



# Full wwPDB/EMDatabank EM Map/Model Validation Report ⓘ

Mar 2, 2017 – 11:22 am GMT

PDB ID : 3IYJ  
EMDB ID: : EMD-5155  
Title : Bovine papillomavirus type 1 outer capsid  
Authors : Wolf, M.; Garcea, R.L.; Grigorieff, N.; Harrison, S.C.  
Deposited on : 2009-12-15  
Resolution : 4.20 Å(reported)

This is a Full wwPDB/EMDatabank EM Map/Model Validation Report  
for a publicly released PDB/EMDB entry.

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>  
with specific help available everywhere you see the ⓘ symbol.

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MolProbity : 4.02b-467  
Percentile statistics : 20161228.v01 (using entries in the PDB archive December 28th 2016)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)  
Validation Pipeline (wwPDB-VP) : recalc29047

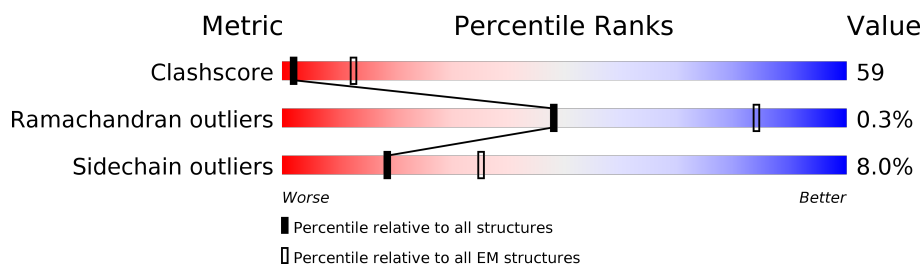
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 4.20 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	125131	1336
Ramachandran outliers	121729	1120
Sidechain outliers	121581	1026

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

Mol	Chain	Length	Quality of chain
1	A	495	
1	B	495	
1	C	495	
1	D	495	
1	E	495	
1	F	495	

## 2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 22614 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Major capsid protein L1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	F	469	Total	C	N	O	S	0	0
			3701	2345	639	702	15		
1	A	481	Total	C	N	O	S	0	0
			3803	2414	656	718	15		
1	B	469	Total	C	N	O	S	0	0
			3701	2345	639	702	15		
1	C	481	Total	C	N	O	S	0	0
			3803	2414	656	718	15		
1	D	481	Total	C	N	O	S	0	0
			3803	2414	656	718	15		
1	E	481	Total	C	N	O	S	0	0
			3803	2414	656	718	15		

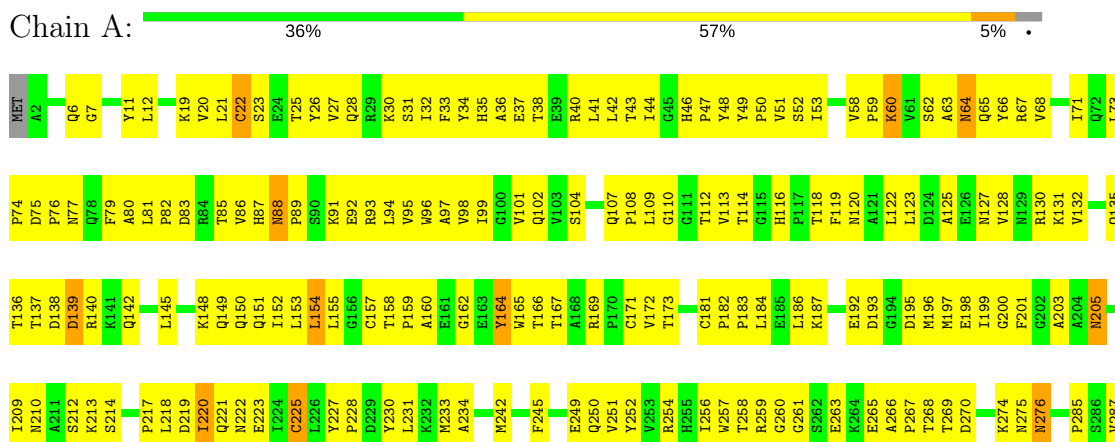
### 3 Residue-property plots

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

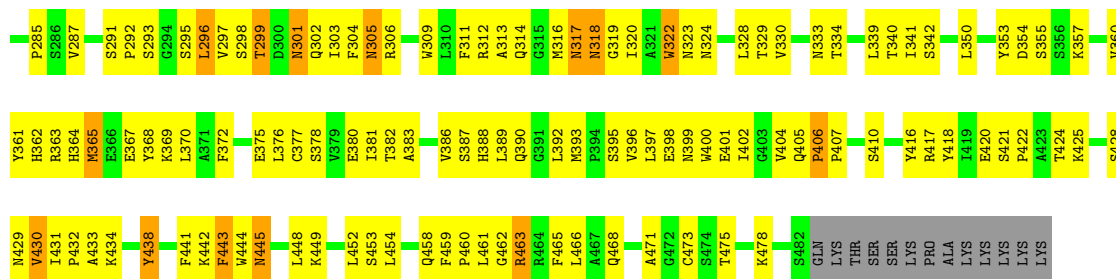
#### • Molecule 1: Major capsid protein L1



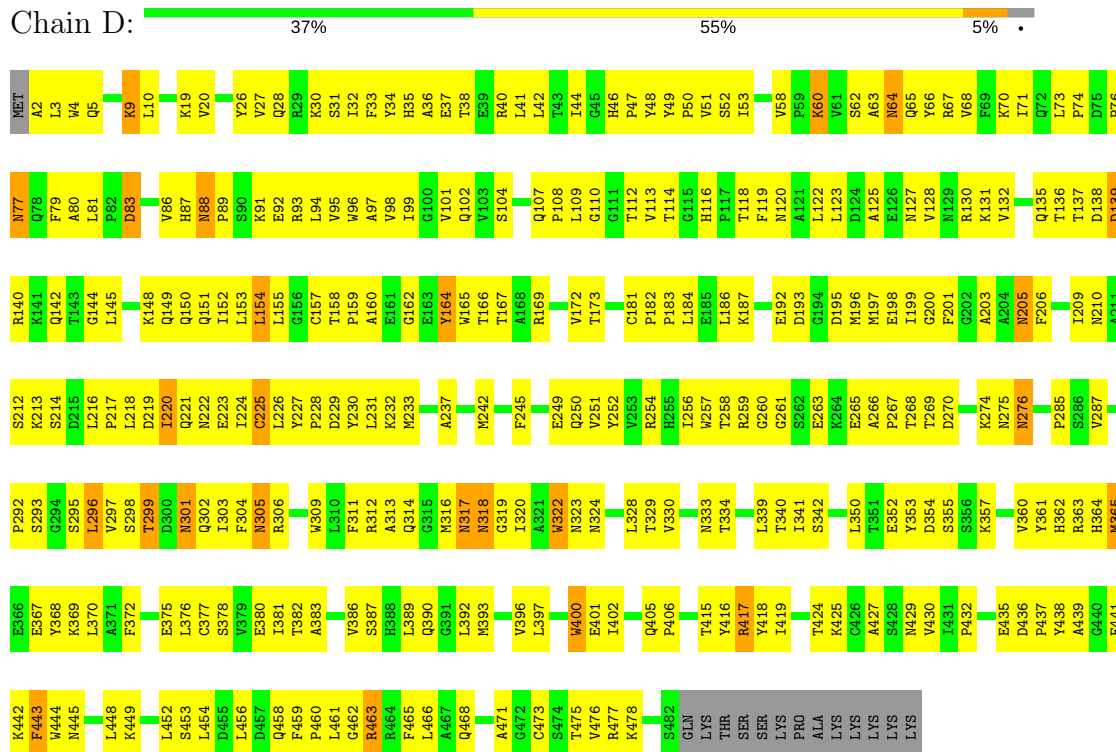
#### • Molecule 1: Major capsid protein L1



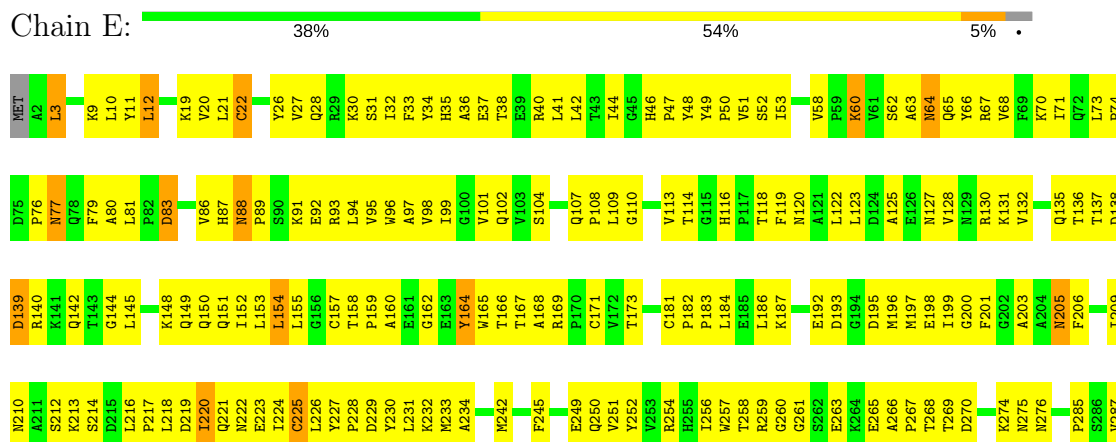




### • Molecule 1: Major capsid protein L1



### • Molecule 1: Major capsid protein L1



L448 K449	L452 S453 L454 D455 L456	F459 P460 L461 G462 R463 R464 F465 L466 A467 Q468	M365	P292	E375 L376 C377 S378 V379 E380 L381 T382	D300 N301 Q302 I303 F304 N305 R306	W309 L310 F311 R312 A313 Q314 G315 K316 N317 N318 G319 I320 L328 T329 V330	N333 T334 N338 L339 T340 I341 S342	L350 Y353 D354 S355 S356 K357	V360 Y361 H362 R363 W444 N445			
			E366	S293									
			E367	G294									
			T368	S295									
			L370	L296									
			A371	V297									
			F372	S298									
			E376	T299									
			L376	D300									
			C377	N301									
L471 G472 S473 S474 T475 V476 R477 K478	G483 L484 T485 N486 L487 S488 L489 G490 K491 N492 P493 V494 E495 N496 W497 E498 Q499 L500 I501 L502 N503 L504 E505 L506 L507 L508 L509 L510 L511 L512 L513 L514 L515 L516 L517 L518 L519 L520 L521 L522 L523 L524 L525 L526 L527 L528 L529 L530 L531 L532 L533 L534 L535 L536 L537 L538 L539 L540 L541 L542 L543 L544 L545 L546 L547 L548 L549 L550 L551 L552 L553 L554 L555 L556 L557 L558 L559 L560 L561 L562 L563 L564 L565 L566 L567 L568 L569 L570 L571 L572 L573 L574 L575 L576 L577 L578 L579 L580 L581 L582 L583 L584 L585 L586 L587 L588 L589 L590 L591 L592 L593 L594 L595 L596 L597 L598 L599 L600 L601 L602 L603 L604 L605 L606 L607 L608 L609 L610 L611 L612 L613 L614 L615 L616 L617 L618 L619 L620 L621 L622 L623 L624 L625 L626 L627 L628 L629 L630 L631 L632 L633 L634 L635 L636 L637 L638 L639 L640 L641 L642 L643 L644 L645 L646 L647 L648 L649 L650 L651 L652 L653 L654 L655 L656 L657 L658 L659 L660 L661 L662 L663 L664 L665 L666 L667 L668 L669 L670 L671 L672 L673 L674 L675 L676 L677 L678 L679 L680 L681 L682 L683 L684 L685 L686 L687 L688 L689 L690 L691 L692 L693 L694 L695 L696 L697 L698 L699 L700 L701 L702 L703 L704 L705 L706 L707 L708 L709 L710 L711 L712 L713 L714 L715 L716 L717 L718 L719 L720 L721 L722 L723 L724 L725 L726 L727 L728 L729 L730 L731 L732 L733 L734 L735 L736 L737 L738 L739 L740 L741 L742 L743 L744 L745 L746 L747 L748 L749 L750 L751 L752 L753 L754 L755 L756 L757 L758 L759 L760 L761 L762 L763 L764 L765 L766 L767 L768 L769 L770 L771 L772 L773 L774 L775 L776 L777 L778 L779 L780 L781 L782 L783 L784 L785 L786 L787 L788 L789 L790 L791 L792 L793 L794 L795 L796 L797 L798 L799 L800 L801 L802 L803 L804 L805 L806 L807 L808 L809 L810 L811 L812 L813 L814 L815 L816 L817 L818 L819 L820 L821 L822 L823 L824 L825 L826 L827 L828 L829 L830 L831 L832 L833 L834 L835 L836 L837 L838 L839 L840 L841 L842 L843 L844 L845 L846 L847 L848 L849 L850 L851 L852 L853 L854 L855 L856 L857 L858 L859 L860 L861 L862 L863 L864 L865 L866 L867 L868 L869 L870 L871 L872 L873 L874 L875 L876 L877 L878 L879 L880 L881 L882 L883 L884 L885 L886 L887 L888 L889 L890 L891 L892 L893 L894 L895 L896 L897 L898 L899 L900 L901 L902 L903 L904 L905 L906 L907 L908 L909 L910 L911 L912 L913 L914 L915 L916 L917 L918 L919 L920 L921 L922 L923 L924 L925 L926 L927 L928 L929 L930 L931 L932 L933 L934 L935 L936 L937 L938 L939 L940 L941 L942 L943 L944 L945 L946 L947 L948 L949 L950 L951 L952 L953 L954 L955 L956 L957 L958 L959 L960 L961 L962 L963 L964 L965 L966 L967 L968 L969 L970 L971 L972 L973 L974 L975 L976 L977 L978 L979 L980 L981 L982 L983 L984 L985 L986 L987 L988 L989 L990 L991 L992 L993 L994 L995 L996 L997 L998 L999 L1000	C426	Y353	D427	D354	S428	S355	P432	F441	K442	F443	W444	N445

## 4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, I	Depositor
Number of particles used	Not provided	Depositor
Resolution determination method	Not provided	Depositor
CTF correction method	CTFILT3 WITH INDIVIDUAL PARTICLE ADJUSTMENT	Depositor
Microscope	FEI TECNAI F30	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	25.00	Depositor
Minimum defocus (nm)	1800.00	Depositor
Maximum defocus (nm)	2900.00	Depositor
Magnification	56588	Depositor
Image detector	KODAK SO163 FILM	Depositor



## 5 Model quality [i](#)

### 5.1 Standard geometry [i](#)

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z  > 2$	RMSZ	$\# Z  > 2$
1	A	0.51	0/3896	0.77	4/5296 (0.1%)
1	B	0.50	0/3790	0.74	1/5150 (0.0%)
1	C	0.50	0/3896	0.76	1/5296 (0.0%)
1	D	0.49	0/3896	0.75	1/5296 (0.0%)
1	E	0.50	0/3896	0.76	1/5296 (0.0%)
1	F	0.50	0/3790	0.74	1/5150 (0.0%)
All	All	0.50	0/23164	0.75	9/31484 (0.0%)

There are no bond length outliers.

All (9) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	7	GLY	N-CA-C	5.75	127.49	113.10
1	E	205	ASN	N-CA-C	-5.55	96.01	111.00
1	A	205	ASN	N-CA-C	-5.49	96.17	111.00
1	B	205	ASN	N-CA-C	-5.46	96.27	111.00
1	C	205	ASN	N-CA-C	-5.45	96.29	111.00
1	F	205	ASN	N-CA-C	-5.43	96.33	111.00
1	D	205	ASN	N-CA-C	-5.37	96.50	111.00
1	A	6	GLN	CB-CA-C	-5.25	99.90	110.40
1	A	421	SER	O-C-N	5.21	130.99	121.10

There are no chirality outliers.

There are no planarity outliers.

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

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3803	0	3748	536	0
1	B	3701	0	3644	464	0
1	C	3803	0	3748	525	0
1	D	3803	0	3748	448	0
1	E	3803	0	3748	451	0
1	F	3701	0	3646	486	0
All	All	22614	0	22282	2640	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 59.

