:C:259:LEU:HD22	13:K:91:CYS:HB3	1.75	0.67
18:P:287:LEU:HA	18:P:292:PRO:HG2	1.76	0.67
18:P:303:GLN:CD	18:P:304:VAL:H	1.98	0.67
20:R:124:CYS:HB2	20:R:129:THR:HG23	1.77	0.67
24:V:318:LEU:HD11	24:V:349:TYR:CZ	2.29	0.67
27:Y:656:PHE:HA	27:Y:659:MET:CE	2.24	0.67
1:1:519:ARG:HG3	1:1:524:ILE:HG22	1.77	0.67
23:U:377:SER:HA	24:V:70:LEU:HD22	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:871:ASP:HB3	7:E:204:THR:HG23	1.76	0.67
18:P:298:VAL:HG12	18:P:302:LEU:HD11	1.76	0.67
27:Y:639:LEU:HD21	27:Y:649:ARG:CG	2.21	0.67
16:N:16:DC:H2'	16:N:17:DT:C5	2.28	0.67
27:Y:182:LEU:HD12	27:Y:192:PRO:HG2	1.75	0.67
18:P:170:SER:OG	18:P:205:LYS:CE	2.41	0.67
1:1:410:LEU:HD22	1:1:476:PHE:HD2	1.60	0.67
9:G:138:THR:HG22	9:G:139:ILE:H	1.59	0.67
20:R:119:PRO:O	20:R:120:ASN:HB2	1.94	0.67
20:R:147:PHE:CB	20:R:156:LEU:HD11	2.23	0.67
21:S:151:LEU:O	21:S:151:LEU:CD2	2.39	0.67
2:2:253:LEU:CD2	3:A:1132:LYS:HD2	2.16	0.67
3:A:1443:VAL:HG13	9:G:61:ILE:HG22	1.76	0.67
27:Y:400:LYS:HD2	27:Y:437:PHE:HE2	1.51	0.67
27:Y:656:PHE:O	27:Y:659:MET:HG2	1.93	0.67
16:N:23:DA:C3'	19:Q:120:LYS:CD	2.66	0.67
21:S:231:LEU:CD2	21:S:232:VAL:CG1	2.58	0.67
18:P:128:ALA:HB1	18:P:132:LYS:HZ2	1.56	0.67
21:S:200:VAL:O	21:S:201:THR:CG2	2.42	0.67
1:1:407:VAL:HG13	1:1:451:GLY:HA2	1.76	0.67
1:1:434:ASN:HB3	1:1:449:GLU:OE1	1.95	0.67
1:1:455:SER:CB	1:1:466:ARG:HH11	2.01	0.67
1:1:476:PHE:CD2	1:1:477:LEU:HD12	2.29	0.67
23:U:107:PRO:HA	24:V:90:GLN:OE1	1.94	0.67
18:P:252:VAL:CG1	18:P:285:ASN:OD1	2.42	0.67
18:P:338:ASN:O	18:P:340:PRO:HD2	1.93	0.67
24:V:333:LEU:HB3	24:V:337:ALA:CB	2.25	0.67
27:Y:185:CYS:SG	27:Y:192:PRO:CA	2.82	0.67
2:2:248:ILE:HD13	3:A:1203:ASN:ND2	2.09	0.67
3:A:344:ARG:HA	4:B:1128:LEU:O	1.93	0.67
18:P:333:VAL:HG13	18:P:336:LEU:HD13	1.75	0.67
2:2:218:ILE:CA	2:2:219:ALA:CA	2.73	0.67
19:Q:141:ARG:HD3	19:Q:141:ARG:O	1.93	0.67
24:V:333:LEU:HA	24:V:337:ALA:HB2	1.76	0.67
2:2:257:GLN:HA	3:A:1284:MET:HB2	1.76	0.67
1:1:757:ARG:HH22	1:1:760:LEU:HG	0.50	0.67
27:Y:212:TYR:CZ	27:Y:222:VAL:HG21	2.29	0.67
18:P:63:TRP:CD1	18:P:81:GLU:HA	2.29	0.67
1:1:477:LEU:CG	1:1:501:VAL:HB	2.25	0.67
1:1:477:LEU:HG	1:1:501:VAL:HB	1.74	0.67
17:O:44:PHE:O	17:O:48:VAL:HG23	1.93	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:123:MET:CA	20:R:130:LYS:CD	2.73	0.67
2:2:253:LEU:HD12	3:A:1132:LYS:HZ3	1.60	0.67
22:T:140:DC:H2'	22:T:141:DC:H5	1.60	0.67
27:Y:656:PHE:HA	27:Y:659:MET:HE3	1.76	0.67
23:U:135:LEU:CB	23:U:136:PRO:HD3	2.25	0.67
3:A:63:ARG:O	18:P:20:ILE:CG1	2.41	0.67
27:Y:517:SER:O	27:Y:522:TYR:CD2	2.43	0.67
22:T:155:DC:H6	22:T:155:DC:O5'	1.78	0.67
3:A:132:LYS:HZ2	3:A:1415:SER:CB	2.08	0.67
21:S:160:ILE:O	21:S:160:ILE:CD1	2.42	0.67
19:Q:99:PHE:CD2	22:T:143:DT:C5'	2.78	0.67
27:Y:61:MET:C	27:Y:64:PRO:HD2	2.14	0.67
24:V:292:ILE:HA	24:V:295:PRO:HD2	1.75	0.67
27:Y:492:PHE:CZ	27:Y:707:ASN:OD1	2.48	0.67
21:S:191:GLU:O	21:S:195:LEU:HD23	1.93	0.67
18:P:93:SER:HB3	18:P:114:GLN:CD	2.15	0.67
1:1:403:ILE:HD13	1:1:484:PHE:CD2	2.30	0.67
1:1:672:GLN:OE1	1:1:686:ARG:NH2	2.27	0.67
23:U:358:TYR:CG	23:U:359:ASN:N	2.61	0.67
18:P:252:VAL:HG13	18:P:285:ASN:OD1	1.95	0.67
21:S:156:ASP:O	21:S:160:ILE:HG13	1.95	0.67
3:A:404:TYR:OH	18:P:40:GLU:CG	2.43	0.67
4:B:1221:SER:N	6:D:14:ARG:HH22	1.91	0.67
23:U:119:LEU:HD23	24:V:135:PHE:HE2	1.59	0.67
27:Y:413:GLU:O	27:Y:414:GLU:HB2	1.94	0.67
21:S:125:SER:C	21:S:127:LYS:HZ2	1.97	0.67
18:P:205:LYS:O	18:P:209:ILE:HG23	1.95	0.67
1:1:303:ARG:HG2	1:1:504:THR:CB	2.22	0.67
21:S:166:LEU:CD1	21:S:167:ASP:N	2.58	0.67
24:V:140:LEU:O	24:V:210:LYS:HB3	1.95	0.67
18:P:279:VAL:CG1	18:P:302:LEU:HD22	2.24	0.66
4:B:959:ASP:CB	18:P:182:ARG:HH11	1.84	0.66
3:A:1443:VAL:HG12	9:G:61:ILE:HG23	1.76	0.66
21:S:237:LYS:HZ3	21:S:241:PRO:CG	2.06	0.66
21:S:175:LYS:CE	21:S:175:LYS:CA	2.10	0.66
3:A:317:LYS:N	18:P:92:LEU:CD2	2.55	0.66
27:Y:124:ARG:HD3	27:Y:374:LEU:HD23	1.77	0.66
18:P:58:ASP:OD1	18:P:60:ARG:CG	2.32	0.66
2:2:290:ASP:HA	4:B:766:ARG:HH22	1.57	0.66
27:Y:566:HIS:CE1	27:Y:569:ILE:CG1	2.77	0.66
2:2:302:CYS:SG	2:2:304:ASN:ND2	2.68	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:159:ASP:OD1	18:P:160:GLU:N	2.28	0.66
22:T:134:DT:C6	24:V:323:ARG:CB	2.77	0.66
20:R:44:LYS:NZ	20:R:49:ILE:HB	2.11	0.66
18:P:130:PHE:HA	18:P:133:ILE:HG21	1.76	0.66
21:S:129:LEU:CG	24:V:341:LYS:HE2	2.23	0.66
27:Y:639:LEU:HD12	27:Y:653:PHE:HE2	0.82	0.66
27:Y:346:MET:O	27:Y:384:LEU:CD2	2.42	0.66
1:1:356:LEU:CG	1:1:427:TRP:HD1	2.07	0.66
1:1:427:TRP:HB2	1:1:449:GLU:CD	2.15	0.66
18:P:163:LEU:O	18:P:163:LEU:CD2	2.35	0.66
20:R:34:PHE:CZ	20:R:134:LEU:HD11	2.07	0.66
19:Q:99:PHE:CD2	22:T:143:DT:C4'	2.61	0.66
18:P:29:VAL:O	18:P:30:TYR:CD1	2.48	0.66
27:Y:28:ILE:HG21	27:Y:57:ILE:CG2	2.24	0.66
27:Y:59:TYR:HA	27:Y:62:HIS:CE1	2.31	0.66
21:S:187:HIS:CE1	21:S:226:GLU:N	2.63	0.66
21:S:138:LYS:HB3	21:S:138:LYS:HZ2	1.41	0.66
1:1:370:LEU:HD11	1:1:398:THR:CG2	2.25	0.66
4:B:296:GLU:OE1	23:U:124:LYS:CE	2.44	0.66
4:B:433:GLN:CD	23:U:326:ARG:CD	2.59	0.66
21:S:233:LEU:C	21:S:233:LEU:CD2	2.64	0.66
27:Y:346:MET:O	27:Y:384:LEU:HD21	1.95	0.66
18:P:121:LYS:O	18:P:122:LYS:CG	2.43	0.66
8:F:106:PRO:HG2	9:G:16:SER:O	1.87	0.66
24:V:79:GLU:OE2	24:V:106:LEU:HD23	1.95	0.66
18:P:286:ILE:HG21	18:P:293:ILE:HG12	1.78	0.66
20:R:120:ASN:OD1	20:R:133:GLN:HG2	1.95	0.66
18:P:133:ILE:CD1	18:P:151:LYS:HG2	2.24	0.66
21:S:131:ALA:O	21:S:135:ILE:HG23	1.94	0.66
21:S:160:ILE:O	21:S:160:ILE:HD12	1.93	0.66
18:P:42:ASP:O	18:P:43:VAL:HG22	1.95	0.66
27:Y:162:LEU:HD23	27:Y:195:ILE:CG1	2.24	0.66
27:Y:56:THR:HG22	27:Y:60:GLN:NE2	2.10	0.66
18:P:226:ASP:OD1	18:P:260:ALA:HB1	1.95	0.66
18:P:196:ILE:HG23	18:P:197:HIS:N	2.10	0.66
24:V:105:THR:OG1	24:V:119:GLU:HG2	1.95	0.66
27:Y:170:TYR:HD2	27:Y:176:PHE:HZ	1.41	0.66
27:Y:171:LEU:CB	27:Y:172:PRO:HD3	2.22	0.66
3:A:1451:VAL:HA	9:G:19:GLY:HA2	1.75	0.66
3:A:15:LYS:NZ	4:B:1220:ARG:HE	1.93	0.66
21:S:142:VAL:O	21:S:177:THR:OG1	2.14	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:164:LYS:HG2	18:P:166:LYS:HB3	1.76	0.66
16:N:33:DA:H2'	16:N:34:DT:H72	1.77	0.66
18:P:298:VAL:HG12	18:P:302:LEU:CG	2.26	0.66
3:A:1445:ILE:H	9:G:68:ALA:HA	1.60	0.66
18:P:184:GLU:CD	18:P:231:SER:CB	2.64	0.66
19:Q:114:LEU:CB	22:T:143:DT:O2	2.42	0.66
3:A:312:PRO:HA	18:P:96:ILE:CG2	2.25	0.66
27:Y:123:GLU:OE1	27:Y:217:LYS:NZ	2.27	0.66
20:R:31:ALA:O	20:R:34:PHE:HB3	1.96	0.66
19:Q:114:LEU:CD2	22:T:143:DT:H2'	2.26	0.66
3:A:57:ARG:O	3:A:68:GLN:HG2	1.96	0.66
22:T:134:DT:H6	24:V:323:ARG:CB	2.09	0.66
20:R:44:LYS:HE3	20:R:54:LEU:HD13	1.78	0.66
18:P:223:LEU:CD1	19:Q:173:GLU:HB3	2.24	0.66
3:A:311:GLN:HG3	3:A:312:PRO:HD2	1.77	0.66
18:P:128:ALA:HB1	18:P:132:LYS:HZ1	1.61	0.66
23:U:376:LEU:HG	24:V:73:LEU:HD21	1.77	0.66
1:1:452:LEU:HD23	1:1:452:LEU:O	1.96	0.66
2:2:289:ALA:O	4:B:769:TYR:HE2	1.18	0.66
27:Y:541:PHE:CZ	27:Y:599:LEU:HD22	2.30	0.66
16:N:39:DC:H3'	16:N:40:DT:H71	1.76	0.66
3:A:414:ASP:HB2	18:P:44:VAL:HG11	1.77	0.66
27:Y:171:LEU:HD21	27:Y:181:LEU:CD2	2.26	0.66
21:S:181:LEU:HD23	21:S:181:LEU:C	2.16	0.66
21:S:244:VAL:N	21:S:245:TRP:CZ3	2.63	0.66
18:P:87:LEU:CG	18:P:126:VAL:HG21	2.26	0.66
27:Y:555:GLN:HG2	27:Y:562:GLU:OE2	1.96	0.66
21:S:158:LYS:CE	21:S:162:LEU:HG	2.25	0.65
3:A:1442:ASP:HB2	8:F:137:TYR:HE1	1.61	0.65
3:A:416:ARG:NH1	18:P:37:ARG:HE	1.88	0.65
18:P:22:LEU:CD1	18:P:43:VAL:HG21	2.09	0.65
4:B:296:GLU:O	4:B:300:HIS:HD2	1.80	0.65
18:P:95:ARG:O	18:P:95:ARG:HG3	1.94	0.65
1:1:353:ASP:HB2	1:1:448:THR:OG1	1.96	0.65
1:1:356:LEU:HD12	1:1:427:TRP:HB3	1.78	0.65
5:C:56:THR:HG21	5:C:145:CYS:SG	2.36	0.65
3:A:388:LEU:O	3:A:392:VAL:HG23	1.96	0.65
16:N:39:DC:O5'	16:N:39:DC:H6	1.78	0.65
18:P:280:VAL:HG11	18:P:313:TYR:HA	1.76	0.65
16:N:16:DC:H2''	16:N:17:DT:C5'	2.25	0.65
17:O:4:PRO:HD2	24:V:357:LYS:HB3	0.68	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:430:LEU:O	1:1:430:LEU:HD23	1.96	0.65
1:1:439:THR:HG22	1:1:440:SER:N	2.10	0.65
20:R:67:ILE:H	20:R:67:ILE:HD13	1.60	0.65
20:R:68:SER:HB3	20:R:90:LYS:NZ	2.12	0.65
18:P:159:ASP:O	18:P:160:GLU:HB3	1.96	0.65
23:U:312:VAL:HG22	23:U:335:LEU:HG	1.78	0.65
20:R:126:ILE:CB	20:R:154:GLU:HG2	2.24	0.65
24:V:59:LEU:HD23	24:V:214:ILE:HD11	1.78	0.65
27:Y:495:MET:HB3	27:Y:686:PHE:CD1	2.24	0.65
27:Y:289:LEU:HD21	27:Y:352:ILE:HG13	1.78	0.65
27:Y:353:SER:HB2	27:Y:378:SER:CA	2.24	0.65
1:1:351:ASP:CB	1:1:482:TRP:HZ3	2.09	0.65
1:1:408:ILE:HD11	1:1:466:ARG:CD	2.25	0.65
1:1:459:MET:C	1:1:464:ARG:HG3	2.17	0.65
3:A:204:THR:HG22	3:A:235:ILE:HG21	1.79	0.65
2:2:265:VAL:HG11	2:2:278:LYS:HA	1.76	0.65
3:A:46:THR:HG22	3:A:47:ARG:H	1.61	0.65
4:B:872:GLU:HG2	4:B:916:THR:HG22	1.78	0.65
16:N:16:DC:H6	16:N:16:DC:O5'	1.78	0.65
22:T:141:DC:H2''	22:T:142:DC:C5'	2.26	0.65
3:A:419:LYS:CE	18:P:47:LEU:HA	2.25	0.65
18:P:42:ASP:H	18:P:55:LYS:CG	2.10	0.65
27:Y:681:LEU:HD21	27:Y:696:TRP:CH2	2.31	0.65
4:B:433:GLN:HB2	23:U:326:ARG:CZ	2.27	0.65
21:S:134:TYR:CZ	21:S:138:LYS:NZ	2.64	0.65
1:1:385:VAL:O	1:1:386:LEU:HD23	1.97	0.65
1:1:356:LEU:HD23	1:1:448:THR:HG21	1.76	0.65
1:1:455:SER:HB3	1:1:466:ARG:HD3	1.77	0.65
20:R:140:LEU:HD13	20:R:147:PHE:CE1	2.32	0.65
24:V:333:LEU:CA	24:V:337:ALA:HB3	2.27	0.65
18:P:184:GLU:CG	18:P:241:ARG:CG	2.56	0.65
27:Y:493:LEU:HB3	27:Y:696:TRP:CD1	2.31	0.65
1:1:485:ILE:HG23	1:1:507:ALA:CB	2.26	0.65
1:1:505:ILE:HG21	1:1:507:ALA:HB3	1.78	0.65
23:U:96:ASN:HB3	23:U:98:TYR:CE2	2.31	0.65
1:1:677:TYR:O	1:1:677:TYR:CD1	2.50	0.65
2:2:253:LEU:HB3	3:A:1132:LYS:CE	2.27	0.65
3:A:404:TYR:OH	18:P:40:GLU:HG3	1.96	0.65
4:B:1215:ARG:CD	6:D:15:LEU:HD12	2.15	0.65
18:P:150:ALA:CA	18:P:178:ILE:HD11	2.27	0.65
1:1:373:MET:HG3	1:1:381:SER:CB	2.27	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:410:LEU:CB	1:1:466:ARG:HH22	2.07	0.65
4:B:74:LEU:H	23:U:313:ALA:H	1.43	0.65
3:A:264:PHE:CE2	18:P:90:ASN:O	2.50	0.65
21:S:203:LYS:HZ2	21:S:204:GLY:CA	2.09	0.65
21:S:203:LYS:C	21:S:203:LYS:NZ	2.50	0.65
24:V:306:LEU:HG	24:V:313:TRP:NE1	2.10	0.65
4:B:433:GLN:HB2	23:U:326:ARG:NH2	2.12	0.65
3:A:316:GLN:O	3:A:318:SER:N	2.30	0.65
4:B:343:ILE:CD1	22:T:121:DG:C3'	2.74	0.65
1:1:352:LEU:O	1:1:447:GLN:HB3	1.95	0.65
1:1:473:VAL:CG1	1:1:481:GLU:HG3	2.27	0.65
19:Q:220:ARG:HD3	19:Q:224:TYR:CE2	2.32	0.65
1:1:455:SER:HB3	1:1:466:ARG:NH1	2.00	0.65
1:1:476:PHE:O	1:1:505:ILE:HD11	1.97	0.65
24:V:108:LEU:HD12	24:V:118:HIS:HE1	1.60	0.65
14:L:61:THR:CG2	14:L:63:ARG:HG2	2.26	0.65
9:G:1:MET:CE	9:G:80:LYS:O	2.45	0.65
16:N:40:DT:O5'	16:N:40:DT:H6	1.80	0.65
18:P:279:VAL:HG21	18:P:303:GLN:HE22	1.62	0.65
21:S:203:LYS:CA	21:S:242:ARG:CG	2.75	0.65
27:Y:185:CYS:SG	27:Y:192:PRO:HG3	2.36	0.65
27:Y:213:LEU:O	27:Y:213:LEU:HD13	1.96	0.65
16:N:28:DT:OP2	24:V:295:PRO:HD3	1.96	0.65
16:N:23:DA:H2	19:Q:116:PHE:HE1	1.40	0.65
27:Y:289:LEU:HB3	27:Y:348:VAL:CG1	2.26	0.65
1:1:411:CYS:O	1:1:456:THR:HA	1.97	0.65
1:1:476:PHE:CB	1:1:485:ILE:HB	2.27	0.65
27:Y:564:TRP:NE1	27:Y:599:LEU:HD12	2.11	0.65
20:R:44:LYS:CE	20:R:44:LYS:HA	2.16	0.65
27:Y:167:VAL:CG2	27:Y:190:LEU:HD22	2.27	0.65
18:P:196:ILE:HD11	18:P:197:HIS:HD2	1.61	0.65
18:P:206:THR:HG23	18:P:209:ILE:HD11	1.79	0.65
1:1:487:LEU:HD23	1:1:490:VAL:HG23	1.76	0.65
3:A:1433:MET:HE2	4:B:1145:SER:OG	1.97	0.65
3:A:1409:LEU:HD13	4:B:1207:LEU:HD21	1.79	0.65
20:R:124:CYS:CB	20:R:129:THR:CG2	2.75	0.64
18:P:22:LEU:HD22	18:P:34:ILE:CG2	2.27	0.64
21:S:200:VAL:C	21:S:201:THR:CG2	2.65	0.64
1:1:456:THR:HB	1:1:465:ASN:ND2	2.11	0.64
20:R:37:VAL:HG12	20:R:88:TYR:HB2	1.77	0.64
18:P:286:ILE:HD12	18:P:292:PRO:C	2.17	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:338:ASN:C	18:P:340:PRO:HD2	2.18	0.64
20:R:40:GLU:HA	20:R:54:LEU:HD23	1.79	0.64
4:B:959:ASP:O	18:P:182:ARG:NH1	2.30	0.64
18:P:34:ILE:HD11	18:P:43:VAL:CG1	2.27	0.64
21:S:183:THR:HG22	21:S:184:TYR:CD1	2.32	0.64
18:P:202:GLU:HG3	18:P:205:LYS:HZ1	1.61	0.64
1:1:466:ARG:HD2	1:1:475:ASP:OD2	1.96	0.64
4:B:887:HIS:HE1	18:P:38:PHE:CB	2.08	0.64
18:P:204:GLY:O	18:P:208:ASN:ND2	2.30	0.64
15:M:249:ASP:OD1	15:M:263:LYS:HE3	1.97	0.64
4:B:996:ARG:HG3	4:B:1007:VAL:HG11	1.79	0.64
1:1:415:VAL:HA	1:1:418:MET:CE	2.28	0.64
4:B:857:ARG:NH1	4:B:945:GLU:OE2	2.29	0.64
22:T:135:DG:P	24:V:319:LYS:HE3	2.37	0.64
24:V:333:LEU:CA	24:V:337:ALA:CB	2.75	0.64
27:Y:32:LEU:HD12	27:Y:57:ILE:HD11	1.79	0.64
16:N:28:DT:P	24:V:291:SER:O	2.55	0.64
3:A:317:LYS:H	18:P:92:LEU:CD2	2.03	0.64
27:Y:353:SER:CB	27:Y:375:ARG:HG2	2.26	0.64
21:S:143:LEU:HD13	21:S:144:VAL:CA	2.27	0.64
23:U:372:SER:CB	24:V:80:LYS:HZ3	1.91	0.64
1:1:453:VAL:HG21	1:1:482:TRP:HZ2	1.62	0.64
1:1:456:THR:HG22	1:1:457:TYR:H	1.63	0.64
18:P:152:GLU:CA	18:P:155:LYS:HE3	2.27	0.64
3:A:192:GLY:CA	22:T:116:DG:H3'	2.28	0.64
18:P:277:ILE:O	18:P:277:ILE:CD1	2.44	0.64
16:N:69:DG:OP1	26:X:62:ILE:O	2.15	0.64
23:U:377:SER:HA	24:V:70:LEU:CD2	2.27	0.64
19:Q:221:GLU:O	19:Q:225:GLN:HG3	1.96	0.64
16:N:40:DT:H2'	16:N:41:DA:C8	2.32	0.64
22:T:152:DC:H2'	22:T:153:DG:C8	2.32	0.64
24:V:306:LEU:CG	24:V:313:TRP:CD2	2.80	0.64
24:V:333:LEU:CD2	24:V:349:TYR:CD2	2.79	0.64
8:F:92:ARG:NH2	9:G:64:THR:N	2.46	0.64
20:R:46:LEU:HD23	20:R:132:THR:HG21	1.70	0.64
2:2:269:PHE:HE2	2:2:297:CYS:SG	2.14	0.64
18:P:150:ALA:CB	18:P:178:ILE:HD11	2.28	0.64
27:Y:506:ILE:HB	27:Y:522:TYR:CD2	2.33	0.64
21:S:154:LYS:CA	21:S:154:LYS:HZ2	1.00	0.64
27:Y:445:ALA:O	27:Y:448:PRO:HD2	1.96	0.64
2:2:283:GLN:NE2	3:A:756:ILE:CD1	2.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:215:ASP:HB3	27:Y:218:ILE:HG22	1.78	0.64
1:1:476:PHE:HD2	1:1:477:LEU:CD1	2.11	0.64
3:A:64:ASN:OD1	18:P:18:LEU:CD1	2.44	0.64
16:N:38:DT:H2"	16:N:39:DC:C5	2.32	0.64
18:P:303:GLN:CD	18:P:304:VAL:N	2.50	0.64
18:P:34:ILE:O	18:P:35:VAL:HB	1.97	0.64
3:A:419:LYS:HZ1	18:P:47:LEU:CA	2.11	0.64
27:Y:193:TYR:HE2	27:Y:197:ARG:NH1	1.95	0.64
2:2:235:ASP:CA	2:2:242:LYS:HE3	2.26	0.64
27:Y:289:LEU:CB	27:Y:348:VAL:HG11	2.28	0.64
21:S:143:LEU:HD12	21:S:145:ASN:N	2.12	0.64
1:1:527:LEU:CD2	1:1:531:ILE:HD12	2.14	0.64
20:R:17:VAL:HG12	20:R:66:LEU:CD2	2.26	0.64
20:R:90:LYS:HB3	20:R:93:HIS:HB2	1.79	0.64
17:O:87:VAL:CG1	17:O:88:GLU:H	2.09	0.64
18:P:322:LYS:CD	18:P:322:LYS:N	2.61	0.64
4:B:806:THR:HG22	4:B:808:ALA:H	1.63	0.64
18:P:280:VAL:HG13	18:P:313:TYR:HB2	1.79	0.64
18:P:22:LEU:HD21	18:P:34:ILE:HG21	1.79	0.64
27:Y:495:MET:SD	27:Y:696:TRP:HE3	2.14	0.64
3:A:291:GLU:CD	18:P:116:LYS:HE2	2.18	0.64
18:P:198:VAL:CG1	18:P:202:GLU:HB3	2.28	0.64
2:2:307:LYS:CG	3:A:1359:ASP:O	2.45	0.64
1:1:343:PHE:HE2	1:1:345:ASN:HB2	1.63	0.64
1:1:456:THR:HG22	1:1:457:TYR:N	2.13	0.64
1:1:474:MET:N	1:1:481:GLU:H	1.87	0.64
3:A:192:GLY:O	22:T:117:DC:OP2	2.16	0.64
27:Y:569:ILE:HG21	27:Y:579:THR:OG1	1.98	0.64
23:U:342:LEU:HD12	23:U:413:MET:CE	2.28	0.64
14:L:28:LYS:HB2	14:L:39:SER:HA	1.80	0.64
4:B:68:THR:HG22	4:B:91:SER:HA	1.80	0.64
20:R:127:CYS:HG	20:R:129:THR:HG22	1.60	0.64
21:S:164:LYS:HD2	21:S:165:LYS:HG2	1.77	0.64
3:A:411:ASP:CG	18:P:50:LEU:HB3	2.18	0.64
18:P:195:LEU:C	18:P:196:ILE:HG22	2.17	0.64
1:1:500:ARG:O	1:1:504:THR:HG23	1.97	0.64
27:Y:648:ILE:CD1	27:Y:652:ASP:OD2	2.46	0.64
15:M:260:CYS:HB2	15:M:281:VAL:HB	1.78	0.64
4:B:999:MET:HG3	4:B:1000:PRO:HD2	1.80	0.64
18:P:190:LYS:CD	18:P:242:PHE:CZ	2.81	0.64
18:P:143:PRO:HD3	18:P:185:VAL:HG21	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:143:PRO:HD3	18:P:185:VAL:CG1	2.28	0.64
21:S:131:ALA:N	21:S:151:LEU:CD1	2.60	0.64
4:B:1111:MET:HB2	18:P:56:LEU:CA	2.03	0.64
27:Y:197:ARG:NH2	27:Y:225:GLU:OE2	2.31	0.64
3:A:16:GLU:HB3	3:A:1418:LEU:HD11	1.79	0.64
18:P:103:ASP:CB	18:P:107:THR:HB	2.27	0.64
2:2:282:TYR:CE1	2:2:296:PHE:HB2	2.33	0.64
4:B:1113:VAL:CG2	18:P:57:VAL:HG23	2.24	0.64
27:Y:170:TYR:HD2	27:Y:176:PHE:CZ	2.15	0.64
17:O:21:ASP:O	17:O:25:THR:HG23	1.98	0.64
16:N:38:DT:H2"	16:N:39:DC:H5	1.62	0.64
20:R:152:CYS:SG	20:R:154:GLU:HB2	2.37	0.64
20:R:44:LYS:HD3	20:R:49:ILE:O	1.97	0.64
18:P:22:LEU:HD22	18:P:34:ILE:HD13	1.73	0.64
23:U:138:ARG:NH2	24:V:57:LEU:CG	2.60	0.64
21:S:194:LYS:HZ1	21:S:210:LEU:CD1	2.09	0.64
18:P:108:LYS:HA	18:P:111:ASN:ND2	2.13	0.64
1:1:410:LEU:HD13	1:1:477:LEU:HD13	1.79	0.64
1:1:596:GLN:HE22	1:1:746:PRO:HD3	1.63	0.64
18:P:160:GLU:O	18:P:160:GLU:CD	2.36	0.64
27:Y:83:LEU:CD1	27:Y:177:SER:HA	2.27	0.64
20:R:31:ALA:HB3	20:R:43:LEU:CD1	2.28	0.63
18:P:143:PRO:HD2	18:P:185:VAL:HG11	1.79	0.63
21:S:156:ASP:O	21:S:159:VAL:CG1	2.40	0.63
2:2:279:VAL:HG13	2:2:298:THR:O	1.98	0.63
27:Y:29:LYS:HG3	27:Y:61:MET:SD	2.38	0.63
23:U:138:ARG:HH21	24:V:57:LEU:HD13	1.56	0.63
23:U:372:SER:HG	24:V:80:LYS:NZ	0.89	0.63
18:P:180:CYS:SG	18:P:187:ARG:HG3	2.37	0.63
18:P:187:ARG:CA	18:P:188:THR:C	2.66	0.63
18:P:55:LYS:O	18:P:56:LEU:HB2	1.98	0.63
23:U:138:ARG:HA	24:V:57:LEU:O	1.98	0.63
1:1:403:ILE:HG21	1:1:405:LYS:HG2	1.78	0.63
27:Y:569:ILE:HA	27:Y:575:ASP:CB	2.27	0.63
2:2:253:LEU:HD21	3:A:1132:LYS:HB3	1.80	0.63
27:Y:321:ILE:HG23	27:Y:323:GLY:O	1.99	0.63
18:P:262:LYS:O	18:P:266:ILE:HG13	1.98	0.63
20:R:44:LYS:HE3	20:R:54:LEU:HD22	1.80	0.63
21:S:203:LYS:HZ1	21:S:205:ILE:HB	1.60	0.63
20:R:46:LEU:CD1	20:R:132:THR:HG23	2.28	0.63
1:1:563:ALA:HA	25:W:450:ARG:HE	1.62	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:188:THR:OG1	18:P:245:HIS:CE1	2.50	0.63
16:N:17:DT:O5'	16:N:17:DT:H6	1.80	0.63
27:Y:58:ALA:HB1	27:Y:69:ILE:HD12	1.81	0.63
1:1:400:ALA:HB2	1:1:450:SER:O	1.99	0.63
18:P:268:GLU:O	18:P:315:ILE:HG21	1.98	0.63
4:B:917:PRO:HA	4:B:934:LYS:HB3	1.80	0.63
18:P:279:VAL:HB	18:P:302:LEU:HD23	1.69	0.63
20:R:124:CYS:HB3	20:R:129:THR:HG23	1.78	0.63
21:S:156:ASP:HA	21:S:159:VAL:CG1	2.28	0.63
3:A:1445:ILE:O	9:G:68:ALA:HB2	1.96	0.63
20:R:46:LEU:CG	20:R:132:THR:HG21	2.29	0.63
21:S:208:LYS:HD2	21:S:208:LYS:H	1.63	0.63
3:A:404:TYR:HH	18:P:40:GLU:HB3	1.62	0.63
1:1:575:ARG:NH2	22:T:102:DC:P	2.72	0.63
16:N:58:DC:H2'	16:N:59:DT:H6	1.58	0.63
24:V:89:GLY:O	24:V:90:GLN:CB	2.47	0.63
18:P:320:ARG:CZ	18:P:337:ASP:OD2	2.47	0.63
3:A:1451:VAL:HA	9:G:19:GLY:CA	2.28	0.63
18:P:171:ILE:HD12	18:P:209:ILE:CD1	2.28	0.63
1:1:378:ARG:H	1:1:381:SER:H	1.46	0.63
1:1:473:VAL:HB	1:1:481:GLU:HG3	1.81	0.63
1:1:484:PHE:HZ	1:1:511:LEU:HB2	1.64	0.63
27:Y:234:PHE:HZ	27:Y:449:VAL:HG21	1.62	0.63
3:A:1444:MET:SD	9:G:60:ARG:NH1	2.72	0.63
2:2:279:VAL:HG13	2:2:298:THR:C	2.19	0.63
27:Y:495:MET:HB3	27:Y:686:PHE:CE1	2.34	0.63
18:P:207:LEU:HD11	19:Q:188:GLU:OE2	1.98	0.63
1:1:502:VAL:HB	1:1:530:LEU:HD13	1.79	0.63
2:2:266:THR:HG22	3:A:731:ARG:HD3	1.78	0.63
3:A:255:SER:O	18:P:84:ASN:OD1	2.17	0.63
27:Y:76:MET:HA	27:Y:79:ILE:HD12	1.79	0.63
1:1:680:ARG:NH1	1:1:683:GLU:OE2	2.32	0.63
22:T:150:DG:H8	22:T:150:DG:O5'	1.82	0.63
18:P:145:ILE:HD11	18:P:182:ARG:CG	2.29	0.63
21:S:130:TRP:CE2	24:V:334:ASP:OD1	2.52	0.63
17:O:4:PRO:CD	24:V:357:LYS:C	2.67	0.63
1:1:448:THR:HG22	1:1:449:GLU:N	2.14	0.63
20:R:129:THR:HG21	20:R:131:TYR:HH	1.64	0.63
1:1:474:MET:H	1:1:481:GLU:N	1.89	0.63
1:1:459:MET:HB2	1:1:464:ARG:NE	2.14	0.63
20:R:90:LYS:HB3	20:R:93:HIS:HB3	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:42:MET:HG3	27:Y:48:LYS:HG3	1.79	0.63
1:1:372:LYS:HB3	1:1:535:LEU:HD23	1.80	0.63
16:N:29:DT:OP2	24:V:294:MET:HE2	1.99	0.63
18:P:280:VAL:HG13	18:P:313:TYR:CB	2.29	0.62
18:P:285:ASN:O	18:P:288:LEU:HD12	1.98	0.62
18:P:316:LEU:H	18:P:316:LEU:HD22	1.63	0.62
4:B:959:ASP:C	18:P:182:ARG:NH1	2.52	0.62
21:S:128:LEU:HG	24:V:341:LYS:HZ2	1.60	0.62
19:Q:103:ILE:CG2	22:T:144:DT:H5"	2.29	0.62
22:T:138:DA:H2"	22:T:139:DC:C5	2.34	0.62
27:Y:208:TYR:CD1	27:Y:213:LEU:HB2	2.33	0.62
1:1:397:ILE:HD11	1:1:423:GLN:HE21	1.64	0.62
27:Y:646:TYR:CB	27:Y:648:ILE:HG12	2.24	0.62
27:Y:131:GLU:CD	27:Y:134:ARG:NH1	2.52	0.62
23:U:109:GLU:O	23:U:110:ASP:HB2	1.99	0.62
18:P:310:LYS:NZ	18:P:340:PRO:CA	2.51	0.62
21:S:131:ALA:HB2	21:S:151:LEU:CD1	2.29	0.62
24:V:306:LEU:CD1	24:V:313:TRP:CD2	2.82	0.62
27:Y:193:TYR:HH	27:Y:221:ARG:NH2	1.95	0.62
21:S:237:LYS:HG2	21:S:241:PRO:HG2	1.70	0.62
21:S:184:TYR:H	21:S:219:GLU:HB3	1.62	0.62
4:B:343:ILE:HD12	22:T:122:DT:OP1	2.00	0.62
27:Y:317:LEU:CD1	27:Y:415:GLY:HA3	2.29	0.62
1:1:409:VAL:HG22	1:1:486:ILE:HD12	1.80	0.62
1:1:474:MET:HB2	1:1:480:ARG:C	2.18	0.62
1:1:491:HIS:O	1:1:494:PRO:HD2	1.99	0.62
2:2:274:CYS:O	2:2:276:GLU:N	2.32	0.62
15:M:3:ASN:ND2	15:M:6:ALA:H	1.96	0.62
5:C:10:ILE:HD12	13:K:108:GLU:HB3	1.81	0.62
23:U:396:THR:OG1	23:U:401:TYR:CE2	2.50	0.62
22:T:134:DT:C6	24:V:323:ARG:CG	2.83	0.62
2:2:253:LEU:HD12	3:A:1132:LYS:NZ	2.09	0.62
3:A:64:ASN:HA	18:P:20:ILE:HB	1.81	0.62
20:R:49:ILE:HG22	20:R:50:ASN:N	2.15	0.62
21:S:151:LEU:HD22	21:S:153:MET:CE	2.28	0.62
27:Y:110:SER:HB3	27:Y:212:TYR:CD1	2.34	0.62
27:Y:28:ILE:HD11	27:Y:40:LEU:HD22	1.80	0.62
4:B:433:GLN:OE1	23:U:326:ARG:NH1	2.32	0.62
1:1:476:PHE:HZ	1:1:493:VAL:CG1	2.12	0.62
27:Y:641:PHE:O	27:Y:645:ASN:ND2	2.33	0.62
27:Y:653:PHE:CD1	27:Y:654:LEU:N	2.67	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:T:122:DT:H2''	22:T:123:DT:C7	2.30	0.62
21:S:133:GLU:OE1	24:V:315:LEU:HD11	1.99	0.62
21:S:200:VAL:C	21:S:201:THR:HG22	2.20	0.62
1:1:476:PHE:HA	1:1:485:ILE:CG2	2.30	0.62
1:1:499:ARG:HG3	1:1:530:LEU:HD12	1.80	0.62
3:A:22:PHE:N	4:B:1211:ASN:O	2.32	0.62
5:C:67:LEU:HA	5:C:70:ILE:HD12	1.82	0.62
3:A:340:LEU:HD13	3:A:1429:ILE:HG23	1.81	0.62
13:K:49:GLU:HG3	13:K:94:ILE:HG13	1.81	0.62
21:S:127:LYS:HD2	21:S:128:LEU:H	1.64	0.62
21:S:164:LYS:HZ3	21:S:165:LYS:CG	2.12	0.62
24:V:313:TRP:O	24:V:349:TYR:CD1	2.53	0.62
21:S:130:TRP:CE3	24:V:339:LEU:CD2	2.82	0.62
8:F:132:LEU:HA	9:G:61:ILE:HG12	1.81	0.62
18:P:187:ARG:CG	18:P:189:PHE:HA	2.30	0.62
18:P:188:THR:HG21	18:P:245:HIS:ND1	2.14	0.62
27:Y:190:LEU:CD1	27:Y:195:ILE:HD12	2.20	0.62
18:P:29:VAL:O	18:P:30:TYR:CG	2.53	0.62
21:S:219:GLU:OE1	21:S:219:GLU:CA	2.47	0.62
1:1:408:ILE:HG21	1:1:475:ASP:C	2.19	0.62
1:1:485:ILE:HD13	1:1:505:ILE:CD1	2.30	0.62
1:1:501:VAL:O	1:1:505:ILE:HG13	2.00	0.62
18:P:86:LEU:HD21	18:P:155:LYS:HE3	1.80	0.62
24:V:104:ILE:HG21	24:V:122:LEU:HD22	1.80	0.62
27:Y:539:VAL:CG1	27:Y:623:ILE:CG1	2.77	0.62
18:P:159:ASP:O	18:P:160:GLU:CB	2.48	0.62
27:Y:567:LYS:HG2	27:Y:568:LEU:N	2.14	0.62
4:B:269:ILE:HD11	4:B:386:LEU:HD21	1.82	0.62
8:F:132:LEU:CB	9:G:61:ILE:HG21	2.22	0.62
19:Q:124:THR:HG21	22:T:144:DT:O2	1.99	0.62
16:N:20:DA:N1	22:T:146:DT:O4	2.32	0.62
27:Y:167:VAL:CG1	27:Y:195:ILE:HG23	2.30	0.62
27:Y:494:PRO:CD	27:Y:679:MET:O	2.43	0.62
4:B:1220:ARG:O	6:D:14:ARG:NH2	2.32	0.62
21:S:187:HIS:CE1	21:S:226:GLU:H	2.18	0.62
1:1:436:ALA:CB	1:1:452:LEU:HD21	2.29	0.62
18:P:152:GLU:CB	18:P:155:LYS:HE3	2.30	0.62
21:S:128:LEU:C	24:V:341:LYS:CE	2.60	0.62
16:N:20:DA:O4'	19:Q:215:THR:HG21	1.98	0.62
21:S:133:GLU:HG3	21:S:137:LYS:HE2	1.82	0.62
3:A:344:ARG:CZ	4:B:1120:GLU:CG	2.74	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:428:CYS:HB3	1:1:432:PRO:HB2	1.82	0.62
1:1:449:GLU:HB2	1:1:452:LEU:HA	1.81	0.62
3:A:89:PRO:CB	3:A:204:THR:HB	2.29	0.62
3:A:64:ASN:OD1	18:P:18:LEU:CG	2.48	0.62
4:B:843:GLN:HA	4:B:846:ILE:HD12	1.82	0.62
21:S:125:SER:OG	24:V:342:LYS:CA	2.47	0.62
1:1:561:MET:CA	25:W:450:ARG:NH2	2.63	0.62
24:V:59:LEU:HD21	24:V:214:ILE:HD11	1.82	0.62
18:P:189:PHE:H	18:P:241:ARG:CZ	2.09	0.62
1:1:618:TYR:HB3	1:1:622:MET:HE1	1.81	0.62
1:1:377:GLY:HA2	1:1:381:SER:HB2	1.82	0.62
16:N:69:DG:C3'	26:X:63:TYR:HE1	2.08	0.62
3:A:91:PHE:CB	3:A:96:ILE:HD11	2.30	0.62
3:A:11:LEU:CD1	4:B:1195:HIS:CD2	2.82	0.62
18:P:320:ARG:HH21	18:P:337:ASP:CG	2.03	0.62
1:1:773:ILE:CD1	1:1:775:VAL:CB	2.29	0.62
18:P:187:ARG:HD3	18:P:189:PHE:HB2	1.71	0.62
21:S:210:LEU:HD22	21:S:214:TRP:CH2	2.33	0.62
1:1:345:ASN:ND2	1:1:348:ARG:HE	1.97	0.62
20:R:32:ILE:HG22	20:R:89:VAL:HG23	1.80	0.62
18:P:322:LYS:H	18:P:322:LYS:HE2	1.65	0.62
22:T:136:DA:H8	22:T:136:DA:O5'	1.82	0.61
18:P:279:VAL:HG21	18:P:302:LEU:CG	1.83	0.61
27:Y:493:LEU:HD22	27:Y:696:TRP:HE1	1.53	0.61
18:P:124:ASN:O	18:P:125:GLU:HB2	2.00	0.61
18:P:128:ALA:CB	18:P:132:LYS:HZ1	2.13	0.61
1:1:326:VAL:HG12	1:1:503:SER:O	1.99	0.61
1:1:458:SER:N	1:1:465:ASN:HB2	2.16	0.61
3:A:66:LYS:HE2	3:A:68:GLN:H	1.65	0.61
1:1:296:VAL:HA	1:1:309:ASP:HB2	1.82	0.61
15:M:41:ILE:O	15:M:45:LYS:HG2	2.00	0.61
4:B:841:MET:HB3	4:B:846:ILE:HD11	1.81	0.61
6:D:176:GLU:OE2	6:D:197:SER:HB2	1.99	0.61
20:R:35:HIS:CG	20:R:36:SER:H	2.18	0.61
27:Y:549:SER:O	27:Y:556:THR:O	2.17	0.61
19:Q:76:LEU:HA	19:Q:151:LYS:O	2.00	0.61
18:P:313:TYR:HA	18:P:316:LEU:CD2	2.29	0.61
18:P:42:ASP:O	18:P:43:VAL:CG2	2.47	0.61
18:P:48:CYS:O	18:P:50:LEU:HD12	2.00	0.61
27:Y:109:THR:HB	27:Y:114:LEU:CD1	2.31	0.61
21:S:175:LYS:N	21:S:175:LYS:HZ1	1.71	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:125:GLU:OE1	18:P:126:VAL:N	2.34	0.61
1:1:446:PHE:O	1:1:453:VAL:HG23	2.00	0.61
1:1:603:ASP:HB3	1:1:669:CYS:SG	2.40	0.61
21:S:125:SER:CA	21:S:127:LYS:NZ	2.60	0.61
27:Y:639:LEU:CD2	27:Y:649:ARG:CG	2.76	0.61
18:P:187:ARG:HA	18:P:188:THR:CB	2.18	0.61
18:P:48:CYS:O	18:P:50:LEU:CD1	2.47	0.61
27:Y:683:ASP:O	27:Y:686:PHE:CE2	2.47	0.61
4:B:430:ARG:HA	23:U:326:ARG:CZ	2.19	0.61
18:P:202:GLU:HG2	18:P:205:LYS:HE2	1.74	0.61
27:Y:124:ARG:CG	27:Y:373:PRO:O	2.47	0.61
16:N:59:DT:N1	16:N:60:DA:N7	2.48	0.61
18:P:208:ASN:CA	18:P:211:LYS:HE3	2.29	0.61
15:M:10:TYR:O	15:M:14:VAL:HG13	2.00	0.61
18:P:142:LEU:HB3	18:P:147:LYS:HD3	1.81	0.61
2:2:257:GLN:HA	3:A:1284:MET:H	1.65	0.61
3:A:192:GLY:CA	22:T:116:DG:O3'	2.40	0.61
4:B:350:GLN:CG	23:U:407:ASP:CB	2.74	0.61
27:Y:450:PHE:CZ	27:Y:475:PHE:HA	2.25	0.61
5:C:11:ARG:HH21	5:C:229:TYR:HD2	1.48	0.61
20:R:40:GLU:CA	20:R:54:LEU:HD23	2.30	0.61
18:P:133:ILE:CG1	18:P:151:LYS:HD3	2.02	0.61
3:A:1443:VAL:HB	9:G:63:PRO:HA	0.65	0.61
3:A:419:LYS:HZ1	18:P:47:LEU:CG	2.13	0.61
16:N:26:DG:H2''	24:V:291:SER:CB	2.31	0.61
18:P:198:VAL:CG2	18:P:202:GLU:OE1	2.48	0.61
1:1:348:ARG:C	1:1:350:PRO:HD3	2.21	0.61
1:1:470:SER:O	1:1:478:THR:HG23	2.00	0.61
3:A:53:LEU:HD23	3:A:54:ASN:N	2.15	0.61
19:Q:77:GLY:O	19:Q:78:CYS:HB3	2.01	0.61
27:Y:523:GLY:O	27:Y:527:VAL:HG23	2.00	0.61
27:Y:655:SER:HA	27:Y:689:LYS:HZ3	1.65	0.61
3:A:946:VAL:HG22	7:E:201:LYS:HD2	1.82	0.61
21:S:148:LEU:CG	21:S:154:LYS:HE3	2.29	0.61
20:R:46:LEU:CD2	20:R:132:THR:HG23	2.02	0.61
19:Q:114:LEU:CD2	22:T:143:DT:C2'	2.77	0.61
1:1:425:LEU:HA	1:1:429:THR:HA	1.83	0.61
1:1:447:GLN:C	1:1:452:LEU:HB3	2.21	0.61
1:1:376:ASN:CB	1:1:380:ARG:HD3	2.27	0.61
18:P:160:GLU:OE1	18:P:162:THR:HG22	2.00	0.61
3:A:326:ARG:HG3	3:A:1406:VAL:HG21	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:202:SER:HB3	7:E:205:SER:H	1.66	0.61
3:A:1130:GLN:HA	3:A:1133:LEU:HD12	1.83	0.61
20:R:143:ASP:OD1	20:R:144:ARG:CD	2.49	0.61
21:S:164:LYS:O	21:S:164:LYS:NZ	2.33	0.61
21:S:129:LEU:CA	24:V:341:LYS:HE2	2.16	0.61
24:V:295:PRO:O	24:V:299:ILE:N	2.30	0.61
3:A:291:GLU:OE2	18:P:116:LYS:HD2	1.93	0.61
18:P:174:ALA:HB2	18:P:206:THR:CG2	2.30	0.61
27:Y:374:LEU:HD13	27:Y:375:ARG:N	2.15	0.61
21:S:143:LEU:HD11	21:S:145:ASN:OD1	2.00	0.61
23:U:371:ASP:OD1	24:V:75:MET:C	2.39	0.61
1:1:484:PHE:CD2	1:1:509:ALA:HB3	2.36	0.61
3:A:448:PRO:O	3:A:449:SER:HB2	2.01	0.61
4:B:911:ILE:HD11	4:B:941:LEU:HD12	1.82	0.61
3:A:1111:MET:HG3	3:A:1114:PRO:HG3	1.83	0.61
16:N:46:DC:H6	16:N:46:DC:O5'	1.84	0.61
22:T:134:DT:H6	24:V:323:ARG:CG	2.14	0.61
8:F:132:LEU:HD22	9:G:66:GLY:O	2.00	0.61
22:T:141:DC:H6	22:T:141:DC:O5'	1.83	0.61
27:Y:190:LEU:HB2	27:Y:195:ILE:HD11	1.83	0.61
21:S:136:GLN:OE1	21:S:137:LYS:NZ	2.31	0.61
1:1:478:THR:HG22	1:1:479:GLY:N	2.16	0.61
1:1:484:PHE:CE1	1:1:486:ILE:HG12	2.36	0.61
4:B:350:GLN:HG2	23:U:407:ASP:HB3	1.82	0.61
16:N:22:DA:H5'	19:Q:158:GLN:HB3	1.81	0.61
3:A:1390:ASN:O	3:A:1399:ARG:HG2	2.01	0.61
18:P:160:GLU:O	18:P:161:LYS:CG	2.48	0.61
23:U:354:ASP:O	23:U:358:TYR:HB3	2.01	0.61
4:B:486:TYR:HB3	4:B:1096:ARG:CZ	2.31	0.61
18:P:290:GLN:HB3	18:P:291:ILE:HD13	1.83	0.61
20:R:30:ASP:OD2	20:R:151:LEU:HD11	2.01	0.61
18:P:146:VAL:HA	18:P:149:CYS:SG	2.40	0.61
22:T:140:DC:C2	22:T:141:DC:C4	2.88	0.61
27:Y:171:LEU:HD11	27:Y:195:ILE:HG22	1.83	0.61
3:A:317:LYS:C	4:B:471:LYS:HZ2	1.99	0.61
1:1:407:VAL:HG22	1:1:451:GLY:HA2	1.82	0.61
1:1:368:LYS:CE	1:1:372:LYS:HE2	2.31	0.61
16:N:71:DG:H2''	16:N:72:DG:OP2	2.01	0.61
15:M:20:GLU:HB2	17:O:43:THR:HG21	1.82	0.61
1:1:415:VAL:HA	1:1:418:MET:HE2	1.83	0.61
3:A:372:LYS:HA	3:A:435:HIS:CD2	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:254:THR:O	18:P:257:GLU:OE1	2.19	0.61
1:1:561:MET:C	25:W:450:ARG:NH2	2.53	0.61
1:1:427:TRP:HB2	1:1:449:GLU:OE2	2.01	0.61
3:A:192:GLY:CA	22:T:116:DG:C3'	2.79	0.61
7:E:4:GLU:HB3	7:E:7:ARG:NE	2.16	0.61
23:U:387:ILE:HG23	23:U:388:PRO:HD2	1.81	0.61
20:R:143:ASP:OD1	20:R:144:ARG:NE	2.33	0.60
21:S:164:LYS:HD2	21:S:165:LYS:CG	2.29	0.60
18:P:150:ALA:HB1	18:P:178:ILE:HG13	1.52	0.60
1:1:370:LEU:HD11	1:1:398:THR:HG21	1.83	0.60
1:1:452:LEU:C	1:1:452:LEU:HD23	2.21	0.60
27:Y:563:VAL:HG12	27:Y:564:TRP:N	2.16	0.60
27:Y:242:ASN:HD21	27:Y:660:ARG:HH22	1.49	0.60
27:Y:646:TYR:HB2	27:Y:648:ILE:CG1	2.29	0.60
3:A:1193:LEU:HB2	3:A:1260:LEU:HD21	1.81	0.60
18:P:310:LYS:CE	18:P:340:PRO:CB	2.55	0.60
21:S:154:LYS:CB	21:S:154:LYS:HZ2	1.96	0.60
18:P:184:GLU:HB3	18:P:241:ARG:HG3	1.77	0.60
1:1:585:PRO:C	1:1:756:ARG:HH22	2.05	0.60
22:T:140:DC:C2	22:T:141:DC:C5	2.88	0.60
3:A:419:LYS:HE3	18:P:47:LEU:HA	1.83	0.60
27:Y:493:LEU:CB	27:Y:696:TRP:CD1	2.84	0.60
27:Y:310:PRO:HG2	27:Y:335:LEU:CD2	2.31	0.60
27:Y:237:ALA:HA	27:Y:240:ILE:HG12	1.83	0.60
27:Y:176:PHE:CD1	27:Y:176:PHE:N	2.68	0.60
18:P:298:VAL:HG12	18:P:302:LEU:CD1	2.31	0.60
18:P:143:PRO:HB2	18:P:182:ARG:CD	2.27	0.60
24:V:340:VAL:CG1	24:V:348:LYS:HB2	2.31	0.60
3:A:404:TYR:OH	18:P:40:GLU:HB3	2.01	0.60
18:P:196:ILE:CG1	18:P:197:HIS:N	2.34	0.60
2:2:284:LEU:CB	3:A:1080:THR:CG2	2.48	0.60
4:B:343:ILE:HD12	22:T:121:DG:C3'	2.31	0.60
1:1:460:VAL:CG1	16:N:63:DG:C4'	2.79	0.60
1:1:375:GLY:HA3	1:1:380:ARG:HG2	1.82	0.60
27:Y:290:VAL:HG22	27:Y:291:GLN:H	1.65	0.60
5:C:184:ASN:HD21	5:C:189:THR:H	1.50	0.60
18:P:246:LEU:HD22	18:P:293:ILE:HG21	1.82	0.60
18:P:299:GLY:HA2	18:P:302:LEU:HD13	1.84	0.60
18:P:310:LYS:HE2	18:P:340:PRO:CB	2.24	0.60
18:P:313:TYR:O	18:P:316:LEU:HD21	1.92	0.60
8:F:132:LEU:HD23	9:G:61:ILE:HG12	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:298:THR:HG23	2:2:305:ARG:HG2	1.82	0.60
27:Y:109:THR:CG2	27:Y:113:ASN:HD22	2.14	0.60
27:Y:190:LEU:CD1	27:Y:195:ILE:HD11	2.22	0.60
21:S:233:LEU:HB3	21:S:247:ASN:ND2	2.16	0.60
20:R:33:LEU:HD21	20:R:89:VAL:HG11	1.83	0.60
27:Y:21:GLN:HA	27:Y:53:LEU:HD21	1.83	0.60
19:Q:205:LEU:HB2	19:Q:213:VAL:HB	1.83	0.60
18:P:288:LEU:HD22	18:P:330:ALA:HA	1.81	0.60
21:S:158:LYS:HZ2	21:S:162:LEU:HG	1.64	0.60
21:S:128:LEU:HG	24:V:341:LYS:CE	2.32	0.60
2:2:257:GLN:HA	3:A:1284:MET:CB	2.32	0.60
3:A:1454:MET:HG2	9:G:20:PRO:HD3	1.82	0.60
18:P:259:THR:O	18:P:264:LYS:NZ	2.33	0.60
27:Y:103:PHE:CZ	27:Y:105:GLY:HA3	2.36	0.60
18:P:202:GLU:CG	18:P:205:LYS:CE	2.54	0.60
21:S:201:THR:OG1	21:S:201:THR:O	2.20	0.60
2:2:290:ASP:C	4:B:766:ARG:HH21	2.05	0.60
4:B:205:ILE:HD11	4:B:461:LEU:HD13	1.82	0.60
3:A:1443:VAL:CB	9:G:63:PRO:N	2.49	0.60
3:A:1445:ILE:N	9:G:68:ALA:HB2	2.16	0.60
21:S:175:LYS:HA	21:S:175:LYS:HZ1	0.85	0.60
27:Y:124:ARG:CG	27:Y:374:LEU:HA	2.31	0.60
1:1:352:LEU:H	1:1:352:LEU:HD22	1.67	0.60
1:1:356:LEU:HD21	1:1:448:THR:HB	1.83	0.60
16:N:58:DC:C2'	16:N:59:DT:H5'	2.26	0.60
3:A:1063:MET:SD	3:A:1436:ILE:HB	2.42	0.60
3:A:5:GLN:HG3	4:B:1175:LEU:HD11	1.81	0.60
3:A:483:ASP:HB2	4:B:987:LYS:HE3	1.84	0.60
20:R:123:MET:CG	20:R:130:LYS:HD3	2.20	0.60
20:R:40:GLU:HA	20:R:54:LEU:CD2	2.31	0.60
21:S:183:THR:CA	21:S:222:ASN:ND2	2.52	0.60
27:Y:350:HIS:HB2	27:Y:384:LEU:CD1	2.27	0.60
23:U:386:MET:HE1	24:V:75:MET:SD	2.41	0.60
10:H:82:PRO:C	10:H:84:ALA:H	2.05	0.60
3:A:132:LYS:NZ	3:A:1415:SER:CB	2.64	0.60
18:P:279:VAL:HG13	18:P:309:ILE:HG23	1.84	0.60
20:R:27:LEU:CD2	20:R:128:LEU:O	2.47	0.60
21:S:125:SER:OG	24:V:342:LYS:N	2.05	0.60
3:A:416:ARG:NH1	18:P:37:ARG:NE	2.48	0.60
27:Y:111:ARG:HD3	27:Y:129:VAL:HG21	1.83	0.60
27:Y:28:ILE:CG2	27:Y:57:ILE:HD12	2.28	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:230:ILE:HG22	21:S:232:VAL:HG12	1.84	0.60
1:1:622:MET:HE3	1:1:653:PHE:CZ	2.36	0.60
22:T:121:DG:C5	22:T:122:DT:C4	2.89	0.60
24:V:73:LEU:H	24:V:73:LEU:HD23	1.66	0.60
2:2:287:ARG:HD3	2:2:291:GLU:OE1	2.01	0.60
16:N:21:DA:C2'	16:N:22:DA:H5'	2.21	0.60
19:Q:75:THR:O	19:Q:153:THR:HB	2.00	0.60
18:P:289:PHE:CE1	18:P:291:ILE:HD11	2.31	0.60
3:A:1442:ASP:CA	9:G:60:ARG:HH12	2.13	0.60
22:T:94:DC:H2''	22:T:95:DC:OP2	2.00	0.60
18:P:103:ASP:O	18:P:106:PHE:N	2.35	0.60
27:Y:263:GLY:O	27:Y:267:LEU:HG	2.02	0.60
1:1:487:LEU:HD13	1:1:511:LEU:O	2.01	0.60
27:Y:541:PHE:HE1	27:Y:599:LEU:CD2	2.12	0.60
3:A:51:GLY:HA2	3:A:56:PRO:HA	1.84	0.60
16:N:66:DG:H2''	16:N:67:DG:OP2	2.01	0.60
23:U:342:LEU:HD23	23:U:348:TYR:CD1	2.37	0.60
16:N:29:DT:OP2	24:V:294:MET:CE	2.50	0.60
4:B:976:ILE:O	4:B:990:ILE:HB	2.02	0.60
3:A:1387:HIS:O	3:A:1391:ARG:HG2	2.02	0.60
18:P:279:VAL:HG23	18:P:302:LEU:HD23	0.90	0.60
18:P:325:ASP:HB2	18:P:326:PRO:HD3	1.84	0.60
21:S:161:GLU:HB3	21:S:162:LEU:HD22	1.83	0.60
8:F:92:ARG:CZ	9:G:64:THR:N	2.65	0.60
19:Q:114:LEU:HD22	22:T:143:DT:H2'	1.84	0.60
22:T:145:DT:C2'	22:T:146:DT:H72	2.32	0.60
27:Y:317:LEU:CD2	27:Y:409:ILE:HG22	2.30	0.60
20:R:62:ARG:N	20:R:67:ILE:HD11	2.17	0.60
3:A:1428:VAL:HG13	4:B:1151:LEU:HD21	1.83	0.60
4:B:249:ARG:HH12	4:B:418:LYS:HD2	1.66	0.60
21:S:203:LYS:HZ2	21:S:204:GLY:N	1.95	0.59
18:P:37:ARG:NH2	18:P:40:GLU:HG3	2.17	0.59
18:P:107:THR:HG23	18:P:108:LYS:N	2.17	0.59
27:Y:263:GLY:HA3	27:Y:375:ARG:HH22	1.66	0.59
21:S:133:GLU:CD	24:V:330:LYS:HD2	2.21	0.59
23:U:374:VAL:O	24:V:73:LEU:CD2	2.48	0.59
1:1:373:MET:HE2	1:1:384:ILE:CD1	2.31	0.59
3:A:22:PHE:CB	4:B:1211:ASN:OD1	2.50	0.59
22:T:135:DG:H2'	22:T:136:DA:H8	1.59	0.59
20:R:27:LEU:CG	20:R:128:LEU:O	2.49	0.59
21:S:130:TRP:HZ3	24:V:338:THR:N	2.00	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:419:LYS:NZ	18:P:47:LEU:CA	2.66	0.59
27:Y:185:CYS:SG	27:Y:190:LEU:CD1	2.90	0.59
27:Y:346:MET:HB3	27:Y:384:LEU:CD2	2.28	0.59
18:P:94:THR:HG22	18:P:110:LEU:CD1	2.31	0.59
1:1:386:LEU:HB3	1:1:390:ALA:CB	2.32	0.59
1:1:522:ASP:C	1:1:524:ILE:HD13	2.22	0.59
27:Y:466:LEU:HG	27:Y:479:LEU:CB	2.32	0.59
21:S:130:TRP:HZ2	24:V:334:ASP:HA	0.51	0.59
24:V:349:TYR:CD1	24:V:349:TYR:C	2.73	0.59
18:P:35:VAL:CG1	18:P:37:ARG:H	2.14	0.59
22:T:95:DC:H2"	22:T:96:DC:OP2	2.01	0.59
27:Y:360:LEU:CD1	27:Y:375:ARG:HD2	2.31	0.59
21:S:137:LYS:HE3	24:V:330:LYS:HZ2	1.67	0.59
1:1:424:PHE:O	1:1:427:TRP:HE3	1.84	0.59
1:1:475:ASP:CB	1:1:478:THR:H	2.15	0.59
16:N:60:DA:C2'	16:N:61:DA:H5'	2.19	0.59
20:R:90:LYS:O	20:R:93:HIS:HB3	2.01	0.59
1:1:394:LEU:HD12	1:1:394:LEU:N	2.17	0.59
3:A:257:ARG:O	18:P:83:SER:O	2.19	0.59
4:B:363:HIS:O	4:B:364:ILE:HB	2.02	0.59
18:P:289:PHE:CE1	18:P:291:ILE:HD13	2.37	0.59
21:S:130:TRP:CZ3	24:V:338:THR:C	2.74	0.59
24:V:306:LEU:HD23	24:V:318:LEU:HD23	1.79	0.59
8:F:96:THR:CG2	9:G:66:GLY:HA2	2.33	0.59
19:Q:99:PHE:CG	22:T:143:DT:H5'	2.29	0.59
18:P:125:GLU:OE2	18:P:158:HIS:CE1	2.56	0.59
1:1:356:LEU:HD22	1:1:356:LEU:N	2.16	0.59
1:1:370:LEU:CD1	1:1:398:THR:HG21	2.32	0.59
3:A:72:GLU:HB3	3:A:76:GLU:HB3	1.83	0.59
18:P:269:ILE:CD1	18:P:315:ILE:HG22	2.32	0.59
4:B:950:ASP:HB3	4:B:967:ARG:HG2	1.84	0.59
16:N:14:DG:H2"	16:N:15:DC:O5'	2.02	0.59
19:Q:114:LEU:HD22	22:T:143:DT:H1'	1.84	0.59
3:A:291:GLU:CD	18:P:116:LYS:CE	2.71	0.59
18:P:269:ILE:HD12	18:P:315:ILE:HG22	1.84	0.59
19:Q:183:SER:HB2	19:Q:193:LEU:HD21	1.84	0.59
24:V:307:PHE:CZ	24:V:349:TYR:CD1	2.82	0.59
18:P:184:GLU:CD	18:P:241:ARG:CA	2.68	0.59
27:Y:493:LEU:HD21	27:Y:666:LEU:CG	2.29	0.59
27:Y:240:ILE:HG22	27:Y:473:LEU:HD12	1.84	0.59
14:L:61:THR:HG21	14:L:63:ARG:HG2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:U:377:SER:CA	24:V:70:LEU:HD22	2.33	0.59
3:A:566:ILE:HD11	10:H:98:TYR:HB2	1.85	0.59
18:P:279:VAL:HG13	18:P:309:ILE:HG12	1.82	0.59
18:P:135:MET:HA	18:P:138:ASP:OD2	2.02	0.59
23:U:138:ARG:CZ	24:V:57:LEU:CB	2.77	0.59
22:T:101:DC:H2"	22:T:102:DC:OP2	2.02	0.59
4:B:1221:SER:CB	6:D:14:ARG:CZ	2.80	0.59
21:S:191:GLU:C	21:S:195:LEU:CD2	2.68	0.59
1:1:397:ILE:HG12	1:1:427:TRP:HH2	1.67	0.59
14:L:47:ARG:HH21	14:L:54:ARG:HH21	1.50	0.59
18:P:164:LYS:CG	18:P:166:LYS:HB3	2.04	0.59
4:B:653:VAL:HG22	4:B:689:LEU:HB3	1.84	0.59
3:A:380:VAL:HG13	3:A:385:ILE:HG12	1.83	0.59
18:P:142:LEU:O	18:P:147:LYS:CD	2.45	0.59
19:Q:114:LEU:HD13	22:T:143:DT:N3	2.18	0.59
18:P:37:ARG:NH2	18:P:40:GLU:CB	2.65	0.59
4:B:1215:ARG:HD3	6:D:15:LEU:HD11	1.80	0.59
21:S:175:LYS:CA	21:S:175:LYS:HZ1	1.35	0.59
1:1:326:VAL:HG12	1:1:327:LYS:N	2.18	0.59
1:1:328:LYS:HD3	1:1:530:LEU:HD22	1.84	0.59
1:1:373:MET:CA	1:1:381:SER:HA	2.32	0.59
21:S:171:PHE:N	21:S:171:PHE:HD1	1.95	0.59
23:U:375:LEU:HD21	24:V:70:LEU:CD1	2.32	0.59
20:R:124:CYS:SG	20:R:154:GLU:HB3	2.43	0.59
24:V:349:TYR:O	24:V:349:TYR:HD1	1.83	0.59
8:F:92:ARG:NE	9:G:63:PRO:C	2.56	0.59
18:P:42:ASP:H	18:P:55:LYS:HG3	1.66	0.59
27:Y:167:VAL:HG11	27:Y:195:ILE:CG2	2.33	0.59
16:N:26:DG:H2"	16:N:27:DG:OP2	2.03	0.59
27:Y:504:VAL:CG1	27:Y:686:PHE:CZ	2.86	0.59
27:Y:504:VAL:HG13	27:Y:686:PHE:CZ	2.38	0.59
18:P:128:ALA:O	18:P:132:LYS:NZ	2.26	0.59
1:1:336:PRO:HB3	1:1:341:TYR:HB3	1.85	0.59
3:A:871:ASP:OD1	3:A:1366:ARG:NH2	2.34	0.59
23:U:358:TYR:CE2	23:U:359:ASN:HB2	2.38	0.59
3:A:590:ARG:NH2	3:A:621:THR:OG1	2.36	0.59
3:A:857:ARG:HD3	3:A:861:GLY:O	2.03	0.59
16:N:42:DT:H2"	16:N:43:DA:H8	1.68	0.59
24:V:306:LEU:HG	24:V:313:TRP:CD1	2.38	0.59
21:S:129:LEU:CG	24:V:341:LYS:CE	2.81	0.59
22:T:140:DC:N1	22:T:141:DC:C5	2.70	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:385:VAL:HA	1:1:514:THR:O	2.03	0.59
3:A:629:LEU:O	3:A:633:VAL:HG23	2.02	0.59
20:R:130:LYS:CA	20:R:130:LYS:CE	1.94	0.58
21:S:130:TRP:CZ2	24:V:334:ASP:CA	2.29	0.58
8:F:96:THR:OG1	9:G:64:THR:HA	2.02	0.58
16:N:17:DT:H71	16:N:17:DT:OP2	2.02	0.58
16:N:19:DT:C2'	16:N:20:DA:H5'	2.25	0.58
22:T:141:DC:H2'	22:T:142:DC:C5	2.38	0.58
27:Y:492:PHE:CE2	27:Y:494:PRO:HG3	2.38	0.58
3:A:315:LEU:C	18:P:92:LEU:CD2	2.66	0.58
23:U:119:LEU:HD23	24:V:135:PHE:CE2	2.29	0.58
1:1:477:LEU:O	1:1:501:VAL:HA	2.03	0.58
22:T:116:DG:C4	22:T:117:DC:C6	2.90	0.58
23:U:365:TYR:CE1	23:U:391:LYS:CD	2.85	0.58
27:Y:110:SER:HB3	27:Y:212:TYR:CE1	2.38	0.58
24:V:69:TRP:HB3	24:V:219:CYS:SG	2.41	0.58
1:1:356:LEU:CD2	1:1:448:THR:HG21	2.32	0.58
1:1:378:ARG:N	1:1:381:SER:HB3	2.18	0.58
1:1:411:CYS:O	1:1:456:THR:HG23	2.03	0.58
3:A:89:PRO:HB2	3:A:204:THR:HG21	1.83	0.58
23:U:406:ILE:O	23:U:410:GLU:HG3	2.03	0.58
16:N:39:DC:H2''	16:N:40:DT:C5'	2.33	0.58
18:P:279:VAL:CG2	18:P:302:LEU:HD21	1.15	0.58
27:Y:639:LEU:HD23	27:Y:649:ARG:CD	2.25	0.58
18:P:188:THR:O	18:P:188:THR:CG2	2.48	0.58
18:P:225:ILE:CD1	18:P:226:ASP:N	2.66	0.58
18:P:103:ASP:CG	18:P:107:THR:HB	2.23	0.58
1:1:619:ALA:HA	1:1:622:MET:HE2	1.83	0.58
4:B:343:ILE:HD11	22:T:121:DG:H4'	1.85	0.58
18:P:124:ASN:O	18:P:125:GLU:CB	2.52	0.58
18:P:140:ALA:C	18:P:141:GLU:HG2	2.23	0.58
27:Y:586:TYR:CE1	27:Y:616:TYR:CZ	2.91	0.58
22:T:130:DA:C8	22:T:131:DC:C6	2.92	0.58
8:F:92:ARG:NH2	9:G:64:THR:H	2.01	0.58
18:P:188:THR:N	18:P:241:ARG:CB	2.67	0.58
18:P:187:ARG:NH2	18:P:192:ILE:HG21	2.05	0.58
22:T:145:DT:H2'	22:T:146:DT:H72	1.84	0.58
27:Y:193:TYR:CE2	27:Y:197:ARG:HD3	2.36	0.58
23:U:140:HIS:HB3	24:V:57:LEU:CD2	2.29	0.58
18:P:196:ILE:HD11	18:P:197:HIS:CD2	2.38	0.58
22:T:122:DT:H2''	22:T:123:DT:OP1	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:317:LEU:CD1	27:Y:415:GLY:CA	2.81	0.58
1:1:400:ALA:HB3	1:1:450:SER:HA	1.86	0.58
27:Y:479:LEU:CD2	27:Y:479:LEU:C	2.72	0.58
27:Y:42:MET:SD	27:Y:48:LYS:HA	2.43	0.58
3:A:68:GLN:O	3:A:70:CYS:N	2.31	0.58
7:E:147:HIS:HB3	7:E:150:VAL:HG23	1.84	0.58
22:T:130:DA:N7	22:T:131:DC:C2	2.70	0.58
18:P:279:VAL:HG21	18:P:302:LEU:CD1	2.32	0.58
18:P:291:ILE:CD1	18:P:291:ILE:H	1.90	0.58
20:R:44:LYS:HD2	20:R:50:ASN:O	2.04	0.58