All (2640) 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)
1:E:153:LEU:CD1	1:E:330:VAL:HG22	1.43	1.47
1:B:153:LEU:CD1	1:B:330:VAL:HG22	1.43	1.46
1:D:87:HIS:CE1	1:D:94:LEU:HG	1.52	1.44
1:D:88:ASN:ND2	1:D:89:PRO:HD2	1.29	1.44
1:C:153:LEU:CD1	1:C:330:VAL:HG22	1.46	1.43
1:A:153:LEU:CD1	1:A:330:VAL:HG22	1.46	1.43
1:E:88:ASN:ND2	1:E:89:PRO:HD2	1.32	1.41
1:C:322:TRP:CZ3	1:C:400:TRP:HH2	1.37	1.41
1:D:88:ASN:HD22	1:D:89:PRO:CD	1.34	1.40
1:A:88:ASN:ND2	1:A:89:PRO:HD2	1.35	1.39
1:B:88:ASN:ND2	1:B:89:PRO:HD2	1.30	1.38
1:F:88:ASN:ND2	1:F:89:PRO:HD2	1.40	1.35
1:B:88:ASN:HD22	1:B:89:PRO:CD	1.41	1.33
1:C:88:ASN:HD22	1:C:89:PRO:CD	1.40	1.30
1:E:88:ASN:HD22	1:E:89:PRO:CD	1.47	1.27
1:F:412:LEU:HB2	1:B:235:GLU:OE1	1.27	1.27
1:C:322:TRP:CZ3	1:C:400:TRP:CH2	2.23	1.27
1:F:156:GLY:HA2	1:F:243:PHE:CD1	1.70	1.26
1:F:123:LEU:CD1	1:F:132:VAL:HG22	1.66	1.25
1:B:123:LEU:CD1	1:B:132:VAL:HG22	1.66	1.25
1:A:123:LEU:CD1	1:A:132:VAL:HG22	1.67	1.25
1:C:88:ASN:ND2	1:C:89:PRO:HD2	1.49	1.24
1:C:425:LYS:HE2	1:C:428:SER:CB	1.66	1.24
1:D:87:HIS:CE1	1:D:94:LEU:CG	2.20	1.23
1:E:123:LEU:CD1	1:E:132:VAL:HG22	1.67	1.23
1:D:123:LEU:CD1	1:D:132:VAL:HG22	1.67	1.23
1:F:153:LEU:CD1	1:F:330:VAL:HG22	1.69	1.23
1:B:296:LEU:O	1:B:296:LEU:HD12	1.39	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:123:LEU:CD1	1:C:132:VAL:HG22	1.67	1.22
1:E:87:HIS:CE1	1:E:94:LEU:HG	1.73	1.21
1:C:407:PRO:HG2	1:C:410:SER:CB	1.71	1.21
1:B:436:ASP:OD1	1:B:437:PRO:HD2	1.41	1.21
1:C:87:HIS:CE1	1:C:94:LEU:HG	1.76	1.21
1:E:3:LEU:HD12	1:E:3:LEU:O	1.41	1.21
1:A:88:ASN:HD22	1:A:89:PRO:CD	1.55	1.18
1:F:296:LEU:O	1:F:296:LEU:HD12	1.42	1.18
1:C:296:LEU:O	1:C:296:LEU:HD12	1.42	1.18
1:F:154:LEU:HD11	1:F:329:THR:CB	1.73	1.17
1:D:296:LEU:HD12	1:D:296:LEU:O	1.42	1.17
1:C:395:SER:O	1:C:398:GLU:HG2	1.44	1.17
1:F:156:GLY:HA2	1:F:243:PHE:CE1	1.80	1.16
1:E:296:LEU:O	1:E:296:LEU:HD12	1.42	1.16
1:C:393:MET:HE1	1:C:396:VAL:HB	1.29	1.15
1:B:153:LEU:CD1	1:B:330:VAL:CG2	2.24	1.14
1:A:153:LEU:CD1	1:A:330:VAL:CG2	2.25	1.14
1:C:153:LEU:CD1	1:C:330:VAL:CG2	2.26	1.14
1:E:153:LEU:CD1	1:E:330:VAL:CG2	2.25	1.14
1:F:153:LEU:HD12	1:F:330:VAL:HG22	1.21	1.13
1:C:322:TRP:HZ3	1:C:400:TRP:CH2	1.61	1.12
1:D:58:VAL:HG11	1:D:363:ARG:HH12	1.10	1.12
1:F:407:PRO:HG2	1:F:410:SER:CB	1.79	1.11
1:B:153:LEU:HD13	1:B:330:VAL:CG2	1.80	1.11
1:C:405:GLN:HB2	1:C:406:PRO:HD3	1.15	1.11
1:E:153:LEU:HD13	1:E:330:VAL:CG2	1.81	1.11
1:A:296:LEU:O	1:A:296:LEU:HD12	1.50	1.10
1:E:164:TYR:CE2	1:E:187:LYS:HB2	1.87	1.10
1:A:407:PRO:HG2	1:A:410:SER:HB2	1.34	1.10
1:D:87:HIS:HE1	1:D:94:LEU:CD1	1.65	1.10
1:C:425:LYS:HE2	1:C:428:SER:HB3	1.29	1.09
1:A:153:LEU:HD13	1:A:330:VAL:HG22	1.12	1.09
1:A:153:LEU:HD12	1:A:330:VAL:HG22	1.34	1.09
1:C:407:PRO:CG	1:C:410:SER:HB3	1.83	1.08
1:A:150:GLN:HG3	1:A:249:GLU:HB3	1.36	1.08
1:C:153:LEU:HD12	1:C:330:VAL:HG22	1.35	1.08
1:B:299:THR:HG23	1:C:249:GLU:HG2	1.35	1.08
1:C:88:ASN:HD22	1:C:89:PRO:N	1.52	1.08
1:A:164:TYR:CE2	1:A:187:LYS:HB2	1.89	1.08
1:F:156:GLY:CA	1:F:243:PHE:CE1	2.36	1.08
1:A:393:MET:HE1	1:A:396:VAL:HB	1.31	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:405:GLN:HB2	1:A:406:PRO:HD3	1.11	1.07
1:F:150:GLN:HG3	1:F:249:GLU:HB3	1.35	1.07
1:E:153:LEU:HD13	1:E:330:VAL:HG22	1.08	1.07
1:F:164:TYR:CE2	1:F:187:LYS:HB2	1.90	1.07
1:D:458:GLN:NE2	1:E:19:LYS:HB2	1.69	1.07
1:A:153:LEU:HD13	1:A:330:VAL:CG2	1.82	1.06
1:B:87:HIS:CE1	1:B:94:LEU:HG	1.89	1.06
1:F:393:MET:HE1	1:F:396:VAL:HB	1.31	1.06
1:C:153:LEU:HD13	1:C:330:VAL:HG22	1.12	1.06
1:F:92:GLU:HG2	1:F:380:GLU:HA	1.37	1.06
1:B:47:PRO:HG2	1:B:48:TYR:CD1	1.90	1.06
1:D:87:HIS:CE1	1:D:94:LEU:CD1	2.39	1.06
1:E:242:MET:HE3	1:E:314:GLN:HE22	1.20	1.06
1:C:153:LEU:HD13	1:C:330:VAL:CG2	1.83	1.06
1:B:455:ASP:HB3	1:C:19:LYS:NZ	1.69	1.06
1:C:88:ASN:HD22	1:C:89:PRO:HD2	1.04	1.06
1:F:405:GLN:HB2	1:F:406:PRO:HD3	1.12	1.05
1:A:249:GLU:HG2	1:E:299:THR:HG23	1.35	1.05
1:C:297:VAL:HG21	1:C:334:THR:HG23	1.37	1.05
1:B:153:LEU:HD12	1:B:330:VAL:HG22	1.34	1.05
1:C:150:GLN:HG3	1:C:249:GLU:HB3	1.34	1.05
1:D:393:MET:HE1	1:D:396:VAL:HB	1.34	1.05
1:F:154:LEU:HD11	1:F:329:THR:OG1	1.54	1.05
1:F:297:VAL:HG21	1:F:334:THR:HG23	1.37	1.05
1:B:92:GLU:HG2	1:B:380:GLU:HA	1.39	1.05
1:E:164:TYR:HE2	1:E:187:LYS:CB	1.69	1.05
1:A:297:VAL:HG21	1:A:334:THR:HG23	1.37	1.04
1:F:242:MET:HE3	1:F:314:GLN:HE22	1.19	1.04
1:B:297:VAL:HG21	1:B:334:THR:HG23	1.37	1.04
1:F:88:ASN:HD22	1:F:89:PRO:CD	1.70	1.04
1:B:153:LEU:HD13	1:B:330:VAL:HG22	1.08	1.03
1:C:299:THR:HG23	1:D:249:GLU:HG2	1.37	1.03
1:E:150:GLN:HG3	1:E:249:GLU:HB3	1.35	1.03
1:E:297:VAL:HG21	1:E:334:THR:HG23	1.38	1.03
1:C:386:VAL:HG13	1:C:402:ILE:HG21	1.39	1.03
1:A:405:GLN:CB	1:A:406:PRO:HD3	1.84	1.03
1:D:150:GLN:HG3	1:D:249:GLU:HB3	1.35	1.03
1:E:153:LEU:HD12	1:E:330:VAL:HG22	1.34	1.03
1:F:87:HIS:CE1	1:F:94:LEU:CD1	2.43	1.02
1:E:92:GLU:HG2	1:E:380:GLU:HA	1.37	1.02
1:E:400:TRP:O	1:E:401:GLU:HG2	1.59	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:299:THR:HG23	1:E:249:GLU:HG2	1.38	1.02
1:D:9:LYS:H	1:D:9:LYS:HD3	1.25	1.02
1:B:361:TYR:CD1	1:C:181:CYS:HB2	1.94	1.01
1:A:164:TYR:HE2	1:A:187:LYS:CB	1.73	1.01
1:A:299:THR:HG23	1:B:249:GLU:HG2	1.41	1.01
1:B:150:GLN:HG3	1:B:249:GLU:HB3	1.36	1.01
1:F:164:TYR:HE2	1:F:187:LYS:CB	1.74	1.01
1:D:297:VAL:HG21	1:D:334:THR:HG23	1.38	1.00
1:C:393:MET:CE	1:C:396:VAL:HB	1.90	1.00
1:F:405:GLN:CB	1:F:406:PRO:HD3	1.85	1.00
1:A:430:VAL:C	1:A:432:PRO:CD	2.30	1.00
1:B:242:MET:HE3	1:B:314:GLN:HE22	1.25	1.00
1:B:408:THR:HG23	1:B:411:ILE:CD1	1.92	1.00
1:F:430:VAL:C	1:F:432:PRO:CD	2.30	1.00
1:B:164:TYR:CE2	1:B:187:LYS:HB2	1.96	0.99
1:D:242:MET:HE3	1:D:314:GLN:HE22	1.24	0.99
1:B:58:VAL:HG11	1:B:363:ARG:HH12	1.24	0.99
1:B:393:MET:CE	1:B:396:VAL:HB	1.93	0.99
1:F:154:LEU:O	1:F:328:LEU:HD12	1.63	0.99
1:A:393:MET:CE	1:A:396:VAL:HB	1.92	0.99
1:C:361:TYR:CD1	1:D:181:CYS:HB2	1.97	0.99
1:B:123:LEU:HD13	1:B:132:VAL:HG22	1.45	0.98
1:B:393:MET:HE1	1:B:396:VAL:HB	1.41	0.98
1:B:393:MET:HG3	1:B:396:VAL:HG12	1.45	0.98
1:D:58:VAL:HG11	1:D:363:ARG:NH1	1.78	0.98
1:F:393:MET:CE	1:F:396:VAL:HB	1.93	0.98
1:C:92:GLU:HG2	1:C:380:GLU:HA	1.45	0.98
1:D:123:LEU:HD13	1:D:132:VAL:HG22	1.45	0.98
1:F:393:MET:HG3	1:F:396:VAL:HG12	1.45	0.98
1:A:151:GLN:HE22	1:A:302:GLN:HA	1.28	0.98
1:D:393:MET:HG3	1:D:396:VAL:HG12	1.45	0.98
1:F:154:LEU:O	1:F:154:LEU:HD12	1.65	0.97
1:D:361:TYR:CD1	1:E:181:CYS:HB2	1.99	0.97
1:A:425:LYS:HD2	1:A:429:ASN:HD22	1.28	0.97
1:D:393:MET:CE	1:D:396:VAL:HB	1.94	0.97
1:C:58:VAL:HG11	1:C:363:ARG:HH12	1.30	0.97
1:F:425:LYS:HD2	1:F:429:ASN:HD22	1.28	0.97
1:C:405:GLN:CB	1:C:406:PRO:HD3	1.92	0.96
1:A:123:LEU:HD13	1:A:132:VAL:HG22	1.45	0.96
1:C:458:GLN:NE2	1:D:19:LYS:HB2	1.78	0.96
1:B:151:GLN:HE22	1:B:302:GLN:HA	1.27	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:361:TYR:CD1	1:B:181:CYS:HB2	2.00	0.96
1:E:393:MET:HE1	1:E:396:VAL:HB	1.43	0.96
1:F:430:VAL:O	1:F:432:PRO:HD2	1.65	0.96
1:F:123:LEU:HD13	1:F:132:VAL:HG22	1.45	0.96
1:A:242:MET:HE3	1:A:314:GLN:HE22	1.27	0.96
1:C:123:LEU:HD13	1:C:132:VAL:HG22	1.45	0.96
1:E:123:LEU:HD13	1:E:132:VAL:HG22	1.45	0.96
1:F:407:PRO:HG2	1:F:410:SER:HB3	1.44	0.96
1:E:151:GLN:HE22	1:E:302:GLN:HA	1.28	0.95
1:E:164:TYR:HE2	1:E:187:LYS:HB2	1.20	0.95
1:F:151:GLN:HE22	1:F:302:GLN:HA	1.29	0.95
1:A:430:VAL:O	1:A:432:PRO:HD2	1.64	0.95
1:D:151:GLN:HE22	1:D:302:GLN:HA	1.30	0.95
1:F:243:PHE:CD2	1:F:319:GLY:HA2	2.01	0.95
1:C:393:MET:HG3	1:C:396:VAL:HG12	1.45	0.95
1:F:407:PRO:HG2	1:F:410:SER:HB2	1.46	0.95
1:F:154:LEU:CG	1:F:329:THR:HB	1.96	0.95
1:A:393:MET:HG3	1:A:396:VAL:HG12	1.45	0.95
1:D:81:LEU:HD22	1:D:86:VAL:HG11	1.48	0.95
1:F:58:VAL:HG11	1:F:363:ARG:HH12	1.31	0.95
1:C:242:MET:HE3	1:C:314:GLN:HE22	1.31	0.94
1:E:81:LEU:HD22	1:E:86:VAL:HG11	1.47	0.94
1:B:81:LEU:HD22	1:B:86:VAL:HG11	1.48	0.94
1:C:87:HIS:CE1	1:C:94:LEU:CG	2.49	0.94
1:F:87:HIS:CE1	1:F:94:LEU:HG	2.03	0.94
1:F:153:LEU:CD1	1:F:330:VAL:CG2	2.46	0.94
1:F:435:GLU:OE1	1:F:436:ASP:O	1.86	0.94
1:E:393:MET:CE	1:E:396:VAL:HB	1.97	0.93
1:F:429:ASN:O	1:F:432:PRO:HD3	1.67	0.93
1:F:88:ASN:ND2	1:F:89:PRO:CD	2.29	0.93
1:B:250:GLN:NE2	1:B:295:SER:HB3	1.82	0.93
1:E:393:MET:HG3	1:E:396:VAL:HG12	1.47	0.93
1:A:397:LEU:HB3	1:A:402:ILE:HD11	1.49	0.93
1:A:136:THR:HG22	1:A:137:THR:H	1.34	0.93
1:A:88:ASN:ND2	1:A:89:PRO:CD	2.23	0.93
1:B:455:ASP:CB	1:C:19:LYS:NZ	2.32	0.93
1:A:407:PRO:HG2	1:A:410:SER:CB	1.99	0.93
1:D:164:TYR:CE2	1:D:187:LYS:HB2	2.04	0.93
1:A:435:GLU:OE1	1:A:436:ASP:O	1.86	0.92
1:C:88:ASN:ND2	1:C:89:PRO:CD	2.16	0.92
1:C:164:TYR:CE2	1:C:187:LYS:HB2	2.03	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:429:ASN:O	1:A:432:PRO:HD3	1.67	0.92
1:F:22:CYS:SG	1:F:316:MET:HG3	2.09	0.92
1:A:87:HIS:CE1	1:A:94:LEU:HG	2.05	0.92
1:F:156:GLY:C	1:F:243:PHE:HE1	1.71	0.92
1:A:145:LEU:HD11	1:A:292:PRO:HD2	1.52	0.92
1:C:136:THR:HG22	1:C:137:THR:H	1.35	0.92
1:C:151:GLN:HE22	1:C:302:GLN:HA	1.32	0.92
1:F:156:GLY:C	1:F:243:PHE:CE1	2.43	0.92
1:B:164:TYR:HE2	1:B:187:LYS:CB	1.83	0.92
1:F:80:ALA:H	1:A:79:PHE:HD2	1.06	0.92
1:C:145:LEU:HD11	1:C:292:PRO:HD2	1.52	0.92
1:C:393:MET:SD	1:C:396:VAL:CG1	2.58	0.92
1:D:158:THR:HG22	1:D:159:PRO:HD2	1.52	0.92
1:C:158:THR:HG22	1:C:159:PRO:HD2	1.53	0.91
1:A:158:THR:HG22	1:A:159:PRO:HD2	1.52	0.91
1:F:430:VAL:C	1:F:432:PRO:HD3	1.91	0.91
1:C:431:ILE:CG2	1:C:432:PRO:HB3	2.00	0.91
1:E:136:THR:HG22	1:E:137:THR:H	1.34	0.91
1:F:136:THR:HG22	1:F:137:THR:H	1.34	0.91
1:F:79:PHE:HD2	1:A:80:ALA:H	1.19	0.91
1:D:425:LYS:HE2	1:D:427:ALA:O	1.71	0.91
1:E:88:ASN:HD22	1:E:89:PRO:HD2	0.78	0.90
1:A:393:MET:SD	1:A:396:VAL:CG1	2.59	0.90
1:F:154:LEU:HD12	1:F:329:THR:H	1.37	0.90
1:F:145:LEU:HD11	1:F:292:PRO:HD2	1.51	0.90
1:F:243:PHE:CE2	1:F:319:GLY:HA2	2.06	0.90
1:B:136:THR:HG22	1:B:137:THR:H	1.34	0.90
1:F:154:LEU:CD1	1:F:329:THR:HB	2.02	0.90
1:F:156:GLY:CA	1:F:243:PHE:CD1	2.51	0.90
1:A:430:VAL:C	1:A:432:PRO:HD3	1.91	0.90
1:D:393:MET:SD	1:D:396:VAL:CG1	2.60	0.90
1:E:87:HIS:CE1	1:E:94:LEU:CG	2.53	0.90
1:A:397:LEU:O	1:A:402:ILE:HG12	1.72	0.90
1:B:250:GLN:HE21	1:B:295:SER:HB3	1.32	0.90
1:B:361:TYR:CE1	1:C:181:CYS:HB2	2.07	0.90
1:D:145:LEU:HD11	1:D:292:PRO:HD2	1.53	0.90
1:C:46:HIS:O	1:C:60:LYS:HA	1.72	0.89
1:F:158:THR:HG22	1:F:159:PRO:HD2	1.51	0.89
1:A:430:VAL:C	1:A:432:PRO:HD2	1.91	0.89
1:B:158:THR:HG22	1:B:159:PRO:HD2	1.52	0.89
1:F:87:HIS:CE1	1:F:94:LEU:HD11	2.07	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:393:MET:SD	1:B:396:VAL:CG1	2.60	0.89
1:E:58:VAL:HG11	1:E:363:ARG:HH12	1.36	0.89
1:E:46:HIS:O	1:E:60:LYS:HA	1.72	0.89
1:A:87:HIS:CE1	1:A:94:LEU:CD1	2.56	0.89
1:B:408:THR:HG23	1:B:411:ILE:HD11	1.54	0.89
1:D:136:THR:HG22	1:D:137:THR:H	1.35	0.89
1:E:393:MET:SD	1:E:396:VAL:CG1	2.61	0.89
1:E:145:LEU:HD11	1:E:292:PRO:HD2	1.52	0.88
1:E:158:THR:HG22	1:E:159:PRO:HD2	1.54	0.88
1:F:430:VAL:C	1:F:432:PRO:HD2	1.91	0.88
1:E:250:GLN:HE21	1:E:295:SER:HB3	1.38	0.88
1:F:393:MET:SD	1:F:396:VAL:CG1	2.61	0.88
1:A:46:HIS:O	1:A:60:LYS:HA	1.73	0.88
1:D:46:HIS:O	1:D:60:LYS:HA	1.72	0.88
1:F:46:HIS:O	1:F:60:LYS:HA	1.73	0.88
1:F:58:VAL:HG11	1:F:363:ARG:NH1	1.89	0.88
1:A:123:LEU:CD1	1:A:132:VAL:CG2	2.52	0.88
1:F:123:LEU:CD1	1:F:132:VAL:CG2	2.52	0.88
1:A:249:GLU:HG2	1:E:299:THR:CG2	2.04	0.88
1:C:430:VAL:O	1:C:430:VAL:HG12	1.71	0.88
1:E:123:LEU:CD1	1:E:132:VAL:CG2	2.52	0.88
1:B:58:VAL:HG11	1:B:363:ARG:NH1	1.89	0.87
1:F:431:ILE:N	1:F:432:PRO:HD3	1.89	0.87
1:A:88:ASN:HD22	1:A:89:PRO:HD2	0.86	0.87
1:F:87:HIS:HE1	1:F:94:LEU:CD1	1.84	0.87
1:A:431:ILE:N	1:A:432:PRO:HD3	1.89	0.87
1:D:123:LEU:CD1	1:D:132:VAL:CG2	2.52	0.87
1:F:154:LEU:CD1	1:F:329:THR:CB	2.51	0.87
1:F:429:ASN:O	1:F:432:PRO:HG3	1.74	0.87
1:A:429:ASN:O	1:A:432:PRO:HG3	1.74	0.87
1:C:361:TYR:CE1	1:D:181:CYS:HB2	2.09	0.87
1:D:361:TYR:CE1	1:E:181:CYS:HB2	2.10	0.87
1:C:458:GLN:HE21	1:D:19:LYS:HB2	1.39	0.87
1:A:92:GLU:HB2	1:A:379:VAL:O	1.76	0.86
1:B:171:CYS:HB2	1:B:173:THR:HG22	1.56	0.86
1:A:361:TYR:CE1	1:B:181:CYS:HB2	2.10	0.86
1:B:299:THR:CG2	1:C:249:GLU:HG2	2.04	0.86
1:C:81:LEU:HD22	1:C:86:VAL:HG11	1.55	0.86
1:D:93:ARG:HE	1:D:402:ILE:HD11	1.40	0.86
1:C:81:LEU:HD13	1:C:86:VAL:HG11	1.56	0.86
1:C:123:LEU:CD1	1:C:132:VAL:CG2	2.52	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:92:GLU:HG2	1:D:380:GLU:HA	1.56	0.86
1:A:242:MET:CE	1:A:314:GLN:HE22	1.88	0.86
1:B:123:LEU:CD1	1:B:132:VAL:CG2	2.52	0.86
1:B:193:ASP:HB2	1:B:443:PHE:HA	1.57	0.86
1:C:193:ASP:HB2	1:C:443:PHE:HA	1.58	0.86
1:B:88:ASN:HD22	1:B:89:PRO:HD2	0.73	0.86
1:B:263:GLU:CD	1:B:285:PRO:HA	1.97	0.86
1:D:299:THR:CG2	1:E:249:GLU:HG2	2.05	0.86
1:F:88:ASN:HD22	1:F:89:PRO:HD2	1.00	0.86
1:A:193:ASP:HB2	1:A:443:PHE:HA	1.58	0.85
1:A:263:GLU:CD	1:A:285:PRO:HA	1.96	0.85
1:A:299:THR:CG2	1:B:249:GLU:HG2	2.06	0.85
1:D:193:ASP:HB2	1:D:443:PHE:HA	1.58	0.85
1:F:437:PRO:HG2	1:F:438:TYR:CD1	2.10	0.85
1:A:437:PRO:HG2	1:A:438:TYR:CD1	2.10	0.85
1:B:408:THR:CG2	1:B:411:ILE:HD12	2.05	0.85
1:B:455:ASP:CG	1:C:19:LYS:NZ	2.29	0.85
1:E:242:MET:CE	1:E:314:GLN:HE22	1.89	0.85
1:A:149:GLN:HA	1:A:333:ASN:HD21	1.42	0.85
1:F:193:ASP:HB2	1:F:443:PHE:HA	1.57	0.85
1:C:299:THR:CG2	1:D:249:GLU:HG2	2.06	0.85
1:E:58:VAL:HG11	1:E:363:ARG:NH1	1.91	0.85
1:F:87:HIS:CE1	1:F:94:LEU:CG	2.60	0.84
1:F:242:MET:HE3	1:F:314:GLN:NE2	1.92	0.84
1:F:242:MET:CE	1:F:314:GLN:HE22	1.89	0.84
1:C:263:GLU:CD	1:C:285:PRO:HA	1.98	0.84
1:D:87:HIS:CE1	1:D:94:LEU:HD11	2.12	0.84
1:E:193:ASP:HB2	1:E:443:PHE:HA	1.57	0.84
1:F:80:ALA:N	1:A:79:PHE:HD2	1.75	0.84
1:D:242:MET:CE	1:D:314:GLN:HE22	1.89	0.84
1:C:407:PRO:HG2	1:C:410:SER:HB3	0.88	0.84
1:D:459:PHE:HB3	1:D:460:PRO:HD2	1.60	0.84
1:E:250:GLN:HE21	1:E:295:SER:CB	1.90	0.84
1:F:149:GLN:HA	1:F:333:ASN:HD21	1.42	0.84
1:E:263:GLU:CD	1:E:285:PRO:HA	1.98	0.84
1:B:88:ASN:ND2	1:B:89:PRO:CD	2.16	0.84
1:D:263:GLU:CD	1:D:285:PRO:HA	1.98	0.84
1:D:250:GLN:HE21	1:D:295:SER:CB	1.89	0.84
1:A:397:LEU:HD22	1:A:402:ILE:CD1	2.08	0.83
1:C:250:GLN:HE21	1:C:295:SER:HB3	1.41	0.83
1:C:242:MET:CE	1:C:314:GLN:HE22	1.90	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:263:GLU:CD	1:F:285:PRO:HA	1.98	0.83
1:B:242:MET:CE	1:B:314:GLN:HE22	1.90	0.83
1:D:149:GLN:HA	1:D:333:ASN:HD21	1.44	0.83
1:F:250:GLN:HE21	1:F:295:SER:HB3	1.43	0.83
1:F:459:PHE:HB3	1:F:460:PRO:HD2	1.61	0.83
1:A:312:ARG:HB2	1:E:475:THR:O	1.79	0.83
1:B:123:LEU:HD11	1:B:132:VAL:HG22	1.61	0.83
1:C:81:LEU:HB3	1:C:86:VAL:HG21	1.59	0.83
1:D:435:GLU:HG2	1:D:439:ALA:HB3	1.58	0.83
1:E:88:ASN:ND2	1:E:89:PRO:CD	2.19	0.83
1:A:38:THR:HG22	1:A:448:LEU:HD21	1.61	0.83
1:A:459:PHE:HB3	1:A:460:PRO:HD2	1.60	0.83
1:B:149:GLN:HA	1:B:333:ASN:HD21	1.43	0.83
1:D:38:THR:HG22	1:D:448:LEU:HD21	1.60	0.83
1:E:149:GLN:HA	1:E:333:ASN:HD21	1.43	0.83
1:C:425:LYS:CE	1:C:428:SER:CB	2.55	0.82
1:A:339:LEU:HB3	1:A:363:ARG:O	1.77	0.82
1:F:158:THR:CG2	1:F:159:PRO:HD2	2.09	0.82
1:B:459:PHE:HB3	1:B:460:PRO:HD2	1.61	0.82
1:F:459:PHE:HE2	1:A:409:SER:HG	1.25	0.82
1:D:158:THR:CG2	1:D:159:PRO:HD2	2.09	0.82
1:D:250:GLN:HE21	1:D:295:SER:HB3	1.41	0.82
1:D:88:ASN:HD22	1:D:89:PRO:HD2	0.72	0.82
1:B:455:ASP:CG	1:C:19:LYS:HZ2	1.81	0.82
1:C:158:THR:CG2	1:C:159:PRO:HD2	2.10	0.82
1:D:80:ALA:HB2	1:E:11:TYR:HB2	1.61	0.82
1:A:122:LEU:HD11	1:A:260:GLY:HA2	1.62	0.81
1:F:412:LEU:HD23	1:A:40:ARG:HH21	1.44	0.81
1:F:57:THR:O	1:A:422:PRO:HD2	1.79	0.81
1:C:16:PRO:CD	1:C:17:VAL:H	1.90	0.81
1:F:122:LEU:HD11	1:F:260:GLY:HA2	1.61	0.81
1:C:149:GLN:HA	1:C:333:ASN:HD21	1.45	0.81
1:F:397:LEU:HB3	1:F:402:ILE:HD11	1.61	0.81
1:A:123:LEU:HD11	1:A:132:VAL:HG22	1.62	0.81
1:A:158:THR:CG2	1:A:159:PRO:HD2	2.10	0.81
1:B:158:THR:CG2	1:B:159:PRO:HD2	2.09	0.81
1:B:38:THR:HG22	1:B:448:LEU:HD21	1.61	0.81
1:C:87:HIS:CE1	1:C:94:LEU:CD1	2.63	0.81
1:D:458:GLN:HE21	1:E:19:LYS:HB2	1.44	0.81
1:E:459:PHE:HB3	1:E:460:PRO:HD2	1.60	0.81
1:C:38:THR:HG22	1:C:448:LEU:HD21	1.60	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:58:VAL:HG11	1:C:363:ARG:NH1	1.95	0.81
1:D:435:GLU:CG	1:D:439:ALA:HB3	2.10	0.81
1:D:87:HIS:HE1	1:D:94:LEU:CG	1.76	0.81
1:F:123:LEU:HD11	1:F:132:VAL:HG22	1.62	0.81
1:A:136:THR:HG22	1:A:137:THR:N	1.95	0.81
1:B:136:THR:HG22	1:B:137:THR:N	1.96	0.81
1:E:242:MET:HE3	1:E:314:GLN:NE2	1.94	0.81
1:C:136:THR:HG22	1:C:137:THR:N	1.96	0.81
1:D:123:LEU:HD11	1:D:132:VAL:HG22	1.61	0.81
1:F:136:THR:HG22	1:F:137:THR:N	1.95	0.81
1:C:417:ARG:HG2	1:C:418:TYR:CD1	2.15	0.81
1:F:38:THR:HG22	1:F:448:LEU:HD21	1.61	0.81
1:C:393:MET:CG	1:C:396:VAL:HG12	2.11	0.81
1:E:38:THR:HG22	1:E:448:LEU:HD21	1.61	0.81
1:A:87:HIS:HB2	1:A:92:GLU:OE2	1.81	0.80
1:F:154:LEU:HG	1:F:329:THR:HB	1.60	0.80
1:A:92:GLU:HA	1:A:381:ILE:HG12	1.61	0.80
1:B:122:LEU:HD11	1:B:260:GLY:HA2	1.62	0.80
1:B:408:THR:CG2	1:B:411:ILE:CD1	2.58	0.80
1:C:459:PHE:HB3	1:C:460:PRO:HD2	1.60	0.80
1:D:122:LEU:HD11	1:D:260:GLY:HA2	1.63	0.80
1:A:164:TYR:CE2	1:A:187:LYS:CB	2.57	0.80
1:C:164:TYR:HE2	1:C:187:LYS:CB	1.94	0.80
1:A:242:MET:CE	1:A:314:GLN:NE2	2.44	0.80
1:C:122:LEU:HD11	1:C:260:GLY:HA2	1.61	0.80
1:E:136:THR:HG22	1:E:137:THR:N	1.96	0.80
1:D:393:MET:CG	1:D:396:VAL:HG12	2.12	0.80
1:F:153:LEU:HD13	1:F:330:VAL:HG22	1.63	0.80
1:F:154:LEU:HD11	1:F:329:THR:HB	1.57	0.80
1:D:164:TYR:HE2	1:D:187:LYS:CB	1.95	0.79
1:D:242:MET:HE3	1:D:314:GLN:NE2	1.98	0.79
1:F:429:ASN:O	1:F:432:PRO:CD	2.30	0.79
1:A:296:LEU:HA	1:B:252:TYR:HB3	1.62	0.79
1:B:393:MET:CG	1:B:396:VAL:HG12	2.12	0.79
1:C:6:GLN:HE21	1:C:6:GLN:HA	1.48	0.79
1:A:196:MET:SD	1:A:223:GLU:OE1	2.40	0.79
1:A:393:MET:CG	1:A:396:VAL:HG12	2.11	0.79
1:A:431:ILE:N	1:A:432:PRO:CD	2.45	0.79
1:E:122:LEU:HD11	1:E:260:GLY:HA2	1.62	0.79
1:E:123:LEU:HD11	1:E:132:VAL:HG22	1.62	0.79
1:E:158:THR:CG2	1:E:159:PRO:HD2	2.11	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:459:PHE:HE2	1:A:409:SER:OG	1.64	0.79
1:E:242:MET:CE	1:E:314:GLN:NE2	2.45	0.79
1:E:393:MET:CG	1:E:396:VAL:HG12	2.13	0.79
1:D:242:MET:CE	1:D:314:GLN:NE2	2.45	0.79
1:A:382:THR:O	1:A:386:VAL:HG23	1.83	0.79
1:E:71:ILE:N	1:E:71:ILE:HD12	1.98	0.79
1:F:154:LEU:CD1	1:F:329:THR:H	1.95	0.78
1:C:425:LYS:CE	1:C:428:SER:HB3	2.13	0.78
1:A:429:ASN:O	1:A:432:PRO:CD	2.30	0.78
1:F:393:MET:CG	1:F:396:VAL:HG12	2.12	0.78
1:F:71:ILE:HD12	1:F:71:ILE:N	1.98	0.78
1:F:242:MET:CE	1:F:314:GLN:NE2	2.45	0.78
1:A:71:ILE:N	1:A:71:ILE:HD12	1.98	0.78
1:C:123:LEU:HD11	1:C:132:VAL:HG22	1.61	0.78
1:C:71:ILE:HD12	1:C:71:ILE:N	1.99	0.78
1:C:87:HIS:HE1	1:C:94:LEU:CD1	1.97	0.78
1:B:71:ILE:HD12	1:B:71:ILE:N	1.98	0.78
1:B:361:TYR:CD1	1:C:181:CYS:CB	2.67	0.78
1:A:397:LEU:HD22	1:A:402:ILE:HD13	1.66	0.78
1:C:15:THR:CG2	1:C:17:VAL:HG23	2.14	0.78
1:C:297:VAL:HG21	1:C:334:THR:CG2	2.14	0.78
1:C:242:MET:CE	1:C:314:GLN:NE2	2.46	0.78
1:E:3:LEU:CD1	1:E:3:LEU:O	2.30	0.78
1:C:164:TYR:CE2	1:C:187:LYS:CB	2.66	0.78
1:B:475:THR:O	1:C:312:ARG:HB2	1.83	0.78
1:C:400:TRP:O	1:C:401:GLU:HG2	1.84	0.78
1:C:393:MET:SD	1:C:396:VAL:HG11	2.24	0.78
1:C:122:LEU:CD1	1:C:260:GLY:HA2	2.14	0.77
1:F:153:LEU:HD12	1:F:330:VAL:CG2	2.10	0.77
1:F:397:LEU:O	1:F:402:ILE:HG12	1.83	0.77
1:C:425:LYS:HE2	1:C:428:SER:OG	1.83	0.77
1:D:475:THR:O	1:E:312:ARG:HB2	1.83	0.77
1:D:382:THR:O	1:D:386:VAL:HG23	1.85	0.77
1:B:442:LYS:H	1:B:442:LYS:HD3	1.47	0.77
1:E:10:LEU:O	1:E:10:LEU:HD12	1.85	0.77
1:B:122:LEU:CD1	1:B:260:GLY:HA2	2.15	0.77
1:B:393:MET:HE2	1:B:396:VAL:H	1.49	0.77
1:E:250:GLN:NE2	1:E:295:SER:CB	2.47	0.77
1:F:382:THR:O	1:F:386:VAL:HG23	1.85	0.77
1:F:431:ILE:N	1:F:432:PRO:CD	2.45	0.77
1:F:86:VAL:HG13	1:A:82:PRO:HG2	1.64	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:81:LEU:HD22	1:A:86:VAL:HG11	1.66	0.77
1:F:412:LEU:CB	1:B:235:GLU:OE1	2.21	0.77
1:B:99:ILE:HD11	1:B:375:GLU:HB3	1.67	0.77
1:C:296:LEU:C	1:C:296:LEU:HD12	2.05	0.77
1:D:397:LEU:O	1:D:400:TRP:HB2	1.85	0.77
1:A:87:HIS:CE1	1:A:94:LEU:CG	2.68	0.77
1:E:382:THR:O	1:E:386:VAL:HG23	1.85	0.77
1:F:407:PRO:CG	1:F:410:SER:HB2	2.15	0.77
1:A:297:VAL:HG21	1:A:334:THR:CG2	2.15	0.76
1:E:296:LEU:C	1:E:296:LEU:HD12	2.05	0.76
1:F:296:LEU:C	1:F:296:LEU:HD12	2.05	0.76
1:C:386:VAL:CG1	1:C:402:ILE:HG21	2.15	0.76
1:E:122:LEU:CD1	1:E:260:GLY:HA2	2.16	0.76
1:F:122:LEU:CD1	1:F:260:GLY:HA2	2.15	0.76
1:B:242:MET:CE	1:B:314:GLN:NE2	2.48	0.76
1:B:47:PRO:HG2	1:B:48:TYR:CE1	2.20	0.76
1:C:431:ILE:HG23	1:C:432:PRO:HA	1.68	0.76
1:D:136:THR:HG22	1:D:137:THR:N	1.96	0.76
1:D:296:LEU:HD12	1:D:296:LEU:C	2.05	0.76
1:B:297:VAL:HG21	1:B:334:THR:CG2	2.14	0.76
1:F:429:ASN:O	1:F:432:PRO:CG	2.34	0.76
1:F:99:ILE:HD11	1:F:375:GLU:HB3	1.67	0.76
1:E:99:ILE:HD11	1:E:375:GLU:HB3	1.68	0.76
1:C:360:VAL:HG23	1:D:261:GLY:HA3	1.67	0.76
1:D:164:TYR:CE2	1:D:187:LYS:CB	2.67	0.76
1:F:92:GLU:OE2	1:F:380:GLU:HG2	1.84	0.76
1:C:431:ILE:HG22	1:C:432:PRO:CB	2.16	0.76
1:D:297:VAL:HG21	1:D:334:THR:CG2	2.15	0.76
1:F:379:VAL:HG21	1:F:400:TRP:CH2	2.21	0.76
1:A:360:VAL:HG23	1:B:261:GLY:HA3	1.67	0.76
1:C:431:ILE:CG2	1:C:432:PRO:CA	2.64	0.76
1:E:410:SER:C	1:E:411:ILE:HG13	2.04	0.76
1:B:455:ASP:CB	1:C:19:LYS:HZ2	1.97	0.75
1:F:252:TYR:CE2	1:F:293:SER:OG	2.40	0.75
1:A:122:LEU:CD1	1:A:260:GLY:HA2	2.16	0.75
1:B:296:LEU:HD12	1:B:296:LEU:C	2.07	0.75
1:C:431:ILE:HG22	1:C:432:PRO:HB3	1.67	0.75
1:D:354:ASP:HB2	1:D:357:LYS:HG2	1.68	0.75
1:B:354:ASP:HB2	1:B:357:LYS:HG2	1.69	0.75
1:B:382:THR:O	1:B:386:VAL:HG23	1.85	0.75
1:D:360:VAL:HG23	1:E:261:GLY:HA3	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:354:ASP:HB2	1:A:357:LYS:HG2	1.68	0.75
1:A:429:ASN:O	1:A:432:PRO:CG	2.34	0.75
1:E:393:MET:HE2	1:E:396:VAL:H	1.52	0.75