22:T:147:DA:H8	22:T:147:DA:O5'	1.86	0.58
3:A:416:ARG:HH22	18:P:40:GLU:HG3	1.68	0.58
1:1:352:LEU:N	1:1:352:LEU:HD22	2.18	0.58
1:1:476:PHE:CZ	1:1:487:LEU:HD21	2.38	0.58
1:1:327:LYS:HG3	1:1:506:ALA:CA	2.33	0.58
20:R:67:ILE:N	20:R:67:ILE:HD13	2.19	0.58
27:Y:386:ARG:O	27:Y:390:VAL:CG2	2.40	0.58
18:P:208:ASN:CB	18:P:211:LYS:HE3	2.33	0.58
3:A:436:ILE:HD11	3:A:491:VAL:HG11	1.85	0.58
8:F:92:ARG:NH1	9:G:63:PRO:CB	2.65	0.58
24:V:292:ILE:HD12	24:V:328:HIS:NE2	2.18	0.58
27:Y:374:LEU:C	27:Y:374:LEU:HD13	2.24	0.58
20:R:64:ASP:HB2	20:R:66:LEU:CD2	2.34	0.58
3:A:836:TYR:CE1	3:A:1403:GLU:OE2	2.57	0.58
2:2:190:THR:CA	7:E:50:MET:HE1	2.34	0.58
4:B:810:GLU:HA	4:B:815:ARG:HH12	1.69	0.58
18:P:223:LEU:CG	19:Q:177:PHE:CE2	2.77	0.58
1:1:757:ARG:O	1:1:761:GLN:HG2	2.03	0.58
27:Y:218:ILE:HD11	27:Y:221:ARG:HH21	1.68	0.58
24:V:299:ILE:CD1	24:V:324:GLN:OE1	2.48	0.58
4:B:885:MET:N	18:P:33:LYS:HZ1	1.96	0.58
18:P:108:LYS:O	18:P:112:LYS:CG	2.52	0.58
18:P:171:ILE:HD12	18:P:209:ILE:HD11	1.86	0.58
2:2:284:LEU:HD13	3:A:1080:THR:CG2	2.31	0.58
1:1:349:ASN:N	1:1:350:PRO:HD3	2.19	0.58
1:1:484:PHE:HE1	1:1:486:ILE:HG12	1.69	0.58
1:1:785:ARG:O	1:1:785:ARG:CD	2.52	0.58
27:Y:479:LEU:C	27:Y:479:LEU:HD22	2.21	0.58
27:Y:458:ILE:HD13	27:Y:469:TYR:CE2	2.38	0.58
22:T:154:DC:H2''	22:T:155:DC:OP2	2.03	0.58
17:O:46:LYS:O	17:O:50:GLU:HG3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:31:DC:H2"	16:N:32:DA:OP1	2.03	0.58
20:R:120:ASN:OD1	20:R:133:GLN:CB	2.51	0.58
24:V:333:LEU:O	24:V:337:ALA:N	2.36	0.58
18:P:26:GLU:OE1	18:P:50:LEU:HD22	2.01	0.58
27:Y:61:MET:O	27:Y:64:PRO:HD2	2.03	0.58
18:P:225:ILE:O	18:P:228:ASP:HB2	2.04	0.58
8:F:97:ARG:HH12	9:G:15:PRO:HB2	1.68	0.58
1:1:373:MET:HG3	1:1:381:SER:OG	2.04	0.58
1:1:408:ILE:CG2	1:1:475:ASP:HA	2.33	0.58
16:N:22:DA:C5'	19:Q:158:GLN:NE2	2.65	0.58
27:Y:506:ILE:HB	27:Y:522:TYR:CZ	2.39	0.58
19:Q:153:THR:HG22	19:Q:154:ASP:H	1.68	0.58
3:A:901:LEU:HD22	3:A:919:ILE:HG23	1.85	0.58
16:N:32:DA:H2'	16:N:33:DA:C8	2.38	0.58
18:P:280:VAL:HG12	18:P:316:LEU:HD11	1.86	0.58
27:Y:132:LYS:HA	27:Y:155:LEU:CD1	2.34	0.58
21:S:130:TRP:CZ2	24:V:334:ASP:N	2.72	0.58
21:S:158:LYS:HD3	21:S:162:LEU:HG	1.85	0.58
18:P:180:CYS:O	18:P:183:ALA:O	2.21	0.58
2:2:295:THR:HG22	2:2:295:THR:O	2.02	0.58
27:Y:167:VAL:HG11	27:Y:195:ILE:HG23	1.86	0.58
27:Y:681:LEU:CD2	27:Y:696:TRP:HZ3	2.10	0.58
21:S:181:LEU:CD2	21:S:183:THR:O	2.51	0.58
27:Y:263:GLY:HA3	27:Y:375:ARG:NH2	2.18	0.58
27:Y:360:LEU:CG	27:Y:375:ARG:NE	2.64	0.58
21:S:134:TYR:CE2	21:S:147:LEU:HD23	2.39	0.58
20:R:29:LEU:CD1	20:R:66:LEU:HB3	2.33	0.58
3:A:64:ASN:OD1	18:P:18:LEU:CD2	2.52	0.58
15:M:283:ALA:HA	17:O:64:GLY:O	2.03	0.58
22:T:151:DG:C2'	22:T:152:DC:C5	2.86	0.58
20:R:53:GLU:O	20:R:57:LEU:HG	2.03	0.58
21:S:164:LYS:CD	21:S:165:LYS:HG3	2.34	0.58
16:N:22:DA:H4'	19:Q:158:GLN:CD	2.23	0.58
1:1:773:ILE:HD12	1:1:774:GLU:N	2.19	0.57
27:Y:69:ILE:CD1	27:Y:232:VAL:HB	2.34	0.57
18:P:150:ALA:HB1	18:P:175:SER:HA	1.86	0.57
1:1:354:ILE:O	1:1:356:LEU:HD22	2.03	0.57
10:H:47:PHE:HB3	10:H:95:TYR:CD2	2.38	0.57
1:1:561:MET:H	25:W:450:ARG:HH12	1.51	0.57
27:Y:405:PHE:CD2	27:Y:437:PHE:CD2	2.92	0.57
18:P:45:CYS:O	18:P:49:GLY:HA2	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:236:LEU:CA	2:2:242:LYS:HE3	2.34	0.57
27:Y:678:VAL:HG11	27:Y:708:LEU:CG	2.26	0.57
21:S:187:HIS:HE1	21:S:225:GLU:CB	2.07	0.57
2:2:296:PHE:HE2	3:A:1359:ASP:OD1	1.86	0.57
27:Y:339:ILE:CG2	27:Y:343:LYS:HE3	2.34	0.57
1:1:333:ILE:HD11	1:1:343:PHE:CZ	2.39	0.57
1:1:405:LYS:HD3	1:1:483:GLY:C	2.24	0.57
1:1:363:ARG:NH2	1:1:366:GLN:HE22	2.02	0.57
3:A:95:PHE:C	3:A:97:ALA:N	2.54	0.57
22:T:130:DA:C4	22:T:131:DC:O4'	2.58	0.57
20:R:141:ASN:OD1	20:R:142:PHE:HE1	1.87	0.57
21:S:130:TRP:CZ2	24:V:333:LEU:C	2.78	0.57
8:F:92:ARG:HE	9:G:63:PRO:C	2.06	0.57
22:T:146:DT:H2''	22:T:147:DA:OP2	2.03	0.57
1:1:408:ILE:HG23	1:1:408:ILE:O	2.03	0.57
1:1:425:LEU:CA	1:1:429:THR:HA	2.35	0.57
16:N:55:DG:H2''	16:N:56:DT:OP1	2.04	0.57
27:Y:466:LEU:HG	27:Y:479:LEU:HB2	1.85	0.57
18:P:193:GLN:NE2	18:P:203:PHE:CE1	2.72	0.57
27:Y:528:GLU:O	27:Y:532:ILE:HB	2.04	0.57
3:A:1390:ASN:O	3:A:1399:ARG:HD3	2.04	0.57
4:B:65:GLU:OE1	4:B:247:GLY:HA2	2.04	0.57
3:A:839:ARG:NH2	3:A:1401:SER:O	2.35	0.57
16:N:49:DG:H2''	16:N:50:DC:OP1	2.04	0.57
20:R:144:ARG:C	20:R:145:THR:OG1	2.41	0.57
27:Y:639:LEU:HD21	27:Y:649:ARG:HD2	0.61	0.57
27:Y:653:PHE:HD1	27:Y:654:LEU:N	2.02	0.57
24:V:63:ARG:HG3	24:V:215:VAL:CG1	2.34	0.57
16:N:15:DC:H2''	16:N:16:DC:OP2	2.04	0.57
4:B:296:GLU:CG	23:U:124:LYS:HZ1	2.06	0.57
27:Y:56:THR:CG2	27:Y:60:GLN:NE2	2.67	0.57
2:2:241:LEU:O	2:2:242:LYS:C	2.43	0.57
21:S:134:TYR:OH	21:S:138:LYS:HE2	2.00	0.57
23:U:372:SER:HG	24:V:80:LYS:CE	2.05	0.57
1:1:485:ILE:HG13	1:1:485:ILE:O	2.03	0.57
22:T:113:DT:H2''	22:T:114:DA:OP1	2.04	0.57
15:M:277:GLN:HB2	17:O:56:THR:HG23	1.85	0.57
6:D:159:THR:O	6:D:163:VAL:HG23	2.05	0.57
2:2:300:GLU:HG3	2:2:300:GLU:O	2.04	0.57
16:N:34:DT:H2''	16:N:35:DG:OP1	2.03	0.57
16:N:44:DA:H2''	16:N:45:DC:OP1	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:145:ILE:HG13	18:P:146:VAL:N	2.20	0.57
20:R:46:LEU:HD13	20:R:46:LEU:O	2.04	0.57
27:Y:504:VAL:HG13	27:Y:686:PHE:HZ	1.67	0.57
27:Y:293:LEU:HD12	27:Y:345:ARG:HD3	1.84	0.57
1:1:347:HIS:HD2	1:1:348:ARG:HG3	1.66	0.57
1:1:436:ALA:HB3	1:1:452:LEU:CD2	2.34	0.57
1:1:303:ARG:HD3	1:1:504:THR:CG2	2.35	0.57
3:A:192:GLY:HA2	22:T:116:DG:C3'	2.35	0.57
1:1:376:ASN:HB3	1:1:380:ARG:N	2.11	0.57
18:P:164:LYS:HG2	18:P:166:LYS:CB	2.34	0.57
18:P:287:LEU:HD12	18:P:338:ASN:CG	2.18	0.57
18:P:137:CYS:SG	18:P:142:LEU:CG	2.91	0.57
24:V:318:LEU:CD1	24:V:349:TYR:CD2	2.86	0.57
2:2:253:LEU:HB3	3:A:1132:LYS:HZ3	1.70	0.57
27:Y:639:LEU:HG	27:Y:653:PHE:CD2	2.34	0.57
18:P:187:ARG:CZ	18:P:192:ILE:HB	2.35	0.57
18:P:43:VAL:CG1	18:P:55:LYS:NZ	2.65	0.57
18:P:264:LYS:CE	18:P:264:LYS:H	2.17	0.57
1:1:424:PHE:HE1	1:1:450:SER:HB3	1.63	0.57
1:1:505:ILE:HD12	1:1:510:LYS:NZ	2.19	0.57
1:1:372:LYS:HB3	1:1:535:LEU:CD2	2.35	0.57
1:1:415:VAL:HG13	1:1:416:SER:N	2.20	0.57
23:U:145:ARG:HA	23:U:145:ARG:CZ	2.35	0.57
10:H:44:VAL:HG13	10:H:48:PRO:HA	1.87	0.57
3:A:588:LEU:HD23	3:A:607:ILE:HD12	1.86	0.57
20:R:130:LYS:NZ	20:R:130:LYS:HA	2.15	0.57
18:P:137:CYS:SG	18:P:142:LEU:CD2	2.78	0.57
21:S:159:VAL:HG22	21:S:160:ILE:CG2	2.28	0.57
27:Y:639:LEU:CD2	27:Y:649:ARG:CB	2.78	0.57
21:S:195:LEU:O	21:S:246:TYR:OH	2.20	0.57
1:1:303:ARG:HD3	1:1:504:THR:HG22	1.86	0.57
1:1:460:VAL:CG1	16:N:63:DG:H4'	2.34	0.57
3:A:56:PRO:HD2	3:A:58:LEU:HG	1.86	0.57
27:Y:648:ILE:HD12	27:Y:652:ASP:OD2	2.04	0.57
4:B:121:ASN:HA	4:B:207:GLY:HA3	1.87	0.57
18:P:316:LEU:CD2	18:P:316:LEU:H	2.16	0.57
18:P:187:ARG:NH2	18:P:192:ILE:HG22	2.18	0.57
18:P:26:GLU:OE1	18:P:50:LEU:CG	2.51	0.57
27:Y:185:CYS:SG	27:Y:192:PRO:CG	2.93	0.57
2:2:252:ASN:HA	3:A:1204:ASP:O	2.05	0.57
27:Y:495:MET:CE	27:Y:696:TRP:HB3	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:264:LYS:N	18:P:264:LYS:HZ3	2.03	0.57
21:S:187:HIS:HE1	21:S:226:GLU:H	1.52	0.57
1:1:476:PHE:CZ	1:1:502:VAL:HG22	2.40	0.57
22:T:116:DG:N9	22:T:117:DC:C5	2.73	0.57
16:N:67:DG:H2''	16:N:68:DT:OP2	2.05	0.57
1:1:335:TYR:HB3	1:1:336:PRO:HD3	1.86	0.57
23:U:358:TYR:CD2	23:U:359:ASN:HB2	2.40	0.57
5:C:39:ALA:HA	5:C:164:ALA:HB3	1.87	0.57
19:Q:115:ILE:HD13	19:Q:143:ILE:HD11	1.87	0.57
16:N:45:DC:H2'	16:N:46:DC:C6	2.40	0.57
21:S:203:LYS:CG	21:S:242:ARG:CG	2.80	0.57
3:A:1442:ASP:HB3	9:G:60:ARG:HH12	0.71	0.57
18:P:22:LEU:HA	18:P:52:LEU:CD1	2.34	0.57
27:Y:109:THR:HG21	27:Y:113:ASN:HD22	1.69	0.57
27:Y:681:LEU:CD2	27:Y:696:TRP:CH2	2.87	0.57
21:S:142:VAL:HG23	21:S:143:LEU:O	2.05	0.57
1:1:473:VAL:HG23	1:1:473:VAL:O	2.05	0.57
1:1:474:MET:CB	1:1:482:TRP:H	2.03	0.57
20:R:13:LEU:N	20:R:13:LEU:HD22	2.19	0.57
1:1:344:ARG:HA	1:1:344:ARG:HE	1.70	0.57
27:Y:39:ILE:HG12	27:Y:458:ILE:HD12	1.87	0.57
23:U:107:PRO:HA	24:V:90:GLN:CD	2.25	0.57
23:U:377:SER:OG	24:V:70:LEU:CD2	2.52	0.57
4:B:74:LEU:H	23:U:313:ALA:N	2.02	0.57
18:P:289:PHE:CD1	18:P:291:ILE:N	2.72	0.57
20:R:44:LYS:HG2	20:R:54:LEU:HD22	1.87	0.57
18:P:191:GLU:OE1	18:P:192:ILE:HD13	2.05	0.57
3:A:419:LYS:NZ	18:P:47:LEU:HA	2.20	0.57
16:N:24:DG:H2''	16:N:25:DG:H5''	1.86	0.57
1:1:473:VAL:HB	1:1:481:GLU:CG	2.35	0.57
20:R:61:LEU:HB3	20:R:66:LEU:HB2	1.86	0.57
27:Y:39:ILE:CG1	27:Y:458:ILE:HD12	2.35	0.57
1:1:394:LEU:HD12	1:1:394:LEU:H	1.69	0.57
3:A:93:VAL:HA	3:A:96:ILE:HD12	1.86	0.57
20:R:143:ASP:OD1	20:R:144:ARG:CG	2.53	0.56
8:F:96:THR:HG1	9:G:64:THR:C	1.97	0.56
22:T:139:DC:H6	22:T:139:DC:O5'	1.87	0.56
2:2:283:GLN:OE1	3:A:756:ILE:HD11	2.03	0.56
22:T:100:DC:C4	22:T:101:DC:N4	2.73	0.56
18:P:91:ASN:O	18:P:92:LEU:HB3	2.05	0.56
1:1:712:ASP:CB	25:W:447:GLU:CD	2.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:134:TYR:CE1	21:S:138:LYS:CE	2.86	0.56
1:1:475:ASP:C	1:1:485:ILE:HG22	2.25	0.56
17:O:117:ASN:HD22	17:O:118:SER:N	2.03	0.56
18:P:299:GLY:CA	18:P:309:ILE:HD11	2.35	0.56
27:Y:132:LYS:HA	27:Y:155:LEU:HD12	1.87	0.56
21:S:157:ASP:C	21:S:162:LEU:HD23	2.25	0.56
3:A:1443:VAL:HG13	9:G:61:ILE:CG2	2.33	0.56
18:P:22:LEU:CD2	18:P:22:LEU:O	2.46	0.56
4:B:1215:ARG:NH1	6:D:15:LEU:HD11	2.19	0.56
27:Y:208:TYR:CZ	27:Y:213:LEU:HG	2.40	0.56
27:Y:57:ILE:HG23	27:Y:58:ALA:N	2.20	0.56
21:S:192:LEU:HA	21:S:195:LEU:HD23	1.87	0.56
1:1:368:LYS:HD2	1:1:372:LYS:CD	2.35	0.56
27:Y:462:THR:CG2	27:Y:660:ARG:HG3	2.35	0.56
3:A:346:ASP:HB3	4:B:1108:ARG:H	1.70	0.56
3:A:5:GLN:HG3	4:B:1175:LEU:CD1	2.35	0.56
18:P:279:VAL:HG21	18:P:302:LEU:CB	2.32	0.56
20:R:27:LEU:HD11	20:R:128:LEU:CB	2.35	0.56
21:S:203:LYS:CB	21:S:242:ARG:NE	2.66	0.56
21:S:128:LEU:CG	24:V:341:LYS:HD2	2.35	0.56
1:1:584:ASN:CG	1:1:586:THR:HG22	2.25	0.56
18:P:21:VAL:HG22	18:P:22:LEU:N	2.20	0.56
4:B:433:GLN:HB2	23:U:326:ARG:NE	2.20	0.56
21:S:184:TYR:N	21:S:222:ASN:ND2	2.53	0.56
4:B:343:ILE:HD11	22:T:121:DG:C4'	2.35	0.56
1:1:487:LEU:HD12	1:1:487:LEU:N	2.19	0.56
1:1:373:MET:HE2	1:1:384:ILE:HD11	1.86	0.56
20:R:13:LEU:CD2	20:R:91:TYR:HE1	2.18	0.56
20:R:13:LEU:HG	20:R:91:TYR:HD1	1.71	0.56
27:Y:443:SER:CB	27:Y:474:ASN:HB2	2.34	0.56
24:V:210:LYS:HG2	24:V:210:LYS:O	2.05	0.56
4:B:911:ILE:HG22	4:B:912:ILE:HG13	1.87	0.56
6:D:167:LEU:HB3	6:D:177:VAL:HG22	1.87	0.56
18:P:313:TYR:C	18:P:316:LEU:HD22	2.23	0.56
20:R:28:VAL:CG1	20:R:43:LEU:HD21	2.26	0.56
20:R:44:LYS:HE3	20:R:54:LEU:HB2	1.85	0.56
18:P:185:VAL:HG13	18:P:186:ALA:H	1.71	0.56
2:2:257:GLN:HG2	3:A:1284:MET:CB	2.34	0.56
21:S:210:LEU:CD2	21:S:214:TRP:HH2	2.18	0.56
27:Y:293:LEU:CD1	27:Y:345:ARG:HD3	2.34	0.56
1:1:436:ALA:HB1	1:1:444:GLU:HB2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:455:SER:HB3	1:1:466:ARG:CD	2.36	0.56
27:Y:479:LEU:HD13	27:Y:479:LEU:N	2.21	0.56
18:P:193:GLN:CD	18:P:199:LYS:HG3	2.26	0.56
27:Y:441:ASP:HB2	27:Y:641:PHE:CZ	2.41	0.56
27:Y:207:ILE:HD12	27:Y:207:ILE:N	2.20	0.56
18:P:288:LEU:O	18:P:288:LEU:CD1	2.53	0.56
18:P:189:PHE:N	18:P:241:ARG:CZ	2.68	0.56
22:T:144:DT:H2''	22:T:145:DT:OP2	2.03	0.56
3:A:412:ARG:O	18:P:50:LEU:HA	2.06	0.56
24:V:74:PRO:HD2	24:V:223:GLN:CA	2.31	0.56
21:S:210:LEU:HD22	21:S:214:TRP:HH2	1.71	0.56
2:2:291:GLU:H	2:2:292:PRO:CD	2.14	0.56
18:P:320:ARG:NH2	18:P:337:ASP:CG	2.58	0.56
20:R:130:LYS:HE2	20:R:130:LYS:HA	0.56	0.56
24:V:333:LEU:HB3	24:V:337:ALA:HB3	1.86	0.56
24:V:306:LEU:HD23	24:V:349:TYR:OH	2.06	0.56
27:Y:639:LEU:HD21	27:Y:649:ARG:HH11	1.70	0.56
1:1:756:ARG:NH1	1:1:756:ARG:CG	2.41	0.56
21:S:233:LEU:HD12	21:S:247:ASN:N	2.20	0.56
18:P:267:LYS:HE3	18:P:269:ILE:H	1.70	0.56
15:M:45:LYS:HE3	17:O:21:ASP:HB3	1.88	0.56
18:P:326:PRO:CD	18:P:328:LEU:N	2.64	0.56
22:T:151:DG:H2''	22:T:152:DC:C6	2.41	0.56
21:S:154:LYS:HZ1	21:S:154:LYS:HA	1.14	0.56
18:P:22:LEU:HG	18:P:52:LEU:HD13	0.80	0.56
16:N:23:DA:N1	19:Q:116:PHE:CZ	2.70	0.56
18:P:207:LEU:HA	18:P:210:MET:CE	2.36	0.56
1:1:466:ARG:HB3	1:1:477:LEU:HB2	1.87	0.56
18:P:152:GLU:O	18:P:155:LYS:CG	2.54	0.56
20:R:13:LEU:H	20:R:13:LEU:HD22	1.70	0.56
18:P:208:ASN:O	18:P:211:LYS:CG	2.52	0.56
23:U:309:LEU:HD23	23:U:337:GLU:HG2	1.87	0.56
2:2:248:ILE:HG12	3:A:1203:ASN:CG	2.21	0.56
1:1:429:THR:N	1:1:432:PRO:HG2	2.20	0.56
18:P:200:THR:CG2	18:P:201:LYS:H	2.02	0.56
27:Y:389:GLU:C	27:Y:400:LYS:HE2	2.25	0.56
22:T:141:DC:H2'	22:T:142:DC:C6	2.41	0.56
16:N:27:DG:H3'	24:V:291:SER:O	2.02	0.56
1:1:370:LEU:HD23	1:1:370:LEU:O	2.06	0.56
1:1:498:PHE:O	1:1:501:VAL:HG22	2.05	0.56
3:A:192:GLY:HA3	22:T:116:DG:H3'	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:279:ALA:HA	17:O:60:LEU:O	2.05	0.56
9:G:34:VAL:O	9:G:37:SER:HB3	2.06	0.56
4:B:54:PHE:HA	4:B:58:THR:HB	1.88	0.56
2:2:253:LEU:CB	3:A:1132:LYS:HZ3	2.18	0.56
8:F:96:THR:CG2	9:G:66:GLY:N	2.66	0.56
27:Y:639:LEU:HD11	27:Y:653:PHE:CZ	2.35	0.56
2:2:252:ASN:HB3	3:A:1206:ASP:HB2	1.87	0.56
18:P:108:LYS:HA	18:P:111:ASN:HD21	1.70	0.56
1:1:475:ASP:O	1:1:505:ILE:HG12	2.06	0.56
1:1:522:ASP:OD1	1:1:524:ILE:HD11	2.06	0.56
4:B:952:VAL:HG22	4:B:966:VAL:HG13	1.88	0.56
16:N:29:DT:H2"	16:N:30:DT:OP2	2.05	0.56
18:P:298:VAL:CG1	18:P:302:LEU:HD11	2.35	0.55
16:N:28:DT:OP2	24:V:292:ILE:CA	2.54	0.55
1:1:470:SER:HA	1:1:478:THR:CG2	2.36	0.55
1:1:378:ARG:HH21	1:1:508:HIS:CA	2.16	0.55
16:N:60:DA:H2'	16:N:61:DA:H8	1.71	0.55
2:2:290:ASP:CA	4:B:766:ARG:HH22	2.16	0.55
27:Y:479:LEU:H	27:Y:479:LEU:HD13	1.70	0.55
27:Y:621:LEU:HG	27:Y:680:VAL:CG1	2.36	0.55
9:G:111:THR:HG22	9:G:113:HIS:H	1.72	0.55
3:A:1445:ILE:H	9:G:68:ALA:CA	2.19	0.55
22:T:146:DT:C4	22:T:147:DA:N6	2.73	0.55
18:P:94:THR:HG21	18:P:110:LEU:CG	2.08	0.55
1:1:383:ILE:HD13	1:1:383:ILE:H	1.71	0.55
1:1:428:CYS:HB3	1:1:432:PRO:CB	2.37	0.55
12:J:3:VAL:HG11	12:J:18:TRP:HB2	1.87	0.55
3:A:388:LEU:HA	3:A:391:LEU:HD12	1.88	0.55
18:P:243:CYS:CB	18:P:253:THR:CG2	2.83	0.55
27:Y:495:MET:HG3	27:Y:681:LEU:CB	2.26	0.55
21:S:143:LEU:CD1	21:S:145:ASN:OD1	2.54	0.55
1:1:333:ILE:HD11	1:1:343:PHE:CE1	2.41	0.55
1:1:421:ARG:CG	1:1:430:LEU:HG	2.21	0.55
1:1:431:GLN:HB2	1:1:432:PRO:CD	2.37	0.55
18:P:277:ILE:HD12	18:P:277:ILE:C	2.26	0.55
8:F:79:ARG:HG2	8:F:144:GLU:HB3	1.88	0.55
18:P:289:PHE:CE2	18:P:291:ILE:HG12	2.40	0.55
18:P:130:PHE:CA	18:P:133:ILE:CG2	2.82	0.55
18:P:142:LEU:HD22	18:P:147:LYS:HG3	0.56	0.55
18:P:144:LYS:O	18:P:148:ASP:OD2	2.25	0.55
27:Y:639:LEU:HA	27:Y:653:PHE:CD2	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:750:TYR:HB3	1:1:756:ARG:NH1	2.21	0.55
18:P:43:VAL:CG1	18:P:55:LYS:HE3	2.36	0.55
27:Y:197:ARG:O	27:Y:200:ILE:HG22	2.07	0.55
27:Y:124:ARG:HG2	27:Y:374:LEU:CB	2.36	0.55
1:1:446:PHE:HB3	1:1:452:LEU:HD11	1.88	0.55
18:P:86:LEU:HD21	18:P:152:GLU:HG3	1.88	0.55
23:U:96:ASN:HD21	24:V:99:LYS:H	1.53	0.55
19:Q:153:THR:CG2	19:Q:154:ASP:N	2.69	0.55
4:B:280:ILE:HD13	4:B:334:ILE:HG12	1.89	0.55
21:S:130:TRP:CZ2	24:V:334:ASP:OD1	2.59	0.55
20:R:46:LEU:HD13	20:R:46:LEU:C	2.26	0.55
27:Y:185:CYS:SG	27:Y:190:LEU:HD12	2.47	0.55
21:S:210:LEU:CD2	21:S:214:TRP:CH2	2.90	0.55
21:S:183:THR:CB	21:S:222:ASN:HD21	2.20	0.55
1:1:460:VAL:HG11	16:N:64:DG:OP2	2.00	0.55
18:P:193:GLN:HG2	18:P:199:LYS:HD3	1.85	0.55
1:1:372:LYS:C	1:1:535:LEU:HD23	2.26	0.55
18:P:267:LYS:HE3	18:P:269:ILE:N	2.22	0.55
27:Y:586:TYR:CD1	27:Y:616:TYR:CZ	2.94	0.55
4:B:226:PHE:HA	4:B:395:GLN:HG3	1.87	0.55
1:1:574:ALA:HB1	1:1:774:GLU:OE2	2.05	0.55
27:Y:129:VAL:CG1	27:Y:194:PHE:HE1	2.19	0.55
22:T:105:DT:H2'	22:T:106:DT:OP1	2.05	0.55
3:A:345:VAL:N	4:B:1128:LEU:O	2.39	0.55
1:1:328:LYS:HD3	1:1:530:LEU:HD23	1.84	0.55
27:Y:562:GLU:CD	27:Y:599:LEU:HD11	2.27	0.55
3:A:64:ASN:ND2	18:P:18:LEU:HD13	2.20	0.55
3:A:353:ILE:HG21	3:A:487:MET:HE3	1.89	0.55
18:P:255:SER:N	18:P:257:GLU:OE1	2.40	0.55
18:P:280:VAL:HG11	18:P:313:TYR:CA	2.30	0.55
18:P:280:VAL:HG13	18:P:313:TYR:N	2.19	0.55
18:P:188:THR:OG1	18:P:241:ARG:CB	2.55	0.55
18:P:43:VAL:HG13	18:P:55:LYS:HZ3	1.71	0.55
27:Y:129:VAL:HG11	27:Y:194:PHE:HE1	1.71	0.55
27:Y:86:LEU:HD13	27:Y:103:PHE:CZ	2.42	0.55
1:1:485:ILE:HD13	1:1:505:ILE:HD13	1.87	0.55
1:1:493:VAL:HB	1:1:494:PRO:HD3	1.87	0.55
3:A:67:CYS:SG	3:A:77:CYS:SG	3.04	0.55
3:A:10:PRO:HG2	4:B:1192:TYR:HA	1.89	0.55
23:U:118:LEU:HD12	23:U:392:VAL:HG22	1.89	0.55
22:T:134:DT:C2'	24:V:323:ARG:O	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:283:TYR:CZ	18:P:287:LEU:HD11	2.41	0.55
18:P:279:VAL:HG21	18:P:302:LEU:HD22	0.58	0.55
20:R:141:ASN:HB2	20:R:148:LEU:HD12	1.88	0.55
8:F:96:THR:HG22	9:G:66:GLY:HA2	1.89	0.55
19:Q:98:ARG:CZ	22:T:142:DC:H5"	2.37	0.55
27:Y:109:THR:O	27:Y:114:LEU:HD22	2.06	0.55
1:1:466:ARG:C	1:1:477:LEU:HD23	2.26	0.55
3:A:34:LYS:H	3:A:57:ARG:HH11	1.55	0.55
23:U:107:PRO:CA	24:V:90:GLN:OE1	2.55	0.55
6:D:40:HIS:HB3	9:G:73:LYS:CE	2.35	0.55
3:A:768:GLN:HG2	3:A:816:HIS:HA	1.88	0.55
20:R:52:THR:O	20:R:56:PRO:HD2	2.07	0.55
8:F:118:LEU:O	8:F:122:MET:HG3	2.06	0.55
3:A:1015:VAL:HG13	3:A:1019:CYS:SG	2.47	0.55
23:U:126:LYS:HB2	23:U:126:LYS:NZ	2.21	0.55
3:A:993:LEU:HD22	3:A:1046:LEU:HD22	1.88	0.55
1:1:717:TYR:CZ	1:1:718:TYR:CD1	2.91	0.55
18:P:42:ASP:C	18:P:43:VAL:HG22	2.26	0.55
24:V:69:TRP:CZ3	24:V:220:HIS:CD2	2.92	0.55
18:P:225:ILE:HD11	18:P:227:THR:CA	2.36	0.55
27:Y:317:LEU:HD11	27:Y:415:GLY:CA	2.37	0.55
1:1:310:ILE:CG1	1:1:313:VAL:HG23	2.36	0.55
3:A:1399:ARG:HB3	3:A:1408:ILE:HD13	1.89	0.55
3:A:253:ASN:O	3:A:255:SER:N	2.38	0.55
4:B:217:ARG:NH1	4:B:407:ASP:OD1	2.40	0.55
4:B:356:LEU:HA	4:B:360:PHE:HB3	1.89	0.55
27:Y:490:LYS:HD2	27:Y:676:TYR:CE1	2.42	0.55
16:N:36:DT:C2'	16:N:37:DA:C8	2.86	0.55
21:S:203:LYS:NZ	21:S:204:GLY:N	2.55	0.55
21:S:129:LEU:N	24:V:341:LYS:HG3	2.18	0.55
27:Y:111:ARG:HE	27:Y:129:VAL:HG21	1.71	0.55
21:S:187:HIS:CE1	21:S:229:LYS:HZ1	2.26	0.55
1:1:455:SER:HB3	1:1:466:ARG:HG3	1.88	0.55
22:T:116:DG:C4	22:T:117:DC:C5	2.95	0.55
3:A:193:ASP:N	22:T:117:DC:OP1	2.40	0.55
4:B:350:GLN:CB	23:U:407:ASP:OD2	2.54	0.55
1:1:365:TYR:CE2	1:1:366:GLN:HG3	2.42	0.55
3:A:608:ILE:HD12	3:A:613:ILE:HD13	1.89	0.55
8:F:109:VAL:HG23	8:F:127:GLU:OE1	2.07	0.55
27:Y:669:VAL:CG1	27:Y:677:GLY:HA3	2.37	0.55
22:T:149:DA:H2"	22:T:150:DG:OP2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:124:CYS:H	20:R:130:LYS:CE	2.18	0.54
18:P:184:GLU:CD	18:P:241:ARG:HG3	2.27	0.54
3:A:419:LYS:HZ1	18:P:47:LEU:C	2.10	0.54
24:V:56:SER:O	24:V:57:LEU:CB	2.50	0.54
27:Y:353:SER:OG	27:Y:378:SER:HB2	2.06	0.54
3:A:344:ARG:CA	4:B:1128:LEU:O	2.55	0.54
1:1:524:ILE:N	1:1:524:ILE:HD13	2.21	0.54
16:N:60:DA:C2'	16:N:61:DA:C8	2.86	0.54
24:V:107:LEU:HD11	24:V:119:GLU:CG	2.19	0.54
20:R:29:LEU:HD13	20:R:66:LEU:HB3	1.88	0.54
27:Y:458:ILE:HD13	27:Y:469:TYR:HE2	1.73	0.54
8:F:89:GLU:O	8:F:93:ILE:HD12	2.06	0.54
3:A:497:THR:HG23	4:B:1146:PHE:HA	1.89	0.54
4:B:486:TYR:HB3	4:B:1096:ARG:NH2	2.22	0.54
4:B:815:ARG:HH11	4:B:815:ARG:HG3	1.72	0.54
17:O:117:ASN:ND2	17:O:119:LYS:HG2	2.22	0.54
3:A:74:MET:O	4:B:1116:ARG:NH2	2.39	0.54
2:2:243:GLN:O	2:2:247:GLU:HG3	2.07	0.54
18:P:320:ARG:NH2	18:P:337:ASP:CB	2.61	0.54
27:Y:653:PHE:CD1	27:Y:653:PHE:C	2.78	0.54
27:Y:69:ILE:HD13	27:Y:232:VAL:HB	1.89	0.54
2:2:252:ASN:HA	3:A:1204:ASP:HA	1.89	0.54
23:U:135:LEU:CA	23:U:136:PRO:CD	2.85	0.54
1:1:754:ARG:HH12	1:1:754:ARG:C	2.11	0.54
27:Y:353:SER:HB2	27:Y:375:ARG:HG2	1.90	0.54
22:T:122:DT:C2'	22:T:123:DT:C7	2.86	0.54
1:1:429:THR:HG22	1:1:430:LEU:N	2.21	0.54
20:R:13:LEU:HD21	20:R:91:TYR:CE1	2.42	0.54
3:A:204:THR:HG22	3:A:235:ILE:CG2	2.37	0.54
4:B:338:GLY:CA	4:B:339:THR:HB	2.38	0.54
24:V:128:VAL:O	24:V:130:GLU:N	2.40	0.54
15:M:231:ILE:HD13	19:Q:90:ARG:HE	1.72	0.54
20:R:143:ASP:OD1	20:R:144:ARG:HG2	2.07	0.54
21:S:129:LEU:CD2	24:V:347:PHE:CD1	2.89	0.54
1:1:561:MET:CA	25:W:450:ARG:HH22	2.06	0.54
27:Y:627:PHE:HD1	27:Y:654:LEU:HD11	1.72	0.54
19:Q:99:PHE:HA	22:T:142:DC:O2	1.90	0.54
19:Q:99:PHE:CG	22:T:143:DT:O5'	2.60	0.54
27:Y:70:ILE:O	27:Y:70:ILE:HG13	2.07	0.54
16:N:24:DG:H2''	16:N:25:DG:C5'	2.37	0.54
21:S:214:TRP:CE3	21:S:218:ASP:CG	2.78	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:128:VAL:HG21	27:Y:372:LYS:CA	2.31	0.54
27:Y:289:LEU:HD12	27:Y:298:ILE:HG13	1.89	0.54
23:U:374:VAL:CG2	24:V:73:LEU:CD1	2.84	0.54
1:1:458:SER:HB3	1:1:467:SER:CB	2.37	0.54
1:1:505:ILE:HG21	1:1:507:ALA:CB	2.37	0.54
3:A:33:ALA:HA	3:A:57:ARG:HD3	1.90	0.54
13:K:57:LEU:HB2	13:K:76:GLN:HG2	1.88	0.54
27:Y:166:GLU:O	27:Y:170:TYR:HD1	1.91	0.54
27:Y:76:MET:HG2	27:Y:178:PHE:HE1	1.72	0.54
6:D:7:THR:HG21	9:G:5:LYS:HZ1	1.71	0.54
22:T:133:DT:H2'	22:T:134:DT:C6	2.42	0.54
20:R:127:CYS:SG	20:R:129:THR:HG21	2.46	0.54
18:P:142:LEU:CD2	18:P:147:LYS:CD	2.79	0.54
21:S:158:LYS:HZ3	21:S:162:LEU:CD2	2.21	0.54
24:V:63:ARG:CB	24:V:215:VAL:C	2.53	0.54
16:N:17:DT:H2'	16:N:18:DA:H8	1.72	0.54
18:P:27:CYS:CB	18:P:47:LEU:CD2	2.49	0.54
2:2:283:GLN:CD	3:A:756:ILE:CG1	2.75	0.54
18:P:225:ILE:HD13	18:P:226:ASP:N	2.23	0.54
3:A:257:ARG:HB2	3:A:257:ARG:HH11	1.71	0.54
9:G:45:ILE:HA	9:G:78:VAL:HG12	1.88	0.54
18:P:320:ARG:NH2	18:P:337:ASP:OD2	2.41	0.54
3:A:416:ARG:CZ	18:P:37:ARG:HH21	2.21	0.54
22:T:96:DC:H2''	22:T:97:DC:OP2	2.06	0.54
1:1:354:ILE:HG22	1:1:355:ASP:N	2.23	0.54
1:1:494:PRO:HB2	1:1:519:ARG:HH11	1.72	0.54
20:R:61:LEU:CB	20:R:67:ILE:HD12	2.38	0.54
23:U:100:GLU:OE2	24:V:96:ARG:HD2	2.08	0.54
1:1:320:ASN:HD22	1:1:321:GLU:N	2.06	0.54
4:B:1100:ASP:OD2	13:K:1:MET:HB3	2.08	0.54
18:P:279:VAL:HG22	18:P:302:LEU:HD21	0.63	0.54
21:S:130:TRP:CD2	24:V:339:LEU:CG	2.37	0.54
3:A:1443:VAL:CA	9:G:63:PRO:N	2.68	0.54
18:P:196:ILE:HG23	18:P:197:HIS:H	1.71	0.54
27:Y:353:SER:OG	27:Y:378:SER:HA	2.08	0.54
3:A:338:GLY:HA2	4:B:1129:ARG:NH2	2.23	0.54
1:1:345:ASN:HD21	1:1:348:ARG:HE	1.55	0.54
3:A:42:ASP:OD1	3:A:46:THR:N	2.41	0.54
23:U:396:THR:HG1	23:U:401:TYR:HE2	1.49	0.54
3:A:1349:TYR:HA	3:A:1372:VAL:HG21	1.90	0.54
2:2:231:CYS:CA	2:2:232:ASP:CA	2.85	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:293:LEU:N	2:2:293:LEU:HD23	2.23	0.54
20:R:123:MET:HA	20:R:130:LYS:HD3	1.82	0.54
20:R:140:LEU:HD12	20:R:146:GLU:O	2.08	0.54
27:Y:369:ILE:O	27:Y:370:GLU:CB	2.54	0.54
27:Y:244:CYS:HB3	27:Y:442:ALA:CB	2.22	0.54
27:Y:383:LEU:HD23	27:Y:383:LEU:C	2.28	0.54
27:Y:185:CYS:CB	27:Y:192:PRO:CG	2.81	0.54
20:R:129:THR:HG21	20:R:131:TYR:OH	2.07	0.54
3:A:411:ASP:CG	18:P:51:VAL:N	2.39	0.54
18:P:225:ILE:CD1	18:P:227:THR:C	2.76	0.54
27:Y:360:LEU:HD13	27:Y:364:LYS:HD2	1.89	0.54
1:1:305:GLU:CB	1:1:327:LYS:HZ1	2.21	0.54
24:V:82:ARG:NE	24:V:108:LEU:CD1	2.61	0.54
18:P:208:ASN:O	18:P:212:ASN:ND2	2.40	0.54
19:Q:230:ILE:HG13	19:Q:234:LEU:HD13	1.90	0.54
6:D:18:VAL:HG22	6:D:19:GLU:HA	1.88	0.54
24:V:306:LEU:HD23	24:V:318:LEU:HD21	1.87	0.54
21:S:130:TRP:CZ3	24:V:338:THR:CA	2.91	0.54
2:2:257:GLN:C	3:A:1284:MET:H	2.10	0.54
18:P:189:PHE:H	18:P:241:ARG:HH22	1.53	0.54
27:Y:57:ILE:HD13	27:Y:57:ILE:C	2.28	0.54
18:P:170:SER:CB	18:P:205:LYS:CE	2.83	0.54
1:1:408:ILE:HG12	1:1:466:ARG:NE	2.22	0.54
1:1:410:LEU:HD13	1:1:477:LEU:CD2	2.38	0.54
1:1:467:SER:H	1:1:477:LEU:HD23	1.70	0.54
1:1:519:ARG:HH11	1:1:523:LYS:HB2	1.73	0.54
23:U:377:SER:CB	24:V:70:LEU:HD22	2.37	0.54
17:O:117:ASN:HD22	17:O:118:SER:H	1.55	0.54
4:B:510:LYS:HB2	4:B:513:GLN:OE1	2.08	0.54
12:J:24:LEU:O	12:J:30:LEU:HB2	2.08	0.54
9:G:131:GLN:HG2	9:G:136:VAL:HG22	1.90	0.54
20:R:129:THR:OG1	20:R:130:LYS:N	2.41	0.54
21:S:151:LEU:CD2	21:S:153:MET:CE	2.86	0.54
24:V:333:LEU:CB	24:V:337:ALA:CB	2.86	0.54
27:Y:405:PHE:CD2	27:Y:437:PHE:CE2	2.96	0.54
16:N:16:DC:H2'	16:N:17:DT:H71	1.90	0.54
19:Q:103:ILE:HG23	22:T:144:DT:H5''	1.89	0.54
27:Y:167:VAL:HG22	27:Y:190:LEU:CD2	2.37	0.54
21:S:231:LEU:HA	21:S:232:VAL:HG12	1.90	0.54
3:A:316:GLN:CA	18:P:92:LEU:HD23	2.38	0.54
4:B:343:ILE:CG1	22:T:121:DG:C5'	2.51	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:499:ARG:CG	1:1:530:LEU:HD12	2.37	0.54
1:1:505:ILE:HG22	1:1:506:ALA:N	2.22	0.54
22:T:116:DG:H1'	22:T:117:DC:H5'	1.90	0.54
27:Y:463:ILE:HD11	27:Y:469:TYR:CG	2.43	0.54
15:M:246:CYS:HB3	15:M:265:GLY:HA3	1.89	0.54
1:1:357:LYS:HG3	1:1:357:LYS:O	2.08	0.54
20:R:30:ASP:OD2	20:R:151:LEU:HD21	2.08	0.53
18:P:54:ASP:O	18:P:56:LEU:CD1	2.57	0.53
2:2:235:ASP:CA	2:2:242:LYS:HG3	2.39	0.53
21:S:179:LYS:N	21:S:179:LYS:HD3	2.20	0.53
18:P:111:ASN:OD1	18:P:112:LYS:N	2.41	0.53
1:1:373:MET:CE	1:1:511:LEU:HD13	2.38	0.53
1:1:466:ARG:HB2	1:1:477:LEU:CB	2.38	0.53
1:1:314:HIS:HB3	1:1:325:VAL:HG11	1.89	0.53
4:B:839:MET:HE3	4:B:1010:LEU:HD21	1.91	0.53
4:B:405:ARG:NH2	4:B:629:ASP:OD2	2.40	0.53
22:T:111:DC:H2''	22:T:112:DT:OP1	2.07	0.53
27:Y:635:LEU:O	27:Y:635:LEU:HD13	2.07	0.53
20:R:34:PHE:CE2	20:R:134:LEU:CD2	2.49	0.53
18:P:133:ILE:CG2	18:P:151:LYS:HD2	2.37	0.53
1:1:563:ALA:HA	25:W:450:ARG:NE	2.23	0.53
27:Y:109:THR:HB	27:Y:114:LEU:HD13	1.89	0.53
21:S:136:GLN:HB3	21:S:137:LYS:CE	2.37	0.53
1:1:627:ILE:HB	1:1:654:LEU:CD2	2.37	0.53
16:N:50:DC:H2''	16:N:51:DA:OP1	2.08	0.53
3:A:982:THR:HB	3:A:985:ASP:H	1.73	0.53
7:E:94:LYS:HE2	7:E:98:ILE:HD11	1.89	0.53
8:F:92:ARG:NE	9:G:64:THR:CA	2.60	0.53
2:2:305:ARG:O	3:A:1360:GLY:HA2	2.07	0.53
18:P:37:ARG:CZ	18:P:40:GLU:HB2	2.39	0.53
27:Y:353:SER:HB2	27:Y:378:SER:N	2.17	0.53
27:Y:360:LEU:HD11	27:Y:364:LYS:CE	2.38	0.53
21:S:143:LEU:HD13	21:S:145:ASN:N	2.20	0.53
23:U:119:LEU:CD1	24:V:135:PHE:CD2	2.91	0.53
27:Y:317:LEU:CD2	27:Y:409:ILE:CG2	2.81	0.53
1:1:429:THR:H	1:1:432:PRO:HG2	1.74	0.53
1:1:485:ILE:CG1	1:1:510:LYS:HG2	2.39	0.53
24:V:83:ASP:CG	24:V:92:LEU:HD22	2.28	0.53
24:V:118:HIS:ND1	24:V:120:TYR:CE2	2.77	0.53
27:Y:242:ASN:ND2	27:Y:660:ARG:HH22	2.05	0.53
22:T:155:DC:H2'	22:T:156:DT:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:666:ILE:HD11	4:B:1030:LEU:HD13	1.90	0.53
12:J:1:MET:HB2	12:J:56:LEU:HB2	1.89	0.53
4:B:90:ILE:HD11	4:B:134:LYS:HE2	1.91	0.53
16:N:38:DT:H2"	16:N:39:DC:OP1	2.07	0.53
22:T:132:DA:H2"	22:T:133:DT:OP1	2.06	0.53
18:P:190:LYS:NZ	18:P:303:GLN:N	2.38	0.53
20:R:130:LYS:O	20:R:131:TYR:CD1	2.62	0.53
1:1:474:MET:HE1	1:1:480:ARG:O	2.09	0.53
22:T:109:DT:H2"	22:T:110:DA:OP1	2.07	0.53
27:Y:705:ASP:OD1	27:Y:706:LEU:N	2.41	0.53
27:Y:245:ILE:CG2	27:Y:439:CYS:O	2.48	0.53
3:A:412:ARG:H	18:P:51:VAL:HG12	1.73	0.53
21:S:175:LYS:CE	21:S:175:LYS:C	2.72	0.53
21:S:221:ILE:O	21:S:225:GLU:HB2	2.08	0.53
21:S:218:ASP:CB	21:S:223:GLN:NE2	2.70	0.53
18:P:196:ILE:CG2	18:P:197:HIS:H	2.22	0.53
4:B:343:ILE:O	4:B:344:LYS:HB2	2.07	0.53
16:N:55:DG:H2"	16:N:56:DT:H73	1.91	0.53
2:2:290:ASP:HA	4:B:766:ARG:CZ	2.38	0.53
4:B:350:GLN:NE2	23:U:411:LYS:NZ	2.56	0.53
27:Y:42:MET:HG3	27:Y:48:LYS:CG	2.34	0.53
27:Y:506:ILE:C	27:Y:522:TYR:OH	2.47	0.53
18:P:269:ILE:HD12	18:P:315:ILE:CG2	2.38	0.53
3:A:1376:THR:HG23	7:E:212:ARG:HH22	1.72	0.53
20:R:124:CYS:HB3	20:R:129:THR:HG22	1.89	0.53
20:R:144:ARG:CB	20:R:146:GLU:CD	2.76	0.53
20:R:154:GLU:CD	20:R:155:PRO:N	2.62	0.53
2:2:258:GLY:O	2:2:259:ALA:C	2.46	0.53
3:A:18:GLN:HG2	3:A:1418:LEU:HD13	1.89	0.53
1:1:466:ARG:HE	1:1:475:ASP:CB	2.22	0.53
20:R:61:LEU:HB2	20:R:67:ILE:HD12	1.89	0.53
1:1:695:ARG:HA	1:1:696:ARG:HH22	1.67	0.53
21:S:196:LEU:HD12	21:S:197:ARG:N	2.23	0.53
7:E:19:VAL:O	7:E:23:VAL:HG23	2.08	0.53
18:P:252:VAL:HG22	18:P:285:ASN:HD21	1.73	0.53
22:T:152:DC:H2'	22:T:153:DG:H8	1.73	0.53
20:R:125:PRO:CD	20:R:155:PRO:O	2.57	0.53
20:R:34:PHE:CZ	20:R:134:LEU:C	2.81	0.53
18:P:143:PRO:CB	18:P:182:ARG:NH2	2.50	0.53
24:V:333:LEU:CA	24:V:337:ALA:HB2	2.38	0.53
16:N:19:DT:P	19:Q:194:ILE:HD13	2.49	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:20:DA:O4'	19:Q:215:THR:CG2	2.56	0.53
18:P:116:LYS:HA	18:P:119:MET:HE3	1.90	0.53
16:N:59:DT:H2"	16:N:60:DA:C8	2.44	0.53
20:R:13:LEU:HG	20:R:91:TYR:CD1	2.42	0.53
16:N:21:DA:O4'	19:Q:159:ASN:HB2	2.08	0.53
27:Y:42:MET:SD	27:Y:53:LEU:CD1	2.93	0.53
27:Y:526:LEU:HD12	27:Y:621:LEU:HD22	1.91	0.53
27:Y:555:GLN:HG3	27:Y:564:TRP:HE1	1.73	0.53
16:N:48:DG:C4	16:N:49:DG:N7	2.77	0.53
3:A:541:ILE:HG22	3:A:546:VAL:HG23	1.91	0.53
23:U:142:LYS:HB2	23:U:351:VAL:HG23	1.91	0.53
18:P:303:GLN:NE2	18:P:304:VAL:CG2	2.49	0.53
18:P:313:TYR:CA	18:P:316:LEU:CD2	2.86	0.53
20:R:30:ASP:OD2	20:R:151:LEU:CD1	2.57	0.53
18:P:189:PHE:HD1	18:P:241:ARG:HH21	1.55	0.53
24:V:72:ARG:HH21	24:V:221:GLU:CD	2.12	0.53
18:P:264:LYS:HZ3	18:P:264:LYS:H	1.56	0.53
4:B:560:GLU:OE1	24:V:226:PRO:HG3	2.08	0.53
1:1:421:ARG:HD3	1:1:437:VAL:CG2	2.39	0.53
1:1:473:VAL:HG12	1:1:481:GLU:CG	2.39	0.53
20:R:95:ILE:O	20:R:95:ILE:HG23	2.08	0.53
1:1:596:GLN:O	1:1:600:ARG:HG3	2.09	0.53
1:1:737:THR:O	1:1:738:HIS:HD2	1.92	0.53
23:U:341:LYS:HA	23:U:341:LYS:HE2	1.90	0.53
18:P:190:LYS:HE3	18:P:242:PHE:CD1	2.31	0.53
21:S:130:TRP:NE1	24:V:334:ASP:OD1	2.41	0.53
27:Y:389:GLU:O	27:Y:400:LYS:HE2	2.09	0.53
27:Y:400:LYS:HG3	27:Y:437:PHE:CG	2.44	0.53
27:Y:129:VAL:HG11	27:Y:194:PHE:CE1	2.44	0.53
21:S:244:VAL:N	21:S:245:TRP:HZ3	2.04	0.53
23:U:355:PHE:O	23:U:356:ASP:CB	2.55	0.53
18:P:63:TRP:HD1	18:P:82:ALA:H	1.54	0.53
21:S:136:GLN:C	21:S:137:LYS:HD2	2.21	0.53
1:1:521:ASP:CG	1:1:523:LYS:HG2	2.28	0.53
16:N:68:DT:H2"	16:N:69:DG:OP2	2.09	0.53
3:A:1390:ASN:O	3:A:1399:ARG:CG	2.57	0.53
4:B:1103:ILE:O	4:B:1122:ARG:NH1	2.42	0.53
5:C:52:GLU:HA	14:L:64:LEU:HD22	1.91	0.53
21:S:162:LEU:HD23	21:S:162:LEU:H	1.73	0.53
8:F:96:THR:OG1	9:G:64:THR:CA	2.57	0.53
16:N:19:DT:C2'	16:N:20:DA:C5'	2.86	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:Q:103:ILE:HG12	22:T:143:DT:H2''	0.60	0.53
27:Y:495:MET:HE1	27:Y:696:TRP:HB3	1.91	0.53
23:U:373:TYR:CD2	24:V:72:ARG:NH1	2.75	0.53
27:Y:350:HIS:N	27:Y:384:LEU:HG	2.24	0.53
1:1:446:PHE:HB3	1:1:452:LEU:CD1	2.39	0.53
22:T:117:DC:C2'	22:T:118:DC:H5'	2.27	0.53
3:A:54:ASN:HB3	3:A:247:ARG:HH12	1.74	0.53
8:F:134:ILE:HG22	8:F:136:ARG:HG3	1.91	0.53
5:C:164:ALA:HA	5:C:167:HIS:O	2.09	0.53
26:X:19:LEU:CD1	26:X:58:LEU:HD11	2.39	0.53
3:A:658:LEU:HD23	3:A:659:HIS:NE2	2.24	0.53
23:U:346:GLU:N	23:U:346:GLU:OE1	2.41	0.53
23:U:330:ARG:HG3	23:U:331:GLN:HG2	1.91	0.52
18:P:289:PHE:HZ	18:P:291:ILE:HD11	1.70	0.52
20:R:123:MET:HE2	20:R:129:THR:O	2.08	0.52
20:R:44:LYS:HE3	20:R:54:LEU:CG	2.39	0.52
18:P:144:LYS:O	18:P:148:ASP:CG	2.47	0.52
18:P:30:TYR:HD2	18:P:30:TYR:O	1.92	0.52
3:A:338:GLY:HA2	4:B:1129:ARG:HH22	1.73	0.52
1:1:473:VAL:CB	1:1:481:GLU:HG3	2.38	0.52
19:Q:65:PRO:HG2	19:Q:224:TYR:HD1	1.72	0.52
15:M:7:SER:O	15:M:11:GLU:HG3	2.08	0.52
4:B:295:GLY:HA2	4:B:298:LEU:HB2	1.91	0.52
16:N:32:DA:H8	16:N:32:DA:O5'	1.93	0.52
24:V:333:LEU:HA	24:V:337:ALA:CB	2.37	0.52
27:Y:193:TYR:HH	27:Y:221:ARG:NH1	2.03	0.52
4:B:885:MET:C	18:P:33:LYS:HZ1	2.12	0.52
3:A:320:ARG:HG2	3:A:321:PRO:HD2	1.89	0.52
21:S:136:GLN:CD	21:S:137:LYS:HZ3	2.11	0.52
1:1:487:LEU:HD22	1:1:490:VAL:CG2	2.33	0.52
27:Y:37:ASN:OD1	27:Y:477:THR:HB	2.10	0.52
5:C:73:GLN:O	5:C:129:ILE:HA	2.08	0.52
18:P:181:ARG:O	18:P:181:ARG:HG2	2.09	0.52
18:P:303:GLN:CG	18:P:304:VAL:N	2.70	0.52
20:R:27:LEU:CD1	20:R:128:LEU:C	2.64	0.52
18:P:34:ILE:HD11	18:P:43:VAL:HG11	1.92	0.52
27:Y:190:LEU:HD12	27:Y:190:LEU:C	2.29	0.52
27:Y:193:TYR:OH	27:Y:197:ARG:HD2	2.09	0.52
1:1:403:ILE:HD13	1:1:484:PHE:HD2	1.75	0.52
3:A:33:ALA:HB2	3:A:57:ARG:HB2	1.90	0.52
3:A:1397:LEU:HB3	3:A:1429:ILE:HD12	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:Q:77:GLY:O	19:Q:151:LYS:HE2	2.09	0.52
18:P:142:LEU:CB	18:P:147:LYS:HD3	2.39	0.52
16:N:23:DA:H2	19:Q:116:PHE:CZ	1.96	0.52
21:S:187:HIS:HE1	21:S:226:GLU:N	2.05	0.52
18:P:167:SER:O	18:P:168:MET:HB3	2.09	0.52
27:Y:42:MET:CG	27:Y:48:LYS:HG3	2.35	0.52
3:A:78:PRO:C	4:B:1201:LYS:HZ3	2.11	0.52
4:B:291:ILE:HD12	4:B:291:ILE:H	1.74	0.52
18:P:303:GLN:CG	18:P:304:VAL:HG23	2.34	0.52
18:P:184:GLU:HG3	18:P:184:GLU:O	2.10	0.52
27:Y:111:ARG:HH22	27:Y:197:ARG:HH12	1.57	0.52
1:1:619:ALA:HA	1:1:622:MET:CE	2.39	0.52
27:Y:384:LEU:O	27:Y:384:LEU:HD13	2.10	0.52
21:S:134:TYR:CE1	21:S:138:LYS:NZ	2.77	0.52
1:1:458:SER:OG	1:1:467:SER:HB3	2.08	0.52
1:1:476:PHE:O	1:1:501:VAL:HG23	2.08	0.52
27:Y:42:MET:HG2	27:Y:48:LYS:HG2	1.91	0.52
17:O:87:VAL:O	17:O:88:GLU:HB2	2.09	0.52
27:Y:506:ILE:N	27:Y:506:ILE:HD13	2.25	0.52
3:A:91:PHE:HD2	3:A:179:LEU:O	1.92	0.52
4:B:249:ARG:HH12	4:B:418:LYS:CD	2.22	0.52
3:A:12:ARG:NH1	4:B:1218:THR:OG1	2.43	0.52
13:K:55:LYS:HB3	13:K:81:TYR:CD2	2.45	0.52
19:Q:106:ILE:HG23	19:Q:139:TYR:CE1	2.45	0.52
3:A:646:PHE:O	3:A:650:GLN:HG2	2.10	0.52
20:R:122:TYR:CE2	20:R:136:ALA:HB2	2.44	0.52
18:P:339:LEU:HD12	18:P:339:LEU:H	1.74	0.52
27:Y:32:LEU:HD12	27:Y:57:ILE:CD1	2.39	0.52
27:Y:697:ILE:HG21	27:Y:699:GLN:NE2	2.25	0.52
22:T:97:DC:H2"	22:T:98:DA:OP2	2.09	0.52
18:P:94:THR:CG2	18:P:110:LEU:CD1	2.87	0.52
16:N:69:DG:H2"	16:N:70:DG:OP2	2.08	0.52
23:U:365:TYR:CZ	23:U:391:LYS:HD2	2.44	0.52
20:R:71:LYS:C	20:R:71:LYS:HD2	2.30	0.52
3:A:340:LEU:HD21	4:B:1199:ALA:HB3	1.91	0.52
27:Y:24:TYR:CE2	27:Y:482:SER:CB	2.79	0.52
18:P:289:PHE:CE1	18:P:291:ILE:N	2.73	0.52
20:R:139:LEU:HD22	20:R:148:LEU:O	2.10	0.52
18:P:142:LEU:CG	18:P:143:PRO:HD2	2.31	0.52
21:S:203:LYS:CD	21:S:242:ARG:NE	2.73	0.52
27:Y:185:CYS:HB3	27:Y:192:PRO:HD3	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:V:295:PRO:O	24:V:299:ILE:CG1	2.56	0.52
21:S:141:PRO:HB3	21:S:177:THR:HG23	1.92	0.52
1:1:353:ASP:HB2	1:1:448:THR:HG1	1.75	0.52
1:1:356:LEU:CB	1:1:427:TRP:HD1	2.22	0.52
20:R:64:ASP:O	20:R:65:ARG:HB2	2.09	0.52
27:Y:179:GLU:HG2	27:Y:180:LYS:N	2.25	0.52
23:U:111:LEU:HB3	24:V:139:ASN:OD1	2.09	0.52
4:B:438:GLU:HG3	4:B:440:HIS:HB2	1.91	0.52
27:Y:412:TYR:CD1	27:Y:412:TYR:N	2.78	0.52
18:P:252:VAL:C	18:P:285:ASN:OD1	2.46	0.52
18:P:320:ARG:CG	18:P:321:ASP:N	2.69	0.52
18:P:51:VAL:CG2	18:P:52:LEU:N	2.73	0.52
18:P:29:VAL:C	18:P:30:TYR:CD1	2.83	0.52
16:N:28:DT:OP2	24:V:295:PRO:HD2	2.07	0.52
21:S:136:GLN:HB3	21:S:137:LYS:CD	2.40	0.52
18:P:152:GLU:CG	18:P:155:LYS:CE	2.63	0.52
27:Y:176:PHE:HD1	27:Y:176:PHE:N	2.05	0.52
27:Y:253:THR:HG22	27:Y:416:PHE:HB3	1.91	0.52
18:P:252:VAL:CG1	18:P:285:ASN:HD21	2.16	0.52
20:R:38:LEU:O	20:R:87:TYR:HD1	1.93	0.52
21:S:130:TRP:HE3	24:V:338:THR:O	1.88	0.52
24:V:63:ARG:HG3	24:V:215:VAL:HG12	1.92	0.52
18:P:54:ASP:O	18:P:56:LEU:HD12	2.10	0.52
27:Y:215:ASP:CB	27:Y:218:ILE:HG22	2.40	0.52
18:P:225:ILE:CD1	18:P:227:THR:CA	2.87	0.52
2:2:284:LEU:CD1	3:A:1080:THR:HG22	2.33	0.52
1:1:476:PHE:HD2	1:1:477:LEU:HD12	1.66	0.52
3:A:22:PHE:HB3	4:B:1211:ASN:OD1	2.08	0.52
3:A:494:SER:HB3	3:A:497:THR:OG1	2.10	0.52
7:E:156:LEU:HD11	7:E:197:LYS:HB2	1.90	0.52
9:G:119:LEU:HD12	9:G:132:SER:HB2	1.91	0.52
20:R:135:GLU:HA	20:R:138:GLN:HG2	1.91	0.52
20:R:151:LEU:HD22	20:R:151:LEU:H	1.73	0.52
27:Y:132:LYS:CA	27:Y:155:LEU:HD12	2.40	0.52
24:V:333:LEU:HD13	24:V:349:TYR:HD2	1.75	0.52
1:1:773:ILE:HD12	1:1:773:ILE:C	2.31	0.52
22:T:140:DC:C1'	22:T:141:DC:C5	2.92	0.52
27:Y:213:LEU:HD13	27:Y:213:LEU:C	2.30	0.52
24:V:127:LYS:HB3	24:V:221:GLU:HG3	1.92	0.52
3:A:227:VAL:CG1	6:D:16:LYS:HE3	2.40	0.52
1:1:414:SER:O	1:1:417:VAL:HB	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:484:PHE:HD2	1:1:509:ALA:HB3	1.74	0.52
1:1:498:PHE:O	1:1:501:VAL:HG13	2.10	0.52
3:A:22:PHE:HB2	4:B:1211:ASN:OD1	2.08	0.52
3:A:22:PHE:CB	4:B:1211:ASN:CG	2.78	0.52
2:2:268:ARG:HG3	3:A:734:GLU:CD	2.31	0.52
4:B:174:LEU:HD11	4:B:204:ILE:HG13	1.91	0.52
22:T:130:DA:N9	22:T:131:DC:O4'	2.43	0.51
18:P:313:TYR:CD2	18:P:340:PRO:HG2	2.45	0.51
18:P:223:LEU:CD2	19:Q:177:PHE:CE1	2.93	0.51
1:1:446:PHE:O	1:1:452:LEU:HD22	2.09	0.51
16:N:22:DA:H4'	19:Q:158:GLN:HG3	1.92	0.51
3:A:1116:LEU:H	3:A:1308:THR:HB	1.73	0.51
20:R:154:GLU:OE2	20:R:155:PRO:N	2.43	0.51
18:P:143:PRO:O	18:P:147:LYS:CA	2.56	0.51
21:S:127:LYS:C	21:S:153:MET:HE3	2.30	0.51
21:S:148:LEU:CA	21:S:154:LYS:HE2	2.38	0.51
27:Y:252:LEU:HD11	27:Y:383:LEU:HG	1.92	0.51
27:Y:28:ILE:HG22	27:Y:57:ILE:HD11	1.81	0.51
27:Y:681:LEU:HD21	27:Y:696:TRP:HH2	1.75	0.51
1:1:754:ARG:HH12	1:1:754:ARG:HG2	0.69	0.51
16:N:22:DA:H4'	19:Q:158:GLN:CG	2.40	0.51
13:K:49:GLU:HG3	13:K:94:ILE:CG1	2.40	0.51
3:A:1149:ALA:HB2	11:I:47:GLU:HA	1.92	0.51
8:F:73:ALA:HB2	8:F:143:PHE:CZ	2.46	0.51
20:R:126:ILE:CB	20:R:154:GLU:CG	2.84	0.51
18:P:41:GLY:O	18:P:42:ASP:HB2	2.09	0.51
27:Y:111:ARG:NH2	27:Y:197:ARG:NH1	2.58	0.51
22:T:121:DG:C2'	22:T:122:DT:C5'	2.86	0.51
3:A:227:VAL:HG13	6:D:16:LYS:HG2	1.91	0.51
1:1:424:PHE:CE2	1:1:454:VAL:CG2	2.94	0.51
1:1:410:LEU:CD2	1:1:457:TYR:CE2	2.94	0.51
27:Y:619:THR:HG22	27:Y:621:LEU:HD12	1.93	0.51
3:A:179:LEU:HD13	3:A:297:GLN:HG3	1.91	0.51
2:2:207:ILE:CA	3:A:1172:LEU:CD2	2.86	0.51
23:U:387:ILE:CG2	23:U:388:PRO:HD2	2.40	0.51
3:A:940:ARG:HB3	3:A:941:LYS:HE2	1.92	0.51
22:T:136:DA:H2'	22:T:137:DA:C8	2.46	0.51
18:P:302:LEU:HB2	18:P:304:VAL:HG23	1.72	0.51
22:T:138:DA:H2''	22:T:139:DC:H5	1.75	0.51
1:1:420:TRP:HB3	1:1:424:PHE:CE2	2.45	0.51
1:1:489:GLU:HB3	1:1:491:HIS:CE1	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:68:SER:HB3	20:R:90:LYS:HZ3	1.74	0.51
1:1:515:ALA:C	1:1:681:ARG:CD	2.65	0.51
3:A:357:PRO:HD2	4:B:833:TYR:CZ	2.45	0.51
18:P:299:GLY:HA2	18:P:309:ILE:HD11	1.91	0.51
18:P:290:GLN:HG3	18:P:331:ASN:ND2	2.15	0.51
2:2:260:THR:HB	2:2:260:THR:CA	2.20	0.51
18:P:103:ASP:O	18:P:104:MET:C	2.47	0.51
18:P:206:THR:C	18:P:209:ILE:HG12	2.27	0.51
1:1:490:VAL:O	1:1:490:VAL:HG22	2.11	0.51
3:A:7:SER:HG	4:B:1161:HIS:CE1	2.24	0.51
3:A:23:SER:HB2	3:A:233:TRP:CE2	2.45	0.51
17:O:71:PHE:HE2	19:Q:95:ASN:HB2	1.74	0.51
16:N:37:DA:H2''	16:N:38:DT:OP1	2.09	0.51
18:P:279:VAL:HG22	18:P:302:LEU:CD2	1.04	0.51
3:A:1444:MET:HB2	8:F:133:VAL:HG12	1.92	0.51
24:V:69:TRP:HZ3	24:V:71:VAL:CG2	2.24	0.51
27:Y:348:VAL:O	27:Y:352:ILE:HG12	2.10	0.51
1:1:476:PHE:CZ	1:1:487:LEU:CD2	2.93	0.51
1:1:518:VAL:HA	1:1:524:ILE:HG21	1.92	0.51
16:N:56:DT:C2'	16:N:57:DA:C5'	2.85	0.51
22:T:117:DC:C2'	22:T:118:DC:C5'	2.86	0.51
18:P:269:ILE:HD12	18:P:269:ILE:N	2.26	0.51
1:1:596:GLN:NE2	1:1:746:PRO:CD	2.73	0.51
16:N:52:DT:H2''	16:N:53:DA:OP1	2.09	0.51
19:Q:166:VAL:HG11	19:Q:234:LEU:HD23	1.93	0.51
4:B:530:GLY:O	4:B:532:ALA:N	2.44	0.51
18:P:293:ILE:CD1	18:P:293:ILE:N	2.57	0.51
16:N:23:DA:C4'	19:Q:120:LYS:CD	2.81	0.51
1:1:327:LYS:HG3	1:1:506:ALA:N	2.25	0.51
1:1:476:PHE:CZ	1:1:502:VAL:CG2	2.94	0.51
1:1:522:ASP:HA	1:1:524:ILE:HD12	1.93	0.51
1:1:376:ASN:HB2	1:1:380:ARG:HD2	1.90	0.51
4:B:773:MET:CE	4:B:985:GLY:HA2	2.40	0.51
27:Y:486:THR:HG21	27:Y:670:LEU:CD2	2.40	0.51
3:A:1431:GLY:HA3	4:B:1197:PRO:HD3	1.91	0.51
4:B:238:ALA:HB3	4:B:256:VAL:HB	1.93	0.51
22:T:134:DT:C2	22:T:135:DG:N7	2.79	0.51
20:R:144:ARG:HA	20:R:144:ARG:HH11	1.62	0.51
18:P:173:ALA:CA	18:P:176:ILE:CD1	2.86	0.51
27:Y:495:MET:SD	27:Y:696:TRP:CZ3	3.03	0.51
24:V:127:LYS:H	24:V:127:LYS:HD3	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:237:LYS:HZ2	21:S:241:PRO:HG2	1.74	0.51
18:P:81:GLU:OE2	18:P:82:ALA:O	2.29	0.51
4:B:1124:ARG:CB	18:P:60:ARG:HH21	2.24	0.51
1:1:302:GLU:O	1:1:303:ARG:HB2	2.10	0.51
1:1:446:PHE:CB	1:1:452:LEU:HD11	2.41	0.51
1:1:476:PHE:CE1	1:1:487:LEU:HD11	2.46	0.51
1:1:459:MET:H	1:1:464:ARG:HB3	1.74	0.51
1:1:310:ILE:O	1:1:310:ILE:HG23	2.09	0.51
18:P:160:GLU:C	18:P:161:LYS:HG2	2.31	0.51
27:Y:655:SER:O	27:Y:689:LYS:NZ	2.43	0.51
4:B:338:GLY:HA2	4:B:339:THR:HB	1.93	0.51
3:A:1348:LEU:O	3:A:1352:VAL:HG23	2.11	0.51
27:Y:635:LEU:HD13	27:Y:635:LEU:C	2.31	0.51
13:K:5:ASP:HB3	13:K:7:PHE:CE2	2.45	0.51
27:Y:630:THR:O	27:Y:636:LYS:HE3	2.11	0.51
27:Y:362:HIS:CE1	27:Y:366:LEU:HD11	2.45	0.51
3:A:1095:THR:HG21	3:A:1112:LYS:HB2	1.93	0.51
3:A:472:LEU:O	3:A:475:THR:HB	2.10	0.51
20:R:130:LYS:C	20:R:131:TYR:CG	2.84	0.51
20:R:44:LYS:HG2	20:R:54:LEU:CD2	2.41	0.51
27:Y:111:ARG:HH21	27:Y:129:VAL:HG11	1.76	0.51
27:Y:212:TYR:CZ	27:Y:222:VAL:CG2	2.93	0.51
18:P:103:ASP:OD1	18:P:104:MET:N	2.44	0.51
18:P:116:LYS:HA	18:P:119:MET:CE	2.40	0.51
1:1:466:ARG:CB	1:1:477:LEU:CB	2.89	0.51
20:R:17:VAL:HG23	20:R:18:ARG:N	2.25	0.51
18:P:266:ILE:CG2	18:P:266:ILE:O	2.57	0.51
7:E:64:PRO:HB2	7:E:69:ILE:HD11	1.93	0.51
16:N:33:DA:C2'	16:N:34:DT:H72	2.41	0.51
18:P:286:ILE:CG2	18:P:287:LEU:N	2.74	0.51
18:P:133:ILE:HD11	18:P:151:LYS:HG2	1.92	0.51
21:S:131:ALA:CB	21:S:151:LEU:CD1	2.89	0.51
21:S:154:LYS:N	21:S:154:LYS:CE	2.61	0.51
24:V:333:LEU:CD2	24:V:349:TYR:HD2	2.21	0.51
18:P:187:ARG:NE	18:P:189:PHE:HA	2.26	0.51
22:T:147:DA:H2'	22:T:148:DT:C6	2.46	0.51
27:Y:185:CYS:SG	27:Y:192:PRO:CB	2.99	0.51
18:P:108:LYS:HA	18:P:111:ASN:OD1	2.11	0.51
3:A:1450:LEU:CB	9:G:18:PHE:O	2.46	0.51
3:A:313:GLN:HG3	18:P:98:LYS:HE3	1.90	0.51
4:B:1124:ARG:O	18:P:60:ARG:NH2	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:406:SER:CB	1:1:482:TRP:CE3	2.94	0.51
1:1:484:PHE:CE1	1:1:486:ILE:CG1	2.94	0.51
1:1:484:PHE:CD2	1:1:509:ALA:CB	2.93	0.51
3:A:55:ASP:HA	3:A:58:LEU:H	1.76	0.51
21:S:193:LEU:O	21:S:196:LEU:HG	2.10	0.51
18:P:121:LYS:C	18:P:122:LYS:HG2	2.30	0.51
3:A:919:ILE:HG12	3:A:983:ILE:HD13	1.93	0.51
18:P:286:ILE:HD13	18:P:292:PRO:HA	1.76	0.50
21:S:233:LEU:N	21:S:233:LEU:CD1	2.74	0.50
8:F:100:GLN:OE1	9:G:15:PRO:HG2	2.10	0.50
1:1:408:ILE:HG21	1:1:476:PHE:H	1.75	0.50
19:Q:224:TYR:O	19:Q:228:GLU:HG2	2.11	0.50
19:Q:65:PRO:HG2	19:Q:224:TYR:CD1	2.46	0.50
17:O:64:GLY:HA3	17:O:83:CYS:HB3	1.92	0.50
3:A:446:ARG:HD2	3:A:480:ALA:HB2	1.92	0.50
24:V:126:LYS:HB3	24:V:128:VAL:HG23	1.93	0.50
22:T:134:DT:H6	24:V:323:ARG:CD	1.83	0.50
20:R:123:MET:SD	20:R:130:LYS:CD	3.00	0.50
2:2:252:ASN:ND2	3:A:1206:ASP:HB2	2.26	0.50
23:U:119:LEU:CD2	23:U:395:PHE:CE1	2.94	0.50
4:B:1201:LYS:HD3	4:B:1205:GLN:OE1	2.11	0.50
3:A:497:THR:CG2	4:B:1146:PHE:HD1	2.23	0.50
19:Q:153:THR:CG2	19:Q:154:ASP:H	2.23	0.50
10:H:89:LEU:C	10:H:91:ASP:H	2.14	0.50
22:T:134:DT:H1'	22:T:135:DG:C8	2.47	0.50
22:T:103:DC:C6	22:T:104:DT:H72	2.46	0.50
3:A:312:PRO:CA	18:P:96:ILE:HG21	2.38	0.50
16:N:59:DT:C2	16:N:60:DA:C5	2.99	0.50
20:R:61:LEU:HB2	20:R:67:ILE:CD1	2.42	0.50
20:R:95:ILE:O	20:R:95:ILE:HG12	2.12	0.50
3:A:1436:ILE:HD13	4:B:1139:ILE:HG23	1.93	0.50
21:S:193:LEU:HD13	21:S:196:LEU:HD21	1.93	0.50
24:V:109:ASN:OD1	24:V:111:ASN:OD1	2.29	0.50
4:B:35:SER:HA	4:B:811:TYR:HE1	1.77	0.50
24:V:333:LEU:O	24:V:337:ALA:CA	2.60	0.50
1:1:585:PRO:HG2	1:1:756:ARG:NH1	2.22	0.50
22:T:145:DT:H2''	22:T:146:DT:C6	2.45	0.50
22:T:147:DA:N3	22:T:148:DT:N3	2.60	0.50
27:Y:218:ILE:CD1	27:Y:221:ARG:HH21	2.24	0.50
18:P:108:LYS:HA	18:P:111:ASN:CG	2.31	0.50
3:A:67:CYS:O	3:A:70:CYS:HB3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:236:GLU:HG3	15:M:237:ASP:N	2.21	0.50
12:J:48:ARG:HE	12:J:49:MET:CE	2.20	0.50
7:E:15:ALA:O	7:E:19:VAL:HG23	2.10	0.50
11:I:65:ASP:HB3	11:I:68:LEU:HD12	1.93	0.50
4:B:701:ILE:HD11	4:B:703:ILE:HD11	1.94	0.50
22:T:134:DT:C1'	22:T:135:DG:C8	2.95	0.50
27:Y:32:LEU:HD12	27:Y:61:MET:HG3	1.93	0.50
3:A:344:ARG:CD	4:B:1118:PRO:O	2.47	0.50
3:A:89:PRO:HB2	3:A:204:THR:HB	1.93	0.50
27:Y:21:GLN:CB	27:Y:53:LEU:HD21	2.41	0.50
2:2:208:SER:CA	3:A:1172:LEU:CD1	2.89	0.50
27:Y:670:LEU:HD23	27:Y:672:GLY:H	1.76	0.50
3:A:870:GLU:HB2	7:E:204:THR:CG2	2.40	0.50
4:B:574:SER:HB3	4:B:591:ARG:HE	1.77	0.50
10:H:17:PRO:HB3	10:H:24:CYS:SG	2.52	0.50
4:B:710:LEU:HA	4:B:733:HIS:HB3	1.93	0.50
22:T:134:DT:C2	22:T:135:DG:C8	3.00	0.50
18:P:130:PHE:HA	18:P:133:ILE:HG22	1.81	0.50
21:S:154:LYS:HA	21:S:154:LYS:NZ	0.37	0.50
24:V:307:PHE:CE2	24:V:349:TYR:OH	2.65	0.50
24:V:59:LEU:HG	24:V:214:ILE:HG13	1.92	0.50
21:S:208:LYS:N	21:S:208:LYS:HD2	2.25	0.50
27:Y:492:PHE:HE2	27:Y:707:ASN:OD1	1.86	0.50
21:S:184:TYR:O	21:S:221:ILE:CG2	2.58	0.50
2:2:296:PHE:HZ	3:A:1080:THR:OG1	1.94	0.50
1:1:447:GLN:CG	1:1:448:THR:H	2.20	0.50
1:1:534:LYS:O	1:1:534:LYS:HG3	2.11	0.50
27:Y:555:GLN:O	27:Y:555:GLN:CD	2.50	0.50
21:S:166:LEU:HD12	21:S:167:ASP:N	2.25	0.50
20:R:144:ARG:NH1	20:R:144:ARG:CA	2.41	0.50
21:S:175:LYS:HZ3	21:S:175:LYS:HA	1.14	0.50
18:P:106:PHE:N	18:P:106:PHE:CD1	2.80	0.50
1:1:528:ASN:HA	1:1:532:GLY:C	2.32	0.50
3:A:714:PHE:O	3:A:718:VAL:HG23	2.12	0.50
27:Y:106:LEU:HD13	27:Y:196:VAL:HG13	1.92	0.50
4:B:373:ARG:HG2	4:B:566:LEU:HD23	1.92	0.50
2:2:269:PHE:HE2	2:2:306:TRP:CZ2	2.30	0.50
22:T:140:DC:C5	22:T:141:DC:N4	2.80	0.50
27:Y:339:ILE:HG22	27:Y:343:LYS:HE3	1.93	0.50
1:1:429:THR:C	1:1:432:PRO:HD2	2.31	0.50
1:1:485:ILE:HG12	1:1:510:LYS:HG2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:13:LEU:HD21	20:R:91:TYR:HE1	1.76	0.50
27:Y:562:GLU:OE2	27:Y:599:LEU:HD11	2.11	0.50
22:T:108:DG:C2'	22:T:109:DT:C5'	2.86	0.50
27:Y:450:PHE:CE1	27:Y:475:PHE:CD2	3.00	0.50
18:P:258:TYR:CD1	18:P:258:TYR:O	2.65	0.50
23:U:98:TYR:CE1	24:V:96:ARG:NH1	2.79	0.50
27:Y:37:ASN:ND2	27:Y:477:THR:HG21	2.26	0.50
20:R:27:LEU:CD2	20:R:129:THR:HB	2.42	0.50
20:R:28:VAL:HG21	20:R:57:LEU:CB	2.42	0.50
21:S:158:LYS:CD	21:S:162:LEU:HG	2.40	0.50
24:V:333:LEU:CB	24:V:337:ALA:HB3	2.42	0.50
24:V:59:LEU:HD21	24:V:214:ILE:CG1	2.42	0.50
3:A:416:ARG:HH12	18:P:37:ARG:CZ	2.22	0.50
27:Y:467:ASP:CA	27:Y:470:PRO:HD2	2.41	0.50
18:P:174:ALA:O	18:P:178:ILE:HG12	2.12	0.50
1:1:621:LYS:HZ2	1:1:621:LYS:HB2	1.74	0.50
2:2:284:LEU:CD1	3:A:1080:THR:CG2	2.90	0.50
27:Y:360:LEU:CB	27:Y:375:ARG:HD3	2.37	0.50
18:P:87:LEU:HD13	18:P:126:VAL:HG22	1.85	0.50
1:1:424:PHE:HA	1:1:427:TRP:CZ3	2.47	0.50
27:Y:464:SER:HA	27:Y:466:LEU:HD22	1.94	0.50
27:Y:563:VAL:CG1	27:Y:564:TRP:N	2.75	0.50
27:Y:539:VAL:HG12	27:Y:623:ILE:HG12	1.92	0.50
18:P:269:ILE:HB	18:P:272:LYS:CG	2.41	0.50
18:P:118:VAL:O	18:P:118:VAL:CG2	2.58	0.50
4:B:70:ILE:HG22	4:B:89:GLU:HG2	1.93	0.50
3:A:343:LYS:HB2	4:B:1117:GLN:OE1	2.11	0.50
4:B:1008:PRO:HB3	4:B:1087:PHE:HE1	1.77	0.50
27:Y:218:ILE:HG23	27:Y:219:ALA:N	2.27	0.49
18:P:106:PHE:HD1	18:P:106:PHE:N	2.09	0.49
1:1:305:GLU:OE1	1:1:330:CYS:HA	2.11	0.49
1:1:370:LEU:O	1:1:373:MET:HB3	2.11	0.49
1:1:303:ARG:CZ	1:1:471:GLN:HG3	2.41	0.49
1:1:473:VAL:HG12	1:1:481:GLU:HG3	1.94	0.49
3:A:192:GLY:C	22:T:117:DC:OP2	2.51	0.49
27:Y:539:VAL:HG13	27:Y:623:ILE:HG12	1.93	0.49
27:Y:567:LYS:HG2	27:Y:568:LEU:HG	1.94	0.49
15:M:46:LEU:HD21	17:O:15:ILE:HA	1.93	0.49
22:T:131:DC:H2''	22:T:132:DA:C8	2.46	0.49
22:T:150:DG:H2''	22:T:151:DG:H5'	1.94	0.49
20:R:146:GLU:CD	20:R:146:GLU:N	2.64	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:42:ASP:C	18:P:55:LYS:HZ3	2.14	0.49
27:Y:252:LEU:CD1	27:Y:383:LEU:HG	2.42	0.49
27:Y:540:PHE:HB2	27:Y:622:MET:SD	2.52	0.49
27:Y:495:MET:CG	27:Y:686:PHE:CB	2.73	0.49
18:P:196:ILE:CG1	18:P:197:HIS:CD2	2.95	0.49
1:1:403:ILE:CD1	1:1:484:PHE:CD2	2.94	0.49
22:T:108:DG:H2'	22:T:109:DT:C6	2.47	0.49
1:1:391:GLY:CA	1:1:394:LEU:HD13	2.42	0.49
3:A:132:LYS:HZ2	3:A:1415:SER:HB3	1.78	0.49
4:B:684:LEU:HA	4:B:689:LEU:HD12	1.93	0.49
1:1:723:GLN:O	1:1:727:VAL:HG22	2.13	0.49
22:T:136:DA:OP2	24:V:325:PRO:HG3	2.13	0.49
18:P:252:VAL:HG23	18:P:289:PHE:CD2	2.47	0.49
3:A:1442:ASP:OD1	9:G:63:PRO:CD	2.60	0.49
16:N:16:DC:H2'	16:N:17:DT:C7	2.42	0.49
2:2:252:ASN:HB3	3:A:1206:ASP:H	1.77	0.49
16:N:28:DT:H72	24:V:292:ILE:CG2	2.43	0.49
24:V:292:ILE:HD12	24:V:328:HIS:CE1	2.47	0.49
27:Y:666:LEU:HD23	27:Y:679:MET:CB	2.42	0.49
23:U:138:ARG:NH2	24:V:57:LEU:HB3	2.18	0.49
4:B:433:GLN:CB	23:U:326:ARG:NE	2.76	0.49
4:B:343:ILE:HG12	22:T:121:DG:H5'	1.81	0.49
1:1:712:ASP:OD1	25:W:449:ASP:N	2.43	0.49
1:1:350:PRO:HA	1:1:481:GLU:O	2.12	0.49
1:1:407:VAL:HG13	1:1:451:GLY:CA	2.42	0.49
1:1:425:LEU:HD23	1:1:425:LEU:C	2.31	0.49
1:1:476:PHE:CD1	1:1:487:LEU:CD1	2.95	0.49
1:1:494:PRO:HD3	1:1:527:LEU:HD21	1.94	0.49
1:1:490:VAL:CG2	1:1:531:ILE:HD13	2.43	0.49
27:Y:237:ALA:HB1	27:Y:458:ILE:CG2	2.31	0.49
3:A:1193:LEU:HB2	3:A:1260:LEU:CD2	2.42	0.49
5:C:116:LYS:HD3	5:C:140:ASN:HA	1.93	0.49
3:A:216:VAL:O	3:A:220:THR:HB	2.12	0.49
18:P:279:VAL:HA	18:P:302:LEU:CD2	2.30	0.49
20:R:147:PHE:HB2	20:R:156:LEU:CG	2.43	0.49
4:B:449:ASN:ND2	18:P:138:ASP:OD2	2.33	0.49
21:S:130:TRP:CZ3	24:V:337:ALA:C	2.85	0.49
24:V:314:SER:CB	24:V:347:PHE:O	2.60	0.49
18:P:173:ALA:O	18:P:176:ILE:HG12	2.12	0.49
22:T:147:DA:C2	22:T:148:DT:N3	2.81	0.49
21:S:237:LYS:HZ2	21:S:241:PRO:CG	2.21	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:268:ASP:OD1	18:P:91:ASN:ND2	2.31	0.49
27:Y:360:LEU:HD11	27:Y:364:LYS:HD2	1.94	0.49
1:1:457:TYR:O	1:1:477:LEU:HD21	2.12	0.49
16:N:57:DA:C2	16:N:58:DC:C2	3.00	0.49
1:1:335:TYR:CB	1:1:336:PRO:HD3	2.42	0.49
16:N:36:DT:H2''	16:N:37:DA:H8	1.68	0.49
16:N:46:DC:H2''	16:N:47:DA:H5'	1.94	0.49
18:P:288:LEU:CD2	18:P:328:LEU:CD1	2.79	0.49
20:R:126:ILE:HB	20:R:154:GLU:CG	2.43	0.49
18:P:148:ASP:OD1	18:P:149:CYS:N	2.45	0.49
21:S:203:LYS:CG	21:S:204:GLY:N	2.54	0.49
21:S:233:LEU:CD1	21:S:246:TYR:C	2.80	0.49
27:Y:124:ARG:CD	27:Y:374:LEU:HD23	2.42	0.49
21:S:134:TYR:CD2	21:S:147:LEU:HD23	2.47	0.49
18:P:126:VAL:HG13	18:P:127:GLN:N	2.27	0.49
23:U:374:VAL:HG21	24:V:73:LEU:HD11	1.95	0.49
23:U:374:VAL:HG11	24:V:75:MET:SD	2.53	0.49
1:1:328:LYS:HE3	1:1:329:ARG:HE	1.77	0.49
2:2:290:ASP:C	4:B:766:ARG:HH22	2.14	0.49
18:P:322:LYS:NZ	18:P:322:LYS:N	2.59	0.49
3:A:1095:THR:HG23	3:A:1113:THR:HG23	1.92	0.49
18:P:313:TYR:CA	18:P:316:LEU:HD21	2.40	0.49
18:P:135:MET:O	18:P:138:ASP:OD1	2.30	0.49
24:V:340:VAL:O	24:V:340:VAL:HG13	2.11	0.49
16:N:24:DG:H4'	19:Q:118:SER:OG	2.10	0.49
21:S:210:LEU:HB3	21:S:214:TRP:CZ3	2.47	0.49
18:P:113:ALA:O	18:P:116:LYS:CG	2.56	0.49
8:F:97:ARG:NH1	9:G:15:PRO:CB	2.76	0.49
27:Y:346:MET:CA	27:Y:384:LEU:CD2	2.88	0.49
27:Y:360:LEU:HD12	27:Y:375:ARG:HD2	1.94	0.49
16:N:61:DA:C2'	16:N:62:DA:C5'	2.86	0.49
2:2:288:SER:HA	3:A:827:THR:HG21	1.93	0.49
20:R:13:LEU:CD2	20:R:91:TYR:CE1	2.96	0.49
27:Y:450:PHE:CZ	27:Y:475:PHE:CG	3.01	0.49
23:U:342:LEU:HD12	23:U:413:MET:HE3	1.94	0.49
3:A:12:ARG:O	4:B:1194:ILE:HG22	2.12	0.49
27:Y:20:GLU:O	27:Y:24:TYR:CG	2.66	0.49
4:B:1072:MET:HB3	4:B:1081:LEU:HD12	1.94	0.49
4:B:211:VAL:HG13	4:B:495:LEU:HD23	1.93	0.49
18:P:254:THR:CA	18:P:257:GLU:CD	2.81	0.49
20:R:144:ARG:O	20:R:145:THR:CB	2.61	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:147:PHE:HB2	20:R:156:LEU:HD21	1.94	0.49
18:P:146:VAL:H	18:P:182:ARG:HD3	1.78	0.49
21:S:148:LEU:HB2	21:S:154:LYS:CD	2.43	0.49
21:S:161:GLU:O	21:S:164:LYS:HD3	2.11	0.49
16:N:24:DG:C3'	19:Q:118:SER:HB3	2.41	0.49
22:T:98:DA:H2''	22:T:99:DC:OP2	2.12	0.49
18:P:157:CYS:SG	18:P:171:ILE:HG12	2.53	0.49
18:P:174:ALA:HB2	18:P:206:THR:HG23	1.95	0.49
8:F:97:ARG:HH12	9:G:15:PRO:CB	2.26	0.49
1:1:476:PHE:N	1:1:485:ILE:HG22	2.28	0.49
3:A:192:GLY:HA3	22:T:116:DG:C3'	2.42	0.49
2:2:190:THR:CA	7:E:50:MET:SD	3.00	0.49
18:P:160:GLU:OE2	18:P:162:THR:HB	2.13	0.49
18:P:256:ALA:N	18:P:257:GLU:OE1	2.45	0.49
20:R:44:LYS:HZ3	20:R:49:ILE:HB	1.78	0.49
18:P:150:ALA:HA	18:P:178:ILE:HD11	1.88	0.49
18:P:195:LEU:HD23	18:P:196:ILE:HB	1.94	0.49
1:1:410:LEU:HD13	1:1:477:LEU:HD11	1.95	0.49
16:N:59:DT:H2''	16:N:60:DA:H8	1.76	0.49
16:N:59:DT:C4	16:N:60:DA:C6	3.00	0.49
3:A:1116:LEU:HG	3:A:1327:ILE:HD11	1.95	0.49
4:B:899:ILE:HD11	4:B:911:ILE:HA	1.94	0.49
3:A:154:SER:HB3	3:A:162:VAL:HG23	1.95	0.49
19:Q:175:LEU:O	19:Q:175:LEU:HD23	2.13	0.49
18:P:190:LYS:HD3	18:P:242:PHE:CZ	2.47	0.49
20:R:141:ASN:ND2	20:R:142:PHE:CE1	2.73	0.49
24:V:306:LEU:HD22	24:V:318:LEU:HD23	1.87	0.49
8:F:92:ARG:HH21	9:G:63:PRO:CA	2.24	0.49
27:Y:129:VAL:CG1	27:Y:194:PHE:CE1	2.96	0.49
21:S:219:GLU:C	21:S:223:GLN:OE1	2.43	0.49
18:P:225:ILE:CD1	18:P:226:ASP:C	2.80	0.49
18:P:209:ILE:HG13	18:P:210:MET:N	2.27	0.49
21:S:142:VAL:HG22	21:S:147:LEU:CD1	2.43	0.49
1:1:405:LYS:NZ	1:1:483:GLY:HA3	2.27	0.49
1:1:436:ALA:HB3	1:1:452:LEU:HD21	1.93	0.49
1:1:408:ILE:HG22	1:1:484:PHE:O	2.13	0.49
1:1:508:HIS:CE1	1:1:509:ALA:HB2	2.48	0.49
18:P:262:LYS:HB3	18:P:323:LEU:HD23	1.94	0.49
4:B:62:ILE:HG21	4:B:417:PHE:HD2	1.78	0.49
20:R:123:MET:CE	20:R:130:LYS:CD	2.60	0.49
22:T:138:DA:C2'	22:T:139:DC:C5	2.96	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:410:LEU:HD21	1:1:457:TYR:CE2	2.48	0.49
4:B:249:ARG:NH1	4:B:418:LYS:CD	2.76	0.49
3:A:1004:ASN:CG	7:E:167:ARG:HD2	2.33	0.49
18:P:289:PHE:O	18:P:331:ASN:HB3	2.12	0.48
24:V:341:LYS:HB3	24:V:345:TYR:HD1	1.78	0.48
27:Y:353:SER:CB	27:Y:378:SER:HA	2.41	0.48
1:1:474:MET:HG3	1:1:505:ILE:CG2	2.43	0.48
3:A:1402:PHE:CE1	3:A:1403:GLU:HG3	2.48	0.48
1:1:516:THR:HG23	1:1:681:ARG:HE	1.77	0.48
1:1:380:ARG:CB	1:1:535:LEU:HD22	2.43	0.48
2:2:274:CYS:O	2:2:276:GLU:HG3	2.13	0.48
9:G:1:MET:CG	9:G:2:PHE:N	2.76	0.48
19:Q:141:ARG:HH12	19:Q:144:GLN:NE2	2.11	0.48
4:B:977:GLY:HA3	4:B:1099:VAL:HB	1.95	0.48
9:G:142:ARG:HB3	9:G:171:ILE:HD12	1.95	0.48
19:Q:136:SER:HB3	19:Q:152:PHE:HE1	1.78	0.48
1:1:609:SER:OG	1:1:615:LEU:HD13	2.13	0.48
18:P:280:VAL:HG11	18:P:312:GLY:C	2.34	0.48
18:P:329:ILE:O	18:P:330:ALA:CB	2.60	0.48
24:V:333:LEU:HD21	24:V:349:TYR:CE2	2.48	0.48
2:2:253:LEU:HB3	3:A:1132:LYS:NZ	2.28	0.48
3:A:16:GLU:CD	6:D:14:ARG:HH12	2.16	0.48
21:S:219:GLU:HB3	21:S:222:ASN:ND2	2.19	0.48
1:1:408:ILE:HG23	1:1:485:ILE:HA	1.94	0.48
1:1:476:PHE:CE1	1:1:487:LEU:CD2	2.94	0.48
20:R:64:ASP:HB2	20:R:66:LEU:HD23	1.94	0.48
27:Y:290:VAL:CG2	27:Y:291:GLN:N	2.71	0.48
3:A:929:LEU:HD21	3:A:983:ILE:HG21	1.95	0.48
18:P:288:LEU:O	18:P:330:ALA:HA	2.13	0.48
20:R:148:LEU:O	20:R:149:CYS:O	2.32	0.48
20:R:44:LYS:HE3	20:R:54:LEU:CD1	2.42	0.48
2:2:254:TYR:O	2:2:256:ALA:N	2.47	0.48
27:Y:679:MET:CE	27:Y:681:LEU:HD11	2.44	0.48
4:B:885:MET:CA	18:P:33:LYS:HZ2	2.18	0.48
21:S:181:LEU:O	21:S:181:LEU:HD23	2.14	0.48
18:P:94:THR:HG22	18:P:110:LEU:HD11	1.95	0.48
23:U:119:LEU:HD11	24:V:135:PHE:CD2	2.48	0.48
1:1:404:LYS:HA	1:1:448:THR:HG21	1.94	0.48
1:1:474:MET:HG2	1:1:482:TRP:O	2.13	0.48
1:1:516:THR:CG2	1:1:681:ARG:HE	2.26	0.48
23:U:375:LEU:CD1	24:V:134:VAL:HG21	2.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:U:342:LEU:HA	23:U:413:MET:SD	2.52	0.48
18:P:164:LYS:HG2	18:P:166:LYS:HA	1.94	0.48
10:H:40:LEU:HD13	10:H:123:MET:HG3	1.95	0.48
5:C:99:LEU:HB2	5:C:157:CYS:HB2	1.94	0.48
3:A:245:PRO:O	4:B:1114:LEU:HD12	2.12	0.48
4:B:60:GLN:OE1	4:B:95:ILE:HG22	2.12	0.48
4:B:441:ASP:O	4:B:443:ASN:N	2.47	0.48
5:C:38:ILE:HG13	5:C:176:ILE:HD12	1.95	0.48
21:S:148:LEU:C	21:S:154:LYS:HE2	2.34	0.48
1:1:584:ASN:CG	1:1:586:THR:CG2	2.82	0.48
18:P:34:ILE:HG13	18:P:43:VAL:CB	2.32	0.48
24:V:94:LYS:O	24:V:106:LEU:HD12	2.12	0.48
19:Q:183:SER:CB	19:Q:193:LEU:HD21	2.43	0.48
5:C:114:TYR:HB2	5:C:116:LYS:HG2	1.94	0.48
6:D:195:ILE:HG22	6:D:198:LEU:HG	1.94	0.48
5:C:75:MET:HB3	5:C:128:ASN:HB3	1.95	0.48
14:L:27:LEU:HD13	14:L:37:LYS:HG2	1.95	0.48
19:Q:164:CYS:HB2	19:Q:212:ILE:HB	1.95	0.48
23:U:378:VAL:HG22	23:U:384:PHE:CZ	2.48	0.48
27:Y:269:GLU:O	27:Y:269:GLU:HG2	2.12	0.48
20:R:138:GLN:HG3	20:R:139:LEU:N	2.28	0.48
21:S:160:ILE:C	21:S:160:ILE:CD1	2.73	0.48
2:2:254:TYR:C	2:2:256:ALA:H	2.17	0.48
24:V:63:ARG:HD2	24:V:215:VAL:O	2.14	0.48
2:2:248:ILE:CB	3:A:1203:ASN:CG	2.47	0.48
27:Y:495:MET:HG2	27:Y:686:PHE:CD1	2.44	0.48
27:Y:529:PHE:CD1	27:Y:529:PHE:N	2.79	0.48
21:S:172:ASP:OD2	21:S:179:LYS:CG	2.55	0.48
1:1:436:ALA:HB2	1:1:452:LEU:HD21	1.95	0.48
18:P:268:GLU:C	18:P:269:ILE:CD1	2.73	0.48
3:A:1279:ILE:HG23	3:A:1308:THR:HG23	1.96	0.48
16:N:48:DG:C2	16:N:49:DG:C5	3.01	0.48
3:A:260:ASP:OD1	3:A:328:ARG:NH2	2.42	0.48
13:K:63:VAL:HG12	13:K:71:PHE:HB3	1.96	0.48
3:A:568:PRO:HG2	10:H:46:LEU:HD12	1.95	0.48
4:B:948:ILE:HD13	14:L:67:PHE:HE2	1.77	0.48
3:A:1312:ASN:O	3:A:1316:VAL:HG23	2.12	0.48
20:R:139:LEU:O	20:R:147:PHE:HA	2.14	0.48
21:S:129:LEU:HB3	24:V:347:PHE:CD2	2.49	0.48
4:B:105:SER:CB	18:P:183:ALA:HB1	2.30	0.48
22:T:143:DT:H2'	22:T:144:DT:H5'	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:111:ARG:NH2	27:Y:197:ARG:HH12	2.12	0.48
27:Y:533:THR:HG21	27:Y:708:LEU:HD22	1.96	0.48
21:S:187:HIS:NE2	21:S:225:GLU:CB	2.71	0.48
27:Y:86:LEU:HD13	27:Y:103:PHE:HZ	1.78	0.48
18:P:196:ILE:HG13	18:P:197:HIS:CD2	2.48	0.48
27:Y:128:VAL:HG22	27:Y:373:PRO:CD	2.24	0.48
27:Y:343:LYS:HA	27:Y:346:MET:HE2	1.94	0.48
24:V:73:LEU:N	24:V:73:LEU:HD23	2.29	0.48
1:1:305:GLU:HB2	1:1:327:LYS:CE	2.43	0.48
1:1:352:LEU:H	1:1:352:LEU:CD2	2.25	0.48
27:Y:325:ILE:O	27:Y:408:LEU:HD12	2.13	0.48
10:H:80:ARG:HG2	13:K:57:LEU:HD22	1.95	0.48
4:B:806:THR:HB	4:B:809:MET:HG3	1.94	0.48
27:Y:567:LYS:HG2	27:Y:568:LEU:H	1.77	0.48
4:B:258:LEU:HB2	4:B:385:LEU:HD21	1.96	0.48
14:L:68:GLU:HB2	14:L:70:ARG:HD2	1.96	0.48
4:B:640:VAL:HG22	4:B:651:LEU:HG	1.95	0.48
18:P:339:LEU:HD12	18:P:339:LEU:N	2.29	0.48
19:Q:114:LEU:CD1	22:T:143:DT:O2	2.58	0.48
16:N:27:DG:H2''	16:N:28:DT:H5'	1.94	0.48
1:1:348:ARG:HB3	1:1:350:PRO:HD3	1.96	0.48
27:Y:21:GLN:CA	27:Y:53:LEU:HD21	2.42	0.48
3:A:1172:LEU:C	3:A:1174:PHE:H	2.16	0.48
27:Y:408:LEU:HD22	27:Y:634:ILE:CG1	2.41	0.48
4:B:486:TYR:HB3	4:B:1096:ARG:NE	2.28	0.48
10:H:115:TYR:CE1	10:H:124:ARG:HG3	2.49	0.48
3:A:40:THR:HG21	3:A:259:GLU:OE2	2.12	0.48
27:Y:49:THR:O	27:Y:55:LEU:HG	2.14	0.48
3:A:1444:MET:CE	8:F:135:ARG:HB2	2.39	0.48
1:1:619:ALA:CA	1:1:622:MET:HE2	2.44	0.48
27:Y:289:LEU:CD2	27:Y:348:VAL:HG12	2.30	0.48
21:S:136:GLN:NE2	21:S:137:LYS:NZ	2.61	0.48
1:1:425:LEU:CB	1:1:429:THR:HA	2.44	0.48
1:1:477:LEU:N	1:1:477:LEU:HD12	2.28	0.48
16:N:57:DA:C2'	16:N:58:DC:C5	2.94	0.48
17:O:23:LEU:HD23	17:O:41:LEU:HD13	1.95	0.48
27:Y:413:GLU:O	27:Y:414:GLU:CB	2.61	0.48
17:O:74:ASP:OD2	17:O:117:ASN:HB2	2.13	0.48
4:B:219:ALA:HB2	4:B:405:ARG:HG2	1.95	0.48
3:A:71:GLN:O	3:A:73:GLY:N	2.47	0.48
3:A:956:LEU:HD21	3:A:1017:LEU:HG	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:840:ILE:HG21	4:B:994:TYR:HD2	1.79	0.48
22:T:134:DT:N1	22:T:135:DG:N7	2.61	0.48
20:R:44:LYS:HE3	20:R:54:LEU:CD2	2.43	0.48
18:P:143:PRO:CB	18:P:182:ARG:HH21	2.00	0.48
16:N:19:DT:C4	16:N:20:DA:N6	2.82	0.48
2:2:236:LEU:CA	2:2:242:LYS:NZ	2.77	0.48
27:Y:493:LEU:HD11	27:Y:666:LEU:HD21	1.94	0.48
27:Y:495:MET:CG	27:Y:686:PHE:CD1	2.93	0.48
27:Y:693:LEU:HG	27:Y:696:TRP:CE2	2.48	0.48
21:S:175:LYS:NZ	21:S:175:LYS:HA	0.27	0.48
16:N:59:DT:H2''	16:N:60:DA:O5'	2.14	0.48
27:Y:463:ILE:HD11	27:Y:469:TYR:CE1	2.48	0.48
2:2:268:ARG:HG3	3:A:734:GLU:OE1	2.14	0.48
10:H:23:VAL:HG11	10:H:121:LEU:HD22	1.95	0.48
18:P:288:LEU:O	18:P:288:LEU:CG	2.61	0.48
21:S:127:LYS:CG	21:S:153:MET:HE3	2.39	0.48
21:S:160:ILE:HD12	21:S:161:GLU:HB2	1.95	0.48
19:Q:173:GLU:H	19:Q:173:GLU:CD	2.15	0.48
2:2:257:GLN:CG	3:A:1284:MET:HB2	2.39	0.48
27:Y:248:LEU:HD12	27:Y:439:CYS:SG	2.54	0.48
18:P:42:ASP:H	18:P:55:LYS:HG2	1.78	0.48
18:P:167:SER:CB	18:P:202:GLU:OE2	2.62	0.48
3:A:261:ASP:HB3	3:A:322:VAL:HG13	1.95	0.48
3:A:875:ALA:HB2	3:A:1366:ARG:HD2	1.95	0.48
24:V:128:VAL:C	24:V:130:GLU:H	2.16	0.48
7:E:176:PRO:O	7:E:212:ARG:HA	2.14	0.48
4:B:800:GLN:HB2	4:B:821:GLN:HA	1.96	0.48
3:A:280:GLU:HG2	3:A:289:ILE:HD13	1.95	0.48
27:Y:120:VAL:HG22	27:Y:121:SER:N	2.29	0.48
1:1:367:GLU:HA	1:1:367:GLU:OE1	2.14	0.48
18:P:294:THR:O	18:P:298:VAL:HG23	2.13	0.47
18:P:288:LEU:CD1	18:P:328:LEU:HD11	2.44	0.47
22:T:142:DC:H2''	22:T:143:DT:H5'	1.89	0.47
27:Y:495:MET:CB	27:Y:686:PHE:CZ	2.93	0.47
1:1:421:ARG:NE	1:1:430:LEU:HD21	2.29	0.47
1:1:447:GLN:HG3	1:1:448:THR:H	1.78	0.47
1:1:447:GLN:HG3	1:1:448:THR:N	2.28	0.47
1:1:494:PRO:HG3	1:1:527:LEU:HD21	1.94	0.47
24:V:105:THR:HA	24:V:122:LEU:HD13	1.95	0.47
1:1:372:LYS:O	1:1:535:LEU:HD23	2.14	0.47
27:Y:237:ALA:O	27:Y:240:ILE:HG12	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:269:ILE:N	18:P:269:ILE:CD1	2.77	0.47
1:1:394:LEU:H	1:1:394:LEU:CD1	2.27	0.47
1:1:313:VAL:HG12	1:1:314:HIS:CE1	2.48	0.47
3:A:579:SER:HA	3:A:582:ILE:HG13	1.96	0.47
16:N:42:DT:O4	22:T:124:DA:C6	2.67	0.47
20:R:135:GLU:O	20:R:138:GLN:HG3	2.14	0.47
21:S:157:ASP:C	21:S:157:ASP:OD1	2.53	0.47
21:S:161:GLU:HB3	21:S:162:LEU:CD2	2.44	0.47
2:2:253:LEU:CD1	3:A:1129:GLU:OE1	2.54	0.47
22:T:142:DC:H2''	22:T:143:DT:C5'	2.43	0.47
3:A:411:ASP:CG	18:P:51:VAL:CG1	2.67	0.47
18:P:104:MET:O	18:P:107:THR:CG2	2.51	0.47
18:P:206:THR:HA	18:P:209:ILE:HG12	1.96	0.47
22:T:117:DC:H2'	22:T:118:DC:H6	1.77	0.47
23:U:105:ALA:HB2	24:V:92:LEU:HD23	1.95	0.47
3:A:89:PRO:HB2	3:A:204:THR:CB	2.44	0.47
27:Y:359:PHE:CZ	27:Y:363:LEU:HD11	2.48	0.47
3:A:264:PHE:HE2	18:P:90:ASN:O	1.97	0.47
27:Y:253:THR:HG22	27:Y:416:PHE:CB	2.44	0.47
24:V:116:ILE:HA	24:V:117:PRO:HD3	1.56	0.47
4:B:542:MET:HG3	4:B:747:MET:HB3	1.95	0.47
16:N:43:DA:H1'	16:N:44:DA:H5'	1.95	0.47
18:P:251:GLN:O	18:P:254:THR:HG23	2.14	0.47
18:P:142:LEU:HD23	18:P:147:LYS:CG	1.92	0.47
18:P:188:THR:CG2	18:P:245:HIS:CE1	2.97	0.47
2:2:269:PHE:CZ	2:2:308:PHE:CE1	3.03	0.47
4:B:1215:ARG:NH2	6:D:15:LEU:HD21	2.29	0.47
2:2:252:ASN:HD22	3:A:1206:ASP:HB2	1.78	0.47
27:Y:492:PHE:HB3	27:Y:678:VAL:HG22	1.96	0.47
27:Y:384:LEU:C	27:Y:384:LEU:HD13	2.34	0.47
27:Y:136:MET:HE1	27:Y:159:HIS:CD2	2.48	0.47
4:B:1135:ARG:HG2	4:B:1139:ILE:HD11	1.94	0.47
3:A:91:PHE:CB	3:A:96:ILE:CG1	2.91	0.47
3:A:11:LEU:HA	4:B:1193:GLN:HG2	1.95	0.47
18:P:160:GLU:O	18:P:160:GLU:CG	2.62	0.47
4:B:705:MET:H	4:B:710:LEU:HD12	1.79	0.47
20:R:47:LEU:HD22	20:R:130:LYS:HB2	1.96	0.47
18:P:134:THR:O	18:P:138:ASP:OD2	2.32	0.47
18:P:185:VAL:CG1	18:P:186:ALA:N	2.76	0.47
24:V:333:LEU:CD2	24:V:349:TYR:CE2	2.96	0.47
27:Y:627:PHE:HD1	27:Y:654:LEU:CD1	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:U:94:ASP:N	23:U:95:PRO:HD3	2.28	0.47
1:1:466:ARG:NE	1:1:475:ASP:HB3	2.29	0.47
1:1:524:ILE:H	1:1:524:ILE:HD13	1.80	0.47
1:1:487:LEU:HD21	1:1:531:ILE:CD1	2.44	0.47
16:N:62:DA:H1'	16:N:63:DG:H5'	1.96	0.47
27:Y:539:VAL:HG11	27:Y:623:ILE:CG1	2.44	0.47
22:T:155:DC:H2''	22:T:156:DT:H5'	1.94	0.47
3:A:1345:ARG:HG3	3:A:1376:THR:HG21	1.96	0.47
15:M:250:LYS:HE2	15:M:252:THR:CG2	2.44	0.47
3:A:285:PRO:O	3:A:287:HIS:N	2.46	0.47
22:T:149:DA:H1'	22:T:150:DG:C8	2.48	0.47
21:S:149:ASP:OD1	21:S:154:LYS:CD	2.63	0.47
18:P:43:VAL:CG2	18:P:55:LYS:HZ1	2.26	0.47
27:Y:171:LEU:CD2	27:Y:181:LEU:HD22	2.43	0.47
27:Y:54:SER:O	27:Y:57:ILE:CG2	2.57	0.47
23:U:373:TYR:CZ	24:V:72:ARG:NH1	2.71	0.47
22:T:99:DC:H2''	22:T:100:DC:OP2	2.14	0.47
21:S:143:LEU:CD1	21:S:144:VAL:H	2.18	0.47
20:R:17:VAL:HG23	20:R:26:VAL:HG22	1.97	0.47
18:P:164:LYS:O	18:P:165:GLY:C	2.52	0.47
22:T:130:DA:N7	22:T:131:DC:C4	2.82	0.47
20:R:126:ILE:HG23	20:R:154:GLU:HG3	1.89	0.47
20:R:126:ILE:O	20:R:128:LEU:CD2	2.61	0.47
27:Y:162:LEU:HD13	27:Y:194:PHE:HB3	1.97	0.47
27:Y:495:MET:CB	27:Y:686:PHE:CD2	2.74	0.47
27:Y:360:LEU:CD1	27:Y:364:LYS:CD	2.90	0.47
18:P:63:TRP:CD1	18:P:82:ALA:N	2.79	0.47
1:1:384:ILE:HD12	1:1:384:ILE:N	2.30	0.47
1:1:474:MET:HB3	1:1:474:MET:HE2	1.54	0.47
1:1:499:ARG:HG2	1:1:530:LEU:CD1	2.45	0.47
20:R:37:VAL:CG1	20:R:88:TYR:HB2	2.44	0.47
19:Q:145:LYS:CE	19:Q:145:LYS:HA	2.36	0.47
18:P:160:GLU:CD	18:P:160:GLU:C	2.72	0.47
10:H:123:MET:HE1	10:H:142:LEU:HD11	1.97	0.47
6:D:8:PHE:HZ	6:D:37:GLN:NE2	2.13	0.47
4:B:756:ILE:O	4:B:759:PRO:HD3	2.15	0.47
18:P:250:MET:HA	18:P:253:THR:OG1	2.14	0.47
18:P:325:ASP:CB	18:P:326:PRO:HD3	2.45	0.47
18:P:148:ASP:HA	18:P:151:LYS:HE3	1.94	0.47
21:S:156:ASP:C	21:S:159:VAL:HG13	2.31	0.47
21:S:130:TRP:CH2	24:V:337:ALA:C	2.88	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:173:ALA:O	18:P:176:ILE:CG1	2.62	0.47
18:P:187:ARG:CG	18:P:189:PHE:CA	2.92	0.47
18:P:45:CYS:C	18:P:47:LEU:H	2.17	0.47
18:P:22:LEU:HD11	18:P:34:ILE:HD13	1.72	0.47
23:U:374:VAL:CG2	24:V:75:MET:SD	2.98	0.47
3:A:227:VAL:CG1	6:D:16:LYS:CE	2.92	0.47
1:1:420:TRP:HB3	1:1:424:PHE:CZ	2.48	0.47
1:1:446:PHE:CB	1:1:452:LEU:CD1	2.93	0.47
1:1:518:VAL:HG12	1:1:519:ARG:N	2.29	0.47
1:1:528:ASN:ND2	1:1:533:PRO:HA	2.30	0.47
1:1:424:PHE:CE1	1:1:451:GLY:N	2.82	0.47
1:1:446:PHE:CA	1:1:452:LEU:HD22	2.43	0.47
16:N:57:DA:H2''	16:N:58:DC:C6	2.49	0.47
3:A:66:LYS:H	18:P:18:LEU:HD22	1.00	0.47
3:A:91:PHE:CD2	3:A:179:LEU:O	2.68	0.47
3:A:475:THR:HG21	4:B:836:GLU:OE2	2.14	0.47
4:B:693:ILE:HG21	4:B:701:ILE:HD13	1.95	0.47
12:J:9:SER:HB2	12:J:45:CYS:HB2	1.95	0.47
27:Y:615:GLN:N	27:Y:618:ARG:HE	2.12	0.47
20:R:152:CYS:O	20:R:154:GLU:N	2.48	0.47
21:S:131:ALA:CB	21:S:151:LEU:HD12	2.45	0.47
21:S:130:TRP:CB	21:S:151:LEU:HD21	2.40	0.47
3:A:411:ASP:HB3	18:P:50:LEU:CG	2.45	0.47
17:O:4:PRO:CG	24:V:357:LYS:HB3	2.37	0.47
16:N:27:DG:H2''	16:N:28:DT:C5'	2.44	0.47
27:Y:496:ILE:CG1	27:Y:682:ALA:HA	2.44	0.47
21:S:244:VAL:N	21:S:245:TRP:CE3	2.83	0.47
23:U:376:LEU:HD23	23:U:386:MET:HB3	1.96	0.47
1:1:410:LEU:HD11	1:1:457:TYR:N	2.30	0.47
1:1:353:ASP:HA	1:1:447:GLN:CD	2.34	0.47
1:1:519:ARG:N	1:1:524:ILE:HG21	2.29	0.47
20:R:13:LEU:H	20:R:13:LEU:CD2	2.27	0.47
27:Y:473:LEU:O	27:Y:474:ASN:CB	2.62	0.47
24:V:87:LEU:O	24:V:88:HIS:CG	2.68	0.47
1:1:310:ILE:HG12	1:1:313:VAL:HG23	1.97	0.47
15:M:277:GLN:HA	17:O:56:THR:CG2	2.45	0.47
4:B:122:LEU:HD22	4:B:958:GLN:HG2	1.96	0.47
3:A:457:ALA:HB3	3:A:506:ALA:HA	1.97	0.47
5:C:58:LEU:HD21	12:J:57:ILE:HD12	1.97	0.47
3:A:275:SER:O	3:A:279:LEU:HD12	2.14	0.47
20:R:69:ILE:HG22	20:R:70:HIS:N	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:716:MET:O	1:1:719:SER:HB2	2.15	0.47
20:R:135:GLU:O	20:R:138:GLN:CG	2.63	0.47
18:P:143:PRO:O	18:P:147:LYS:N	2.47	0.47
2:2:257:GLN:CA	3:A:1284:MET:H	2.27	0.47
22:T:145:DT:C2'	22:T:146:DT:C7	2.93	0.47
18:P:107:THR:CG2	18:P:108:LYS:N	2.78	0.47
27:Y:350:HIS:H	27:Y:384:LEU:HG	1.80	0.47
1:1:446:PHE:CB	1:1:452:LEU:CD2	2.92	0.47
16:N:21:DA:C2'	16:N:22:DA:C5'	2.86	0.47
27:Y:532:ILE:O	27:Y:534:PRO:HD2	2.12	0.47
3:A:257:ARG:HB2	3:A:257:ARG:NH1	2.29	0.47
9:G:85:GLU:HB3	9:G:147:ILE:HD12	1.96	0.47
3:A:738:LYS:HA	10:H:19:ARG:HH12	1.79	0.47
18:P:224:LYS:NZ	18:P:229:ASN:CG	2.60	0.47
2:2:254:TYR:O	3:A:706:HIS:CB	2.61	0.47
8:F:96:THR:CG2	9:G:66:GLY:CA	2.93	0.47
22:T:148:DT:H6	22:T:148:DT:H3'	1.80	0.47
16:N:24:DG:H2''	16:N:25:DG:O5'	2.15	0.47
1:1:327:LYS:HG3	1:1:506:ALA:HA	1.97	0.47
1:1:434:ASN:O	1:1:452:LEU:HD12	2.14	0.47
3:A:836:TYR:CE2	3:A:840:ARG:HD2	2.50	0.47
3:A:34:LYS:N	3:A:57:ARG:HH11	2.13	0.47
27:Y:134:ARG:O	27:Y:138:ASN:ND2	2.48	0.47
3:A:93:VAL:HG13	3:A:301:ALA:HB1	1.97	0.47
3:A:399:HIS:O	3:A:401:GLY:N	2.48	0.47
24:V:109:ASN:CG	24:V:111:ASN:OD1	2.53	0.47
4:B:345:LYS:HA	4:B:348:ARG:HD2	1.96	0.47
27:Y:46:THR:HG22	27:Y:46:THR:O	2.15	0.47
16:N:42:DT:C4	22:T:124:DA:N1	2.82	0.46
3:A:1446:ASP:HB3	3:A:1449:SER:OG	2.15	0.46
27:Y:248:LEU:CD1	27:Y:439:CYS:SG	3.03	0.46
23:U:135:LEU:C	23:U:136:PRO:HD3	2.25	0.46
22:T:122:DT:H2'	22:T:123:DT:H72	1.93	0.46
27:Y:321:ILE:CD1	27:Y:409:ILE:HG21	2.42	0.46
1:1:410:LEU:CD1	1:1:477:LEU:HD11	2.45	0.46
1:1:484:PHE:CD1	1:1:485:ILE:N	2.83	0.46
2:2:292:PRO:HG2	4:B:766:ARG:NE	2.30	0.46
20:R:17:VAL:HG12	20:R:66:LEU:HD21	1.96	0.46
27:Y:621:LEU:HG	27:Y:680:VAL:HG12	1.97	0.46
27:Y:39:ILE:HG12	27:Y:458:ILE:CB	2.39	0.46
18:P:269:ILE:CD1	18:P:315:ILE:CG2	2.94	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:208:SER:CA	3:A:1172:LEU:HD13	2.46	0.46
1:1:310:ILE:HG21	1:1:313:VAL:CG2	2.44	0.46
1:1:659:ASP:CG	1:1:686:ARG:HD3	2.36	0.46
4:B:291:ILE:HD12	4:B:291:ILE:N	2.30	0.46
6:D:5:THR:HG21	9:G:74:TYR:OH	2.15	0.46
24:V:310:TYR:HD2	24:V:312:TYR:O	1.98	0.46
4:B:1166:CYS:O	4:B:1168:LEU:N	2.42	0.46
24:V:356:LYS:HG3	24:V:358:LEU:O	2.15	0.46
3:A:883:LEU:HD23	3:A:1021:LEU:HB2	1.97	0.46
8:F:92:ARG:HH22	9:G:63:PRO:CB	1.84	0.46
21:S:207:CYS:CB	21:S:208:LYS:HE2	2.37	0.46
1:1:445:MET:SD	1:1:473:VAL:HG11	2.54	0.46
1:1:478:THR:CG2	1:1:479:GLY:H	2.21	0.46
16:N:65:DG:H1'	16:N:66:DG:C5'	2.40	0.46
27:Y:487:LEU:HD23	27:Y:490:LYS:HE3	1.96	0.46
27:Y:108:LEU:HD12	27:Y:196:VAL:HG11	1.95	0.46
11:I:106:CYS:SG	11:I:108:HIS:HB3	2.55	0.46
17:O:6:TYR:CD1	17:O:6:TYR:N	2.83	0.46
18:P:312:GLY:O	18:P:316:LEU:HD22	2.16	0.46
20:R:134:LEU:HG	20:R:135:GLU:N	2.29	0.46
18:P:173:ALA:HA	18:P:176:ILE:HD13	1.94	0.46
18:P:26:GLU:OE1	18:P:50:LEU:HD21	1.96	0.46
27:Y:171:LEU:CB	27:Y:172:PRO:CD	2.93	0.46
27:Y:529:PHE:CZ	27:Y:704:ALA:HB3	2.50	0.46
21:S:218:ASP:HB2	21:S:223:GLN:HE22	1.75	0.46
18:P:207:LEU:O	18:P:210:MET:CG	2.62	0.46
1:1:305:GLU:HA	1:1:327:LYS:NZ	2.30	0.46
1:1:476:PHE:CE1	1:1:502:VAL:CG2	2.94	0.46
1:1:477:LEU:HA	1:1:501:VAL:CG2	2.45	0.46
18:P:86:LEU:HD21	18:P:152:GLU:CG	2.44	0.46
3:A:11:LEU:HD13	4:B:1195:HIS:NE2	2.31	0.46
27:Y:290:VAL:CG2	27:Y:291:GLN:H	2.28	0.46
23:U:111:LEU:O	24:V:138:GLN:HA	2.16	0.46
27:Y:108:LEU:HA	27:Y:196:VAL:HG11	1.96	0.46
4:B:951:GLN:OE1	14:L:57:LEU:CD2	2.62	0.46
20:R:82:VAL:HG22	20:R:83:GLU:N	2.30	0.46
3:A:1443:VAL:HG23	9:G:63:PRO:CG	2.41	0.46
8:F:92:ARG:NH1	9:G:63:PRO:HB2	2.13	0.46
24:V:69:TRP:CZ3	24:V:71:VAL:HG23	2.50	0.46
1:1:490:VAL:HG12	1:1:514:THR:HB	1.97	0.46
1:1:460:VAL:C	1:1:464:ARG:HE	2.18	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:U:145:ARG:NH1	23:U:147:LEU:O	2.40	0.46
27:Y:20:GLU:O	27:Y:24:TYR:CD2	2.69	0.46
15:M:250:LYS:HE2	15:M:252:THR:HG21	1.97	0.46
4:B:64:CYS:HA	4:B:67:SER:HB3	1.98	0.46
6:D:144:THR:HG21	9:G:46:LEU:HD13	1.97	0.46
4:B:901:PRO:HG2	14:L:60:ARG:HA	1.96	0.46
19:Q:171:ARG:CZ	19:Q:174:GLY:HA3	2.45	0.46
20:R:30:ASP:OD2	20:R:151:LEU:CD2	2.63	0.46
20:R:44:LYS:CE	20:R:54:LEU:HD13	2.45	0.46
18:P:143:PRO:CG	18:P:182:ARG:NE	2.60	0.46
21:S:149:ASP:N	21:S:154:LYS:HD2	2.31	0.46
8:F:92:ARG:HE	9:G:64:THR:CB	2.25	0.46
18:P:188:THR:HG1	18:P:245:HIS:CE1	2.33	0.46
22:T:147:DA:H2'	22:T:148:DT:C5	2.50	0.46
2:2:236:LEU:CA	2:2:242:LYS:CE	2.93	0.46
27:Y:656:PHE:HA	27:Y:659:MET:SD	2.56	0.46
1:1:331:GLN:NE2	1:1:378:ARG:HD2	2.22	0.46
1:1:407:VAL:HG22	1:1:451:GLY:CA	2.44	0.46
16:N:58:DC:C2'	16:N:59:DT:C5'	2.86	0.46
3:A:67:CYS:C	3:A:68:GLN:HG3	2.34	0.46
1:1:677:TYR:HA	1:1:678:GLY:HA2	1.51	0.46
3:A:1428:VAL:HG13	4:B:1151:LEU:CD2	2.46	0.46
19:Q:230:ILE:O	19:Q:233:VAL:HG13	2.15	0.46
7:E:88:VAL:HB	7:E:116:ILE:HG12	1.97	0.46
18:P:305:THR:HG22	18:P:308:THR:H	1.81	0.46
2:2:256:ALA:HA	3:A:706:HIS:NE2	2.30	0.46
27:Y:639:LEU:CD1	27:Y:649:ARG:HH11	2.21	0.46
27:Y:400:LYS:HB2	27:Y:437:PHE:CZ	2.42	0.46
21:S:137:LYS:HE3	24:V:330:LYS:NZ	2.31	0.46
1:1:305:GLU:HB2	1:1:327:LYS:HZ1	1.80	0.46
1:1:455:SER:CB	1:1:466:ARG:HD3	2.46	0.46
27:Y:438:THR:HG21	27:Y:634:ILE:HG12	1.98	0.46
3:A:448:PRO:O	3:A:449:SER:CB	2.63	0.46
3:A:1345:ARG:HG2	3:A:1372:VAL:CG1	2.45	0.46
4:B:365:THR:HG21	4:B:370:PHE:CG	2.51	0.46
22:T:133:DT:O5'	22:T:133:DT:H6	1.99	0.46
18:P:293:ILE:HG22	18:P:297:LYS:HD2	1.98	0.46
20:R:120:ASN:CB	20:R:133:GLN:HB3	2.41	0.46
4:B:451:LYS:HZ3	18:P:147:LYS:HZ1	1.62	0.46
2:2:253:LEU:O	2:2:256:ALA:HB3	2.14	0.46
27:Y:639:LEU:CD1	27:Y:653:PHE:HZ	2.12	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:269:PHE:CE2	2:2:297:CYS:CB	2.96	0.46
4:B:1184:GLY:C	6:D:17:LYS:NZ	2.69	0.46
4:B:1111:MET:H	18:P:56:LEU:HA	1.80	0.46
4:B:296:GLU:OE1	23:U:124:LYS:CD	2.63	0.46
27:Y:218:ILE:O	27:Y:222:VAL:HG23	2.15	0.46
27:Y:622:MET:HG2	27:Y:679:MET:HE2	1.97	0.46
21:S:133:GLU:CG	24:V:330:LYS:HD2	2.46	0.46
16:N:59:DT:C4	16:N:60:DA:N6	2.84	0.46
16:N:51:DA:H2''	16:N:52:DT:OP1	2.14	0.46
11:I:102:VAL:HG22	11:I:109:ILE:HG12	1.97	0.46
18:P:250:MET:O	18:P:254:THR:HG23	2.12	0.46
20:R:156:LEU:C	20:R:157:VAL:HG23	2.35	0.46
24:V:307:PHE:HA	24:V:313:TRP:HE1	1.81	0.46
23:U:137:VAL:HG11	24:V:59:LEU:HB3	1.85	0.46
22:T:146:DT:C2	22:T:147:DA:C5	3.04	0.46
27:Y:124:ARG:O	27:Y:128:VAL:HG23	2.16	0.46
1:1:436:ALA:HB1	1:1:444:GLU:CB	2.45	0.46
1:1:351:ASP:CB	1:1:482:TRP:CZ3	2.93	0.46
24:V:118:HIS:CE1	24:V:120:TYR:CE2	3.03	0.46
17:O:44:PHE:CZ	17:O:48:VAL:HG21	2.50	0.46
3:A:180:LYS:CE	3:A:294:SER:HB3	2.46	0.46
16:N:42:DT:H2''	16:N:43:DA:C8	2.48	0.46
21:S:127:LYS:H	24:V:340:VAL:HA	1.70	0.46
21:S:130:TRP:HZ3	24:V:338:THR:O	1.94	0.46
27:Y:627:PHE:CD1	27:Y:654:LEU:CD1	2.96	0.46
18:P:173:ALA:CA	18:P:176:ILE:CG1	2.71	0.46
18:P:188:THR:HG22	18:P:191:GLU:HB3	1.97	0.46
22:T:139:DC:H2''	22:T:140:DC:C5'	2.46	0.46
18:P:51:VAL:HG22	18:P:52:LEU:H	1.77	0.46
17:O:4:PRO:HD3	24:V:357:LYS:C	2.36	0.46
16:N:26:DG:H1'	24:V:291:SER:HB3	1.98	0.46
27:Y:360:LEU:HD11	27:Y:364:LYS:CD	2.45	0.46
27:Y:353:SER:OG	27:Y:378:SER:CB	2.63	0.46
3:A:58:LEU:HD22	3:A:80:HIS:O	2.16	0.46
4:B:542:MET:HE3	4:B:636:PRO:HG2	1.98	0.46
5:C:8:VAL:HG11	13:K:105:PHE:HD1	1.81	0.46
4:B:803:LEU:HG	12:J:52:THR:HG21	1.98	0.46
1:1:426:GLN:NE2	1:1:426:GLN:HA	2.30	0.46
16:N:39:DC:C2'	16:N:40:DT:C6	2.86	0.46
18:P:286:ILE:HG23	18:P:287:LEU:HD23	1.98	0.46
18:P:288:LEU:HD21	18:P:328:LEU:HD13	1.91	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:316:LEU:CD2	18:P:316:LEU:N	2.76	0.46
22:T:145:DT:H6	22:T:146:DT:H72	1.68	0.46
3:A:419:LYS:NZ	18:P:47:LEU:HG	2.21	0.46
18:P:54:ASP:CG	18:P:56:LEU:HD13	2.36	0.46
27:Y:197:ARG:NE	27:Y:225:GLU:OE2	2.49	0.46
27:Y:495:MET:HE1	27:Y:696:TRP:HE3	1.80	0.46
22:T:102:DC:H6	22:T:102:DC:O5'	1.98	0.46
27:Y:360:LEU:HD11	27:Y:364:LYS:HE3	1.97	0.46
4:B:343:ILE:CD1	22:T:121:DG:C4'	2.93	0.46
21:S:143:LEU:C	21:S:143:LEU:HD13	2.30	0.46
1:1:424:PHE:HE2	1:1:454:VAL:CG2	2.30	0.46
1:1:303:ARG:NH2	1:1:470:SER:HB2	2.31	0.46
1:1:487:LEU:CD2	1:1:531:ILE:CD1	2.94	0.46
16:N:70:DG:H2"	16:N:71:DG:OP2	2.16	0.46
5:C:100:THR:HG22	5:C:119:VAL:HG22	1.97	0.46
7:E:90:VAL:HG23	7:E:123:LEU:HD11	1.98	0.46
4:B:193:LYS:NZ	14:L:32:ALA:O	2.48	0.46
11:I:50:THR:HG22	11:I:52:ILE:H	1.81	0.46
3:A:598:LEU:HA	3:A:598:LEU:HD23	1.83	0.46
22:T:134:DT:O3'	24:V:319:LYS:HE3	2.16	0.45
18:P:307:GLY:O	18:P:310:LYS:HB3	2.17	0.45
20:R:133:GLN:HG3	20:R:134:LEU:H	1.80	0.45
24:V:306:LEU:HG	24:V:313:TRP:CG	2.50	0.45
3:A:1443:VAL:HB	9:G:62:LEU:O	2.15	0.45
27:Y:649:ARG:HG3	27:Y:650:GLU:N	2.31	0.45
24:V:63:ARG:HB2	24:V:215:VAL:HA	1.76	0.45
15:M:253:ARG:CZ	22:T:145:DT:OP1	2.64	0.45
21:S:187:HIS:HE2	21:S:225:GLU:HB3	1.75	0.45
1:1:397:ILE:HD11	1:1:423:GLN:HG2	1.97	0.45
1:1:499:ARG:CG	1:1:530:LEU:CD1	2.95	0.45
18:P:315:ILE:HD13	18:P:315:ILE:HG21	1.73	0.45
5:C:18:VAL:HG12	5:C:20:PHE:HD1	1.81	0.45
23:U:394:LYS:CD	23:U:396:THR:HG23	2.45	0.45
19:Q:230:ILE:HG23	19:Q:234:LEU:HD22	1.98	0.45
3:A:337:ARG:NH1	4:B:1132:GLU:OE1	2.49	0.45
3:A:1074:GLU:O	3:A:1077:THR:HB	2.16	0.45
25:W:503:ASP:HB3	25:W:507:ARG:NH1	2.31	0.45
3:A:565:ILE:O	3:A:570:PRO:HA	2.16	0.45
2:2:273:LYS:C	2:2:275:LYS:H	2.18	0.45
8:F:96:THR:OG1	9:G:63:PRO:O	2.33	0.45
3:A:1445:ILE:HG12	9:G:67:SER:HA	1.87	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:283:GLN:HG2	2:2:295:THR:OG1	2.17	0.45
2:2:252:ASN:ND2	3:A:1203:ASN:HA	2.23	0.45
27:Y:375:ARG:HH11	27:Y:377:CYS:HB2	1.81	0.45
21:S:133:GLU:CD	24:V:330:LYS:HZ3	2.09	0.45
1:1:397:ILE:HD11	1:1:423:GLN:CG	2.45	0.45
3:A:192:GLY:HA3	22:T:117:DC:P	2.33	0.45
2:2:266:THR:CG2	3:A:731:ARG:CD	2.75	0.45
1:1:571:ARG:HH11	1:1:571:ARG:N	2.13	0.45
27:Y:462:THR:HG22	27:Y:462:THR:O	2.17	0.45
23:U:343:ARG:HB3	23:U:347:PHE:CD2	2.50	0.45
27:Y:670:LEU:C	27:Y:670:LEU:HD23	2.37	0.45
3:A:1151:GLU:HG2	11:I:45:ARG:HG3	1.98	0.45
3:A:709:THR:HG22	3:A:711:ARG:H	1.80	0.45
3:A:743:VAL:O	3:A:747:VAL:HG23	2.16	0.45
4:B:582:VAL:HG22	4:B:626:ILE:HB	1.97	0.45
22:T:152:DC:H6	22:T:152:DC:O5'	1.99	0.45
20:R:54:LEU:O	20:R:58:ILE:HG12	2.17	0.45
21:S:125:SER:C	21:S:127:LYS:NZ	2.67	0.45
27:Y:649:ARG:O	27:Y:653:PHE:CG	2.67	0.45
3:A:411:ASP:HA	18:P:51:VAL:HG12	1.97	0.45
4:B:1111:MET:HB2	18:P:56:LEU:HA	1.89	0.45
18:P:52:LEU:O	18:P:53:SER:HB3	2.16	0.45
18:P:202:GLU:O	18:P:205:LYS:CG	2.62	0.45
21:S:134:TYR:OH	21:S:150:TYR:CD2	2.64	0.45
23:U:371:ASP:N	24:V:77:LEU:HG	2.32	0.45
1:1:377:GLY:CA	1:1:381:SER:HB2	2.46	0.45
1:1:455:SER:CB	1:1:466:ARG:CG	2.93	0.45
1:1:474:MET:HB2	1:1:479:GLY:C	2.36	0.45
1:1:408:ILE:CG2	1:1:476:PHE:H	2.29	0.45
1:1:476:PHE:CA	1:1:485:ILE:CG2	2.95	0.45
18:P:296:ALA:O	18:P:300:GLN:HB2	2.16	0.45
23:U:347:PHE:CD1	23:U:416:LYS:HD2	2.51	0.45
18:P:310:LYS:CE	18:P:340:PRO:CG	2.91	0.45
18:P:143:PRO:HD3	18:P:185:VAL:CB	2.46	0.45
21:S:151:LEU:C	21:S:152:SER:OG	2.54	0.45
3:A:1442:ASP:C	9:G:60:ARG:HH12	2.20	0.45
22:T:145:DT:H2'	22:T:146:DT:C7	2.46	0.45
18:P:37:ARG:NH2	18:P:40:GLU:CG	2.79	0.45
27:Y:656:PHE:HA	27:Y:659:MET:HG2	1.99	0.45
4:B:885:MET:CG	18:P:33:LYS:HZ2	2.29	0.45
3:A:316:GLN:HA	18:P:92:LEU:HD23	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:356:LEU:HD21	1:1:448:THR:CB	2.45	0.45
1:1:484:PHE:HZ	1:1:511:LEU:CB	2.27	0.45
16:N:56:DT:H6	16:N:56:DT:O5'	1.98	0.45
20:R:64:ASP:CB	20:R:66:LEU:CD2	2.94	0.45
3:A:56:PRO:O	3:A:57:ARG:HG3	2.16	0.45
27:Y:238:HIS:O	27:Y:660:ARG:NH1	2.50	0.45
18:P:266:ILE:HB	18:P:268:GLU:HG3	1.97	0.45
23:U:121:PHE:O	24:V:130:GLU:HB2	2.17	0.45
10:H:93:TYR:HA	10:H:145:ARG:HB3	1.99	0.45
4:B:662:MET:HA	4:B:665:GLU:HB2	1.97	0.45
3:A:923:LEU:O	3:A:927:VAL:HG23	2.16	0.45
3:A:1393:ASN:ND2	3:A:1393:ASN:H	2.15	0.45
4:B:46:GLN:H	4:B:46:GLN:HG3	1.38	0.45
18:P:292:PRO:CA	18:P:293:ILE:HD13	2.46	0.45
18:P:142:LEU:CG	18:P:147:LYS:HG3	2.36	0.45
21:S:130:TRP:CZ3	24:V:337:ALA:CB	2.99	0.45
2:2:253:LEU:CB	3:A:1132:LYS:CD	2.87	0.45
18:P:54:ASP:O	18:P:55:LYS:HB2	2.17	0.45
27:Y:699:GLN:OE1	27:Y:707:ASN:CG	2.55	0.45
18:P:264:LYS:NZ	18:P:264:LYS:H	2.14	0.45
3:A:316:GLN:N	18:P:92:LEU:HD23	2.29	0.45
27:Y:124:ARG:NE	27:Y:374:LEU:HD22	2.31	0.45
22:T:121:DG:C6	22:T:122:DT:C4	3.04	0.45
1:1:303:ARG:CD	1:1:504:THR:CG2	2.94	0.45
1:1:383:ILE:HD13	1:1:383:ILE:N	2.31	0.45
1:1:476:PHE:CE1	1:1:487:LEU:CG	3.00	0.45
1:1:466:ARG:HH21	1:1:476:PHE:HB3	1.81	0.45
1:1:475:ASP:N	1:1:478:THR:H	2.15	0.45
1:1:474:MET:CB	1:1:481:GLU:N	2.80	0.45
1:1:467:SER:OG	1:1:497:MET:HG2	2.16	0.45
27:Y:37:ASN:C	27:Y:477:THR:OG1	2.54	0.45
3:A:449:SER:HA	3:A:454:SER:HB3	1.98	0.45
3:A:534:LEU:O	3:A:574:GLY:HA3	2.17	0.45
3:A:187:LYS:HE3	3:A:198:GLU:HB2	1.99	0.45
18:P:284:LEU:HD22	18:P:284:LEU:HA	1.69	0.45
18:P:252:VAL:CG2	18:P:289:PHE:CD2	2.99	0.45
20:R:28:VAL:CG2	20:R:57:LEU:CD1	2.95	0.45
27:Y:132:LYS:CB	27:Y:155:LEU:HD12	2.46	0.45
2:2:252:ASN:CG	3:A:1206:ASP:HA	2.35	0.45
27:Y:492:PHE:HZ	27:Y:699:GLN:NE2	2.14	0.45
18:P:154:TYR:C	18:P:157:CYS:SG	2.95	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:353:SER:OG	27:Y:378:SER:CA	2.64	0.45
1:1:424:PHE:HE2	1:1:454:VAL:HG21	1.81	0.45
1:1:407:VAL:HG11	1:1:451:GLY:HA2	1.97	0.45
1:1:320:ASN:HD22	1:1:321:GLU:H	1.65	0.45
5:C:70:ILE:HD11	5:C:144:ILE:HG12	1.98	0.45
16:N:48:DG:H2"	16:N:49:DG:OP1	2.17	0.45
11:I:72:ASP:O	11:I:81:ARG:HG2	2.16	0.45
23:U:139:LEU:HG	23:U:350:TRP:CE3	2.51	0.45
20:R:85:VAL:HG23	20:R:85:VAL:O	2.17	0.45
20:R:127:CYS:C	20:R:128:LEU:HD22	2.36	0.45
21:S:158:LYS:HA	21:S:158:LYS:HD3	1.68	0.45
27:Y:62:HIS:HB3	27:Y:69:ILE:HD11	1.97	0.45
24:V:292:ILE:C	24:V:295:PRO:CD	2.54	0.45
21:S:184:TYR:O	21:S:221:ILE:HG21	2.15	0.45
18:P:102:THR:HG23	18:P:104:MET:HE2	1.90	0.45
4:B:560:GLU:HB3	24:V:225:MET:HE3	1.99	0.45
1:1:408:ILE:CG1	1:1:466:ARG:CZ	2.95	0.45
1:1:424:PHE:HB2	1:1:435:CYS:SG	2.56	0.45
1:1:474:MET:CG	1:1:505:ILE:CG2	2.94	0.45
1:1:466:ARG:NH2	1:1:476:PHE:HB3	2.32	0.45
1:1:474:MET:HG3	1:1:479:GLY:O	2.17	0.45
1:1:484:PHE:CD1	1:1:486:ILE:HG13	2.52	0.45
16:N:60:DA:C2'	16:N:61:DA:C5'	2.86	0.45
9:G:98:GLY:HA3	9:G:110:VAL:O	2.17	0.45
24:V:335:LYS:O	24:V:355:TYR:OH	2.35	0.45
6:D:31:GLN:O	6:D:34:GLN:HB2	2.17	0.45
21:S:127:LYS:HE3	21:S:127:LYS:HB3	1.60	0.45
2:2:253:LEU:HD21	3:A:1132:LYS:CB	2.40	0.45
27:Y:400:LYS:CB	27:Y:437:PHE:CE1	2.92	0.45
2:2:252:ASN:CG	3:A:1206:ASP:CA	2.85	0.45
1:1:406:SER:HA	1:1:447:GLN:C	2.37	0.45
1:1:474:MET:N	1:1:480:ARG:N	2.65	0.45
24:V:92:LEU:HD12	24:V:93:GLY:N	2.32	0.45
1:1:376:ASN:CB	1:1:379:ALA:HB3	2.46	0.45
1:1:307:ASP:HB2	1:1:323:VAL:CB	2.36	0.45
3:A:353:ILE:HG22	3:A:468:PHE:HB2	1.98	0.45
5:C:97:VAL:HG21	5:C:129:ILE:HG23	1.99	0.45
27:Y:416:PHE:CE1	27:Y:436:ARG:HB2	2.51	0.45
7:E:167:ARG:HA	7:E:167:ARG:HD3	1.78	0.45
8:F:130:ILE:HB	8:F:148:VAL:HG21	1.99	0.45
11:I:83:ASN:HA	11:I:104:LEU:HG	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:35:DG:C2	16:N:36:DT:O4	2.70	0.45
20:R:141:ASN:CA	20:R:142:PHE:HD1	2.29	0.45
18:P:143:PRO:HD3	18:P:185:VAL:CG2	2.46	0.45
19:Q:99:PHE:CA	22:T:142:DC:O2	2.59	0.45
18:P:21:VAL:HG22	18:P:23:THR:N	2.20	0.45
4:B:296:GLU:OE1	23:U:124:LYS:HD3	2.17	0.45
27:Y:57:ILE:CG2	27:Y:58:ALA:N	2.80	0.45
21:S:214:TRP:CE3	21:S:218:ASP:OD1	2.69	0.45
2:2:307:LYS:CE	3:A:1359:ASP:O	2.65	0.45
1:1:410:LEU:HG	1:1:457:TYR:CE1	2.52	0.45
18:P:88:ASP:CG	18:P:89:GLY:H	2.19	0.45
7:E:65:THR:O	7:E:69:ILE:HD12	2.16	0.45
4:B:233:PRO:HG2	4:B:234:ILE:HD12	1.99	0.45