1:A:164:TYR:HE2	1:A:187:LYS:HB2	1.30	0.75
1:C:382:THR:O	1:C:386:VAL:HG23	1.86	0.75
1:C:431:ILE:CG2	1:C:432:PRO:CB	2.64	0.75
1:D:122:LEU:CD1	1:D:260:GLY:HA2	2.16	0.75
1:B:393:MET:SD	1:B:396:VAL:HG11	2.27	0.75
1:C:354:ASP:HB2	1:C:357:LYS:HG2	1.69	0.75
1:C:81:LEU:HD13	1:C:86:VAL:CG1	2.17	0.75
1:D:99:ILE:HD11	1:D:375:GLU:HB3	1.68	0.75
1:E:354:ASP:HB2	1:E:357:LYS:HG2	1.69	0.75
1:B:436:ASP:OD1	1:B:437:PRO:CD	2.30	0.75
1:D:2:ALA:C	1:D:3:LEU:HD12	2.07	0.75
1:E:297:VAL:HG21	1:E:334:THR:CG2	2.15	0.75
1:F:32:ILE:HD12	1:F:32:ILE:N	2.02	0.75
1:F:81:LEU:HD22	1:F:86:VAL:HG11	1.66	0.75
1:B:242:MET:HE3	1:B:314:GLN:NE2	2.01	0.74
1:B:455:ASP:HB3	1:C:19:LYS:HZ1	1.51	0.74
1:C:101:VAL:HG21	1:C:155:LEU:HD22	1.69	0.74
1:E:252:TYR:CE2	1:E:293:SER:OG	2.40	0.74
1:F:478:LYS:HG3	1:F:478:LYS:O	1.87	0.74
1:B:250:GLN:NE2	1:B:295:SER:CB	2.49	0.74
1:C:250:GLN:HE21	1:C:295:SER:CB	1.99	0.74
1:D:250:GLN:NE2	1:D:295:SER:CB	2.49	0.74
1:E:410:SER:O	1:E:411:ILE:HG13	1.85	0.74
1:A:425:LYS:HD2	1:A:429:ASN:ND2	2.01	0.74
1:D:393:MET:SD	1:D:396:VAL:HG11	2.27	0.74
1:D:9:LYS:CD	1:D:9:LYS:H	1.99	0.74
1:E:205:ASN:HA	1:E:224:ILE:HG12	1.70	0.74
1:C:99:ILE:HD11	1:C:375:GLU:HB3	1.68	0.74
1:D:32:ILE:N	1:D:32:ILE:HD12	2.01	0.74
1:D:478:LYS:O	1:D:478:LYS:HG3	1.87	0.74
1:A:261:GLY:HA3	1:E:360:VAL:HG23	1.68	0.74
1:F:393:MET:SD	1:F:396:VAL:HG11	2.27	0.74
1:A:127:ASN:ND2	1:E:257:TRP:CD1	2.56	0.74
1:F:354:ASP:HB2	1:F:357:LYS:HG2	1.69	0.74
1:B:257:TRP:CD1	1:C:127:ASN:ND2	2.56	0.74
1:B:360:VAL:HG23	1:C:261:GLY:HA3	1.69	0.74
1:A:99:ILE:HD11	1:A:375:GLU:HB3	1.68	0.74
1:A:393:MET:SD	1:A:396:VAL:HG11	2.26	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:87:HIS:HE1	1:E:94:LEU:HG	1.48	0.74
1:C:16:PRO:HD2	1:C:17:VAL:H	1.52	0.74
1:E:478:LYS:HG3	1:E:478:LYS:O	1.88	0.74
1:A:101:VAL:HG21	1:A:155:LEU:HD22	1.70	0.73
1:A:252:TYR:CE2	1:A:293:SER:OG	2.41	0.73
1:C:386:VAL:HG13	1:C:402:ILE:CG2	2.18	0.73
1:C:95:VAL:CG1	1:C:400:TRP:HZ2	1.99	0.73
1:A:87:HIS:HE1	1:A:94:LEU:CD1	1.99	0.73
1:F:425:LYS:HD2	1:F:429:ASN:ND2	2.01	0.73
1:E:81:LEU:CD2	1:E:86:VAL:HG11	2.18	0.73
1:F:297:VAL:HG21	1:F:334:THR:CG2	2.15	0.73
1:F:87:HIS:HE1	1:F:94:LEU:HD12	1.54	0.73
1:B:296:LEU:O	1:B:296:LEU:CD1	2.31	0.73
1:B:442:LYS:HD3	1:B:442:LYS:N	2.04	0.73
1:A:32:ILE:N	1:A:32:ILE:HD12	2.04	0.73
1:B:478:LYS:O	1:B:478:LYS:HG3	1.88	0.73
1:C:257:TRP:CD1	1:D:127:ASN:ND2	2.56	0.73
1:C:478:LYS:HG3	1:C:478:LYS:O	1.88	0.73
1:B:32:ILE:HD12	1:B:32:ILE:N	2.03	0.73
1:F:79:PHE:HD2	1:A:80:ALA:N	1.87	0.73
1:A:165:TRP:CE2	1:E:365:MET:SD	2.82	0.73
1:C:32:ILE:N	1:C:32:ILE:HD12	2.03	0.73
1:F:101:VAL:HG21	1:F:155:LEU:HD22	1.70	0.73
1:B:53:ILE:HG13	1:B:53:ILE:O	1.88	0.72
1:F:46:HIS:NE2	1:F:48:TYR:HB2	2.04	0.72
1:A:257:TRP:CD1	1:B:127:ASN:ND2	2.57	0.72
1:A:21:LEU:HD21	1:A:25:THR:HG21	1.70	0.72
1:B:81:LEU:CD2	1:B:86:VAL:HG11	2.19	0.72
1:C:53:ILE:HG13	1:C:53:ILE:O	1.89	0.72
1:C:76:PRO:HG3	1:C:95:VAL:HA	1.70	0.72
1:D:46:HIS:NE2	1:D:48:TYR:HB2	2.05	0.72
1:F:53:ILE:O	1:F:53:ILE:HG13	1.90	0.72
1:B:365:MET:SD	1:C:165:TRP:CE2	2.82	0.72
1:C:252:TYR:CE2	1:C:293:SER:OG	2.42	0.72
1:E:46:HIS:NE2	1:E:48:TYR:HB2	2.05	0.72
1:A:407:PRO:CG	1:A:410:SER:HB2	2.17	0.72
1:F:397:LEU:HD22	1:F:402:ILE:CD1	2.19	0.72
1:C:250:GLN:NE2	1:C:295:SER:CB	2.53	0.72
1:D:361:TYR:CD1	1:E:181:CYS:CB	2.73	0.72
1:B:87:HIS:CE1	1:B:94:LEU:CG	2.72	0.72
1:D:101:VAL:HG21	1:D:155:LEU:HD22	1.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:81:LEU:HD13	1:B:86:VAL:HG11	1.71	0.72
1:D:205:ASN:HA	1:D:224:ILE:HG12	1.71	0.72
1:E:393:MET:SD	1:E:396:VAL:HG11	2.29	0.72
1:F:205:ASN:HA	1:F:224:ILE:HG12	1.71	0.72
1:A:475:THR:O	1:B:312:ARG:HB2	1.90	0.72
1:C:46:HIS:NE2	1:C:48:TYR:HB2	2.05	0.72
1:C:88:ASN:ND2	1:C:89:PRO:N	2.29	0.72
1:C:361:TYR:CD1	1:D:181:CYS:CB	2.71	0.72
1:D:81:LEU:CD2	1:D:86:VAL:HG11	2.19	0.72
1:F:250:GLN:HE21	1:F:295:SER:CB	2.02	0.72
1:B:76:PRO:HG3	1:B:95:VAL:HA	1.71	0.71
1:E:32:ILE:HD12	1:E:32:ILE:N	2.04	0.71
1:E:395:SER:O	1:E:398:GLU:HB2	1.90	0.71
1:C:205:ASN:HA	1:C:224:ILE:HG12	1.72	0.71
1:D:71:ILE:HD12	1:D:71:ILE:N	2.04	0.71
1:B:47:PRO:HG2	1:B:48:TYR:HD1	1.54	0.71
1:C:430:VAL:O	1:C:430:VAL:CG1	2.38	0.71
1:E:76:PRO:HG3	1:E:95:VAL:HA	1.71	0.71
1:C:78:GLN:HG2	1:D:9:LYS:HB3	1.72	0.71
1:F:70:LYS:HE3	1:F:445:ASN:HD21	1.55	0.71
1:B:70:LYS:HE3	1:B:445:ASN:HD21	1.55	0.71
1:C:150:GLN:CG	1:C:249:GLU:HB3	2.18	0.71
1:C:475:THR:O	1:D:312:ARG:HB2	1.90	0.71
1:A:245:PHE:O	1:E:478:LYS:NZ	2.23	0.71
1:D:93:ARG:NE	1:D:402:ILE:HD11	2.05	0.71
1:D:430:VAL:O	1:D:432:PRO:HD3	1.91	0.71
1:A:379:VAL:HG21	1:A:400:TRP:CH2	2.26	0.71
1:F:402:ILE:O	1:B:18:SER:HB3	1.89	0.71
1:B:46:HIS:ND1	1:B:47:PRO:HD2	2.05	0.71
1:C:431:ILE:HG23	1:C:432:PRO:CA	2.21	0.71
1:E:81:LEU:HD13	1:E:86:VAL:HG11	1.73	0.71
1:A:242:MET:HE3	1:A:314:GLN:NE2	2.02	0.71
1:A:361:TYR:CD1	1:B:181:CYS:CB	2.73	0.71
1:C:381:ILE:HG23	1:C:386:VAL:HG22	1.73	0.71
1:A:53:ILE:O	1:A:53:ILE:HG13	1.89	0.71
1:D:53:ILE:O	1:D:53:ILE:HG13	1.88	0.71
1:B:478:LYS:NZ	1:C:245:PHE:O	2.24	0.70
1:C:81:LEU:CD2	1:C:86:VAL:HG11	2.21	0.70
1:C:365:MET:SD	1:D:165:TRP:CE2	2.84	0.70
1:D:365:MET:SD	1:E:165:TRP:CE2	2.85	0.70
1:A:312:ARG:HG3	1:E:475:THR:HB	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:101:VAL:HG21	1:B:155:LEU:HD22	1.71	0.70
1:B:458:GLN:HE22	1:C:20:VAL:H	1.39	0.70
1:F:444:TRP:CE2	1:A:417:ARG:HD2	2.26	0.70
1:A:416:TYR:HB2	1:A:419:ILE:HG12	1.73	0.70
1:C:15:THR:HG22	1:C:17:VAL:HG23	1.71	0.70
1:D:166:THR:O	1:D:184:LEU:HD23	1.92	0.70
1:D:478:LYS:NZ	1:E:245:PHE:O	2.24	0.70
1:A:87:HIS:CE1	1:A:94:LEU:HD11	2.25	0.70
1:D:250:GLN:NE2	1:D:295:SER:OG	2.25	0.70
1:D:81:LEU:HD13	1:D:86:VAL:HG11	1.72	0.70
1:A:381:ILE:HG23	1:A:386:VAL:HG22	1.73	0.70
1:C:70:LYS:HE3	1:C:445:ASN:HD21	1.57	0.70
1:E:53:ILE:O	1:E:53:ILE:HG13	1.89	0.70
1:A:166:THR:O	1:A:184:LEU:HD23	1.92	0.70
1:A:46:HIS:NE2	1:A:48:TYR:HB2	2.07	0.70
1:E:101:VAL:HG21	1:E:155:LEU:HD22	1.73	0.69
1:F:123:LEU:HD11	1:F:132:VAL:HG13	1.74	0.69
1:C:322:TRP:HZ3	1:C:400:TRP:HH2	0.74	0.69
1:F:80:ALA:O	1:F:82:PRO:HD3	1.92	0.69
1:A:46:HIS:HE2	1:A:48:TYR:HB2	1.57	0.69
1:F:87:HIS:ND1	1:F:94:LEU:HD11	2.07	0.69
1:B:205:ASN:HA	1:B:224:ILE:HG12	1.72	0.69
1:C:393:MET:SD	1:C:396:VAL:HB	2.33	0.69
1:A:365:MET:SD	1:B:165:TRP:CE2	2.86	0.69
1:D:76:PRO:HG3	1:D:95:VAL:HA	1.74	0.69
1:E:463:ARG:HH11	1:E:463:ARG:HB2	1.57	0.69
1:A:150:GLN:CG	1:A:249:GLU:HB3	2.20	0.69
1:B:164:TYR:CE2	1:B:187:LYS:CB	2.62	0.69
1:C:81:LEU:CD1	1:C:86:VAL:HG11	2.22	0.69
1:E:381:ILE:HG23	1:E:386:VAL:HG22	1.74	0.69
1:E:192:GLU:OE2	1:E:441:PHE:HB3	1.91	0.69
1:C:478:LYS:NZ	1:D:245:PHE:O	2.26	0.69
1:E:166:THR:O	1:E:184:LEU:HD23	1.93	0.69
1:E:70:LYS:HE3	1:E:445:ASN:HD21	1.57	0.69
1:F:250:GLN:NE2	1:F:295:SER:CB	2.56	0.69
1:F:417:ARG:HB3	1:A:43:THR:HG22	1.75	0.68
1:C:123:LEU:HD11	1:C:132:VAL:HG13	1.75	0.68
1:B:296:LEU:HA	1:C:252:TYR:HB3	1.74	0.68
1:F:379:VAL:HG21	1:F:400:TRP:HH2	1.57	0.68
1:A:393:MET:SD	1:A:396:VAL:HB	2.33	0.68
1:F:459:PHE:CE2	1:A:409:SER:OG	2.41	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:475:THR:HB	1:C:312:ARG:HG3	1.75	0.68
1:C:192:GLU:OE2	1:C:441:PHE:HB3	1.92	0.68
1:A:80:ALA:O	1:A:82:PRO:HD3	1.93	0.68
1:F:424:THR:HG22	1:F:425:LYS:N	2.08	0.68
1:A:252:TYR:HB3	1:E:296:LEU:HA	1.75	0.68
1:A:149:GLN:HE22	1:A:297:VAL:CG2	2.07	0.68
1:B:166:THR:O	1:B:184:LEU:HD23	1.93	0.68
1:D:192:GLU:OE2	1:D:441:PHE:HB3	1.93	0.68
1:E:95:VAL:HG12	1:E:400:TRP:HH2	1.56	0.68
1:A:469:GLN:HE21	1:A:469:GLN:HA	1.58	0.68
1:A:478:LYS:HG3	1:A:478:LYS:O	1.92	0.68
1:B:303:ILE:O	1:B:303:ILE:HG13	1.94	0.68
1:B:381:ILE:HG23	1:B:386:VAL:HG22	1.75	0.68
1:B:192:GLU:OE2	1:B:441:PHE:HB3	1.94	0.68
1:D:153:LEU:HG	1:D:330:VAL:HG22	1.76	0.68
1:D:88:ASN:HD22	1:D:89:PRO:N	1.91	0.68
1:F:412:LEU:CD2	1:A:40:ARG:HH21	2.06	0.68
1:A:424:THR:HG22	1:A:425:LYS:N	2.08	0.68
1:D:463:ARG:HH11	1:D:463:ARG:HB2	1.59	0.68
1:E:123:LEU:HD11	1:E:132:VAL:HG13	1.75	0.68
1:C:166:THR:O	1:C:184:LEU:HD23	1.93	0.68
1:F:416:TYR:HB2	1:F:419:ILE:HG12	1.75	0.68
1:A:136:THR:CG2	1:A:137:THR:H	2.07	0.67
1:A:463:ARG:HH11	1:A:463:ARG:HB2	1.58	0.67
1:B:123:LEU:HD11	1:B:132:VAL:HG13	1.75	0.67
1:D:145:LEU:HD23	1:D:217:PRO:HG3	1.76	0.67
1:F:166:THR:O	1:F:184:LEU:HD23	1.94	0.67
1:A:123:LEU:HD11	1:A:132:VAL:HG13	1.75	0.67
1:C:145:LEU:HD23	1:C:217:PRO:HG3	1.76	0.67
1:C:149:GLN:HE22	1:C:297:VAL:CG2	2.07	0.67
1:D:381:ILE:HG23	1:D:386:VAL:HG22	1.76	0.67
1:E:136:THR:CG2	1:E:137:THR:H	2.07	0.67
1:E:149:GLN:HE22	1:E:297:VAL:CG2	2.08	0.67
1:F:145:LEU:HD23	1:F:217:PRO:HG3	1.76	0.67
1:F:460:PRO:HA	1:F:463:ARG:HH12	1.59	0.67
1:A:460:PRO:HA	1:A:463:ARG:HH12	1.59	0.67
1:B:393:MET:SD	1:B:396:VAL:HB	2.34	0.67
1:C:393:MET:HE2	1:C:396:VAL:H	1.59	0.67
1:D:393:MET:HE2	1:D:396:VAL:H	1.58	0.67
1:E:145:LEU:HD23	1:E:217:PRO:HG3	1.76	0.67
1:D:10:LEU:N	1:D:10:LEU:HD12	2.09	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:407:PRO:CG	1:F:410:SER:CB	2.67	0.67
1:A:58:VAL:HG11	1:A:363:ARG:HH12	1.60	0.67
1:D:123:LEU:HD11	1:D:132:VAL:HG13	1.75	0.67
1:E:303:ILE:O	1:E:303:ILE:HG13	1.93	0.67
1:C:463:ARG:HB2	1:C:463:ARG:HH11	1.60	0.67
1:D:393:MET:SD	1:D:396:VAL:HB	2.34	0.67
1:F:192:GLU:OE2	1:F:441:PHE:HB3	1.94	0.67
1:F:389:LEU:HB2	1:F:397:LEU:HD21	1.75	0.67
1:A:303:ILE:HG13	1:A:303:ILE:O	1.94	0.67
1:C:404:VAL:HG12	1:C:406:PRO:HD2	1.76	0.67
1:C:431:ILE:HG23	1:C:432:PRO:HB3	1.77	0.67
1:F:393:MET:SD	1:F:396:VAL:HB	2.34	0.67
1:B:463:ARG:HB2	1:B:463:ARG:HH11	1.59	0.67
1:D:252:TYR:CE2	1:D:293:SER:OG	2.44	0.67
1:D:303:ILE:O	1:D:303:ILE:HG13	1.94	0.67
1:F:381:ILE:HG23	1:F:386:VAL:HG22	1.77	0.67
1:C:78:GLN:HG2	1:D:9:LYS:CB	2.24	0.67
1:A:296:LEU:HD12	1:A:296:LEU:C	2.14	0.66
1:D:257:TRP:CD1	1:E:127:ASN:ND2	2.62	0.66
1:F:463:ARG:HB2	1:F:463:ARG:HH11	1.60	0.66
1:A:389:LEU:HB2	1:A:397:LEU:HD21	1.77	0.66
1:C:303:ILE:O	1:C:303:ILE:HG13	1.94	0.66
1:D:339:LEU:HB3	1:D:363:ARG:O	1.95	0.66
1:A:171:CYS:HB3	1:A:173:THR:HG22	1.76	0.66
1:A:192:GLU:OE2	1:A:441:PHE:HB3	1.94	0.66
1:C:389:LEU:HB2	1:C:397:LEU:HD21	1.78	0.66
1:E:393:MET:SD	1:E:396:VAL:HB	2.34	0.66
1:F:149:GLN:HE22	1:F:297:VAL:CG2	2.08	0.66
1:F:150:GLN:CG	1:F:249:GLU:HB3	2.20	0.66
1:C:16:PRO:CD	1:C:17:VAL:N	2.59	0.66
1:D:460:PRO:HA	1:D:463:ARG:HH12	1.59	0.66
1:A:145:LEU:HD23	1:A:217:PRO:HG3	1.78	0.66
1:B:149:GLN:HE22	1:B:297:VAL:CG2	2.07	0.66
1:E:250:GLN:NE2	1:E:295:SER:OG	2.28	0.66
1:B:460:PRO:HA	1:B:463:ARG:HH12	1.60	0.66
1:D:88:ASN:ND2	1:D:89:PRO:CD	2.13	0.66
1:D:9:LYS:N	1:D:9:LYS:HD3	2.04	0.66
1:E:87:HIS:CE1	1:E:94:LEU:CD1	2.78	0.66
1:A:405:GLN:CB	1:A:406:PRO:CD	2.71	0.66
1:B:158:THR:HG22	1:B:159:PRO:CD	2.25	0.66
1:C:136:THR:CG2	1:C:137:THR:H	2.08	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:386:VAL:CG1	1:C:402:ILE:CG2	2.74	0.66
1:C:95:VAL:HG11	1:C:400:TRP:HZ2	1.59	0.66
1:F:427:ALA:O	1:F:430:VAL:HG23	1.96	0.66
1:D:158:THR:HG22	1:D:159:PRO:CD	2.25	0.66
1:D:475:THR:HB	1:E:312:ARG:HG3	1.76	0.66
1:E:411:ILE:HG22	1:E:412:LEU:H	1.60	0.65
1:F:79:PHE:CD2	1:A:79:PHE:HA	2.32	0.65
1:B:136:THR:CG2	1:B:137:THR:H	2.07	0.65
1:B:408:THR:HG22	1:B:408:THR:O	1.95	0.65
1:C:460:PRO:HA	1:C:463:ARG:HH12	1.59	0.65
1:F:303:ILE:HG13	1:F:303:ILE:O	1.93	0.65
1:E:92:GLU:OE2	1:E:380:GLU:HG2	1.95	0.65
1:D:71:ILE:CG2	1:D:448:LEU:HD12	2.27	0.65
1:F:393:MET:HE2	1:F:396:VAL:H	1.61	0.65
1:A:181:CYS:HB2	1:E:361:TYR:CE1	2.32	0.65
1:A:393:MET:HE2	1:A:396:VAL:H	1.61	0.65
1:C:296:LEU:HA	1:D:252:TYR:HB3	1.78	0.65
1:B:122:LEU:O	1:B:123:LEU:HD23	1.96	0.65
1:B:145:LEU:HD23	1:B:217:PRO:HG3	1.77	0.65
1:C:122:LEU:O	1:C:123:LEU:HD23	1.96	0.65
1:F:71:ILE:CG2	1:F:448:LEU:HD12	2.27	0.65
1:B:77:ASN:OD1	1:B:93:ARG:HD2	1.97	0.65
1:C:466:LEU:HB3	1:C:471:ALA:O	1.97	0.65
1:D:429:ASN:OD1	1:D:430:VAL:N	2.30	0.65
1:F:122:LEU:O	1:F:123:LEU:HD23	1.96	0.65
1:F:418:TYR:CD1	1:A:59:PRO:HG3	2.32	0.65
1:A:427:ALA:O	1:A:430:VAL:HG23	1.96	0.65
1:A:71:ILE:CG2	1:A:448:LEU:HD12	2.26	0.65
1:A:81:LEU:HD13	1:A:86:VAL:HG11	1.79	0.65
1:C:158:THR:HG22	1:C:159:PRO:CD	2.26	0.65
1:D:150:GLN:CG	1:D:249:GLU:HB3	2.20	0.65
1:E:122:LEU:O	1:E:123:LEU:HD23	1.97	0.65
1:A:81:LEU:HD13	1:A:86:VAL:CG1	2.27	0.65
1:D:149:GLN:HE22	1:D:297:VAL:CG2	2.08	0.65
1:B:455:ASP:HB3	1:C:19:LYS:HZ2	1.58	0.64
1:D:122:LEU:O	1:D:123:LEU:HD23	1.96	0.64
1:F:76:PRO:HG3	1:F:95:VAL:HA	1.80	0.64
1:E:164:TYR:CE2	1:E:187:LYS:CB	2.56	0.64
1:E:87:HIS:HE1	1:E:94:LEU:CD1	2.10	0.64
1:C:401:GLU:O	1:C:401:GLU:HG3	1.98	0.64
1:E:460:PRO:HA	1:E:463:ARG:HH12	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:91:LYS:HB2	1:A:92:GLU:OE1	1.98	0.64
1:B:81:LEU:HD13	1:B:86:VAL:CG1	2.28	0.64
1:C:393:MET:HE1	1:C:396:VAL:CB	2.20	0.64
1:C:5:GLN:HA	1:C:5:GLN:OE1	1.97	0.64
1:F:154:LEU:C	1:F:154:LEU:HD12	2.17	0.64
1:C:296:LEU:CD1	1:C:296:LEU:O	2.35	0.64
1:C:71:ILE:CG2	1:C:448:LEU:HD12	2.28	0.64
1:A:403:GLY:O	1:A:404:VAL:HG23	1.98	0.64
1:B:339:LEU:HB3	1:B:363:ARG:O	1.97	0.64
1:C:233:MET:HB2	1:C:242:MET:HE1	1.79	0.64
1:E:71:ILE:CG2	1:E:448:LEU:HD12	2.28	0.64
1:C:51:VAL:HG12	1:C:52:SER:N	2.13	0.64
1:C:8:GLN:HA	1:C:8:GLN:OE1	1.98	0.64
1:D:81:LEU:HD13	1:D:86:VAL:CG1	2.28	0.64
1:E:20:VAL:HG22	1:E:21:LEU:N	2.13	0.64
1:E:65:GLN:HA	1:E:195:ASP:O	1.98	0.64
1:A:122:LEU:O	1:A:123:LEU:HD23	1.96	0.64
1:C:148:LYS:HG3	1:C:251:VAL:HG21	1.80	0.64
1:C:16:PRO:HG2	1:C:18:SER:H	1.62	0.64
1:D:436:ASP:O	1:D:437:PRO:C	2.36	0.64
1:F:82:PRO:HG2	1:A:86:VAL:HG13	1.78	0.64
1:C:417:ARG:HH11	1:C:417:ARG:HG3	1.63	0.64
1:E:77:ASN:OD1	1:E:93:ARG:HD2	1.98	0.64
1:F:156:GLY:CA	1:F:243:PHE:HE1	1.97	0.64
1:F:65:GLN:HA	1:F:195:ASP:O	1.98	0.64
1:C:475:THR:HB	1:D:312:ARG:HG3	1.80	0.63
1:A:158:THR:HG22	1:A:159:PRO:CD	2.26	0.63
1:F:252:TYR:O	1:F:293:SER:HB3	1.99	0.63
1:F:158:THR:HG22	1:F:159:PRO:CD	2.25	0.63
1:F:164:TYR:CE2	1:F:187:LYS:CB	2.58	0.63
1:B:150:GLN:CG	1:B:249:GLU:HB3	2.20	0.63
1:E:3:LEU:HD12	1:E:3:LEU:C	2.18	0.63
1:F:79:PHE:HA	1:A:79:PHE:CD2	2.33	0.63
1:C:47:PRO:HB3	1:C:62:SER:HA	1.80	0.63
1:E:22:CYS:HA	1:E:316:MET:HB3	1.80	0.63
1:F:136:THR:CG2	1:F:137:THR:H	2.07	0.63
1:B:217:PRO:HD2	1:B:220:ILE:HG21	1.81	0.63
1:C:171:CYS:HB2	1:C:173:THR:HG22	1.80	0.63
1:C:81:LEU:HD22	1:C:86:VAL:CG1	2.27	0.63
1:D:20:VAL:HG11	1:D:237:ALA:HB1	1.80	0.63
1:A:77:ASN:HD21	1:A:93:ARG:HH11	1.46	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:47:PRO:HB3	1:D:62:SER:HA	1.80	0.63
1:D:360:VAL:CG1	1:E:287:VAL:HG21	2.29	0.63
1:A:91:LYS:CB	1:A:92:GLU:OE1	2.47	0.62
1:B:203:ALA:HB1	1:B:225:CYS:O	1.99	0.62
1:E:410:SER:O	1:E:411:ILE:CG1	2.46	0.62
1:A:360:VAL:HG11	1:B:287:VAL:HG21	1.81	0.62
1:A:379:VAL:HG21	1:A:400:TRP:HH2	1.62	0.62
1:A:60:LYS:NZ	1:A:223:GLU:OE2	2.32	0.62
1:C:393:MET:CE	1:C:396:VAL:CB	2.72	0.62
1:F:51:VAL:HG12	1:F:52:SER:N	2.14	0.62
1:F:86:VAL:HA	1:A:82:PRO:HB2	1.81	0.62
1:A:403:GLY:O	1:A:404:VAL:CG2	2.47	0.62
1:B:71:ILE:CG2	1:B:448:LEU:HD12	2.29	0.62
1:E:81:LEU:HD13	1:E:86:VAL:CG1	2.29	0.62
1:A:437:PRO:HG2	1:A:438:TYR:CE1	2.34	0.62
1:D:51:VAL:HG12	1:D:52:SER:N	2.14	0.62
1:F:417:ARG:HD2	1:A:444:TRP:CE2	2.34	0.62
1:C:65:GLN:HA	1:C:195:ASP:O	1.99	0.62
1:D:296:LEU:HA	1:E:252:TYR:HB3	1.82	0.62
1:A:360:VAL:CG1	1:B:287:VAL:HG21	2.30	0.62
1:B:318:ASN:HD22	1:B:318:ASN:N	1.98	0.62
1:C:242:MET:HE3	1:C:314:GLN:NE2	2.06	0.62
1:C:360:VAL:HG11	1:D:287:VAL:HG21	1.82	0.62
1:E:217:PRO:HD2	1:E:220:ILE:HG21	1.81	0.62
1:E:51:VAL:HG12	1:E:52:SER:N	2.15	0.62
1:E:47:PRO:HB3	1:E:62:SER:HA	1.81	0.62
1:E:88:ASN:HD21	1:E:89:PRO:HD2	1.56	0.62
1:A:65:GLN:HA	1:A:195:ASP:O	1.99	0.62
1:E:164:TYR:HE2	1:E:187:LYS:HB3	1.63	0.62
1:E:150:GLN:CG	1:E:249:GLU:HB3	2.20	0.62
1:A:51:VAL:HG12	1:A:52:SER:N	2.14	0.62
1:B:92:GLU:OE2	1:B:380:GLU:HG2	1.99	0.62
1:E:158:THR:HG22	1:E:159:PRO:CD	2.27	0.62
1:A:217:PRO:HD2	1:A:220:ILE:HG21	1.81	0.62
1:A:318:ASN:HD22	1:A:318:ASN:N	1.97	0.62
1:C:318:ASN:N	1:C:318:ASN:HD22	1.97	0.62
1:C:339:LEU:HB3	1:C:363:ARG:O	2.00	0.62
1:D:65:GLN:HA	1:D:195:ASP:O	1.99	0.62
1:E:122:LEU:HD21	1:E:139:ASP:OD2	2.00	0.62
1:E:171:CYS:HB2	1:E:173:THR:HG22	1.81	0.62
1:F:437:PRO:HG2	1:F:438:TYR:CE1	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:47:PRO:HB3	1:F:62:SER:HA	1.81	0.62
1:F:64:ASN:HD22	1:F:64:ASN:N	1.98	0.62
1:A:220:ILE:O	1:A:223:GLU:HB2	2.00	0.62
1:E:148:LYS:HG3	1:E:251:VAL:HG21	1.82	0.62
1:A:478:LYS:NZ	1:B:245:PHE:O	2.33	0.61
1:B:88:ASN:HD21	1:B:89:PRO:HD2	1.54	0.61
1:D:217:PRO:HD2	1:D:220:ILE:HG21	1.82	0.61
1:F:81:LEU:HD13	1:F:86:VAL:CG1	2.30	0.61
1:A:396:VAL:O	1:A:400:TRP:HB2	2.00	0.61
1:A:47:PRO:HB3	1:A:62:SER:HA	1.81	0.61
1:B:361:TYR:CE1	1:C:181:CYS:CB	2.82	0.61
1:D:148:LYS:HG3	1:D:251:VAL:HG21	1.82	0.61
1:F:403:GLY:O	1:F:404:VAL:HG23	1.99	0.61
1:B:51:VAL:HG12	1:B:52:SER:N	2.14	0.61
1:C:91:LYS:O	1:C:381:ILE:HB	2.00	0.61
1:F:403:GLY:O	1:F:404:VAL:CG2	2.48	0.61
1:B:65:GLN:HA	1:B:195:ASP:O	2.00	0.61
1:D:81:LEU:HD22	1:D:86:VAL:CG1	2.27	0.61
1:F:217:PRO:HD2	1:F:220:ILE:HG21	1.82	0.61
1:B:148:LYS:HG3	1:B:251:VAL:HG21	1.83	0.61
1:D:122:LEU:HD21	1:D:139:ASP:OD2	2.00	0.61
1:A:252:TYR:O	1:A:293:SER:HB3	2.00	0.61
1:A:393:MET:CE	1:A:396:VAL:CB	2.74	0.61
1:B:254:ARG:HD3	1:B:293:SER:HB3	1.81	0.61
1:D:136:THR:CG2	1:D:137:THR:H	2.08	0.61
1:D:88:ASN:HD21	1:D:89:PRO:HD2	1.54	0.61
1:F:122:LEU:HD21	1:F:139:ASP:OD2	2.01	0.61
1:A:203:ALA:HB1	1:A:225:CYS:O	2.01	0.61
1:A:30:LYS:HB3	1:A:32:ILE:HD13	1.83	0.61
1:C:431:ILE:HG23	1:C:432:PRO:CB	2.31	0.61
1:D:30:LYS:HB3	1:D:32:ILE:HD13	1.83	0.61
1:F:154:LEU:CD1	1:F:329:THR:N	2.64	0.61
1:D:360:VAL:HG11	1:E:287:VAL:HG21	1.81	0.61
1:E:263:GLU:OE2	1:E:285:PRO:HA	2.01	0.61
1:A:287:VAL:HG21	1:E:360:VAL:HG11	1.83	0.61
1:F:148:LYS:HG3	1:F:251:VAL:HG21	1.83	0.61
1:F:203:ALA:HB1	1:F:225:CYS:O	2.00	0.61
1:F:393:MET:SD	1:F:396:VAL:HG12	2.41	0.61
1:F:81:LEU:HD13	1:F:86:VAL:HG11	1.81	0.61
1:A:405:GLN:HB2	1:A:406:PRO:CD	2.06	0.60
1:B:455:ASP:CG	1:C:19:LYS:HZ3	2.03	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:203:ALA:HB1	1:C:225:CYS:O	2.01	0.60
1:B:122:LEU:HD21	1:B:139:ASP:OD2	2.01	0.60
1:B:393:MET:SD	1:B:396:VAL:HG12	2.41	0.60
1:C:296:LEU:C	1:C:296:LEU:CD1	2.70	0.60
1:C:6:GLN:HE21	1:C:6:GLN:CA	2.13	0.60
1:C:76:PRO:HD2	1:C:324:ASN:OD1	2.00	0.60
1:D:220:ILE:HD13	1:D:220:ILE:O	2.01	0.60
1:D:296:LEU:C	1:D:296:LEU:CD1	2.70	0.60
1:A:148:LYS:HG3	1:A:251:VAL:HG21	1.83	0.60
1:B:70:LYS:CE	1:B:445:ASN:ND2	2.63	0.60
1:D:318:ASN:N	1:D:318:ASN:HD22	1.97	0.60
1:D:341:ILE:HG23	1:E:209:ILE:HG23	1.83	0.60
1:B:263:GLU:OE2	1:B:285:PRO:HA	2.00	0.60
1:E:64:ASN:N	1:E:64:ASN:HD22	1.98	0.60
1:F:171:CYS:HB2	1:F:173:THR:HG22	1.83	0.60
1:A:263:GLU:OE2	1:A:285:PRO:HA	2.00	0.60
1:B:393:MET:CE	1:B:396:VAL:CB	2.74	0.60
1:B:400:TRP:O	1:B:401:GLU:HB2	2.01	0.60
1:C:122:LEU:HD21	1:C:139:ASP:OD2	2.01	0.60
1:C:83:ASP:OD1	1:C:83:ASP:N	2.34	0.60
1:D:251:VAL:HG22	1:D:252:TYR:N	2.17	0.60
1:D:402:ILE:O	1:D:402:ILE:HG22	2.00	0.60
1:E:393:MET:SD	1:E:396:VAL:HG12	2.40	0.60
1:C:220:ILE:HD13	1:C:220:ILE:O	2.02	0.60
1:C:393:MET:CG	1:C:396:VAL:CG1	2.80	0.60
1:E:203:ALA:HB1	1:E:225:CYS:O	2.00	0.60
1:F:397:LEU:HD22	1:F:402:ILE:HD13	1.82	0.60
1:F:70:LYS:CE	1:F:445:ASN:ND2	2.64	0.60
1:C:252:TYR:O	1:C:293:SER:HB3	2.02	0.60
1:C:77:ASN:OD1	1:C:93:ARG:HD2	2.02	0.60
1:C:360:VAL:CG1	1:D:287:VAL:HG21	2.31	0.60
1:D:393:MET:CE	1:D:396:VAL:CB	2.75	0.60
1:E:251:VAL:HG22	1:E:252:TYR:N	2.17	0.60
1:F:193:ASP:HB2	1:F:443:PHE:CA	2.31	0.60
1:A:322:TRP:O	1:A:323:ASN:HB2	2.01	0.60
1:B:64:ASN:N	1:B:64:ASN:HD22	1.99	0.60
1:C:94:LEU:CD2	1:C:378:SER:HB3	2.32	0.60
1:D:400:TRP:HA	1:D:400:TRP:HE3	1.67	0.60
1:E:95:VAL:HG23	1:E:377:CYS:SG	2.42	0.60
1:F:393:MET:CE	1:F:396:VAL:CB	2.75	0.60
1:F:405:GLN:CB	1:F:406:PRO:CD	2.73	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:71:ILE:CD1	1:F:71:ILE:N	2.65	0.60
1:A:122:LEU:HD21	1:A:139:ASP:OD2	2.01	0.60
1:E:252:TYR:O	1:E:293:SER:HB3	2.01	0.60
1:E:317:ASN:HD21	1:E:320:ILE:H	1.49	0.60
1:E:70:LYS:CE	1:E:445:ASN:ND2	2.65	0.60
1:F:251:VAL:HG22	1:F:252:TYR:N	2.16	0.60
1:A:397:LEU:CB	1:A:402:ILE:HD11	2.27	0.60
1:D:263:GLU:OE2	1:D:285:PRO:HA	2.01	0.60
1:D:9:LYS:O	1:D:9:LYS:HG2	2.01	0.60
1:F:220:ILE:O	1:F:220:ILE:HD13	2.01	0.60
1:A:251:VAL:HG22	1:A:252:TYR:N	2.17	0.59
1:C:167:THR:HG23	1:C:182:PRO:HB2	1.84	0.59
1:C:263:GLU:OE2	1:C:285:PRO:HA	2.02	0.59
1:C:250:GLN:NE2	1:C:295:SER:OG	2.35	0.59
1:C:405:GLN:HB2	1:C:406:PRO:CD	2.09	0.59
1:D:64:ASN:HD22	1:D:64:ASN:N	1.99	0.59
1:E:71:ILE:N	1:E:71:ILE:CD1	2.65	0.59
1:A:171:CYS:CB	1:A:173:THR:HG22	2.31	0.59
1:A:393:MET:SD	1:A:396:VAL:CB	2.90	0.59
1:B:317:ASN:HD21	1:B:320:ILE:H	1.50	0.59
1:E:296:LEU:C	1:E:296:LEU:CD1	2.70	0.59
1:A:220:ILE:O	1:A:220:ILE:HD13	2.02	0.59
1:A:87:HIS:HE1	1:A:94:LEU:HD12	1.65	0.59
1:C:193:ASP:HB2	1:C:443:PHE:CA	2.32	0.59
1:C:217:PRO:HD2	1:C:220:ILE:HG21	1.83	0.59
1:D:203:ALA:HB1	1:D:225:CYS:O	2.02	0.59
1:E:167:THR:HG23	1:E:182:PRO:HB2	1.84	0.59
1:F:82:PRO:O	1:F:83:ASP:OD2	2.21	0.59
1:A:268:THR:HG22	1:A:269:THR:N	2.18	0.59
1:C:322:TRP:O	1:C:323:ASN:HB2	2.01	0.59
1:C:70:LYS:CE	1:C:445:ASN:ND2	2.65	0.59
1:E:83:ASP:N	1:E:83:ASP:OD1	2.35	0.59
1:A:287:VAL:HG13	1:E:362:HIS:CE1	2.38	0.59
1:A:71:ILE:N	1:A:71:ILE:CD1	2.65	0.59
1:B:360:VAL:HG11	1:C:287:VAL:HG21	1.84	0.59
1:C:251:VAL:HG22	1:C:252:TYR:N	2.18	0.59
1:C:92:GLU:OE2	1:C:380:GLU:HG2	2.03	0.59
1:C:87:HIS:CE1	1:C:94:LEU:HD11	2.36	0.59
1:F:318:ASN:HD22	1:F:318:ASN:N	1.97	0.59
1:A:233:MET:HB2	1:A:242:MET:HE1	1.84	0.59
1:A:82:PRO:O	1:A:83:ASP:OD2	2.21	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:393:MET:SD	1:C:396:VAL:CB	2.89	0.59