5:C:165:LYS:O	13:K:6:ARG:NH1	2.46	0.45
18:P:223:LEU:HD11	19:Q:173:GLU:CA	2.46	0.45
27:Y:307:VAL:CA	27:Y:310:PRO:HD2	2.47	0.45
18:P:197:HIS:O	18:P:198:VAL:HB	2.17	0.45
1:1:754:ARG:HH22	1:1:758:GLU:CD	2.15	0.45
18:P:94:THR:CG2	18:P:110:LEU:HD11	2.47	0.45
1:1:522:ASP:O	1:1:524:ILE:HD13	2.17	0.45
20:R:61:LEU:CB	20:R:67:ILE:CD1	2.94	0.45
27:Y:655:SER:HA	27:Y:689:LYS:NZ	2.31	0.45
20:R:44:LYS:HE3	20:R:54:LEU:CB	2.47	0.44
18:P:129:ALA:O	18:P:133:ILE:HB	2.17	0.44
1:1:574:ALA:CB	1:1:774:GLU:OE2	2.65	0.44
2:2:269:PHE:HZ	2:2:308:PHE:CE1	2.35	0.44
22:T:140:DC:H2''	22:T:141:DC:C6	2.52	0.44
27:Y:495:MET:CE	27:Y:696:TRP:HE3	2.30	0.44
27:Y:697:ILE:HG22	27:Y:698:ALA:N	2.32	0.44
22:T:103:DC:H2''	22:T:104:DT:H5'	1.99	0.44
1:1:299:GLY:C	1:1:347:HIS:HB3	2.38	0.44
1:1:449:GLU:CB	1:1:452:LEU:HA	2.46	0.44
3:A:1436:ILE:O	4:B:1144:ALA:HB2	2.17	0.44
1:1:366:GLN:HE22	1:1:394:LEU:HD22	1.82	0.44
3:A:11:LEU:CD1	4:B:1195:HIS:NE2	2.80	0.44
27:Y:83:LEU:HD13	27:Y:177:SER:HA	1.98	0.44
10:H:105:GLU:HB3	10:H:113:ALA:HB3	1.99	0.44
17:O:39:ARG:HD3	17:O:39:ARG:O	2.17	0.44
20:R:149:CYS:SG	20:R:151:LEU:CD2	3.00	0.44
22:T:144:DT:C4	22:T:145:DT:O4	2.70	0.44
27:Y:496:ILE:O	27:Y:686:PHE:HE2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:666:LEU:C	27:Y:666:LEU:HD13	2.38	0.44
27:Y:686:PHE:CD1	27:Y:687:SER:N	2.85	0.44
27:Y:307:VAL:O	27:Y:310:PRO:HD2	2.17	0.44
8:F:100:GLN:CD	9:G:15:PRO:HG2	2.38	0.44
1:1:457:TYR:CB	1:1:498:PHE:CE1	2.94	0.44
3:A:95:PHE:O	3:A:97:ALA:N	2.49	0.44
4:B:849:GLY:HA2	4:B:852:ARG:CD	2.40	0.44
23:U:343:ARG:HB3	23:U:347:PHE:CG	2.52	0.44
19:Q:76:LEU:HB2	19:Q:119:GLY:O	2.18	0.44
1:1:609:SER:O	1:1:655:SER:HA	2.16	0.44
4:B:1001:PHE:HE2	5:C:178:PHE:HB3	1.81	0.44
3:A:1447:GLU:HB2	9:G:70:PHE:HZ	1.83	0.44
20:R:27:LEU:HD23	20:R:129:THR:HB	2.00	0.44
20:R:40:GLU:H	20:R:87:TYR:HE1	1.65	0.44
27:Y:244:CYS:O	27:Y:248:LEU:HG	2.18	0.44
27:Y:185:CYS:CB	27:Y:190:LEU:O	2.63	0.44
16:N:26:DG:H2''	24:V:291:SER:HB3	1.99	0.44
1:1:434:ASN:HD22	1:1:434:ASN:N	2.15	0.44
1:1:476:PHE:HA	1:1:485:ILE:HG21	1.98	0.44
1:1:519:ARG:HB2	1:1:521:ASP:OD1	2.17	0.44
18:P:152:GLU:CG	18:P:155:LYS:NZ	2.75	0.44
27:Y:537:MET:HA	27:Y:619:THR:O	2.17	0.44
23:U:107:PRO:CB	24:V:90:GLN:OE1	2.65	0.44
20:R:16:VAL:O	20:R:20:PHE:HD1	2.00	0.44
23:U:117:HIS:HD2	23:U:391:LYS:HB2	1.83	0.44
9:G:143:ILE:HG22	9:G:145:VAL:HG22	1.99	0.44
12:J:36:LEU:HD11	12:J:51:LEU:HB2	2.00	0.44
18:P:190:LYS:HE2	18:P:242:PHE:CZ	2.42	0.44
3:A:1445:ILE:H	9:G:68:ALA:CB	2.30	0.44
8:F:132:LEU:CD2	9:G:61:ILE:HG12	2.46	0.44
19:Q:103:ILE:HD13	22:T:144:DT:C5'	2.45	0.44
27:Y:493:LEU:HB3	27:Y:696:TRP:NE1	2.33	0.44
21:S:232:VAL:HG22	21:S:233:LEU:N	2.33	0.44
1:1:356:LEU:CD2	1:1:448:THR:CG2	2.95	0.44
1:1:487:LEU:CD2	1:1:531:ILE:HD13	2.47	0.44
1:1:502:VAL:HA	1:1:505:ILE:CG1	2.47	0.44
20:R:37:VAL:HG12	20:R:88:TYR:CB	2.46	0.44
3:A:132:LYS:NZ	3:A:1415:SER:HB3	2.30	0.44
4:B:468:GLU:HG2	4:B:469:GLN:HB2	1.99	0.44
4:B:102:VAL:HG23	4:B:112:LEU:HD22	2.00	0.44
3:A:994:GLN:HE22	3:A:1023:ARG:HE	1.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:135:GLU:HA	20:R:138:GLN:CG	2.48	0.44
20:R:141:ASN:HA	20:R:142:PHE:CD1	2.52	0.44
19:Q:68:GLN:O	22:T:146:DT:H4'	2.17	0.44
18:P:21:VAL:CG2	18:P:22:LEU:N	2.80	0.44
24:V:69:TRP:HZ3	24:V:71:VAL:HG23	1.80	0.44
1:1:434:ASN:O	1:1:452:LEU:HG	2.18	0.44
1:1:448:THR:HG22	1:1:449:GLU:H	1.83	0.44
1:1:470:SER:HA	1:1:478:THR:CB	2.48	0.44
20:R:92:PRO:HA	20:R:95:ILE:HG22	2.00	0.44
27:Y:539:VAL:HB	27:Y:599:LEU:HD23	2.00	0.44
3:A:58:LEU:HB3	3:A:59:GLY:H	1.25	0.44
18:P:269:ILE:O	18:P:272:LYS:HG2	2.18	0.44
23:U:98:TYR:CD1	24:V:98:ASN:CA	3.00	0.44
23:U:375:LEU:HD13	24:V:134:VAL:HG21	1.99	0.44
3:A:875:ALA:HB2	3:A:1366:ARG:CD	2.48	0.44
3:A:869:GLY:O	7:E:204:THR:HG21	2.18	0.44
1:1:415:VAL:HA	1:1:418:MET:HE3	1.99	0.44
5:C:11:ARG:HE	5:C:21:ILE:HD11	1.82	0.44
3:A:1345:ARG:HD2	3:A:1373:ASP:OD1	2.18	0.44
4:B:901:PRO:O	14:L:60:ARG:HA	2.18	0.44
3:A:589:GLN:HG2	3:A:606:LEU:HD13	1.99	0.44
4:B:394:ASP:OD2	11:I:91:ARG:HD2	2.17	0.44
1:1:339:GLU:O	1:1:340:GLU:HB2	2.16	0.44
10:H:30:SER:HB3	10:H:36:CYS:HB3	1.98	0.44
1:1:629:GLY:N	1:1:657:VAL:HG11	2.33	0.44
17:O:84:GLN:HE21	17:O:84:GLN:HA	1.83	0.44
20:R:120:ASN:CG	20:R:133:GLN:CG	2.85	0.44
27:Y:248:LEU:HD11	27:Y:445:ALA:HB3	1.95	0.44
22:T:146:DT:C5	22:T:147:DA:N6	2.85	0.44
18:P:34:ILE:O	18:P:35:VAL:CB	2.64	0.44
3:A:404:TYR:HE2	18:P:40:GLU:CD	2.20	0.44
21:S:195:LEU:HD22	21:S:195:LEU:H	1.82	0.44
21:S:199:GLN:HG3	21:S:246:TYR:OH	2.18	0.44
27:Y:124:ARG:HG2	27:Y:374:LEU:HB2	1.99	0.44
21:S:133:GLU:OE1	24:V:330:LYS:CD	2.48	0.44
1:1:373:MET:CG	1:1:381:SER:CB	2.95	0.44
23:U:96:ASN:C	23:U:96:ASN:HD22	2.20	0.44
23:U:98:TYR:OH	24:V:98:ASN:CG	2.19	0.44
23:U:377:SER:CB	24:V:70:LEU:CD2	2.96	0.44
3:A:22:PHE:HD2	4:B:1211:ASN:HA	1.83	0.44
2:2:293:LEU:N	2:2:293:LEU:CD2	2.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:89:GLU:HB2	4:B:135:ARG:HB2	1.99	0.44
27:Y:261:THR:HA	27:Y:299:LEU:CD1	2.48	0.44
13:K:65:HIS:HE1	13:K:67:PHE:CG	2.35	0.44
18:P:190:LYS:HD3	18:P:242:PHE:HZ	1.83	0.44
2:2:258:GLY:N	3:A:1283:VAL:CA	2.79	0.44
2:2:253:LEU:HD22	3:A:1132:LYS:HD3	0.86	0.44
2:2:257:GLN:NE2	3:A:1284:MET:CE	2.80	0.44
3:A:1445:ILE:N	9:G:68:ALA:CB	2.80	0.44
24:V:59:LEU:HD21	24:V:214:ILE:CD1	2.46	0.44
19:Q:114:LEU:HD22	22:T:143:DT:C2	2.52	0.44
3:A:412:ARG:CB	18:P:51:VAL:HB	2.48	0.44
27:Y:54:SER:HB2	27:Y:233:ILE:HD13	2.00	0.44
18:P:102:THR:HG23	18:P:104:MET:CE	2.39	0.44
1:1:408:ILE:CD1	1:1:466:ARG:CD	2.95	0.44
16:N:57:DA:C2	16:N:58:DC:O2	2.70	0.44
16:N:59:DT:O2	16:N:60:DA:C8	2.70	0.44
22:T:117:DC:C4	22:T:118:DC:N4	2.85	0.44
24:V:82:ARG:NH2	24:V:120:TYR:OH	2.51	0.44
3:A:70:CYS:O	3:A:72:GLU:HG2	2.17	0.44
27:Y:569:ILE:HG23	27:Y:579:THR:OG1	2.16	0.44
1:1:310:ILE:HG21	1:1:313:VAL:HG21	2.00	0.44
9:G:1:MET:HE3	9:G:80:LYS:O	2.18	0.44
22:T:155:DC:H2''	22:T:156:DT:C5'	2.47	0.44
3:A:446:ARG:HB2	3:A:487:MET:SD	2.57	0.44
3:A:514:PRO:HG2	3:A:1067:LEU:HD11	1.98	0.44
21:S:153:MET:O	21:S:154:LYS:NZ	2.28	0.44
3:A:412:ARG:HB2	18:P:51:VAL:HB	1.99	0.44
21:S:179:LYS:HD3	21:S:179:LYS:C	2.38	0.44
21:S:210:LEU:HD22	21:S:214:TRP:CZ2	2.52	0.44
27:Y:342:LEU:HD23	27:Y:345:ARG:CZ	2.45	0.44
27:Y:321:ILE:HG21	27:Y:411:THR:HB	2.00	0.44
1:1:299:GLY:HA2	1:1:347:HIS:N	2.32	0.44
1:1:448:THR:CG2	1:1:449:GLU:N	2.81	0.44
1:1:455:SER:HB3	1:1:466:ARG:CG	2.48	0.44
1:1:373:MET:CE	1:1:511:LEU:CD1	2.95	0.44
2:2:289:ALA:HB2	3:A:824:LEU:HD21	2.00	0.44
20:R:17:VAL:CG2	20:R:18:ARG:N	2.81	0.44
6:D:7:THR:HG23	9:G:7:LEU:HD23	1.99	0.44
3:A:451:HIS:CD2	3:A:1074:GLU:HG3	2.52	0.44
4:B:1158:PHE:HE2	4:B:1160:VAL:HG13	1.83	0.44
18:P:290:GLN:O	18:P:292:PRO:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:T:151:DG:C2'	22:T:152:DC:H5	2.31	0.44
20:R:147:PHE:HB2	20:R:156:LEU:HD11	1.97	0.44
20:R:147:PHE:CB	20:R:156:LEU:HD21	2.44	0.44
18:P:134:THR:HG22	18:P:134:THR:O	2.17	0.44
21:S:129:LEU:N	24:V:341:LYS:CG	2.81	0.44
24:V:59:LEU:CD2	24:V:214:ILE:CD1	2.91	0.44
16:N:17:DT:H2'	16:N:18:DA:C8	2.52	0.44
18:P:91:ASN:CG	18:P:92:LEU:H	2.21	0.44
1:1:619:ALA:CA	1:1:622:MET:CE	2.96	0.44
27:Y:360:LEU:HD13	27:Y:360:LEU:C	2.38	0.44
1:1:397:ILE:HD11	1:1:423:GLN:NE2	2.30	0.44
1:1:501:VAL:CG2	1:1:502:VAL:N	2.80	0.44
20:R:17:VAL:HG13	20:R:66:LEU:HD11	1.95	0.44
27:Y:526:LEU:HD12	27:Y:621:LEU:CD2	2.48	0.44
27:Y:473:LEU:O	27:Y:474:ASN:HB3	2.18	0.44
27:Y:290:VAL:O	27:Y:291:GLN:C	2.56	0.44
27:Y:486:THR:HG21	27:Y:670:LEU:HD21	2.00	0.44
3:A:875:ALA:HA	3:A:878:ILE:HD12	1.99	0.44
27:Y:416:PHE:C	27:Y:416:PHE:CD1	2.91	0.44
3:A:332:LYS:HA	3:A:337:ARG:HB2	2.00	0.44
4:B:86:ARG:HG2	4:B:138:GLU:HG3	1.98	0.44
17:O:85:VAL:O	17:O:106:ILE:N	2.44	0.44
21:S:203:LYS:CG	21:S:242:ARG:HE	2.05	0.43
2:2:257:GLN:HA	3:A:1284:MET:N	2.31	0.43
3:A:404:TYR:HH	18:P:40:GLU:CB	2.26	0.43
27:Y:109:THR:HG22	27:Y:110:SER:N	2.32	0.43
27:Y:492:PHE:CD2	27:Y:494:PRO:HD3	2.53	0.43
27:Y:656:PHE:CA	27:Y:659:MET:HE3	2.46	0.43
21:S:179:LYS:C	21:S:179:LYS:CD	2.86	0.43
21:S:184:TYR:HA	21:S:221:ILE:N	2.06	0.43
1:1:622:MET:HB2	1:1:622:MET:HE2	1.83	0.43
22:T:122:DT:H2''	22:T:123:DT:H73	1.98	0.43
1:1:424:PHE:CD1	1:1:450:SER:CB	2.94	0.43
1:1:400:ALA:CB	1:1:450:SER:CA	2.93	0.43
1:1:517:LEU:HD22	1:1:534:LYS:HB3	1.98	0.43
20:R:66:LEU:N	20:R:66:LEU:HD22	2.32	0.43
18:P:269:ILE:HB	18:P:272:LYS:HG2	2.00	0.43
3:A:1441:PHE:CZ	8:F:89:GLU:HA	2.53	0.43
15:M:277:GLN:HA	17:O:56:THR:HG21	1.98	0.43
15:M:231:ILE:CG2	15:M:232:SER:N	2.81	0.43
3:A:151:ASP:HA	3:A:163:SER:HA	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:H:15:VAL:HG22	10:H:26:ILE:HG13	2.00	0.43
3:A:407:ARG:HG2	3:A:430:TRP:CZ2	2.53	0.43
18:P:243:CYS:HB3	18:P:253:THR:CG2	2.48	0.43
18:P:252:VAL:HG12	18:P:285:ASN:OD1	2.17	0.43
18:P:314:LYS:HB3	18:P:314:LYS:HE2	1.54	0.43
18:P:133:ILE:HG23	18:P:134:THR:N	2.33	0.43
1:1:572:GLU:OE1	1:1:574:ALA:N	2.50	0.43
8:F:92:ARG:NH1	9:G:63:PRO:HB3	2.32	0.43
27:Y:653:PHE:CE1	27:Y:654:LEU:HB2	2.53	0.43
18:P:173:ALA:HB1	18:P:176:ILE:HD11	2.00	0.43
1:1:562:THR:CG2	1:1:585:PRO:HD2	2.48	0.43
22:T:143:DT:O5'	22:T:143:DT:H6	2.00	0.43
22:T:144:DT:N3	22:T:145:DT:C4	2.86	0.43
27:Y:383:LEU:HD23	27:Y:383:LEU:O	2.19	0.43
27:Y:533:THR:CG2	27:Y:708:LEU:HD22	2.48	0.43
22:T:122:DT:C6	22:T:123:DT:H72	2.53	0.43
1:1:378:ARG:NH2	1:1:510:LYS:HE2	2.33	0.43
1:1:466:ARG:HD2	1:1:475:ASP:CG	2.39	0.43
4:B:125:SER:HA	4:B:171:PRO:HA	2.00	0.43
21:S:202:PHE:HB2	21:S:205:ILE:HG21	2.00	0.43
2:2:253:LEU:HB3	3:A:1132:LYS:HE2	1.97	0.43
2:2:305:ARG:C	3:A:1360:GLY:HA2	2.38	0.43
21:S:244:VAL:H	21:S:245:TRP:HZ3	1.66	0.43
1:1:386:LEU:CB	1:1:387:PRO:HD2	2.45	0.43
1:1:303:ARG:HH21	1:1:470:SER:HB2	1.82	0.43
1:1:300:ASP:CG	1:1:480:ARG:HD3	2.37	0.43
1:1:473:VAL:CB	1:1:481:GLU:CG	2.95	0.43
3:A:190:ALA:O	22:T:116:DG:OP2	2.35	0.43
22:T:117:DC:O5'	22:T:117:DC:H6	2.01	0.43
4:B:350:GLN:HE21	23:U:411:LYS:NZ	2.14	0.43
20:R:13:LEU:HD11	20:R:94:ALA:CB	2.47	0.43
27:Y:72:CYS:SG	27:Y:210:TYR:CE1	3.03	0.43
27:Y:506:ILE:HG13	27:Y:522:TYR:CD1	2.53	0.43
3:A:91:PHE:HB3	3:A:96:ILE:CD1	2.48	0.43
3:A:22:PHE:HB2	4:B:1211:ASN:O	2.18	0.43
3:A:42:ASP:O	3:A:44:THR:N	2.51	0.43
4:B:951:GLN:OE1	14:L:57:LEU:HD22	2.18	0.43
27:Y:625:ILE:CG2	27:Y:626:PRO:HD2	2.49	0.43
5:C:133:ILE:HG21	5:C:236:GLY:HA3	2.00	0.43
5:C:34:ARG:HA	5:C:37:MET:HE2	2.00	0.43
10:H:4:THR:HA	10:H:60:ALA:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:675:SER:CB	1:1:722:ARG:HH22	2.31	0.43
21:S:126:SER:O	24:V:339:LEU:C	2.42	0.43
21:S:158:LYS:HA	21:S:162:LEU:HB2	2.01	0.43
2:2:258:GLY:N	3:A:1283:VAL:HA	2.34	0.43
27:Y:639:LEU:C	27:Y:639:LEU:HD23	2.39	0.43
18:P:51:VAL:CG2	18:P:52:LEU:H	2.32	0.43
27:Y:493:LEU:CD2	27:Y:666:LEU:HG	2.40	0.43
27:Y:708:LEU:HD23	27:Y:708:LEU:O	2.18	0.43
1:1:427:TRP:HE3	1:1:427:TRP:H	1.65	0.43
1:1:327:LYS:CG	1:1:506:ALA:N	2.82	0.43
4:B:766:ARG:NH2	4:B:1020:ARG:HD3	2.33	0.43
1:1:372:LYS:HE3	1:1:536:TYR:CD2	2.53	0.43
15:M:42:TRP:CZ2	17:O:19:LEU:HG	2.53	0.43
21:S:196:LEU:CD1	21:S:196:LEU:C	2.79	0.43
3:A:548:ASN:HD21	13:K:47:ARG:HH21	1.65	0.43
3:A:1259:MET:HA	3:A:1262:LYS:HD2	1.99	0.43
16:N:37:DA:C2'	16:N:38:DT:H71	2.48	0.43
22:T:130:DA:H5''	23:U:331:GLN:HB3	1.99	0.43
27:Y:132:LYS:CB	27:Y:155:LEU:CD1	2.97	0.43
1:1:562:THR:OG1	1:1:565:PHE:CD1	2.72	0.43
27:Y:212:TYR:O	27:Y:218:ILE:HG21	2.18	0.43
27:Y:708:LEU:HD23	27:Y:708:LEU:C	2.39	0.43
23:U:138:ARG:CZ	24:V:57:LEU:HB3	2.48	0.43
18:P:171:ILE:O	18:P:171:ILE:HG13	2.18	0.43
21:S:134:TYR:HH	21:S:138:LYS:HE3	1.74	0.43
1:1:457:TYR:O	1:1:458:SER:HB3	2.19	0.43
1:1:473:VAL:O	1:1:478:THR:CB	2.63	0.43
1:1:466:ARG:HE	1:1:475:ASP:HB3	1.82	0.43
16:N:59:DT:C2'	16:N:60:DA:C8	3.01	0.43
1:1:656:LYS:C	1:1:656:LYS:CD	2.86	0.43
18:P:258:TYR:CD1	18:P:258:TYR:C	2.92	0.43
24:V:88:HIS:CD2	24:V:89:GLY:H	2.36	0.43
8:F:106:PRO:HB2	9:G:16:SER:HA	1.89	0.43
15:M:277:GLN:CB	17:O:56:THR:HG23	2.48	0.43
4:B:955:THR:HG22	4:B:956:THR:N	2.34	0.43
3:A:774:ARG:HH21	3:A:797:LYS:HB2	1.83	0.43
4:B:935:ARG:HD2	4:B:935:ARG:H	1.84	0.43
4:B:212:LEU:HD23	4:B:212:LEU:HA	1.73	0.43
22:T:135:DG:C2'	22:T:136:DA:C5'	2.92	0.43
18:P:317:TYR:O	18:P:320:ARG:HB3	2.19	0.43
24:V:342:LYS:O	24:V:343:GLY:C	2.56	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:223:LEU:CD1	19:Q:177:PHE:CZ	2.93	0.43
3:A:419:LYS:HZ1	18:P:47:LEU:HA	1.80	0.43
27:Y:54:SER:C	27:Y:57:ILE:HG22	2.37	0.43
2:2:252:ASN:HA	3:A:1204:ASP:C	2.39	0.43
27:Y:697:ILE:CG2	27:Y:699:GLN:NE2	2.82	0.43
4:B:430:ARG:CA	23:U:326:ARG:NH1	2.50	0.43
27:Y:316:LEU:CD2	27:Y:409:ILE:CD1	2.97	0.43
1:1:300:ASP:N	1:1:347:HIS:HA	2.32	0.43
1:1:383:ILE:C	1:1:384:ILE:HD12	2.39	0.43
1:1:425:LEU:HD12	1:1:429:THR:HG23	1.95	0.43
1:1:453:VAL:CG2	1:1:482:TRP:CZ2	2.97	0.43
1:1:327:LYS:HB3	1:1:504:THR:C	2.39	0.43
1:1:373:MET:SD	1:1:511:LEU:HD13	2.59	0.43
20:R:13:LEU:O	20:R:17:VAL:HG13	2.19	0.43
3:A:66:LYS:CE	3:A:68:GLN:H	2.31	0.43
1:1:376:ASN:HB3	1:1:379:ALA:N	2.33	0.43
1:1:344:ARG:HA	1:1:344:ARG:NE	2.33	0.43
18:P:311:SER:O	18:P:315:ILE:HG13	2.18	0.43
16:N:70:DG:P	26:X:63:TYR:OH	2.77	0.43
5:C:55:THR:HB	5:C:151:GLN:HA	1.99	0.43
21:S:166:LEU:HD13	21:S:167:ASP:H	1.80	0.43
20:R:35:HIS:CG	20:R:36:SER:N	2.85	0.43
3:A:130:ASP:HB3	3:A:133:LYS:HB2	2.00	0.43
3:A:358:ASN:HB2	13:K:65:HIS:HD2	1.84	0.43
3:A:1356:ILE:HG21	3:A:1363:VAL:HG23	1.99	0.43
4:B:802:PRO:HA	4:B:822:ASN:HD21	1.84	0.43
4:B:617:ARG:HG3	4:B:624:LEU:HD12	2.00	0.43
3:A:1154:TYR:CE1	11:I:18:GLU:HG3	2.53	0.43
4:B:983:ARG:HD2	4:B:1091:TYR:HD2	1.84	0.43
21:S:125:SER:HA	24:V:341:LYS:HB2	0.87	0.43
19:Q:99:PHE:HB2	22:T:143:DT:P	2.57	0.43
16:N:28:DT:H72	24:V:292:ILE:HG22	1.99	0.43
2:2:296:PHE:CD1	2:2:296:PHE:N	2.86	0.43
4:B:343:ILE:HD11	22:T:121:DG:C3'	2.44	0.43
1:1:477:LEU:CD1	1:1:477:LEU:N	2.82	0.43
4:B:104:GLU:CD	14:L:54:ARG:NE	2.71	0.43
16:N:59:DT:N3	16:N:60:DA:C5	2.86	0.43
27:Y:408:LEU:CD1	27:Y:632:SER:HB3	2.48	0.43
27:Y:37:ASN:C	27:Y:477:THR:HG1	2.21	0.43
18:P:120:ASP:OD1	18:P:121:LYS:N	2.51	0.43
27:Y:670:LEU:HD21	27:Y:672:GLY:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:169:ASP:O	27:Y:173:LYS:HB2	2.19	0.43
5:C:251:LEU:O	5:C:255:VAL:HG23	2.19	0.43
3:A:1148:ILE:HA	11:I:49:ILE:HD12	2.00	0.43
23:U:414:ASP:O	23:U:417:SER:O	2.37	0.43
4:B:383:ASN:O	4:B:387:LEU:HB2	2.19	0.43
16:N:35:DG:C2'	16:N:36:DT:C7	2.86	0.43
18:P:310:LYS:NZ	18:P:340:PRO:HA	2.33	0.43
18:P:320:ARG:HD3	18:P:334:VAL:HG22	1.36	0.43
20:R:44:LYS:HZ1	20:R:54:LEU:HD13	1.84	0.43
21:S:130:TRP:HD1	21:S:151:LEU:HG	1.69	0.43
21:S:156:ASP:CA	21:S:159:VAL:CG1	2.96	0.43
18:P:223:LEU:O	18:P:224:LYS:CB	2.67	0.43
24:V:69:TRP:CE3	24:V:219:CYS:HB2	2.54	0.43
27:Y:298:ILE:HD12	27:Y:345:ARG:HD2	1.97	0.43
27:Y:289:LEU:CD2	27:Y:352:ILE:HG13	2.45	0.43
18:P:81:GLU:CD	18:P:82:ALA:O	2.56	0.43
18:P:152:GLU:HG3	18:P:155:LYS:HZ1	1.81	0.43
20:R:65:ARG:HB3	20:R:90:LYS:HD2	2.01	0.43
18:P:333:VAL:HG23	18:P:335:SER:H	1.84	0.43
27:Y:240:ILE:CG2	27:Y:473:LEU:CD1	2.92	0.43
24:V:87:LEU:C	24:V:88:HIS:CG	2.92	0.43
23:U:342:LEU:HB3	23:U:348:TYR:CZ	2.54	0.43
18:P:322:LYS:HE2	18:P:322:LYS:N	2.23	0.43
4:B:915:THR:O	4:B:917:PRO:HD3	2.19	0.43
3:A:449:SER:HA	3:A:454:SER:CB	2.49	0.43
3:A:541:ILE:HG21	3:A:549:MET:CE	2.49	0.43
1:1:609:SER:OG	1:1:615:LEU:HB2	2.17	0.43
4:B:998:ASP:OD1	5:C:35:ARG:NH2	2.46	0.43
4:B:980:PHE:CD1	4:B:1094:ARG:HA	2.54	0.43
18:P:308:THR:CG2	22:T:151:DG:OP1	2.66	0.43
21:S:149:ASP:OD1	21:S:154:LYS:HD2	2.18	0.43
2:2:252:ASN:OD1	3:A:1204:ASP:C	2.55	0.43
27:Y:316:LEU:HD21	27:Y:409:ILE:CD1	2.49	0.43
27:Y:316:LEU:HD23	27:Y:409:ILE:HD12	2.00	0.43
27:Y:317:LEU:HD13	27:Y:415:GLY:CA	2.48	0.43
1:1:435:CYS:HA	1:1:452:LEU:HG	2.01	0.43
1:1:476:PHE:CD2	1:1:477:LEU:CD1	2.93	0.43
1:1:478:THR:CG2	1:1:479:GLY:N	2.81	0.43
1:1:485:ILE:HG23	1:1:507:ALA:HB1	1.98	0.43
16:N:59:DT:C1'	16:N:60:DA:C8	3.02	0.43
20:R:33:LEU:HD23	20:R:89:VAL:HG21	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:O:60:LEU:HD12	17:O:60:LEU:C	2.39	0.43
27:Y:75:THR:O	27:Y:79:ILE:HG13	2.19	0.43
5:C:184:ASN:ND2	5:C:189:THR:O	2.52	0.43
4:B:69:LEU:HD22	4:B:425:THR:HG23	2.00	0.43
27:Y:127:THR:HG23	27:Y:365:GLN:NE2	2.33	0.43
1:1:438:PHE:HE1	1:1:469:ASP:OD2	2.01	0.43
9:G:93:SER:OG	9:G:100:GLU:HB2	2.19	0.43
16:N:2:DA:H2'	16:N:3:DA:C8	2.53	0.43
16:N:39:DC:H2'	16:N:40:DT:H6	1.69	0.43
18:P:334:VAL:HA	18:P:337:ASP:OD2	2.19	0.43
21:S:135:ILE:CD1	21:S:180:TYR:HB2	2.44	0.43
1:1:562:THR:OG1	1:1:565:PHE:HB2	2.19	0.43
23:U:94:ASP:HB2	23:U:95:PRO:HD3	2.01	0.43
27:Y:184:TYR:CE1	27:Y:190:LEU:HD21	2.54	0.43
27:Y:504:VAL:HG12	27:Y:686:PHE:CZ	2.54	0.43
27:Y:697:ILE:HG22	27:Y:698:ALA:O	2.18	0.43
4:B:433:GLN:CD	23:U:326:ARG:NE	2.63	0.43
1:1:407:VAL:CG2	1:1:408:ILE:N	2.82	0.43
1:1:421:ARG:CZ	1:1:430:LEU:HD21	2.49	0.43
1:1:484:PHE:HE1	1:1:486:ILE:CG1	2.29	0.43
18:P:38:PHE:CD1	18:P:39:SER:N	2.87	0.43
3:A:33:ALA:HB1	3:A:56:PRO:HB2	2.00	0.43
1:1:372:LYS:HE3	1:1:536:TYR:HD2	1.83	0.43
1:1:335:TYR:HB3	1:1:336:PRO:CD	2.47	0.43
23:U:329:THR:HA	23:U:332:LEU:HG	2.00	0.43
3:A:270:LEU:HA	3:A:270:LEU:HD12	1.68	0.43
18:P:279:VAL:HG13	18:P:309:ILE:CG2	2.49	0.42
18:P:305:THR:HG23	18:P:307:GLY:H	1.84	0.42
18:P:313:TYR:CA	18:P:316:LEU:HD22	2.49	0.42
20:R:119:PRO:CG	20:R:120:ASN:HD22	2.32	0.42
20:R:123:MET:HE3	20:R:130:LYS:CD	2.41	0.42
20:R:129:THR:CG2	20:R:131:TYR:HH	2.30	0.42
18:P:146:VAL:HG12	18:P:182:ARG:HD3	1.52	0.42
21:S:202:PHE:C	21:S:203:LYS:HZ1	2.22	0.42
21:S:129:LEU:N	24:V:341:LYS:CD	2.79	0.42
27:Y:492:PHE:HE2	27:Y:494:PRO:HG3	1.81	0.42
23:U:376:LEU:CD2	23:U:386:MET:HB3	2.49	0.42
1:1:303:ARG:NE	1:1:471:GLN:HG3	2.34	0.42
1:1:354:ILE:CG2	1:1:355:ASP:N	2.82	0.42
1:1:456:THR:CG2	1:1:457:TYR:H	2.30	0.42
18:P:20:ILE:O	18:P:20:ILE:HG23	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:1438:THR:HB	4:B:1142:GLY:O	2.19	0.42
1:1:313:VAL:CG1	1:1:314:HIS:CE1	3.02	0.42
3:A:343:LYS:NZ	4:B:1156:ASP:HB2	2.33	0.42
15:M:267:VAL:HG22	15:M:269:ILE:HG13	2.00	0.42
3:A:1025:ARG:O	3:A:1035:TYR:HE2	2.01	0.42
14:L:49:LYS:O	14:L:50:ASP:HB2	2.19	0.42
20:R:154:GLU:OE1	20:R:154:GLU:HA	2.19	0.42
21:S:203:LYS:HG3	21:S:242:ARG:HB3	2.00	0.42
21:S:128:LEU:HB3	24:V:341:LYS:CD	2.37	0.42
1:1:717:TYR:C	1:1:717:TYR:CD1	2.92	0.42
18:P:34:ILE:HB	18:P:43:VAL:O	2.20	0.42
27:Y:697:ILE:CG2	27:Y:699:GLN:HE21	2.31	0.42
18:P:94:THR:CB	18:P:110:LEU:CD2	2.97	0.42
1:1:326:VAL:HG12	1:1:327:LYS:H	1.84	0.42
1:1:407:VAL:CB	1:1:451:GLY:HA2	2.48	0.42
1:1:459:MET:HB2	1:1:464:ARG:CZ	2.49	0.42
3:A:78:PRO:C	4:B:1201:LYS:NZ	2.69	0.42
27:Y:237:ALA:CA	27:Y:240:ILE:HG12	2.49	0.42
3:A:11:LEU:HD21	4:B:1195:HIS:HD2	1.84	0.42
5:C:99:LEU:HB3	5:C:118:LEU:HD22	2.01	0.42
19:Q:169:PRO:HB2	19:Q:239:LYS:HB2	2.01	0.42
3:A:1340:GLY:HA2	7:E:183:PRO:HD2	2.01	0.42
3:A:729:ALA:HA	3:A:732:LEU:HD12	2.01	0.42
8:F:82:THR:HG22	8:F:83:PRO:HD2	2.01	0.42
16:N:45:DC:O5'	16:N:45:DC:H6	2.03	0.42
24:V:333:LEU:HD13	24:V:349:TYR:CD2	2.55	0.42
27:Y:218:ILE:CG2	27:Y:219:ALA:N	2.82	0.42
2:2:241:LEU:HD21	3:A:1232:ASN:CA	2.35	0.42
21:S:179:LYS:O	21:S:179:LYS:HD3	2.19	0.42
21:S:133:GLU:OE2	24:V:330:LYS:CD	2.67	0.42
1:1:429:THR:CG2	1:1:430:LEU:N	2.81	0.42
22:T:116:DG:C2	22:T:117:DC:C2	3.07	0.42
3:A:34:LYS:H	3:A:57:ARG:NH1	2.17	0.42
1:1:535:LEU:HG	1:1:535:LEU:O	2.18	0.42
17:O:23:LEU:HA	17:O:23:LEU:HD12	1.92	0.42
4:B:171:PRO:HG2	4:B:461:LEU:HD12	2.01	0.42
27:Y:416:PHE:HE1	27:Y:436:ARG:HB2	1.84	0.42
3:A:709:THR:HB	3:A:712:GLU:H	1.83	0.42
4:B:108:VAL:N	18:P:244:SER:HB3	2.35	0.42
4:B:169:ARG:HB2	4:B:454:THR:HG23	2.01	0.42
20:R:34:PHE:HZ	20:R:134:LEU:C	2.05	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:254:TYR:C	2:2:256:ALA:N	2.73	0.42
18:P:26:GLU:CD	18:P:50:LEU:HD22	2.38	0.42
27:Y:62:HIS:HD2	27:Y:63:TYR:CA	2.31	0.42
16:N:28:DT:C7	24:V:292:ILE:CG2	2.98	0.42
21:S:187:HIS:HE1	21:S:222:ASN:O	1.98	0.42
18:P:113:ALA:C	18:P:116:LYS:HG2	2.39	0.42
18:P:117:ASN:C	18:P:119:MET:H	2.23	0.42
1:1:408:ILE:CG2	1:1:476:PHE:N	2.80	0.42
1:1:474:MET:HB2	1:1:481:GLU:N	2.34	0.42
20:R:62:ARG:HA	20:R:67:ILE:HD13	2.01	0.42
24:V:92:LEU:C	24:V:92:LEU:HD12	2.40	0.42
3:A:91:PHE:CB	3:A:96:ILE:CD1	2.96	0.42
1:1:680:ARG:HA	1:1:680:ARG:HD3	1.55	0.42
3:A:339:ASN:HB3	4:B:1117:GLN:HE22	1.84	0.42
20:R:69:ILE:CG2	20:R:70:HIS:N	2.83	0.42
3:A:270:LEU:O	3:A:274:ILE:HG13	2.19	0.42
27:Y:330:HIS:CE1	27:Y:334:PHE:HE1	2.37	0.42
27:Y:168:GLU:HG2	27:Y:199:MET:SD	2.59	0.42
4:B:521:LEU:HD22	4:B:633:VAL:HG12	2.01	0.42
22:T:132:DA:H2"	22:T:133:DT:H73	1.98	0.42
22:T:134:DT:H2"	22:T:135:DG:C8	2.54	0.42
20:R:40:GLU:N	20:R:87:TYR:CE1	2.88	0.42
27:Y:110:SER:HB3	27:Y:212:TYR:HD1	1.81	0.42
27:Y:182:LEU:CD1	27:Y:192:PRO:HG2	2.45	0.42
27:Y:321:ILE:HD11	27:Y:409:ILE:CB	2.46	0.42
1:1:420:TRP:O	1:1:424:PHE:CD2	2.73	0.42
1:1:487:LEU:CD1	1:1:487:LEU:N	2.82	0.42
20:R:21:TYR:CD2	20:R:64:ASP:OD2	2.73	0.42
24:V:118:HIS:CE1	24:V:120:TYR:HE2	2.38	0.42
23:U:354:ASP:OD2	23:U:358:TYR:CE2	2.72	0.42
19:Q:204:LEU:HA	19:Q:213:VAL:O	2.20	0.42
4:B:848:ARG:HD2	12:J:8:PHE:O	2.20	0.42
3:A:595:THR:OG1	3:A:603:ASN:HB3	2.19	0.42
18:P:230:MET:SD	18:P:282:ILE:HD11	2.60	0.42
18:P:279:VAL:HG21	18:P:302:LEU:CD2	1.24	0.42
27:Y:59:TYR:O	27:Y:62:HIS:CD2	2.72	0.42
27:Y:679:MET:HE2	27:Y:681:LEU:HD11	2.02	0.42
23:U:138:ARG:HH11	23:U:138:ARG:HG2	1.85	0.42
1:1:588:PHE:HZ	1:1:621:LYS:NZ	2.09	0.42
27:Y:375:ARG:HB3	27:Y:378:SER:HB3	2.01	0.42
3:A:312:PRO:CA	18:P:96:ILE:CG2	2.97	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:331:GLN:HE22	1:1:378:ARG:CD	2.26	0.42
20:R:67:ILE:HG22	20:R:89:VAL:HA	2.02	0.42
1:1:363:ARG:HH21	1:1:366:GLN:NE2	2.08	0.42
3:A:497:THR:HG22	4:B:1146:PHE:CD1	2.42	0.42
4:B:226:PHE:HA	4:B:395:GLN:CG	2.49	0.42
3:A:332:LYS:O	3:A:333:GLU:HB2	2.19	0.42
3:A:481:ASP:OD1	3:A:485:ASP:OD1	2.37	0.42
20:R:134:LEU:CD1	20:R:135:GLU:HG2	2.41	0.42
27:Y:135:ARG:CB	27:Y:155:LEU:HG	2.49	0.42
21:S:158:LYS:HD3	21:S:162:LEU:HB2	2.00	0.42
27:Y:639:LEU:CG	27:Y:649:ARG:HB2	2.48	0.42
18:P:188:THR:HG21	18:P:245:HIS:CE1	2.55	0.42
3:A:413:ILE:HD13	3:A:424:ILE:HD11	2.01	0.42
18:P:22:LEU:CA	18:P:52:LEU:CD1	2.97	0.42
27:Y:197:ARG:HE	27:Y:225:GLU:CD	2.22	0.42
27:Y:353:SER:HB2	27:Y:378:SER:H	1.85	0.42
18:P:58:ASP:CG	18:P:60:ARG:HG2	2.27	0.42
1:1:356:LEU:HB3	1:1:427:TRP:HD1	1.82	0.42
1:1:522:ASP:CA	1:1:524:ILE:CD1	2.95	0.42
1:1:296:VAL:HG12	1:1:297:ILE:N	2.34	0.42
23:U:342:LEU:HA	23:U:413:MET:HE1	2.01	0.42
3:A:873:MET:HB3	3:A:878:ILE:HD11	2.01	0.42
17:O:71:PHE:HB3	19:Q:93:GLU:HB3	2.01	0.42
3:A:262:LEU:HG	3:A:328:ARG:NH2	2.35	0.42
11:I:76:PRO:HD2	11:I:108:HIS:HD2	1.84	0.42
3:A:562:THR:O	3:A:576:GLN:NE2	2.53	0.42
18:P:327:GLN:O	18:P:327:GLN:CD	2.58	0.42
18:P:321:ASP:OD1	18:P:334:VAL:HG11	2.17	0.42
20:R:120:ASN:HD22	20:R:120:ASN:N	2.18	0.42
20:R:39:ALA:HA	20:R:87:TYR:CE1	2.55	0.42
24:V:59:LEU:CG	24:V:214:ILE:HG13	2.50	0.42
18:P:245:HIS:HB2	18:P:301:THR:HG21	2.01	0.42
19:Q:98:ARG:NE	22:T:142:DC:H5"	2.35	0.42
27:Y:191:CYS:O	27:Y:195:ILE:HG13	2.18	0.42
8:F:131:PRO:CG	9:G:18:PHE:HD2	2.31	0.42
1:1:349:ASN:O	1:1:481:GLU:HA	2.19	0.42
1:1:356:LEU:HD21	1:1:448:THR:CG2	2.50	0.42
1:1:403:ILE:O	1:1:404:LYS:HD2	2.19	0.42
1:1:473:VAL:CG1	1:1:481:GLU:CG	2.95	0.42
1:1:474:MET:H	1:1:480:ARG:N	2.18	0.42
1:1:505:ILE:HD12	1:1:510:LYS:HZ2	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:519:ARG:CG	1:1:524:ILE:CG2	2.95	0.42
23:U:396:THR:OG1	23:U:401:TYR:CZ	2.72	0.42
4:B:65:GLU:HG3	4:B:66:ASP:H	1.85	0.42
3:A:1348:LEU:HG	3:A:1372:VAL:HG22	2.00	0.42
3:A:243:PRO:HB2	3:A:245:PRO:HD2	2.02	0.42
16:N:37:DA:H2"	16:N:38:DT:H71	2.01	0.42
18:P:288:LEU:CD2	18:P:328:LEU:HD11	2.44	0.42
2:2:259:ALA:HB2	3:A:708:MET:HE2	2.01	0.42
27:Y:167:VAL:HG13	27:Y:195:ILE:HG21	1.99	0.42
1:1:326:VAL:CG1	1:1:327:LYS:N	2.83	0.42
1:1:425:LEU:HA	1:1:429:THR:CA	2.49	0.42
1:1:475:ASP:OD1	1:1:482:TRP:CD1	2.73	0.42
22:T:117:DC:N3	22:T:118:DC:C4	2.87	0.42
3:A:11:LEU:HD21	4:B:1195:HIS:CD2	2.55	0.42
3:A:399:HIS:HB3	3:A:400:PRO:HD3	2.02	0.42
23:U:343:ARG:HB3	23:U:347:PHE:HB2	2.02	0.42
3:A:1345:ARG:HG2	3:A:1372:VAL:HG12	2.01	0.42
4:B:951:GLN:CD	14:L:57:LEU:HD22	2.41	0.42
4:B:955:THR:HG22	4:B:956:THR:H	1.85	0.42
3:A:1036:ARG:HH11	3:A:1036:ARG:HG2	1.85	0.42
18:P:288:LEU:HD21	18:P:328:LEU:HD12	1.91	0.42
18:P:317:TYR:HB3	18:P:318:GLU:OE2	2.20	0.42
18:P:145:ILE:CD1	18:P:182:ARG:CD	2.62	0.42
21:S:208:LYS:HZ3	21:S:208:LYS:HG3	1.54	0.42
3:A:412:ARG:H	18:P:51:VAL:CG1	2.32	0.42
18:P:91:ASN:CG	18:P:92:LEU:N	2.73	0.42
2:2:296:PHE:CZ	3:A:1080:THR:HB	2.55	0.42
4:B:341:LEU:HD11	4:B:343:ILE:HB	2.02	0.42
3:A:306:ASN:O	3:A:313:GLN:HG2	2.19	0.42
1:1:474:MET:HG3	1:1:505:ILE:HG22	2.01	0.42
1:1:475:ASP:CA	1:1:478:THR:H	2.33	0.42
1:1:524:ILE:H	1:1:524:ILE:CD1	2.33	0.42
1:1:394:LEU:N	1:1:394:LEU:CD1	2.83	0.42
3:A:497:THR:CG2	4:B:1146:PHE:CD1	3.02	0.42
4:B:1143:ALA:HB1	4:B:1146:PHE:HB3	2.01	0.42
1:1:415:VAL:CG1	1:1:416:SER:N	2.83	0.42
4:B:273:LEU:HD12	4:B:280:ILE:HD12	2.02	0.42
1:1:426:GLN:HE21	1:1:426:GLN:CA	2.33	0.42
15:M:243:LEU:HD21	15:M:245:LEU:HD21	2.02	0.42
20:R:156:LEU:C	20:R:157:VAL:CG2	2.89	0.41
20:R:58:ILE:HG21	20:R:87:TYR:CD2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:234:ARG:NH2	21:S:242:ARG:HB2	2.35	0.41
8:F:92:ARG:NH2	9:G:63:PRO:C	2.73	0.41
19:Q:103:ILE:CG1	22:T:143:DT:C4'	2.86	0.41
19:Q:99:PHE:HB3	22:T:143:DT:H5'	0.55	0.41
16:N:28:DT:H72	24:V:292:ILE:HA	1.45	0.41
4:B:1220:ARG:N	6:D:14:ARG:NH2	2.64	0.41
22:T:120:DG:H2''	22:T:121:DG:O5'	2.20	0.41
1:1:393:THR:O	1:1:397:ILE:HG13	2.19	0.41
1:1:424:PHE:CB	1:1:435:CYS:SG	3.07	0.41
20:R:67:ILE:N	20:R:67:ILE:CD1	2.82	0.41
3:A:11:LEU:HA	4:B:1193:GLN:O	2.19	0.41
5:C:148:ARG:HG3	5:C:151:GLN:HG3	2.01	0.41
4:B:904:ARG:HG3	4:B:948:ILE:HG13	2.02	0.41
4:B:831:SER:HG	4:B:994:TYR:HE2	1.65	0.41
3:A:332:LYS:HA	3:A:337:ARG:CB	2.49	0.41
3:A:469:ARG:NH2	4:B:991:GLY:O	2.53	0.41
22:T:151:DG:H2''	22:T:152:DC:H5	1.79	0.41
20:R:27:LEU:HD22	20:R:129:THR:HA	0.44	0.41
21:S:127:LYS:C	21:S:153:MET:CE	2.88	0.41
22:T:142:DC:O5'	22:T:142:DC:H6	2.02	0.41
27:Y:62:HIS:ND1	27:Y:69:ILE:HG13	2.33	0.41
18:P:263:CYS:HB2	18:P:264:LYS:CD	2.48	0.41
22:T:100:DC:C2	22:T:101:DC:C5	3.08	0.41
4:B:1221:SER:N	6:D:14:ARG:CZ	2.83	0.41
3:A:317:LYS:O	4:B:471:LYS:CD	2.68	0.41
27:Y:293:LEU:HD13	27:Y:345:ARG:HH11	1.85	0.41
22:T:121:DG:H2'	22:T:122:DT:C5'	2.50	0.41
4:B:1198:TYR:HE2	4:B:1201:LYS:HE3	1.83	0.41
27:Y:506:ILE:C	27:Y:522:TYR:CZ	2.94	0.41
2:2:281:TYR:C	2:2:281:TYR:CD1	2.93	0.41
27:Y:567:LYS:CG	27:Y:568:LEU:N	2.78	0.41
7:E:181:ALA:HA	7:E:186:LEU:HD21	2.01	0.41
4:B:190:TYR:CE2	4:B:196:PRO:HG3	2.55	0.41
1:1:691:LEU:HA	1:1:691:LEU:HD23	1.90	0.41
18:P:142:LEU:HD23	18:P:147:LYS:CD	2.47	0.41
2:2:258:GLY:O	2:2:259:ALA:O	2.38	0.41
18:P:188:THR:CB	18:P:245:HIS:ND1	2.80	0.41
2:2:252:ASN:HA	3:A:1204:ASP:CA	2.50	0.41
21:S:134:TYR:HE2	21:S:147:LEU:HD23	1.83	0.41
1:1:300:ASP:H	1:1:347:HIS:HA	1.85	0.41
1:1:476:PHE:CZ	1:1:493:VAL:CG1	2.97	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:383:ILE:HD13	1:1:533:PRO:C	2.40	0.41
20:R:29:LEU:HD13	20:R:61:LEU:HD13	2.02	0.41
3:A:133:LYS:HE3	3:A:1391:ARG:HH12	1.85	0.41
3:A:1094:VAL:HG22	3:A:1113:THR:HB	2.02	0.41
5:C:99:LEU:HD12	5:C:118:LEU:HB3	2.02	0.41
19:Q:202:ILE:CD1	19:Q:217:ALA:HB2	2.50	0.41
3:A:1221:LYS:HB3	3:A:1222:ASN:H	1.72	0.41
20:R:28:VAL:CG2	20:R:57:LEU:HD13	2.50	0.41
21:S:203:LYS:CG	21:S:242:ARG:HB3	2.51	0.41
2:2:253:LEU:HD23	2:2:253:LEU:HA	1.37	0.41
1:1:583:MET:O	1:1:584:ASN:C	2.57	0.41
16:N:19:DT:H3'	16:N:19:DT:H6	1.86	0.41
23:U:371:ASP:OD1	24:V:75:MET:N	2.53	0.41
1:1:328:LYS:HG3	1:1:329:ARG:N	2.35	0.41
1:1:328:LYS:CD	1:1:530:LEU:HD23	2.50	0.41
27:Y:541:PHE:CE1	27:Y:599:LEU:CD2	2.87	0.41
3:A:1404:GLU:HB3	3:A:1408:ILE:HG13	2.02	0.41
17:O:52:LEU:O	17:O:56:THR:CG2	2.68	0.41
27:Y:625:ILE:HG23	27:Y:626:PRO:HD2	2.02	0.41
4:B:315:LYS:N	4:B:316:PRO:HD2	2.36	0.41
4:B:986:GLN:OE1	4:B:1016:ALA:HB1	2.20	0.41
12:J:22:LEU:O	12:J:26:GLN:HG2	2.20	0.41
21:S:126:SER:O	24:V:339:LEU:HB2	2.13	0.41
24:V:318:LEU:HD13	24:V:349:TYR:CE2	2.49	0.41
3:A:1443:VAL:CB	9:G:62:LEU:C	2.85	0.41
16:N:15:DC:H2''	16:N:16:DC:C5	2.56	0.41
19:Q:211:LYS:HG2	22:T:148:DT:H4'	2.03	0.41
3:A:411:ASP:HB3	18:P:50:LEU:HG	2.02	0.41
23:U:94:ASP:CB	23:U:95:PRO:HD3	2.49	0.41
27:Y:200:ILE:HG23	27:Y:201:SER:N	2.36	0.41
3:A:291:GLU:OE2	18:P:116:LYS:CE	2.62	0.41
18:P:170:SER:HG	18:P:206:THR:HG1	1.55	0.41
3:A:312:PRO:HG3	18:P:110:LEU:HD22	2.01	0.41
18:P:128:ALA:CA	18:P:132:LYS:NZ	2.83	0.41
1:1:370:LEU:CD1	1:1:398:THR:CG2	2.94	0.41
1:1:431:GLN:CB	1:1:432:PRO:HD3	2.45	0.41
18:P:100:GLU:OE2	18:P:101:THR:HG23	2.20	0.41
27:Y:234:PHE:CZ	27:Y:449:VAL:HG21	2.49	0.41
23:U:375:LEU:CD2	24:V:70:LEU:HD13	2.44	0.41
3:A:340:LEU:CD2	4:B:1199:ALA:HB3	2.50	0.41
13:K:39:ASP:OD1	13:K:41:THR:HB	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:10:SER:O	7:E:14:ARG:HG3	2.19	0.41
27:Y:155:LEU:C	27:Y:155:LEU:HD13	2.40	0.41
22:T:104:DT:C2'	22:T:105:DT:C5'	2.93	0.41
18:P:103:ASP:OD2	18:P:107:THR:HB	2.20	0.41
23:U:374:VAL:HG21	24:V:73:LEU:CD1	2.50	0.41
1:1:427:TRP:CZ3	1:1:450:SER:HB2	2.52	0.41
1:1:456:THR:CG2	1:1:457:TYR:N	2.81	0.41
1:1:328:LYS:HA	1:1:505:ILE:O	2.21	0.41
16:N:59:DT:N1	16:N:60:DA:C8	2.89	0.41
4:B:841:MET:HG2	4:B:1010:LEU:HD12	2.02	0.41
10:H:125:LEU:HG	10:H:130:ARG:HH22	1.85	0.41
5:C:125:MET:HB2	5:C:127:ARG:NE	2.36	0.41
1:1:670:LEU:HA	1:1:670:LEU:HD12	1.84	0.41
4:B:199:MET:N	4:B:199:MET:SD	2.90	0.41
18:P:249:PRO:HG3	18:P:289:PHE:CE2	2.56	0.41
18:P:338:ASN:HB2	18:P:340:PRO:HD3	2.02	0.41
18:P:308:THR:HG23	22:T:151:DG:OP1	2.21	0.41
21:S:202:PHE:O	21:S:203:LYS:NZ	2.49	0.41
21:S:129:LEU:HB3	24:V:347:PHE:HD2	1.85	0.41
21:S:156:ASP:HA	21:S:159:VAL:HG11	2.00	0.41
24:V:333:LEU:HD21	24:V:349:TYR:HE2	1.85	0.41
22:T:143:DT:C2'	22:T:144:DT:C5'	2.99	0.41
9:G:14:HIS:CD2	9:G:15:PRO:HD2	2.56	0.41
1:1:305:GLU:HB2	1:1:327:LYS:HE3	2.03	0.41
1:1:352:LEU:CD2	1:1:352:LEU:N	2.84	0.41
1:1:356:LEU:H	1:1:356:LEU:HD22	1.83	0.41
1:1:421:ARG:HE	1:1:430:LEU:CD1	2.22	0.41
1:1:474:MET:HE3	1:1:482:TRP:C	2.41	0.41
1:1:481:GLU:O	1:1:482:TRP:CE3	2.73	0.41
1:1:528:ASN:CG	1:1:533:PRO:HB3	2.41	0.41
18:P:268:GLU:OE2	18:P:323:LEU:HD11	2.21	0.41
18:P:164:LYS:HD3	18:P:166:LYS:HB3	1.31	0.41
4:B:1082:MET:HA	5:C:189:THR:HA	2.03	0.41
19:Q:166:VAL:HG22	19:Q:210:GLY:O	2.20	0.41
7:E:156:LEU:HD23	7:E:160:GLU:HB3	2.03	0.41
10:H:38:LEU:HD13	10:H:125:LEU:HD13	2.02	0.41
4:B:856:PHE:CE2	4:B:969:ARG:HG3	2.55	0.41
1:1:726:LEU:HA	1:1:726:LEU:HD23	1.85	0.41
18:P:320:ARG:NH2	18:P:337:ASP:HB2	2.12	0.41
2:2:253:LEU:HD11	3:A:1132:LYS:HD2	1.95	0.41
27:Y:389:GLU:HB3	27:Y:400:LYS:NZ	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:180:CYS:CB	18:P:187:ARG:HG2	2.45	0.41
16:N:15:DC:H2"	16:N:16:DC:H5	1.84	0.41
27:Y:342:LEU:HD23	27:Y:345:ARG:HH21	1.80	0.41
21:S:136:GLN:NE2	21:S:137:LYS:HZ3	2.18	0.41
1:1:417:VAL:HG13	1:1:454:VAL:HG12	1.98	0.41
1:1:434:ASN:O	1:1:452:LEU:CG	2.69	0.41
1:1:474:MET:O	1:1:482:TRP:CG	2.73	0.41
1:1:408:ILE:CG1	1:1:475:ASP:HB3	2.20	0.41
1:1:410:LEU:CD2	1:1:476:PHE:CD2	3.02	0.41
1:1:457:TYR:CE2	1:1:492:VAL:HB	2.56	0.41
1:1:518:VAL:CG1	1:1:519:ARG:N	2.83	0.41
1:1:335:TYR:HD1	1:1:336:PRO:CD	2.23	0.41
4:B:216:GLU:OE2	4:B:404:LYS:HD2	2.20	0.41
3:A:626:ASN:O	3:A:631:HIS:ND1	2.53	0.41
18:P:190:LYS:CE	18:P:242:PHE:CE2	2.98	0.41
18:P:254:THR:CA	18:P:257:GLU:OE1	2.66	0.41
21:S:148:LEU:HD13	21:S:154:LYS:HE3	1.99	0.41
8:F:92:ARG:HE	9:G:64:THR:HA	1.73	0.41
27:Y:639:LEU:CA	27:Y:653:PHE:HD2	2.25	0.41
18:P:188:THR:HG22	18:P:191:GLU:CB	2.51	0.41
2:2:269:PHE:CE2	2:2:306:TRP:CZ2	3.08	0.41
19:Q:114:LEU:HD21	22:T:143:DT:H2'	2.02	0.41
18:P:36:GLU:O	18:P:37:ARG:HB2	2.20	0.41
27:Y:494:PRO:HA	27:Y:697:ILE:O	2.20	0.41
21:S:237:LYS:HZ2	21:S:241:PRO:CB	2.10	0.41
27:Y:214:LEU:O	27:Y:216:PRO:HD3	2.20	0.41
21:S:194:LYS:NZ	21:S:210:LEU:HD13	2.32	0.41
18:P:196:ILE:CD1	18:P:197:HIS:CD2	3.04	0.41
27:Y:375:ARG:HH11	27:Y:377:CYS:CB	2.33	0.41
27:Y:360:LEU:HD13	27:Y:360:LEU:O	2.21	0.41
3:A:261:ASP:OD1	18:P:81:GLU:CB	2.65	0.41
23:U:374:VAL:CG2	24:V:73:LEU:HD11	2.49	0.41
1:1:474:MET:CG	1:1:505:ILE:HG22	2.51	0.41
1:1:403:ILE:O	1:1:404:LYS:HG3	2.21	0.41
1:1:429:THR:HB	1:1:432:PRO:CG	2.51	0.41
1:1:429:THR:HG22	1:1:431:GLN:H	1.85	0.41
20:R:62:ARG:N	20:R:67:ILE:CD1	2.82	0.41
1:1:656:LYS:C	1:1:656:LYS:HD2	2.39	0.41
5:C:148:ARG:N	5:C:151:GLN:HG3	2.23	0.41
25:W:488:LYS:HE2	25:W:488:LYS:HB2	1.78	0.41
18:P:164:LYS:HG2	18:P:166:LYS:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:255:VAL:HG21	13:K:94:ILE:HG21	2.03	0.41
3:A:1356:ILE:HG23	3:A:1361:SER:HB2	2.03	0.41
1:1:610:ASP:OD2	1:1:674:SER:OG	2.39	0.41
27:Y:514:ASN:HB3	27:Y:516:PRO:HD2	2.03	0.41
14:L:38:LEU:HD21	14:L:48:CYS:HA	2.02	0.41
20:R:44:LYS:CA	20:R:44:LYS:CE	2.95	0.41
18:P:144:LYS:HA	18:P:147:LYS:HE2	2.02	0.41
2:2:308:PHE:O	2:2:309:SER:CB	2.69	0.41
22:T:143:DT:H2'	22:T:144:DT:C5'	2.51	0.41
19:Q:114:LEU:CG	22:T:143:DT:O2	2.68	0.41
27:Y:184:TYR:HE1	27:Y:190:LEU:HD21	1.85	0.41
8:F:131:PRO:HG2	9:G:18:PHE:HD2	1.86	0.41
2:2:282:TYR:O	2:2:282:TYR:CG	2.73	0.41
27:Y:562:GLU:OE1	27:Y:599:LEU:HD11	2.20	0.41
27:Y:458:ILE:HG21	27:Y:469:TYR:CZ	2.55	0.41
27:Y:238:HIS:ND1	27:Y:660:ARG:HD2	2.36	0.41
18:P:258:TYR:CG	18:P:258:TYR:O	2.74	0.41
27:Y:108:LEU:HD13	27:Y:196:VAL:HG12	2.02	0.41
14:L:27:LEU:HD22	14:L:37:LYS:HE3	2.03	0.41
3:A:354:SER:O	3:A:469:ARG:HA	2.21	0.41
24:V:304:PHE:O	24:V:308:ASP:N	2.54	0.41
3:A:369:SER:HB3	13:K:2:ASN:OD1	2.21	0.41
16:N:37:DA:C5	16:N:38:DT:C4	3.08	0.40
20:R:133:GLN:HB2	20:R:133:GLN:HE21	1.53	0.40
21:S:203:LYS:CA	21:S:242:ARG:CD	2.55	0.40
18:P:223:LEU:CD1	19:Q:177:PHE:CE2	3.04	0.40
27:Y:405:PHE:CE2	27:Y:439:CYS:HB2	2.56	0.40
22:T:140:DC:C4	22:T:141:DC:N4	2.89	0.40
27:Y:496:ILE:CG2	27:Y:704:ALA:HB2	2.50	0.40
4:B:1219:ASP:O	6:D:14:ARG:NH2	2.54	0.40
27:Y:350:HIS:O	27:Y:353:SER:OG	2.26	0.40
3:A:227:VAL:CB	6:D:16:LYS:HE3	2.47	0.40
22:T:116:DG:N3	22:T:117:DC:C6	2.89	0.40
27:Y:562:GLU:CD	27:Y:599:LEU:CD1	2.89	0.40
23:U:96:ASN:ND2	23:U:97:GLU:N	2.64	0.40
23:U:375:LEU:HD22	24:V:134:VAL:CG1	2.47	0.40
17:O:117:ASN:CG	17:O:119:LYS:HG2	2.42	0.40
12:J:28:ASP:C	12:J:30:LEU:H	2.24	0.40
3:A:982:THR:H	3:A:985:ASP:HB2	1.86	0.40
3:A:1447:GLU:HB2	9:G:70:PHE:CZ	2.57	0.40
6:D:194:LEU:O	6:D:196:PRO:HD3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:1119:VAL:HG23	4:B:1126:GLY:HA2	2.03	0.40
23:U:127:ILE:O	23:U:127:ILE:HG23	2.21	0.40
4:B:279:ASP:N	4:B:279:ASP:OD1	2.53	0.40
11:I:8:ARG:O	11:I:9:ASP:CB	2.69	0.40
12:J:43:ARG:O	12:J:47:ARG:HG3	2.21	0.40
18:P:320:ARG:NE	18:P:334:VAL:HG22	2.16	0.40
20:R:149:CYS:HB2	20:R:154:GLU:O	2.21	0.40
2:2:257:GLN:HA	3:A:1284:MET:HG3	2.04	0.40
3:A:1443:VAL:HB	9:G:63:PRO:C	2.21	0.40
18:P:188:THR:N	18:P:241:ARG:HB3	2.35	0.40
3:A:412:ARG:O	18:P:50:LEU:CA	2.69	0.40
3:A:416:ARG:NH2	18:P:40:GLU:HG3	2.36	0.40
27:Y:666:LEU:HD13	27:Y:666:LEU:O	2.22	0.40
21:S:181:LEU:CD2	21:S:181:LEU:C	2.88	0.40
18:P:206:THR:CA	18:P:209:ILE:HG12	2.51	0.40
4:B:344:LYS:HB3	4:B:347:LYS:HB2	2.04	0.40
1:1:519:ARG:N	1:1:524:ILE:CG2	2.84	0.40
1:1:528:ASN:HD22	1:1:528:ASN:N	2.19	0.40
16:N:55:DG:H1'	16:N:56:DT:H5'	2.03	0.40
17:O:87:VAL:CG1	17:O:88:GLU:N	2.72	0.40
18:P:57:VAL:CG1	18:P:57:VAL:O	2.59	0.40
1:1:316:PHE:HZ	1:1:321:GLU:HG2	1.86	0.40
4:B:405:ARG:NE	4:B:629:ASP:OD2	2.54	0.40
4:B:311:LEU:HB3	11:I:4:PHE:HE2	1.85	0.40
4:B:758:PHE:CE1	4:B:1044:ALA:HA	2.56	0.40
6:D:154:PHE:HB2	6:D:160:VAL:HG22	2.04	0.40
4:B:854:LEU:HD23	4:B:854:LEU:HA	1.86	0.40
20:R:126:ILE:HG12	20:R:152:CYS:SG	2.61	0.40
21:S:135:ILE:HG12	21:S:180:TYR:CB	2.38	0.40
8:F:92:ARG:NE	9:G:64:THR:CB	2.84	0.40
1:1:757:ARG:NH1	1:1:760:LEU:HB2	2.26	0.40
19:Q:211:LYS:CG	22:T:148:DT:H4'	2.51	0.40
27:Y:213:LEU:O	27:Y:219:ALA:HB2	2.21	0.40
21:S:210:LEU:HA	21:S:214:TRP:CH2	2.54	0.40
27:Y:124:ARG:CZ	27:Y:374:LEU:HD22	2.51	0.40
18:P:93:SER:O	18:P:94:THR:OG1	2.39	0.40
20:R:61:LEU:O	20:R:64:ASP:HB2	2.21	0.40
3:A:34:LYS:HG2	3:A:36:ARG:NH1	2.36	0.40
23:U:96:ASN:HB3	23:U:98:TYR:HE2	1.85	0.40
4:B:39:ARG:HE	4:B:665:GLU:HG2	1.86	0.40
4:B:986:GLN:NE2	4:B:1022:THR:HG21	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:758:PHE:CE2	4:B:1027:ILE:HG22	2.57	0.40
4:B:979:LYS:HD3	4:B:1095:LEU:HD13	2.03	0.40
3:A:239:LEU:HD12	3:A:239:LEU:HA	1.77	0.40
4:B:622:LYS:HE3	11:I:59:VAL:HG22	2.02	0.40
22:T:131:DC:H2''	22:T:132:DA:H8	1.86	0.40
20:R:120:ASN:CG	20:R:133:GLN:HG2	2.42	0.40
20:R:131:TYR:HH	20:R:149:CYS:HG	1.58	0.40
24:V:306:LEU:HD11	24:V:313:TRP:CE2	2.47	0.40
19:Q:98:ARG:HH11	19:Q:98:ARG:HG2	1.87	0.40
18:P:22:LEU:HD13	18:P:34:ILE:CD1	2.42	0.40
16:N:23:DA:O3'	19:Q:120:LYS:CE	2.62	0.40
1:1:588:PHE:CZ	1:1:622:MET:SD	3.15	0.40
27:Y:342:LEU:HD13	27:Y:346:MET:HG3	2.04	0.40
3:A:227:VAL:HG11	6:D:16:LYS:HE3	2.03	0.40
1:1:387:PRO:HD2	1:1:390:ALA:HB2	2.03	0.40
1:1:436:ALA:CB	1:1:452:LEU:CD2	2.96	0.40
1:1:474:MET:SD	1:1:507:ALA:N	2.95	0.40
1:1:485:ILE:CG1	1:1:510:LYS:HA	2.50	0.40
18:P:152:GLU:C	18:P:155:LYS:HG2	2.40	0.40
4:B:350:GLN:HB2	23:U:407:ASP:OD2	2.20	0.40
20:R:88:TYR:CE2	20:R:89:VAL:O	2.74	0.40
27:Y:506:ILE:CG1	27:Y:522:TYR:CE1	3.04	0.40
15:M:286:VAL:OXT	15:M:286:VAL:HG12	2.21	0.40
3:A:346:ASP:OD1	4:B:1106:ARG:NH2	2.54	0.40
1:1:316:PHE:CE2	1:1:317:GLU:O	2.74	0.40
11:I:111:THR:HG21	11:I:118:ARG:HD2	2.03	0.40
4:B:789:MET:HG3	4:B:953:LEU:HD21	2.02	0.40
20:R:129:THR:HG21	20:R:149:CYS:SG	2.61	0.40
27:Y:135:ARG:HB2	27:Y:155:LEU:HG	2.03	0.40
24:V:343:GLY:C	24:V:345:TYR:H	2.24	0.40
24:V:344:PRO:O	24:V:345:TYR:HB2	2.22	0.40
8:F:92:ARG:CZ	9:G:63:PRO:C	2.90	0.40
1:1:584:ASN:HA	1:1:585:PRO:HD3	1.89	0.40
18:P:30:TYR:HA	18:P:31:PRO:HB3	2.04	0.40
23:U:135:LEU:HB2	23:U:136:PRO:HD3	1.83	0.40
1:1:449:GLU:HB3	1:1:451:GLY:C	2.41	0.40
1:1:475:ASP:H	1:1:478:THR:H	1.69	0.40
18:P:86:LEU:HD21	18:P:152:GLU:CB	2.52	0.40
20:R:66:LEU:HD13	20:R:66:LEU:HA	1.84	0.40
27:Y:564:TRP:HE1	27:Y:599:LEU:HD12	1.82	0.40
27:Y:133:CYS:SG	27:Y:159:HIS:CE1	3.15	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:72:GLU:CD	23:U:311:ASP:O	2.54	0.40
18:P:200:THR:HG23	18:P:201:LYS:HG2	2.04	0.40
3:A:7:SER:HB2	4:B:1175:LEU:HD22	2.03	0.40
6:D:175:PHE:HZ	9:G:85:GLU:HG3	1.86	0.40
4:B:969:ARG:HD2	5:C:61:GLU:OE2	2.21	0.40
3:A:1196:GLU:HA	3:A:1236:LEU:O	2.21	0.40
19:Q:84:THR:HG23	19:Q:88:HIS:CD2	2.56	0.40
20:R:25:PHE:CD1	20:R:25:PHE:N	2.90	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	467/492 (95%)	436 (93%)	26 (6%)	5 (1%)	17	63
2	2	68/174 (39%)	51 (75%)	10 (15%)	7 (10%)	1	12
3	A	1414/1733 (82%)	1250 (88%)	113 (8%)	51 (4%)	4	38
4	B	1140/1224 (93%)	1018 (89%)	86 (8%)	36 (3%)	5	40
5	C	264/266 (99%)	242 (92%)	20 (8%)	2 (1%)	24	69
6	D	174/178 (98%)	148 (85%)	18 (10%)	8 (5%)	3	32
7	E	212/214 (99%)	195 (92%)	13 (6%)	4 (2%)	10	52
8	F	82/84 (98%)	75 (92%)	7 (8%)	0	100	100
9	G	169/171 (99%)	158 (94%)	8 (5%)	3 (2%)	11	53
10	H	129/146 (88%)	106 (82%)	14 (11%)	9 (7%)	1	22
11	I	117/119 (98%)	98 (84%)	16 (14%)	3 (3%)	7	45
12	J	63/65 (97%)	51 (81%)	9 (14%)	3 (5%)	3	31
13	K	113/115 (98%)	109 (96%)	4 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	L	44/46 (96%)	27 (61%)	9 (20%)	8 (18%)	0	4
15	M	110/116 (95%)	103 (94%)	7 (6%)	0	100	100
17	O	97/122 (80%)	93 (96%)	4 (4%)	0	100	100
18	P	287/345 (83%)	235 (82%)	33 (12%)	19 (7%)	1	24
19	Q	178/180 (99%)	170 (96%)	5 (3%)	3 (2%)	11	55
20	R	112/160 (70%)	100 (89%)	10 (9%)	2 (2%)	11	53
21	S	105/123 (85%)	94 (90%)	7 (7%)	4 (4%)	4	37
23	U	142/150 (95%)	131 (92%)	6 (4%)	5 (4%)	4	39
24	V	166/174 (95%)	145 (87%)	16 (10%)	5 (3%)	5	42
25	W	60/62 (97%)	60 (100%)	0	0	100	100
26	X	61/63 (97%)	58 (95%)	3 (5%)	0	100	100
27	Y	558/778 (72%)	515 (92%)	35 (6%)	8 (1%)	14	58
All	All	6332/7300 (87%)	5668 (90%)	479 (8%)	185 (3%)	9	43