1:D:94:LEU:CD2	1:D:378:SER:HB3	2.33	0.59
1:E:130:ARG:HG2	1:E:131:LYS:N	2.18	0.59
1:E:268:THR:HG22	1:E:269:THR:N	2.18	0.59
1:E:318:ASN:N	1:E:318:ASN:HD22	1.97	0.59
1:F:155:LEU:C	1:F:243:PHE:HD1	2.06	0.59
1:A:317:ASN:HD21	1:A:320:ILE:H	1.50	0.59
1:B:393:MET:CG	1:B:396:VAL:CG1	2.81	0.59
1:D:400:TRP:CE3	1:D:400:TRP:HA	2.37	0.59
1:D:466:LEU:HB3	1:D:471:ALA:O	2.02	0.59
1:F:263:GLU:OE2	1:F:285:PRO:HA	2.02	0.59
1:B:30:LYS:HB3	1:B:32:ILE:HD13	1.84	0.59
1:C:405:GLN:CB	1:C:406:PRO:CD	2.76	0.59
1:D:87:HIS:HE1	1:D:94:LEU:HD12	1.61	0.59
1:A:130:ARG:HG2	1:A:131:LYS:N	2.18	0.59
1:B:130:ARG:HG2	1:B:131:LYS:N	2.17	0.59
1:A:341:ILE:HG23	1:B:209:ILE:HG23	1.85	0.59
1:D:296:LEU:O	1:D:296:LEU:CD1	2.35	0.59
1:D:322:TRP:O	1:D:323:ASN:HB2	2.02	0.59
1:F:393:MET:CG	1:F:396:VAL:CG1	2.81	0.59
1:A:361:TYR:CE1	1:B:181:CYS:CB	2.86	0.59
1:B:361:TYR:CE1	1:C:181:CYS:CA	2.86	0.59
1:C:64:ASN:HD22	1:C:64:ASN:N	2.00	0.59
1:D:361:TYR:CE1	1:E:181:CYS:CB	2.86	0.59
1:F:30:LYS:HB3	1:F:32:ILE:HD13	1.85	0.59
1:A:65:GLN:HG2	1:A:196:MET:CE	2.33	0.58
1:B:22:CYS:HA	1:B:316:MET:HB3	1.84	0.58
1:B:83:ASP:OD1	1:B:83:ASP:N	2.34	0.58
1:C:15:THR:HG21	1:C:17:VAL:HG23	1.83	0.58
1:C:30:LYS:HB3	1:C:32:ILE:HD13	1.84	0.58
1:D:130:ARG:HG2	1:D:131:LYS:N	2.18	0.58
1:D:87:HIS:ND1	1:D:94:LEU:HD21	2.17	0.58
1:D:362:HIS:CE1	1:E:287:VAL:HG13	2.37	0.58
1:E:466:LEU:HB3	1:E:471:ALA:O	2.03	0.58
1:F:130:ARG:HG2	1:F:131:LYS:N	2.18	0.58
1:F:296:LEU:C	1:F:296:LEU:CD1	2.70	0.58
1:A:405:GLN:N	1:A:405:GLN:OE1	2.30	0.58
1:A:475:THR:HB	1:B:312:ARG:HG3	1.85	0.58
1:A:64:ASN:HD22	1:A:64:ASN:N	2.01	0.58
1:B:220:ILE:HD13	1:B:220:ILE:O	2.04	0.58
1:B:268:THR:HG22	1:B:269:THR:N	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:46:HIS:HD2	1:B:49:TYR:H	1.49	0.58
1:C:322:TRP:CE3	1:C:400:TRP:CH2	2.90	0.58
1:D:167:THR:HG23	1:D:182:PRO:HB2	1.84	0.58
1:D:393:MET:SD	1:D:396:VAL:CB	2.91	0.58
1:D:83:ASP:OD1	1:D:83:ASP:N	2.36	0.58
1:F:94:LEU:CD2	1:F:378:SER:HB3	2.32	0.58
1:F:424:THR:CG2	1:F:425:LYS:N	2.66	0.58
1:F:65:GLN:HG2	1:F:196:MET:CE	2.33	0.58
1:A:149:GLN:HE22	1:A:297:VAL:HG23	1.67	0.58
1:B:362:HIS:CE1	1:C:287:VAL:HG13	2.37	0.58
1:C:65:GLN:HG2	1:C:196:MET:CE	2.33	0.58
1:E:11:TYR:O	1:E:12:LEU:HG	2.03	0.58
1:E:65:GLN:HG2	1:E:196:MET:CE	2.32	0.58
1:F:317:ASN:HD21	1:F:320:ILE:H	1.50	0.58
1:F:393:MET:SD	1:F:396:VAL:CB	2.91	0.58
1:B:251:VAL:HG22	1:B:252:TYR:N	2.17	0.58
1:C:268:THR:HG22	1:C:269:THR:N	2.18	0.58
1:E:220:ILE:HD13	1:E:220:ILE:O	2.03	0.58
1:B:151:GLN:NE2	1:B:302:GLN:HA	2.09	0.58
1:B:71:ILE:CD1	1:B:71:ILE:N	2.65	0.58
1:D:317:ASN:HD21	1:D:320:ILE:H	1.50	0.58
1:E:393:MET:CE	1:E:396:VAL:CB	2.78	0.58
1:A:87:HIS:ND1	1:A:94:LEU:HD11	2.18	0.58
1:B:393:MET:SD	1:B:396:VAL:CB	2.91	0.58
1:C:128:VAL:HG12	1:C:128:VAL:O	2.03	0.58
1:E:393:MET:SD	1:E:396:VAL:CB	2.91	0.58
1:A:424:THR:CG2	1:A:425:LYS:N	2.67	0.58
1:A:469:GLN:NE2	1:A:469:GLN:HA	2.18	0.58
1:F:418:TYR:HD1	1:A:59:PRO:HG3	1.66	0.58
1:C:130:ARG:HG2	1:C:131:LYS:N	2.18	0.58
1:C:305:ASN:N	1:C:305:ASN:ND2	2.52	0.58
1:D:305:ASN:N	1:D:305:ASN:ND2	2.51	0.58
1:E:87:HIS:HE1	1:E:94:LEU:CG	2.06	0.58
1:A:181:CYS:HB2	1:E:361:TYR:CD1	2.39	0.58
1:A:94:LEU:CD2	1:A:378:SER:HB3	2.32	0.58
1:B:193:ASP:HB2	1:B:443:PHE:CA	2.32	0.58
1:C:361:TYR:CE1	1:D:181:CYS:CB	2.85	0.58
1:D:252:TYR:O	1:D:293:SER:HB3	2.03	0.58
1:A:164:TYR:HE2	1:A:187:LYS:HB3	1.64	0.58
1:A:466:LEU:HB3	1:A:471:ALA:O	2.04	0.58
1:C:362:HIS:CE1	1:D:287:VAL:HG13	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:322:TRP:O	1:F:323:ASN:HB2	2.03	0.58
1:A:95:VAL:HG23	1:A:377:CYS:SG	2.43	0.58
1:A:193:ASP:HB2	1:A:443:PHE:CA	2.31	0.58
1:B:217:PRO:HD2	1:B:220:ILE:CG2	2.34	0.58
1:B:296:LEU:CD1	1:B:296:LEU:C	2.71	0.58
1:B:418:TYR:C	1:B:420:GLU:H	2.07	0.58
1:B:65:GLN:HG2	1:B:196:MET:CE	2.34	0.58
1:C:11:TYR:O	1:C:12:LEU:HD23	2.03	0.58
1:D:107:GLN:OE1	1:D:108:PRO:HD3	2.04	0.58
1:E:128:VAL:O	1:E:128:VAL:HG12	2.04	0.58
1:E:95:VAL:HG12	1:E:400:TRP:CH2	2.37	0.58
1:F:85:THR:HB	1:A:83:ASP:CG	2.23	0.58
1:A:305:ASN:ND2	1:A:305:ASN:N	2.52	0.57
1:B:167:THR:HG23	1:B:182:PRO:HB2	1.85	0.57
1:C:431:ILE:CG2	1:C:432:PRO:HA	2.28	0.57
1:D:268:THR:HG22	1:D:269:THR:N	2.19	0.57
1:E:30:LYS:HB3	1:E:32:ILE:HD13	1.86	0.57
1:F:268:THR:HG22	1:F:269:THR:N	2.19	0.57
1:F:393:MET:HE1	1:F:396:VAL:CB	2.21	0.57
1:A:11:TYR:O	1:E:80:ALA:HB2	2.04	0.57
1:B:95:VAL:HG23	1:B:377:CYS:SG	2.44	0.57
1:F:86:VAL:HG13	1:A:82:PRO:CG	2.34	0.57
1:A:128:VAL:HG12	1:A:128:VAL:O	2.04	0.57
1:B:149:GLN:HE22	1:B:297:VAL:HG23	1.69	0.57
1:B:322:TRP:O	1:B:323:ASN:HB2	2.03	0.57
1:C:17:VAL:CG1	1:C:17:VAL:O	2.51	0.57
1:C:266:ALA:HB1	1:C:267:PRO:HD2	1.87	0.57
1:E:305:ASN:ND2	1:E:305:ASN:N	2.52	0.57
1:E:76:PRO:HD2	1:E:324:ASN:OD1	2.04	0.57
1:F:466:LEU:HB3	1:F:471:ALA:O	2.04	0.57
1:A:362:HIS:O	1:A:363:ARG:HD3	2.04	0.57
1:B:128:VAL:HG12	1:B:128:VAL:O	2.04	0.57
1:D:65:GLN:HG2	1:D:196:MET:CE	2.34	0.57
1:D:87:HIS:ND1	1:D:94:LEU:CG	2.67	0.57
1:F:149:GLN:HE22	1:F:297:VAL:HG23	1.69	0.57
1:A:393:MET:CG	1:A:396:VAL:CG1	2.80	0.57
1:C:149:GLN:HE22	1:C:297:VAL:HG23	1.68	0.57
1:C:16:PRO:C	1:C:18:SER:N	2.55	0.57
1:C:407:PRO:CG	1:C:410:SER:CB	2.60	0.57
1:E:217:PRO:HD2	1:E:220:ILE:CG2	2.33	0.57
1:E:91:LYS:O	1:E:381:ILE:HB	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:419:ILE:HG22	1:F:419:ILE:O	2.04	0.57
1:B:266:ALA:HB1	1:B:267:PRO:HD2	1.87	0.57
1:B:35:HIS:NE2	1:B:37:GLU:HB2	2.19	0.57
1:F:412:LEU:HD21	1:A:40:ARG:HE	1.69	0.57
1:F:86:VAL:N	1:A:83:ASP:OD1	2.38	0.57
1:B:91:LYS:O	1:B:381:ILE:HB	2.05	0.57
1:C:153:LEU:HD12	1:C:330:VAL:CG2	2.17	0.57
1:C:317:ASN:HD21	1:C:320:ILE:H	1.52	0.57
1:D:149:GLN:HE22	1:D:297:VAL:HG23	1.69	0.57
1:E:149:GLN:HE22	1:E:297:VAL:HG23	1.68	0.57
1:B:107:GLN:OE1	1:B:108:PRO:HD3	2.04	0.57
1:B:21:LEU:HD21	1:B:25:THR:HG21	1.85	0.57
1:B:305:ASN:N	1:B:305:ASN:ND2	2.51	0.57
1:C:95:VAL:HG23	1:C:377:CYS:SG	2.44	0.57
1:C:393:MET:SD	1:C:396:VAL:HG12	2.40	0.57
1:C:438:TYR:CD1	1:C:438:TYR:N	2.70	0.57
1:C:81:LEU:CG	1:C:86:VAL:HG11	2.34	0.57
1:D:193:ASP:HB2	1:D:443:PHE:CA	2.32	0.57
1:A:287:VAL:HG21	1:E:360:VAL:CG1	2.34	0.57
1:E:389:LEU:HD23	1:E:392:LEU:HD23	1.87	0.57
1:A:35:HIS:NE2	1:A:37:GLU:HB2	2.20	0.57
1:C:35:HIS:NE2	1:C:37:GLU:HB2	2.20	0.57
1:E:81:LEU:HD22	1:E:86:VAL:CG1	2.27	0.57
1:B:458:GLN:HE22	1:C:20:VAL:HG12	1.69	0.57
1:C:389:LEU:HD23	1:C:392:LEU:HD23	1.86	0.57
1:A:217:PRO:HD2	1:A:220:ILE:CG2	2.34	0.56
1:B:81:LEU:HD22	1:B:86:VAL:CG1	2.27	0.56
1:B:360:VAL:CG1	1:C:287:VAL:HG21	2.35	0.56
1:C:71:ILE:CD1	1:C:71:ILE:N	2.65	0.56
1:D:233:MET:HB2	1:D:242:MET:HE1	1.85	0.56
1:A:419:ILE:O	1:A:419:ILE:HG22	2.05	0.56
1:D:128:VAL:O	1:D:128:VAL:HG12	2.04	0.56
1:E:193:ASP:HB2	1:E:443:PHE:CA	2.31	0.56
1:F:128:VAL:HG12	1:F:128:VAL:O	2.05	0.56
1:F:405:GLN:N	1:F:405:GLN:OE1	2.30	0.56
1:F:83:ASP:OD1	1:A:86:VAL:N	2.38	0.56
1:B:233:MET:HB2	1:B:242:MET:HE1	1.87	0.56
1:B:49:TYR:HB2	1:B:50:PRO:HD2	1.88	0.56
1:E:107:GLN:OE1	1:E:108:PRO:HD3	2.06	0.56
1:E:393:MET:CG	1:E:396:VAL:CG1	2.83	0.56
1:F:251:VAL:HG22	1:F:252:TYR:H	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:81:LEU:CD1	1:B:86:VAL:HG11	2.36	0.56
1:C:107:GLN:OE1	1:C:108:PRO:HD3	2.05	0.56
1:D:251:VAL:HG22	1:D:252:TYR:H	1.71	0.56
1:E:268:THR:HB	1:E:270:ASP:OD1	2.06	0.56
1:F:107:GLN:OE1	1:F:108:PRO:HD3	2.04	0.56
1:D:393:MET:CG	1:D:396:VAL:CG1	2.81	0.56
1:E:419:ILE:HG23	1:E:420:GLU:N	2.20	0.56
1:F:217:PRO:HD2	1:F:220:ILE:CG2	2.35	0.56
1:F:305:ASN:ND2	1:F:305:ASN:N	2.53	0.56
1:F:164:TYR:HE2	1:F:187:LYS:HB3	1.65	0.56
1:C:217:PRO:HD2	1:C:220:ILE:CG2	2.36	0.56
1:D:389:LEU:HD23	1:D:392:LEU:HD23	1.88	0.56
1:F:405:GLN:HB2	1:F:406:PRO:CD	2.07	0.56
1:A:201:PHE:N	1:A:201:PHE:CD1	2.72	0.56
1:B:210:ASN:OD1	1:B:213:LYS:N	2.36	0.56
1:D:217:PRO:HD2	1:D:220:ILE:CG2	2.36	0.56
1:D:35:HIS:NE2	1:D:37:GLU:HB2	2.20	0.56
1:D:71:ILE:N	1:D:71:ILE:CD1	2.69	0.56
1:F:43:THR:HG22	1:A:417:ARG:HB3	1.86	0.56
1:A:209:ILE:HG23	1:E:341:ILE:HG23	1.88	0.56
1:B:268:THR:HB	1:B:270:ASP:OD1	2.06	0.56
1:B:400:TRP:CE3	1:B:400:TRP:HA	2.41	0.56
1:D:172:VAL:O	1:D:173:THR:C	2.43	0.56
1:F:33:PHE:CD1	1:F:33:PHE:N	2.74	0.56
1:C:107:GLN:OE1	1:C:107:GLN:HA	2.06	0.56
1:C:396:VAL:O	1:C:400:TRP:HB2	2.06	0.56
1:A:107:GLN:OE1	1:A:108:PRO:HD3	2.06	0.56
1:A:354:ASP:HB2	1:A:357:LYS:CG	2.35	0.56
1:D:266:ALA:HB1	1:D:267:PRO:HD2	1.87	0.56
1:D:4:TRP:CD1	1:D:4:TRP:N	2.74	0.56
1:E:411:ILE:HG22	1:E:412:LEU:N	2.20	0.56
1:A:200:GLY:C	1:A:201:PHE:HD1	2.09	0.55
1:D:81:LEU:CD1	1:D:86:VAL:HG11	2.36	0.55
1:A:389:LEU:HD23	1:A:392:LEU:HD23	1.88	0.55
1:A:65:GLN:OE1	1:A:67:ARG:NH2	2.40	0.55
1:B:33:PHE:CD1	1:B:33:PHE:N	2.75	0.55
1:B:466:LEU:HB3	1:B:471:ALA:O	2.07	0.55
1:B:87:HIS:CD2	1:B:92:GLU:O	2.59	0.55
1:E:153:LEU:HD12	1:E:330:VAL:CG2	2.17	0.55
1:A:210:ASN:OD1	1:A:213:LYS:N	2.36	0.55
1:A:87:HIS:CB	1:A:92:GLU:OE2	2.51	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:354:ASP:HB2	1:D:357:LYS:CG	2.36	0.55
1:D:393:MET:SD	1:D:396:VAL:HG12	2.41	0.55
1:D:65:GLN:OE1	1:D:67:ARG:NH2	2.39	0.55
1:E:94:LEU:CD2	1:E:378:SER:HB3	2.37	0.55
1:F:250:GLN:NE2	1:F:295:SER:OG	2.39	0.55
1:C:354:ASP:HB2	1:C:357:LYS:CG	2.36	0.55
1:B:164:TYR:HE2	1:B:187:LYS:HB3	1.68	0.55
1:B:361:TYR:CE1	1:C:181:CYS:N	2.75	0.55
1:B:389:LEU:HD23	1:B:392:LEU:HD23	1.88	0.55
1:F:95:VAL:HG23	1:F:377:CYS:SG	2.46	0.55
1:B:361:TYR:HE1	1:C:181:CYS:N	2.04	0.55
1:D:268:THR:HB	1:D:270:ASP:OD1	2.07	0.55
1:D:158:THR:HG23	1:D:438:TYR:OH	2.07	0.55
1:E:149:GLN:HA	1:E:333:ASN:ND2	2.19	0.55
1:E:328:LEU:HG	1:E:330:VAL:HG23	1.89	0.55
1:E:40:ARG:HD3	1:E:367:GLU:OE2	2.07	0.55
1:F:65:GLN:OE1	1:F:67:ARG:NH2	2.40	0.55
1:A:33:PHE:CD1	1:A:33:PHE:N	2.74	0.55
1:B:107:GLN:OE1	1:B:107:GLN:HA	2.07	0.55
1:B:151:GLN:HE22	1:B:302:GLN:CA	2.10	0.55
1:B:76:PRO:HD2	1:B:324:ASN:OD1	2.06	0.55
1:C:268:THR:HB	1:C:270:ASP:OD1	2.06	0.55
1:E:266:ALA:HB1	1:E:267:PRO:HD2	1.88	0.55
1:E:35:HIS:NE2	1:E:37:GLU:HB2	2.22	0.55
1:F:150:GLN:HG3	1:F:249:GLU:CB	2.25	0.55
1:F:435:GLU:O	1:F:435:GLU:CD	2.45	0.55
1:A:118:THR:HB	1:A:140:ARG:HD3	1.89	0.55
1:B:200:GLY:C	1:B:201:PHE:HD1	2.10	0.55
1:B:354:ASP:HB2	1:B:357:LYS:CG	2.37	0.55
1:B:424:THR:HG22	1:B:425:LYS:N	2.21	0.55
1:B:70:LYS:HE3	1:B:445:ASN:ND2	2.21	0.55
1:C:70:LYS:HE3	1:C:445:ASN:ND2	2.22	0.55
1:C:341:ILE:HG23	1:D:209:ILE:HG23	1.89	0.55
1:D:95:VAL:HG23	1:D:377:CYS:SG	2.47	0.55
1:F:266:ALA:HB1	1:F:267:PRO:HD2	1.87	0.55
1:F:35:HIS:NE2	1:F:37:GLU:HB2	2.20	0.55
1:A:435:GLU:CD	1:A:435:GLU:O	2.45	0.55
1:B:442:LYS:CD	1:B:442:LYS:N	2.70	0.55
1:C:150:GLN:HG3	1:C:249:GLU:CB	2.24	0.55
1:C:40:ARG:HD3	1:C:367:GLU:OE2	2.07	0.55
1:E:151:GLN:HE22	1:E:302:GLN:CA	2.12	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:81:LEU:CD1	1:E:86:VAL:HG11	2.37	0.55
1:A:266:ALA:HB1	1:A:267:PRO:HD2	1.88	0.55
1:B:149:GLN:HA	1:B:333:ASN:ND2	2.19	0.55
1:B:200:GLY:HA3	1:B:292:PRO:HG3	1.88	0.55
1:C:33:PHE:N	1:C:33:PHE:CD1	2.75	0.55
1:D:299:THR:CG2	1:E:249:GLU:H	2.20	0.55
1:F:389:LEU:CB	1:F:397:LEU:HD21	2.36	0.55
1:A:251:VAL:HG22	1:A:252:TYR:H	1.70	0.54
1:B:341:ILE:HG23	1:C:209:ILE:HG23	1.89	0.54
1:C:6:GLN:NE2	1:C:6:GLN:HA	2.20	0.54
1:D:328:LEU:HG	1:D:330:VAL:HG23	1.89	0.54
1:F:153:LEU:HD13	1:F:330:VAL:CG2	2.26	0.54
1:F:156:GLY:O	1:F:243:PHE:HE1	1.90	0.54
1:F:78:GLN:O	1:F:79:PHE:CD1	2.60	0.54
1:A:107:GLN:OE1	1:A:107:GLN:HA	2.07	0.54
1:A:296:LEU:CD1	1:A:296:LEU:C	2.76	0.54
1:B:36:ALA:HB2	1:B:452:LEU:HD13	1.87	0.54
1:E:118:THR:HB	1:E:140:ARG:HD3	1.89	0.54
1:E:73:LEU:HD13	1:E:96:TRP:CD1	2.42	0.54
1:F:70:LYS:HE2	1:F:445:ASN:ND2	2.22	0.54
1:B:36:ALA:HB1	1:B:448:LEU:HD13	1.89	0.54
1:C:148:LYS:HB2	1:C:292:PRO:HB2	1.90	0.54
1:D:50:PRO:N	1:D:60:LYS:HB3	2.22	0.54
1:E:414:ASP:N	1:E:414:ASP:OD2	2.40	0.54
1:F:268:THR:HB	1:F:270:ASP:OD1	2.08	0.54
1:F:389:LEU:HD23	1:F:392:LEU:HD23	1.89	0.54
1:B:465:PHE:CE2	1:B:469:GLN:HG3	2.42	0.54
1:B:65:GLN:OE1	1:B:67:ARG:NH2	2.40	0.54
1:C:50:PRO:N	1:C:60:LYS:HB3	2.23	0.54
1:C:81:LEU:HB3	1:C:86:VAL:CG2	2.35	0.54
1:D:91:LYS:O	1:D:381:ILE:HB	2.07	0.54
1:F:73:LEU:HD13	1:F:96:TRP:CD1	2.42	0.54
1:A:88:ASN:OD1	1:A:91:LYS:NZ	2.38	0.54
1:B:70:LYS:HE2	1:B:445:ASN:ND2	2.23	0.54
1:D:107:GLN:OE1	1:D:107:GLN:HA	2.06	0.54
1:D:73:LEU:HD13	1:D:96:TRP:CD1	2.43	0.54
1:E:151:GLN:NE2	1:E:302:GLN:HA	2.11	0.54
1:F:252:TYR:CE2	1:F:293:SER:CB	2.91	0.54
1:F:254:ARG:HB2	1:F:293:SER:HB2	1.90	0.54
1:A:151:GLN:NE2	1:A:302:GLN:HA	2.11	0.54
1:D:40:ARG:HD3	1:D:367:GLU:OE2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:87:HIS:HD1	1:D:94:LEU:HD21	1.71	0.54
1:E:250:GLN:NE2	1:E:295:SER:HB3	2.12	0.54
1:F:91:LYS:O	1:F:381:ILE:HB	2.07	0.54
1:A:402:ILE:HG13	1:A:403:GLY:N	2.23	0.54
1:B:94:LEU:CD2	1:B:378:SER:HB3	2.37	0.54
1:C:26:TYR:CD1	1:C:27:VAL:HG23	2.43	0.54
1:C:65:GLN:OE1	1:C:67:ARG:NH2	2.40	0.54
1:F:68:VAL:HG22	1:F:329:THR:HG23	1.90	0.54
1:B:73:LEU:HD13	1:B:96:TRP:CD1	2.43	0.54
1:C:251:VAL:HG22	1:C:252:TYR:H	1.72	0.54
1:C:431:ILE:HG22	1:C:432:PRO:CD	2.38	0.54
1:D:26:TYR:CD1	1:D:27:VAL:HG23	2.42	0.54
1:F:172:VAL:O	1:F:173:THR:C	2.46	0.54
1:F:80:ALA:N	1:A:79:PHE:CD2	2.61	0.54
1:A:148:LYS:HB2	1:A:292:PRO:HB2	1.90	0.54
1:A:268:THR:HB	1:A:270:ASP:OD1	2.07	0.54
1:A:389:LEU:CB	1:A:397:LEU:HD21	2.38	0.54
1:A:50:PRO:N	1:A:60:LYS:HB3	2.23	0.54
1:D:200:GLY:C	1:D:201:PHE:HD1	2.10	0.54
1:F:79:PHE:HA	1:A:79:PHE:CE2	2.43	0.54
1:C:210:ASN:OD1	1:C:213:LYS:N	2.35	0.54
1:E:148:LYS:HB2	1:E:292:PRO:HB2	1.90	0.54
1:E:20:VAL:HG22	1:E:21:LEU:H	1.71	0.54
1:E:252:TYR:CE2	1:E:293:SER:CB	2.91	0.54
1:E:354:ASP:HB2	1:E:357:LYS:CG	2.36	0.54
1:F:123:LEU:HD12	1:F:132:VAL:CG2	2.38	0.54
1:A:249:GLU:H	1:E:299:THR:CG2	2.21	0.53
1:B:251:VAL:HG22	1:B:252:TYR:H	1.71	0.53
1:D:113:VAL:HG11	1:E:256:ILE:HG23	1.91	0.53
1:D:201:PHE:N	1:D:201:PHE:CD1	2.74	0.53
1:D:50:PRO:HD3	1:D:60:LYS:HG2	1.90	0.53
1:A:22:CYS:HA	1:A:316:MET:HB3	1.89	0.53
1:B:123:LEU:HD12	1:B:132:VAL:HG22	1.82	0.53
1:A:299:THR:CG2	1:B:249:GLU:H	2.20	0.53
1:B:400:TRP:HE3	1:B:400:TRP:HA	1.73	0.53
1:C:150:GLN:CD	1:C:249:GLU:OE1	2.46	0.53
1:E:251:VAL:HG22	1:E:252:TYR:H	1.71	0.53
1:E:65:GLN:OE1	1:E:67:ARG:NH2	2.41	0.53
1:E:87:HIS:ND1	1:E:94:LEU:HG	2.19	0.53
1:F:118:THR:HB	1:F:140:ARG:HD3	1.90	0.53
1:B:104:SER:OG	1:C:231:LEU:HD21	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:50:PRO:N	1:F:60:LYS:HB3	2.22	0.53
1:B:34:TYR:HB3	1:B:452:LEU:HD11	1.90	0.53
1:D:148:LYS:HB2	1:D:292:PRO:HB2	1.90	0.53
1:D:303:ILE:O	1:D:304:PHE:CG	2.62	0.53
1:D:33:PHE:N	1:D:33:PHE:CD1	2.77	0.53
1:A:73:LEU:HD13	1:A:96:TRP:CD1	2.43	0.53
1:B:201:PHE:CD1	1:B:201:PHE:N	2.75	0.53
1:C:254:ARG:HB2	1:C:293:SER:HB2	1.91	0.53
1:C:32:ILE:N	1:C:32:ILE:CD1	2.71	0.53
1:E:33:PHE:N	1:E:33:PHE:CD1	2.75	0.53
1:F:107:GLN:HA	1:F:107:GLN:OE1	2.09	0.53
1:F:453:SER:OG	1:F:454:LEU:N	2.42	0.53
1:A:303:ILE:O	1:A:304:PHE:CG	2.62	0.53
1:B:113:VAL:HG12	1:B:114:THR:N	2.24	0.53
1:B:193:ASP:OD2	1:B:444:TRP:HB2	2.09	0.53
1:D:436:ASP:OD2	1:D:439:ALA:HB2	2.08	0.53
1:E:50:PRO:N	1:E:60:LYS:HB3	2.23	0.53
1:E:76:PRO:CG	1:E:95:VAL:HA	2.38	0.53
1:F:40:ARG:HD3	1:F:367:GLU:OE2	2.07	0.53
1:A:113:VAL:HG12	1:A:114:THR:N	2.24	0.53
1:A:252:TYR:CE2	1:A:293:SER:CB	2.92	0.53
1:A:453:SER:OG	1:A:454:LEU:N	2.42	0.53
1:C:242:MET:HG3	1:C:314:GLN:HE21	1.74	0.53
1:C:76:PRO:CG	1:C:95:VAL:HA	2.37	0.53
1:E:453:SER:OG	1:E:454:LEU:N	2.42	0.53
1:E:73:LEU:HB3	1:E:74:PRO:CD	2.39	0.53
1:A:20:VAL:HG13	1:A:316:MET:HG2	1.89	0.53
1:B:303:ILE:O	1:B:304:PHE:CG	2.62	0.53
1:C:48:TYR:CD2	1:C:219:ASP:HB3	2.42	0.53
1:C:429:ASN:O	1:C:430:VAL:HB	2.08	0.53
1:D:254:ARG:HB2	1:D:293:SER:HB2	1.89	0.53
1:E:95:VAL:CG1	1:E:400:TRP:HH2	2.21	0.53
1:F:200:GLY:C	1:F:201:PHE:HD1	2.12	0.53
1:C:172:VAL:O	1:C:173:THR:C	2.46	0.53
1:C:51:VAL:CG1	1:C:52:SER:N	2.72	0.53
1:D:135:GLN:NE2	1:D:285:PRO:HD2	2.23	0.53
1:D:32:ILE:CD1	1:D:32:ILE:N	2.69	0.53
1:E:136:THR:CG2	1:E:137:THR:N	2.66	0.53
1:F:354:ASP:HB2	1:F:357:LYS:CG	2.37	0.53
1:A:32:ILE:CD1	1:A:32:ILE:N	2.72	0.53
1:B:135:GLN:NE2	1:B:285:PRO:HD2	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:361:TYR:CE1	1:B:181:CYS:CA	2.92	0.53
1:B:408:THR:HG22	1:B:411:ILE:HD12	1.89	0.53
1:B:68:VAL:HG22	1:B:329:THR:HG23	1.90	0.53
1:C:328:LEU:HG	1:C:330:VAL:HG23	1.91	0.53
1:C:404:VAL:CG1	1:C:406:PRO:O	2.56	0.53
1:C:73:LEU:HD13	1:C:96:TRP:CD1	2.43	0.53
1:D:200:GLY:C	1:D:201:PHE:CD1	2.83	0.53
1:D:68:VAL:HG22	1:D:329:THR:HG23	1.90	0.53
1:D:77:ASN:OD1	1:D:93:ARG:HD2	2.09	0.53
1:E:200:GLY:C	1:E:201:PHE:HD1	2.13	0.53
1:A:150:GLN:CD	1:A:249:GLU:OE1	2.48	0.52
1:A:254:ARG:HB2	1:A:293:SER:HB2	1.91	0.52
1:A:40:ARG:HD3	1:A:367:GLU:OE2	2.09	0.52
1:B:309:TRP:CD1	1:B:468:GLN:OE1	2.62	0.52
1:C:50:PRO:HD3	1:C:60:LYS:HG2	1.90	0.52
1:D:305:ASN:N	1:D:305:ASN:HD22	2.06	0.52
1:E:123:LEU:HD12	1:E:132:VAL:CG2	2.39	0.52
1:E:70:LYS:HE2	1:E:445:ASN:ND2	2.24	0.52
1:F:154:LEU:C	1:F:154:LEU:CD1	2.78	0.52
1:A:393:MET:SD	1:A:396:VAL:HG12	2.40	0.52
1:B:453:SER:OG	1:B:454:LEU:N	2.42	0.52
1:C:361:TYR:CE1	1:D:181:CYS:CA	2.92	0.52
1:E:107:GLN:HA	1:E:107:GLN:OE1	2.08	0.52
1:E:36:ALA:HB1	1:E:448:LEU:HD13	1.91	0.52
1:E:68:VAL:HG22	1:E:329:THR:HG23	1.92	0.52
1:F:113:VAL:HG12	1:F:114:THR:N	2.24	0.52
1:F:148:LYS:HB2	1:F:292:PRO:HB2	1.91	0.52
1:F:403:GLY:C	1:F:404:VAL:HG23	2.30	0.52
1:B:200:GLY:C	1:B:201:PHE:CD1	2.83	0.52
1:C:118:THR:HB	1:C:140:ARG:HD3	1.91	0.52
1:C:135:GLN:NE2	1:C:285:PRO:HD2	2.24	0.52
1:C:417:ARG:HG2	1:C:418:TYR:HD1	1.73	0.52
1:A:258:THR:HG21	1:E:142:GLN:NE2	2.25	0.52
1:F:15:THR:N	1:F:16:PRO:HD3	2.23	0.52
1:A:403:GLY:C	1:A:404:VAL:HG23	2.29	0.52
1:B:299:THR:CG2	1:C:249:GLU:H	2.22	0.52
1:D:104:SER:OG	1:E:231:LEU:HD21	2.09	0.52
1:E:390:GLN:OE1	1:E:397:LEU:CD1	2.58	0.52
1:F:135:GLN:NE2	1:F:285:PRO:HD2	2.24	0.52
1:F:303:ILE:O	1:F:304:PHE:CG	2.63	0.52
1:F:32:ILE:CD1	1:F:32:ILE:N	2.69	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:149:GLN:HA	1:A:333:ASN:ND2	2.18	0.52
1:A:26:TYR:CD1	1:A:27:VAL:HG23	2.44	0.52
1:A:305:ASN:HD22	1:A:305:ASN:N	2.06	0.52
1:F:40:ARG:HH21	1:A:412:LEU:HD23	1.75	0.52
1:A:67:ARG:HG3	1:A:368:TYR:CZ	2.44	0.52
1:B:305:ASN:N	1:B:305:ASN:HD22	2.07	0.52
1:B:309:TRP:NE1	1:B:468:GLN:OE1	2.42	0.52
1:B:40:ARG:HD3	1:B:367:GLU:OE2	2.09	0.52
1:B:87:HIS:ND1	1:B:94:LEU:HG	2.21	0.52
1:C:431:ILE:HG22	1:C:432:PRO:CA	2.35	0.52
1:F:26:TYR:CD1	1:F:27:VAL:HG23	2.44	0.52
1:A:113:VAL:HG11	1:B:256:ILE:HG23	1.92	0.52
1:A:257:TRP:NE1	1:B:127:ASN:ND2	2.57	0.52
1:A:429:ASN:C	1:A:432:PRO:HD3	2.29	0.52
1:B:118:THR:HB	1:B:140:ARG:HD3	1.90	0.52
1:B:48:TYR:CD2	1:B:219:ASP:HB3	2.45	0.52
1:C:252:TYR:CE2	1:C:293:SER:CB	2.92	0.52
1:D:118:THR:HB	1:D:140:ARG:HD3	1.91	0.52
1:D:150:GLN:CD	1:D:249:GLU:OE1	2.48	0.52
1:C:113:VAL:HG11	1:D:256:ILE:HG23	1.91	0.52
1:D:340:THR:HG21	1:E:259:ARG:HE	1.75	0.52
1:E:26:TYR:CD1	1:E:27:VAL:HG23	2.44	0.52
1:E:400:TRP:O	1:E:401:GLU:CG	2.46	0.52
1:B:81:LEU:HB3	1:B:86:VAL:HG21	1.92	0.52
1:C:201:PHE:CD1	1:C:201:PHE:N	2.77	0.52
1:D:10:LEU:N	1:D:10:LEU:CD1	2.72	0.52
1:D:37:GLU:OE2	1:D:369:LYS:CE	2.58	0.52
1:D:424:THR:HG22	1:D:425:LYS:N	2.25	0.52
1:E:150:GLN:CD	1:E:249:GLU:OE1	2.48	0.52
1:F:150:GLN:CD	1:F:249:GLU:OE1	2.48	0.52
1:F:201:PHE:CD1	1:F:201:PHE:N	2.75	0.52
1:A:36:ALA:HB1	1:A:448:LEU:HD13	1.91	0.52
1:B:418:TYR:C	1:B:420:GLU:N	2.62	0.52
1:B:73:LEU:HB3	1:B:74:PRO:CD	2.40	0.52
1:C:16:PRO:CG	1:C:17:VAL:N	2.73	0.52
1:C:200:GLY:C	1:C:201:PHE:HD1	2.13	0.52
1:D:113:VAL:HG12	1:D:114:THR:N	2.25	0.52
1:E:303:ILE:O	1:E:304:PHE:CG	2.62	0.52
1:E:50:PRO:HD3	1:E:60:LYS:HG2	1.92	0.52
1:F:265:GLU:HG3	1:F:265:GLU:O	2.10	0.52
1:A:256:ILE:HG23	1:E:113:VAL:HG11	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:68:VAL:HG22	1:A:329:THR:HG23	1.91	0.52
1:B:76:PRO:CG	1:B:95:VAL:HA	2.40	0.52
1:C:88:ASN:HD22	1:C:88:ASN:C	2.08	0.52
1:D:149:GLN:HA	1:D:333:ASN:ND2	2.20	0.52
1:D:151:GLN:HE22	1:D:302:GLN:CA	2.13	0.52
1:D:36:ALA:HB1	1:D:448:LEU:HD13	1.91	0.52
1:E:201:PHE:N	1:E:201:PHE:CD1	2.75	0.52
1:E:265:GLU:HG3	1:E:265:GLU:O	2.10	0.52
1:F:309:TRP:CD1	1:F:468:GLN:OE1	2.63	0.52
1:A:135:GLN:NE2	1:A:285:PRO:HD2	2.25	0.52
1:C:303:ILE:O	1:C:304:PHE:CG	2.63	0.52
1:D:265:GLU:HG3	1:D:265:GLU:O	2.10	0.52
1:D:2:ALA:O	1:D:3:LEU:HD12	2.08	0.52
1:D:361:TYR:CE1	1:E:181:CYS:CA	2.93	0.52
1:E:70:LYS:HE3	1:E:445:ASN:ND2	2.23	0.52
1:F:328:LEU:HG	1:F:330:VAL:HG23	1.92	0.52
1:F:37:GLU:OE2	1:F:369:LYS:CE	2.58	0.52
1:F:67:ARG:HG3	1:F:368:TYR:CZ	2.45	0.52
1:A:34:TYR:HB3	1:A:452:LEU:HD11	1.92	0.51
1:A:48:TYR:CD2	1:A:219:ASP:HB3	2.46	0.51
1:B:51:VAL:CG1	1:B:52:SER:N	2.73	0.51
1:D:67:ARG:HG3	1:D:368:TYR:CZ	2.45	0.51
1:E:254:ARG:HB2	1:E:293:SER:HB2	1.91	0.51
1:E:51:VAL:CG1	1:E:52:SER:N	2.74	0.51
1:F:402:ILE:HG13	1:F:403:GLY:N	2.25	0.51
1:F:51:VAL:CG1	1:F:52:SER:N	2.73	0.51
1:F:86:VAL:HG22	1:A:82:PRO:HB2	1.92	0.51
1:A:196:MET:CG	1:A:223:GLU:OE1	2.58	0.51
1:A:340:THR:HG21	1:B:259:ARG:HE	1.75	0.51
1:A:96:TRP:HA	1:A:96:TRP:CE3	2.46	0.51
1:B:150:GLN:CD	1:B:249:GLU:OE1	2.49	0.51
1:B:150:GLN:HG3	1:B:249:GLU:CB	2.26	0.51
1:B:435:GLU:HG3	1:B:436:ASP:N	2.24	0.51
1:C:113:VAL:HG12	1:C:114:THR:N	2.25	0.51
1:C:305:ASN:HD22	1:C:305:ASN:N	2.07	0.51
1:C:70:LYS:HE2	1:C:445:ASN:ND2	2.25	0.51
1:A:165:TRP:CD2	1:E:365:MET:SD	3.03	0.51
1:A:151:GLN:HE22	1:A:302:GLN:CA	2.12	0.51
1:A:200:GLY:C	1:A:201:PHE:CD1	2.82	0.51
1:A:242:MET:HE2	1:A:314:GLN:NE2	2.26	0.51
1:A:265:GLU:O	1:A:265:GLU:HG3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:193:ASP:OD2	1:A:444:TRP:HB2	2.10	0.51