All (185) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	1	447	GLN
1	1	458	SER
2	2	275	LYS
2	2	292	PRO
3	A	74	MET
3	A	96	ILE
3	A	189	ARG
3	A	195	ASP
3	A	286	HIS
3	A	317	LYS
3	A	399	HIS
3	A	449	SER
3	A	628	GLY
3	A	1377	THR
3	A	1405	THR
4	B	229	ALA
4	B	307	ASP
4	B	344	LYS
4	B	442	PHE
4	B	466	TRP
4	B	473	MET

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Mol	Chain	Res	Type
4	B	531	GLN
4	B	772	ALA
4	B	1046	PRO
4	B	1181	GLU
6	D	18	VAL
6	D	53	SER
6	D	199	ASN
11	I	9	ASP
11	I	95	THR
14	L	50	ASP
14	L	53	HIS
18	P	25	PRO
18	P	31	PRO
18	P	32	PRO
18	P	35	VAL
18	P	104	MET
18	P	125	GLU
18	P	200	THR
18	P	326	PRO
18	P	329	ILE
18	P	330	ALA
19	Q	154	ASP
20	R	149	CYS
21	S	203	LYS
21	S	205	ILE
23	U	95	PRO
23	U	136	PRO
24	V	129	VAL
24	V	210	LYS
27	Y	268	ASP
27	Y	494	PRO
27	Y	534	PRO
27	Y	567	LYS
1	1	378	ARG
1	1	449	GLU
2	2	259	ALA
3	A	40	THR
3	A	44	THR
3	A	51	GLY
3	A	52	GLY
3	A	57	ARG
3	A	66	LYS

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Mol	Chain	Res	Type
3	A	68	GLN
3	A	167	CYS
3	A	178	GLY
3	A	193	ASP
3	A	224	PHE
3	A	252	PHE
3	A	254	GLU
3	A	330	LYS
3	A	672	ASP
3	A	1175	SER
3	A	1281	ARG
4	B	262	GLU
4	B	282	ILE
4	B	339	THR
4	B	341	LEU
4	B	707	PRO
4	B	731	VAL
4	B	792	MET
4	B	1175	LEU
4	B	1176	ASN
6	D	16	LYS
6	D	52	LEU
6	D	169	SER
7	E	36	GLU
9	G	2	PHE
10	H	17	PRO
10	H	81	PRO
10	H	82	PRO
10	H	83	GLN
10	H	90	ALA
12	J	6	ARG
14	L	45	ALA
14	L	56	LEU
18	P	223	LEU
19	Q	78	CYS
20	R	153	ASP
24	V	118	HIS
27	Y	575	ASP
2	2	295	THR
3	A	54	ASN
3	A	975	HIS
3	A	1173	HIS

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Mol	Chain	Res	Type
4	B	340	ALA
4	B	343	ILE
4	B	711	GLU
4	B	1156	ASP
4	B	1157	ALA
4	B	1167	GLY
6	D	22	GLU
7	E	45	LYS
7	E	48	ASP
9	G	154	VAL
10	H	18	GLY
14	L	59	ALA
18	P	160	GLU
23	U	110	ASP
23	U	135	LEU
27	Y	483	TYR
2	2	288	SER
3	A	69	THR
3	A	72	GLU
3	A	465	TYR
3	A	569	LYS
3	A	846	GLU
3	A	958	VAL
3	A	1255	GLU
3	A	1438	THR
4	B	441	ASP
4	B	648	HIS
4	B	1108	ARG
4	B	1155	SER
5	C	88	CYS
11	I	91	ARG
12	J	29	GLU
14	L	26	THR
14	L	55	ILE
14	L	64	LEU
18	P	196	ILE
18	P	270	ALA
18	P	291	ILE
19	Q	110	LYS
21	S	161	GLU
24	V	60	ASP
2	2	277	LYS

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Mol	Chain	Res	Type
2	2	293	LEU
3	A	156	ASP
3	A	567	LYS
3	A	1171	GLN
3	A	1366	ARG
4	B	251	ILE
4	B	462	ALA
4	B	469	GLN
4	B	1223	ASP
6	D	21	GLU
10	H	60	ALA
10	H	128	ASN
12	J	2	ILE
18	P	118	VAL
18	P	224	LYS
23	U	126	LYS
24	V	343	GLY
27	Y	290	VAL
27	Y	370	GLU
3	A	35	ILE
3	A	155	GLU
3	A	885	THR
5	C	214	ASN
18	P	92	LEU
18	P	198	VAL
1	1	746	PRO
3	A	196	GLU
3	A	1388	GLY
3	A	1437	GLY
7	E	90	VAL
9	G	63	PRO
4	B	364	ILE
21	S	214	TRP
3	A	192	GLY
3	A	448	PRO
4	B	1121	GLY
4	B	1214	PRO
10	H	59	ILE

### 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	415/431 (96%)	370 (89%)	45 (11%)	8	36
2	2	62/151 (41%)	55 (89%)	7 (11%)	7	33
3	A	1240/1520 (82%)	1066 (86%)	174 (14%)	4	26
4	B	985/1061 (93%)	868 (88%)	117 (12%)	6	31
5	C	234/234 (100%)	206 (88%)	28 (12%)	6	31
6	D	160/160 (100%)	129 (81%)	31 (19%)	2	13
7	E	196/196 (100%)	175 (89%)	21 (11%)	8	36
8	F	74/74 (100%)	67 (90%)	7 (10%)	11	41
9	G	152/152 (100%)	135 (89%)	17 (11%)	7	34
10	H	117/128 (91%)	103 (88%)	14 (12%)	6	31
11	I	113/113 (100%)	106 (94%)	7 (6%)	23	60
12	J	60/60 (100%)	49 (82%)	11 (18%)	2	15
13	K	99/99 (100%)	87 (88%)	12 (12%)	6	31
14	L	40/40 (100%)	27 (68%)	13 (32%)	0	2
15	M	107/107 (100%)	104 (97%)	3 (3%)	51	78
17	O	91/108 (84%)	83 (91%)	8 (9%)	12	45
18	P	256/299 (86%)	215 (84%)	41 (16%)	3	21
19	Q	152/152 (100%)	143 (94%)	9 (6%)	24	61
20	R	108/149 (72%)	88 (82%)	20 (18%)	2	14
21	S	116/118 (98%)	69 (60%)	47 (40%)	0	0
23	U	136/136 (100%)	133 (98%)	3 (2%)	60	83
24	V	163/163 (100%)	158 (97%)	5 (3%)	47	77
25	W	57/57 (100%)	57 (100%)	0	100	100
26	X	57/57 (100%)	57 (100%)	0	100	100
27	Y	521/707 (74%)	504 (97%)	17 (3%)	45	76
All	All	5711/6472 (88%)	5054 (88%)	657 (12%)	11	32

All (657) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	1	320	ASN
1	1	327	LYS
1	1	333	ILE
1	1	349	ASN
1	1	383	ILE
1	1	404	LYS
1	1	407	VAL
1	1	442	ASN
1	1	524	ILE
1	1	549	ILE
1	1	570	LEU
1	1	571	ARG
1	1	572	GLU
1	1	573	THR
1	1	577	ARG
1	1	582	ILE
1	1	621	LYS
1	1	622	MET
1	1	628	TYR
1	1	630	SER
1	1	634	GLN
1	1	638	ASN
1	1	647	ASP
1	1	656	LYS
1	1	660	THR
1	1	664	LEU
1	1	668	THR
1	1	669	CYS
1	1	674	SER
1	1	677	TYR
1	1	680	ARG
1	1	681	ARG
1	1	690	ILE
1	1	696	ARG
1	1	711	LYS
1	1	714	GLN
1	1	717	TYR
1	1	720	THR
1	1	740	HIS
1	1	746	PRO
1	1	753	PRO
1	1	754	ARG

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Mol	Chain	Res	Type
1	1	756	ARG
1	1	757	ARG
1	1	785	ARG
2	2	263	ARG
2	2	266	THR
2	2	267	ASP
2	2	283	GLN
2	2	288	SER
2	2	292	PRO
2	2	293	LEU
3	A	13	THR
3	A	15	LYS
3	A	22	PHE
3	A	41	MET
3	A	42	ASP
3	A	53	LEU
3	A	54	ASN
3	A	57	ARG
3	A	64	ASN
3	A	66	LYS
3	A	68	GLN
3	A	74	MET
3	A	80	HIS
3	A	93	VAL
3	A	106	VAL
3	A	131	SER
3	A	134	ARG
3	A	147	VAL
3	A	157	ASP
3	A	173	THR
3	A	174	ILE
3	A	175	ARG
3	A	176	LYS
3	A	199	LEU
3	A	204	THR
3	A	208	LEU
3	A	219	PHE
3	A	220	THR
3	A	222	LEU
3	A	249	SER
3	A	257	ARG
3	A	265	LYS

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Mol	Chain	Res	Type
3	A	277	GLU
3	A	279	LEU
3	A	307	ASP
3	A	311	GLN
3	A	335	ARG
3	A	337	ARG
3	A	344	ARG
3	A	353	ILE
3	A	375	THR
3	A	381	THR
3	A	385	ILE
3	A	386	ASP
3	A	393	ARG
3	A	398	GLU
3	A	408	ASP
3	A	411	ASP
3	A	412	ARG
3	A	424	ILE
3	A	425	GLN
3	A	434	ARG
3	A	436	ILE
3	A	438	ASP
3	A	443	LEU
3	A	445	ASN
3	A	450	LEU
3	A	451	HIS
3	A	454	SER
3	A	469	ARG
3	A	470	LEU
3	A	472	LEU
3	A	474	VAL
3	A	475	THR
3	A	476	SER
3	A	489	LEU
3	A	498	ARG
3	A	500	GLU
3	A	505	CYS
3	A	513	SER
3	A	532	ARG
3	A	544	ASP
3	A	566	ILE
3	A	571	LEU

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Mol	Chain	Res	Type
3	A	582	ILE
3	A	593	GLU
3	A	596	THR
3	A	602	ASP
3	A	603	ASN
3	A	618	GLU
3	A	629	LEU
3	A	634	THR
3	A	664	THR
3	A	666	ILE
3	A	672	ASP
3	A	691	LEU
3	A	702	LEU
3	A	738	LYS
3	A	768	GLN
3	A	769	SER
3	A	773	LYS
3	A	782	ARG
3	A	788	SER
3	A	795	GLU
3	A	797	LYS
3	A	801	GLU
3	A	811	GLN
3	A	821	ARG
3	A	826	ASP
3	A	827	THR
3	A	831	THR
3	A	834	THR
3	A	839	ARG
3	A	849	MET
3	A	867	ILE
3	A	886	ILE
3	A	896	ARG
3	A	919	ILE
3	A	920	LEU
3	A	948	VAL
3	A	949	ASP
3	A	964	ILE
3	A	973	ILE
3	A	976	THR
3	A	998	LEU
3	A	1009	ASN

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Mol	Chain	Res	Type
3	A	1015	VAL
3	A	1029	ARG
3	A	1030	ARG
3	A	1047	SER
3	A	1058	VAL
3	A	1062	GLU
3	A	1067	LEU
3	A	1078	GLN
3	A	1116	LEU
3	A	1118	VAL
3	A	1120	LEU
3	A	1121	GLU
3	A	1124	HIS
3	A	1135	ARG
3	A	1142	THR
3	A	1173	HIS
3	A	1176	LEU
3	A	1195	LEU
3	A	1208	THR
3	A	1218	GLN
3	A	1223	ASP
3	A	1237	ILE
3	A	1242	VAL
3	A	1255	GLU
3	A	1257	ASP
3	A	1260	LEU
3	A	1264	GLU
3	A	1265	ASN
3	A	1273	LEU
3	A	1274	ARG
3	A	1291	VAL
3	A	1295	THR
3	A	1297	GLU
3	A	1309	ASP
3	A	1315	GLU
3	A	1317	MET
3	A	1325	THR
3	A	1327	ILE
3	A	1336	MET
3	A	1341	ILE
3	A	1355	VAL
3	A	1366	ARG

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Mol	Chain	Res	Type
3	A	1376	THR
3	A	1382	THR
3	A	1386	ARG
3	A	1391	ARG
3	A	1393	ASN
3	A	1400	CYS
3	A	1405	THR
3	A	1406	VAL
3	A	1426	GLU
3	A	1433	MET
3	A	1438	THR
3	A	1442	ASP
3	A	1444	MET
3	A	1445	ILE
3	A	1453	TYR
3	A	1454	MET
4	B	25	ILE
4	B	46	GLN
4	B	63	ILE
4	B	69	LEU
4	B	72	GLU
4	B	73	GLN
4	B	103	ASN
4	B	104	GLU
4	B	110	HIS
4	B	169	ARG
4	B	175	ARG
4	B	178	ASN
4	B	183	GLU
4	B	211	VAL
4	B	240	ILE
4	B	251	ILE
4	B	261	ARG
4	B	272	THR
4	B	278	GLN
4	B	279	ASP
4	B	287	ARG
4	B	294	ASP
4	B	313	MET
4	B	337	ARG
4	B	341	LEU
4	B	343	ILE

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Mol	Chain	Res	Type
4	B	344	LYS
4	B	348	ARG
4	B	357	GLN
4	B	365	THR
4	B	393	LYS
4	B	408	LEU
4	B	419	THR
4	B	440	HIS
4	B	442	PHE
4	B	470	LYS
4	B	476	ARG
4	B	482	VAL
4	B	485	ARG
4	B	487	THR
4	B	529	GLU
4	B	531	GLN
4	B	547	VAL
4	B	552	MET
4	B	563	MET
4	B	570	VAL
4	B	574	SER
4	B	595	ARG
4	B	596	LEU
4	B	601	ARG
4	B	603	LEU
4	B	609	ILE
4	B	612	GLU
4	B	615	MET
4	B	616	ILE
4	B	620	ARG
4	B	646	LEU
4	B	651	LEU
4	B	653	VAL
4	B	658	ILE
4	B	680	THR
4	B	696	GLU
4	B	708	GLU
4	B	734	HIS
4	B	737	THR
4	B	766	ARG
4	B	771	SER
4	B	776	GLN

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Mol	Chain	Res	Type
4	B	786	ASN
4	B	790	ASP
4	B	791	THR
4	B	801	LYS
4	B	839	MET
4	B	841	MET
4	B	844	SER
4	B	860	MET
4	B	879	ARG
4	B	933	SER
4	B	934	LYS
4	B	939	THR
4	B	942	ARG
4	B	944	THR
4	B	956	THR
4	B	959	ASP
4	B	967	ARG
4	B	975	GLN
4	B	986	GLN
4	B	997	GLU
4	B	999	MET
4	B	1007	VAL
4	B	1028	GLU
4	B	1045	SER
4	B	1060	ARG
4	B	1065	GLN
4	B	1072	MET
4	B	1084	GLN
4	B	1094	ARG
4	B	1106	ARG
4	B	1123	SER
4	B	1129	ARG
4	B	1138	MET
4	B	1145	SER
4	B	1147	LEU
4	B	1151	LEU
4	B	1156	ASP
4	B	1159	ARG
4	B	1160	VAL
4	B	1175	LEU
4	B	1179	GLN
4	B	1183	LYS

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Mol	Chain	Res	Type
4	B	1188	LYS
4	B	1193	GLN
4	B	1201	LYS
4	B	1202	LEU
4	B	1210	MET
4	B	1220	ARG
4	B	1223	ASP
5	C	3	GLU
5	C	12	GLU
5	C	25	VAL
5	C	26	ASP
5	C	52	GLU
5	C	53	THR
5	C	55	THR
5	C	56	THR
5	C	81	GLU
5	C	84	ARG
5	C	100	THR
5	C	101	LEU
5	C	119	VAL
5	C	121	VAL
5	C	124	LEU
5	C	125	MET
5	C	127	ARG
5	C	129	ILE
5	C	133	ILE
5	C	147	LEU
5	C	148	ARG
5	C	215	GLU
5	C	224	GLN
5	C	238	ILE
5	C	240	VAL
5	C	259	LEU
5	C	265	MET
5	C	268	ASP
6	D	5	THR
6	D	7	THR
6	D	9	GLN
6	D	10	THR
6	D	12	ARG
6	D	13	ARG
6	D	17	LYS

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Mol	Chain	Res	Type
6	D	18	VAL
6	D	27	LEU
6	D	32	GLU
6	D	34	GLN
6	D	35	LEU
6	D	40	HIS
6	D	47	LEU
6	D	52	LEU
6	D	53	SER
6	D	65	GLU
6	D	118	THR
6	D	126	ILE
6	D	134	THR
6	D	137	ASN
6	D	139	LYS
6	D	153	ARG
6	D	156	ASP
6	D	177	VAL
6	D	187	THR
6	D	197	SER
6	D	201	LYS
6	D	215	SER
6	D	219	THR
6	D	221	TYR
7	E	3	GLN
7	E	31	THR
7	E	37	LEU
7	E	45	LYS
7	E	57	MET
7	E	67	GLU
7	E	84	ASP
7	E	92	THR
7	E	104	ASN
7	E	131	THR
7	E	140	LEU
7	E	146	HIS
7	E	166	LYS
7	E	173	SER
7	E	177	ARG
7	E	178	ILE
7	E	191	LYS
7	E	192	ARG

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Mol	Chain	Res	Type
7	E	196	VAL
7	E	202	SER
7	E	204	THR
8	F	72	LYS
8	F	79	ARG
8	F	82	THR
8	F	86	THR
8	F	90	ARG
8	F	110	ASP
8	F	133	VAL
9	G	2	PHE
9	G	13	LEU
9	G	24	GLN
9	G	26	LEU
9	G	60	ARG
9	G	61	ILE
9	G	64	THR
9	G	96	GLN
9	G	106	MET
9	G	112	LYS
9	G	133	SER
9	G	138	THR
9	G	143	ILE
9	G	145	VAL
9	G	155	SER
9	G	162	SER
9	G	171	ILE
10	H	14	GLU
10	H	26	ILE
10	H	31	THR
10	H	34	ASP
10	H	76	THR
10	H	77	ARG
10	H	83	GLN
10	H	89	LEU
10	H	91	ASP
10	H	92	ASP
10	H	103	LYS
10	H	130	ARG
10	H	135	LEU
10	H	138	GLU
11	I	8	ARG

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Mol	Chain	Res	Type
11	I	31	THR
11	I	35	VAL
11	I	74	GLU
11	I	94	ASP
11	I	106	CYS
11	I	111	THR
12	J	1	MET
12	J	2	ILE
12	J	3	VAL
12	J	7	CYS
12	J	12	LYS
12	J	13	VAL
12	J	22	LEU
12	J	29	GLU
12	J	42	LYS
12	J	48	ARG
12	J	52	THR
13	K	18	LYS
13	K	20	LYS
13	K	25	THR
13	K	29	ASN
13	K	31	VAL
13	K	37	LYS
13	K	42	LEU
13	K	47	ARG
13	K	51	LEU
13	K	70	ARG
13	K	101	LEU
13	K	107	THR
14	L	27	LEU
14	L	35	SER
14	L	38	LEU
14	L	42	ARG
14	L	50	ASP
14	L	51	CYS
14	L	55	ILE
14	L	56	LEU
14	L	58	LYS
14	L	60	ARG
14	L	61	THR
14	L	65	VAL
14	L	68	GLU

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Mol	Chain	Res	Type
15	M	14	VAL
15	M	247	LEU
15	M	262	LEU
17	O	19	LEU
17	O	23	LEU
17	O	29	ASP
17	O	39	ARG
17	O	41	LEU
17	O	66	LEU
17	O	111	LEU
17	O	117	ASN
18	P	223	LEU
18	P	224	LYS
18	P	225	ILE
18	P	228	ASP
18	P	254	THR
18	P	255	SER
18	P	257	GLU
18	P	261	LYS
18	P	262	LYS
18	P	264	LYS
18	P	267	LYS
18	P	277	ILE
18	P	279	VAL
18	P	281	SER
18	P	284	LEU
18	P	285	ASN
18	P	286	ILE
18	P	287	LEU
18	P	288	LEU
18	P	289	PHE
18	P	290	GLN
18	P	291	ILE
18	P	292	PRO
18	P	293	ILE
18	P	300	GLN
18	P	302	LEU
18	P	303	GLN
18	P	304	VAL
18	P	305	THR
18	P	314	LYS
18	P	316	LEU

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Mol	Chain	Res	Type
18	P	318	GLU
18	P	320	ARG
18	P	321	ASP
18	P	322	LYS
18	P	325	ASP
18	P	326	PRO
18	P	328	LEU
18	P	329	ILE
18	P	338	ASN
18	P	340	PRO
19	Q	68	GLN
19	Q	78	CYS
19	Q	87	LEU
19	Q	141	ARG
19	Q	145	LYS
19	Q	151	LYS
19	Q	211	LYS
19	Q	233	VAL
19	Q	234	LEU
20	R	67	ILE
20	R	71	LYS
20	R	119	PRO
20	R	123	MET
20	R	126	ILE
20	R	129	THR
20	R	130	LYS
20	R	132	THR
20	R	133	GLN
20	R	142	PHE
20	R	144	ARG
20	R	145	THR
20	R	146	GLU
20	R	148	LEU
20	R	150	SER
20	R	151	LEU
20	R	152	CYS
20	R	154	GLU
20	R	155	PRO
20	R	156	LEU
21	S	127	LYS
21	S	135	ILE
21	S	136	GLN

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Mol	Chain	Res	Type
21	S	137	LYS
21	S	138	LYS
21	S	140	LYS
21	S	149	ASP
21	S	152	SER
21	S	153	MET
21	S	154	LYS
21	S	159	VAL
21	S	161	GLU
21	S	162	LEU
21	S	164	LYS
21	S	165	LYS
21	S	166	LEU
21	S	167	ASP
21	S	171	PHE
21	S	175	LYS
21	S	179	LYS
21	S	183	THR
21	S	187	HIS
21	S	189	PRO
21	S	193	LEU
21	S	196	LEU
21	S	201	THR
21	S	203	LYS
21	S	205	ILE
21	S	206	SER
21	S	207	CYS
21	S	208	LYS
21	S	209	ASP
21	S	219	GLU
21	S	220	THR
21	S	221	ILE
21	S	224	LEU
21	S	225	GLU
21	S	228	SER
21	S	233	LEU
21	S	234	ARG
21	S	237	LYS
21	S	238	ASP
21	S	239	LYS
21	S	242	ARG
21	S	243	TYR

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Mol	Chain	Res	Type
21	S	245	TRP
21	S	247	ASN
23	U	96	ASN
23	U	128	ASN
23	U	341	LYS
24	V	55	GLU
24	V	127	LYS
24	V	293	ARG
24	V	349	TYR
24	V	356	LYS
27	Y	49	THR
27	Y	57	ILE
27	Y	62	HIS
27	Y	80	GLU
27	Y	152	ASN
27	Y	179	GLU
27	Y	226	VAL
27	Y	336	LYS
27	Y	479	LEU
27	Y	506	ILE
27	Y	520	ARG
27	Y	569	ILE
27	Y	575	ASP
27	Y	578	GLU
27	Y	587	ARG
27	Y	597	ILE
27	Y	653	PHE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (109) such sidechains are listed below:

Mol	Chain	Res	Type
1	1	320	ASN
1	1	331	GLN
1	1	349	ASN
1	1	361	GLN
1	1	366	GLN
1	1	423	GLN
1	1	426	GLN
1	1	434	ASN
1	1	447	GLN
1	1	471	GLN
1	1	491	HIS

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Mol	Chain	Res	Type
1	1	508	HIS
1	1	528	ASN
1	1	551	ASN
1	1	567	GLN
1	1	589	GLN
1	1	596	GLN
1	1	616	GLN
1	1	638	ASN
1	1	676	HIS
1	1	738	HIS
1	1	740	HIS
1	1	744	ASN
1	1	747	ASN
1	1	761	GLN
1	1	781	ASN
2	2	257	GLN
3	A	399	HIS
3	A	425	GLN
3	A	545	GLN
3	A	548	ASN
3	A	603	ASN
3	A	994	GLN
3	A	1106	ASN
3	A	1140	HIS
3	A	1173	HIS
3	A	1203	ASN
3	A	1232	ASN
3	A	1270	ASN
3	A	1393	ASN
4	B	300	HIS
4	B	325	GLN
4	B	350	GLN
4	B	357	GLN
4	B	449	ASN
4	B	842	ASN
4	B	887	HIS
4	B	975	GLN
4	B	1025	HIS
4	B	1193	GLN
4	B	1195	HIS
5	C	184	ASN
6	D	37	GLN

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Mol	Chain	Res	Type
6	D	143	ASN
7	E	3	GLN
9	G	71	ASN
9	G	102	GLN
10	H	35	GLN
10	H	83	GLN
11	I	83	ASN
11	I	89	GLN
11	I	108	HIS
15	M	3	ASN
15	M	40	ASN
15	M	43	GLN
15	M	59	GLN
15	M	270	ASN
15	M	272	ASN
17	O	57	GLN
17	O	84	GLN
17	O	117	ASN
18	P	84	ASN
18	P	197	HIS
18	P	251	GLN
18	P	300	GLN
18	P	331	ASN
19	Q	68	GLN
19	Q	88	HIS
19	Q	144	GLN
19	Q	158	GLN
19	Q	219	GLN
20	R	120	ASN
20	R	133	GLN
20	R	138	GLN
20	R	141	ASN
21	S	187	HIS
21	S	199	GLN
21	S	216	GLN
21	S	222	ASN
21	S	247	ASN
23	U	96	ASN
23	U	117	HIS
23	U	128	ASN
24	V	86	ASN
24	V	131	ASN

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Mol	Chain	Res	Type
24	V	220	HIS
26	X	11	GLN
26	X	22	GLN
27	Y	21	GLN
27	Y	60	GLN
27	Y	100	GLN
27	Y	113	ASN
27	Y	138	ASN
27	Y	152	ASN
27	Y	159	HIS
27	Y	242	ASN
27	Y	566	HIS
27	Y	628	GLN
27	Y	707	ASN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

Of 11 ligands modelled in this entry, 11 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

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

There are no chain breaks in this entry.