1:B:37:GLU:OE2	1:B:369:LYS:CE	2.58	0.51
1:C:420:GLU:HG2	1:C:421:SER:H	1.76	0.51
1:C:453:SER:OG	1:C:454:LEU:N	2.42	0.51
1:D:150:GLN:HG3	1:D:249:GLU:CB	2.25	0.51
1:D:164:TYR:N	1:D:164:TYR:HD2	2.09	0.51
1:C:142:GLN:NE2	1:D:258:THR:HG21	2.25	0.51
1:D:416:TYR:HB2	1:D:419:ILE:HG22	1.91	0.51
1:D:51:VAL:CG1	1:D:52:SER:N	2.73	0.51
1:F:149:GLN:HA	1:F:333:ASN:ND2	2.19	0.51
1:F:233:MET:HB2	1:F:242:MET:HE1	1.92	0.51
1:F:318:ASN:ND2	1:F:318:ASN:N	2.59	0.51
1:B:390:GLN:OE1	1:B:397:LEU:CD1	2.58	0.51
1:C:164:TYR:N	1:C:164:TYR:HD2	2.08	0.51
1:C:265:GLU:O	1:C:265:GLU:HG3	2.10	0.51
1:D:309:TRP:CD1	1:D:468:GLN:OE1	2.64	0.51
1:E:67:ARG:HG3	1:E:368:TYR:CZ	2.46	0.51
1:A:312:ARG:CB	1:E:475:THR:O	2.56	0.51
1:F:151:GLN:NE2	1:F:302:GLN:HA	2.12	0.51
1:C:123:LEU:HD12	1:C:132:VAL:CG2	2.40	0.51
1:A:353:TYR:HB3	1:C:275:ASN:HB3	1.93	0.51
1:D:109:LEU:HD21	1:D:297:VAL:HG13	1.93	0.51
1:D:435:GLU:HG3	1:D:439:ALA:HB3	1.92	0.51
1:F:74:PRO:HG3	1:F:449:LYS:HA	1.92	0.51
1:A:123:LEU:HD12	1:A:132:VAL:CG2	2.39	0.51
1:A:318:ASN:ND2	1:A:318:ASN:N	2.59	0.51
1:A:309:TRP:CD1	1:A:468:GLN:OE1	2.64	0.51
1:B:318:ASN:N	1:B:318:ASN:ND2	2.59	0.51
1:B:67:ARG:HG3	1:B:368:TYR:CZ	2.45	0.51
1:C:10:LEU:HD12	1:C:10:LEU:O	2.10	0.51
1:C:34:TYR:HB3	1:C:452:LEU:HD11	1.91	0.51
1:C:95:VAL:CG1	1:C:400:TRP:CZ2	2.89	0.51
1:D:34:TYR:CD2	1:D:453:SER:O	2.64	0.51
1:D:453:SER:OG	1:D:454:LEU:N	2.42	0.51
1:A:231:LEU:HD21	1:E:104:SER:OG	2.11	0.51
1:E:233:MET:HB2	1:E:242:MET:HE1	1.92	0.51
1:F:305:ASN:HD22	1:F:305:ASN:N	2.08	0.51
1:F:309:TRP:NE1	1:F:468:GLN:OE1	2.43	0.51
1:F:341:ILE:HG22	1:F:342:SER:N	2.26	0.51
1:F:423:ALA:O	1:B:183:PRO:HA	2.10	0.51
1:A:12:LEU:N	1:A:12:LEU:HD23	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:341:ILE:HG22	1:A:342:SER:N	2.26	0.51
1:A:50:PRO:HD3	1:A:60:LYS:HG2	1.91	0.51
1:B:328:LEU:HG	1:B:330:VAL:HG23	1.93	0.51
1:B:455:ASP:CB	1:C:19:LYS:HZ3	2.21	0.51
1:C:67:ARG:HG3	1:C:368:TYR:CZ	2.45	0.51
1:D:109:LEU:HD11	1:D:334:THR:HG22	1.93	0.51
1:D:164:TYR:CD2	1:D:164:TYR:N	2.78	0.51
1:D:250:GLN:NE2	1:D:295:SER:HB3	2.17	0.51
1:E:210:ASN:OD1	1:E:213:LYS:N	2.38	0.51
1:E:309:TRP:CD1	1:E:468:GLN:OE1	2.63	0.51
1:F:154:LEU:HD11	1:F:329:THR:N	2.26	0.51
1:F:200:GLY:C	1:F:201:PHE:CD1	2.84	0.51
1:F:50:PRO:HD3	1:F:60:LYS:HG2	1.91	0.51
1:A:309:TRP:NE1	1:A:468:GLN:OE1	2.44	0.51
1:A:51:VAL:CG1	1:A:52:SER:N	2.73	0.51
1:B:26:TYR:CD1	1:B:27:VAL:HG23	2.46	0.51
1:C:164:TYR:CD2	1:C:164:TYR:N	2.78	0.51
1:C:78:GLN:CG	1:D:9:LYS:HB3	2.40	0.51
1:E:135:GLN:NE2	1:E:285:PRO:HD2	2.25	0.51
1:E:200:GLY:C	1:E:201:PHE:CD1	2.84	0.51
1:A:88:ASN:HD21	1:A:89:PRO:HD2	1.60	0.51
1:B:150:GLN:HG2	1:B:151:GLN:N	2.26	0.51
1:B:109:LEU:HD11	1:B:334:THR:HG22	1.93	0.51
1:B:74:PRO:HG3	1:B:449:LYS:HA	1.93	0.51
1:C:193:ASP:OD2	1:C:444:TRP:HB2	2.11	0.51
1:E:304:PHE:O	1:E:306:ARG:HG3	2.11	0.51
1:E:318:ASN:N	1:E:318:ASN:ND2	2.59	0.51
1:E:34:TYR:HB3	1:E:452:LEU:HD11	1.92	0.51
1:B:265:GLU:O	1:B:265:GLU:HG3	2.11	0.51
1:C:309:TRP:CD1	1:C:468:GLN:OE1	2.64	0.51
1:C:68:VAL:HG22	1:C:329:THR:HG23	1.92	0.51
1:D:48:TYR:CD2	1:D:219:ASP:HB3	2.46	0.51
1:F:96:TRP:HA	1:F:96:TRP:CE3	2.46	0.51
1:A:109:LEU:HD11	1:A:334:THR:HG22	1.93	0.50
1:A:150:GLN:HG2	1:A:151:GLN:N	2.26	0.50
1:A:251:VAL:HG23	1:A:293:SER:O	2.11	0.50
1:A:74:PRO:HG3	1:A:449:LYS:HA	1.93	0.50
1:D:122:LEU:O	1:D:123:LEU:CD2	2.59	0.50
1:F:242:MET:HG3	1:F:314:GLN:HE21	1.77	0.50
1:F:36:ALA:HB1	1:F:448:LEU:HD13	1.92	0.50
1:A:87:HIS:HB2	1:A:92:GLU:CD	2.30	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:87:HIS:HE1	1:B:94:LEU:HG	1.65	0.50
1:C:322:TRP:CE3	1:C:322:TRP:HA	2.46	0.50
1:C:361:TYR:HE1	1:D:181:CYS:N	2.09	0.50
1:C:299:THR:CG2	1:D:249:GLU:H	2.25	0.50
1:D:252:TYR:CE2	1:D:293:SER:CB	2.93	0.50
1:D:304:PHE:O	1:D:306:ARG:HG3	2.11	0.50
1:D:73:LEU:HB3	1:D:74:PRO:CD	2.40	0.50
1:E:309:TRP:NE1	1:E:468:GLN:OE1	2.44	0.50
1:E:37:GLU:OE2	1:E:369:LYS:CE	2.59	0.50
1:F:34:TYR:HB3	1:F:452:LEU:HD11	1.92	0.50
1:F:429:ASN:C	1:F:432:PRO:HD3	2.29	0.50
1:F:412:LEU:HD11	1:A:40:ARG:H	1.76	0.50
1:B:172:VAL:O	1:B:173:THR:C	2.50	0.50
1:C:200:GLY:C	1:C:201:PHE:CD1	2.84	0.50
1:C:36:ALA:HB1	1:C:448:LEU:HD13	1.91	0.50
1:D:150:GLN:HG2	1:D:151:GLN:N	2.26	0.50
1:D:193:ASP:OD2	1:D:444:TRP:HB2	2.11	0.50
1:F:145:LEU:HD23	1:F:217:PRO:CG	2.42	0.50
1:F:151:GLN:HE22	1:F:302:GLN:CA	2.13	0.50
1:A:34:TYR:CD2	1:A:453:SER:O	2.65	0.50
1:B:37:GLU:OE2	1:B:369:LYS:NZ	2.44	0.50
1:D:123:LEU:HD12	1:D:132:VAL:CG2	2.39	0.50
1:D:242:MET:HG3	1:D:314:GLN:HE21	1.76	0.50
1:E:113:VAL:HG12	1:E:114:THR:N	2.24	0.50
1:E:109:LEU:HD11	1:E:334:THR:HG22	1.94	0.50
1:E:341:ILE:HG22	1:E:342:SER:N	2.26	0.50
1:E:193:ASP:OD2	1:E:444:TRP:HB2	2.11	0.50
1:F:109:LEU:HD21	1:F:297:VAL:HG13	1.93	0.50
1:F:210:ASN:OD1	1:F:213:LYS:N	2.38	0.50
1:F:193:ASP:OD2	1:F:444:TRP:HB2	2.11	0.50
1:A:275:ASN:HB3	1:D:353:TYR:HB3	1.92	0.50
1:B:413:GLU:H	1:B:413:GLU:CD	2.13	0.50
1:C:122:LEU:O	1:C:123:LEU:CD2	2.59	0.50
1:C:251:VAL:HG23	1:C:293:SER:O	2.12	0.50
1:D:318:ASN:N	1:D:318:ASN:ND2	2.59	0.50
1:D:322:TRP:CE3	1:D:322:TRP:HA	2.47	0.50
1:D:341:ILE:HG22	1:D:342:SER:N	2.26	0.50
1:E:81:LEU:HB3	1:E:86:VAL:HG21	1.93	0.50
1:F:296:LEU:O	1:F:296:LEU:CD1	2.35	0.50
1:A:205:ASN:OD1	1:A:205:ASN:O	2.30	0.50
1:A:296:LEU:CD1	1:A:296:LEU:O	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:37:GLU:OE2	1:A:369:LYS:CE	2.60	0.50
1:C:389:LEU:CB	1:C:397:LEU:HD21	2.39	0.50
1:C:404:VAL:HG12	1:C:406:PRO:CD	2.41	0.50
1:E:305:ASN:N	1:E:305:ASN:HD22	2.08	0.50
1:E:48:TYR:CD2	1:E:219:ASP:HB3	2.47	0.50
1:A:304:PHE:O	1:A:306:ARG:HG3	2.12	0.50
1:A:435:GLU:OE1	1:A:435:GLU:O	2.30	0.50
1:C:37:GLU:OE2	1:C:369:LYS:NZ	2.41	0.50
1:C:95:VAL:HG11	1:C:400:TRP:CZ2	2.42	0.50
1:C:96:TRP:HA	1:C:96:TRP:CE3	2.46	0.50
1:E:150:GLN:HG2	1:E:151:GLN:N	2.26	0.50
1:E:205:ASN:OD1	1:E:205:ASN:O	2.30	0.50
1:E:109:LEU:HD21	1:E:297:VAL:HG13	1.94	0.50
1:E:74:PRO:HG2	1:E:452:LEU:HD22	1.93	0.50
1:E:46:HIS:HD2	1:E:49:TYR:H	1.60	0.50
1:F:73:LEU:HB3	1:F:74:PRO:CD	2.41	0.50
1:F:40:ARG:HE	1:A:412:LEU:HG	1.77	0.50
1:A:73:LEU:HB3	1:A:74:PRO:CD	2.42	0.50
1:B:341:ILE:HG22	1:B:342:SER:N	2.27	0.50
1:B:94:LEU:HD23	1:B:378:SER:HB3	1.94	0.50
1:C:309:TRP:NE1	1:C:468:GLN:OE1	2.45	0.50
1:C:353:TYR:CD1	1:D:140:ARG:NH2	2.80	0.50
1:E:251:VAL:HG23	1:E:293:SER:O	2.11	0.50
1:A:153:LEU:HD12	1:A:330:VAL:CG2	2.16	0.50
1:B:32:ILE:CD1	1:B:32:ILE:N	2.71	0.50
1:C:109:LEU:HD11	1:C:334:THR:HG22	1.93	0.50
1:C:116:HIS:CD2	1:C:218:LEU:HB2	2.47	0.50
1:C:73:LEU:HB3	1:C:74:PRO:CD	2.42	0.50
1:D:210:ASN:OD1	1:D:213:LYS:N	2.37	0.50
1:D:309:TRP:NE1	1:D:468:GLN:OE1	2.44	0.50
1:E:122:LEU:O	1:E:123:LEU:CD2	2.59	0.50
1:E:94:LEU:HD23	1:E:378:SER:HB3	1.94	0.50
1:F:251:VAL:HG23	1:F:293:SER:O	2.12	0.50
1:A:122:LEU:O	1:A:123:LEU:CD2	2.59	0.49
1:A:32:ILE:C	1:A:33:PHE:CD1	2.86	0.49
1:B:304:PHE:O	1:B:306:ARG:HG3	2.12	0.49
1:F:122:LEU:O	1:F:123:LEU:CD2	2.59	0.49
1:F:154:LEU:HD11	1:F:329:THR:CA	2.41	0.49
1:B:123:LEU:HD12	1:B:132:VAL:CG2	2.39	0.49
1:B:365:MET:SD	1:C:165:TRP:CD2	3.05	0.49
1:C:109:LEU:HD21	1:C:297:VAL:HG13	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:145:LEU:HD23	1:C:217:PRO:CG	2.41	0.49
1:C:150:GLN:HG2	1:C:151:GLN:N	2.26	0.49
1:F:48:TYR:CD2	1:F:219:ASP:HB3	2.47	0.49
1:A:142:GLN:NE2	1:B:258:THR:HG21	2.27	0.49
1:C:404:VAL:CG1	1:C:406:PRO:HD2	2.41	0.49
1:D:152:ILE:HD13	1:D:228:PRO:HG2	1.95	0.49
1:C:361:TYR:CE1	1:D:181:CYS:N	2.80	0.49
1:D:34:TYR:HB3	1:D:452:LEU:HD11	1.93	0.49
1:F:205:ASN:OD1	1:F:205:ASN:O	2.30	0.49
1:A:393:MET:HE1	1:A:396:VAL:CB	2.21	0.49
1:A:74:PRO:HG2	1:A:452:LEU:HD22	1.95	0.49
1:B:109:LEU:HG	1:B:110:GLY:N	2.26	0.49
1:B:145:LEU:HD23	1:B:217:PRO:CG	2.43	0.49
1:C:341:ILE:HG22	1:C:342:SER:N	2.27	0.49
1:D:96:TRP:CE3	1:D:96:TRP:HA	2.48	0.49
1:E:296:LEU:O	1:E:296:LEU:CD1	2.35	0.49
1:F:150:GLN:HG2	1:F:151:GLN:N	2.26	0.49
1:B:34:TYR:CD2	1:B:453:SER:O	2.66	0.49
1:C:421:SER:N	1:C:422:PRO:HD2	2.28	0.49
1:D:109:LEU:HG	1:D:110:GLY:N	2.27	0.49
1:E:322:TRP:O	1:E:323:ASN:HB3	2.12	0.49
1:F:412:LEU:CD2	1:A:40:ARG:HE	2.25	0.49
1:C:304:PHE:O	1:C:306:ARG:HG3	2.12	0.49
1:C:340:THR:HG21	1:D:259:ARG:HE	1.77	0.49
1:E:77:ASN:OD1	1:E:93:ARG:HB3	2.13	0.49
1:F:109:LEU:HG	1:F:110:GLY:N	2.28	0.49
1:F:122:LEU:HD23	1:F:139:ASP:HB2	1.95	0.49
1:F:46:HIS:HD2	1:F:49:TYR:H	1.60	0.49
1:A:249:GLU:N	1:E:299:THR:CG2	2.76	0.49
1:B:122:LEU:O	1:B:123:LEU:CD2	2.59	0.49
1:C:10:LEU:HD12	1:C:10:LEU:C	2.33	0.49
1:C:74:PRO:HG3	1:C:449:LYS:HA	1.94	0.49
1:C:74:PRO:HG2	1:C:452:LEU:HD22	1.94	0.49
1:D:205:ASN:OD1	1:D:205:ASN:O	2.30	0.49
1:D:251:VAL:HG23	1:D:293:SER:O	2.13	0.49
1:D:81:LEU:HB3	1:D:86:VAL:HG21	1.95	0.49
1:A:181:CYS:CA	1:E:361:TYR:CE1	2.96	0.49
1:E:80:ALA:O	1:E:81:LEU:HD23	2.12	0.49
1:F:304:PHE:O	1:F:306:ARG:HG3	2.12	0.49
1:A:109:LEU:HD21	1:A:297:VAL:HG13	1.95	0.49
1:A:361:TYR:HE1	1:B:181:CYS:N	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:322:TRP:CE3	1:B:322:TRP:HA	2.48	0.49
1:C:242:MET:HE2	1:C:314:GLN:NE2	2.26	0.49
1:D:145:LEU:HD23	1:D:217:PRO:CG	2.42	0.49
1:D:74:PRO:HG3	1:D:449:LYS:HA	1.93	0.49
1:E:242:MET:HG3	1:E:314:GLN:HE21	1.77	0.49
1:F:156:GLY:N	1:F:243:PHE:CD1	2.80	0.49
1:F:322:TRP:HA	1:F:322:TRP:CE3	2.48	0.49
1:A:242:MET:HG3	1:A:314:GLN:HE21	1.77	0.49
1:A:328:LEU:HG	1:A:330:VAL:HG23	1.93	0.49
1:A:400:TRP:O	1:A:401:GLU:HB2	2.13	0.49
1:B:109:LEU:HD21	1:B:297:VAL:HG13	1.94	0.49
1:B:462:GLY:O	1:B:465:PHE:HB3	2.12	0.49
1:B:80:ALA:O	1:B:81:LEU:HD23	2.12	0.49
1:B:96:TRP:HA	1:B:96:TRP:CE3	2.48	0.49
1:C:69:PHE:CD1	1:C:370:LEU:HD11	2.47	0.49
1:C:34:TYR:CD2	1:C:453:SER:O	2.66	0.49
1:D:478:LYS:CG	1:D:478:LYS:O	2.58	0.49
1:E:64:ASN:N	1:E:64:ASN:ND2	2.60	0.49
1:F:109:LEU:HD11	1:F:334:THR:HG22	1.94	0.49
1:F:250:GLN:NE2	1:F:295:SER:HB3	2.16	0.49
1:A:109:LEU:HG	1:A:110:GLY:N	2.28	0.49
1:A:145:LEU:HD23	1:A:217:PRO:CG	2.43	0.49
1:C:104:SER:OG	1:D:231:LEU:HD21	2.13	0.49
1:C:205:ASN:OD1	1:C:205:ASN:O	2.30	0.49
1:C:46:HIS:HD2	1:C:49:TYR:H	1.61	0.49
1:C:87:HIS:HE1	1:C:94:LEU:CG	2.12	0.49
1:E:396:VAL:HA	1:E:399:ASN:ND2	2.28	0.49
1:A:259:ARG:HE	1:E:340:THR:HG21	1.78	0.48
1:A:353:TYR:CD1	1:B:140:ARG:NH2	2.81	0.48
1:B:81:LEU:CG	1:B:86:VAL:HG11	2.43	0.48
1:C:164:TYR:HE2	1:C:187:LYS:HB3	1.73	0.48
1:D:169:ARG:O	1:D:169:ARG:HD2	2.14	0.48
1:D:116:HIS:CD2	1:D:218:LEU:HB2	2.48	0.48
1:E:109:LEU:HG	1:E:110:GLY:N	2.28	0.48
1:A:361:TYR:CE1	1:B:181:CYS:N	2.81	0.48
1:A:60:LYS:O	1:A:60:LYS:HG3	2.14	0.48
1:F:79:PHE:HD2	1:A:79:PHE:HA	1.77	0.48
1:C:151:GLN:HE22	1:C:302:GLN:CA	2.15	0.48
1:C:424:THR:HG22	1:C:425:LYS:N	2.27	0.48
1:D:5:GLN:CD	1:D:5:GLN:N	2.66	0.48
1:E:322:TRP:HA	1:E:322:TRP:CE3	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:81:LEU:CG	1:E:86:VAL:HG11	2.44	0.48
1:F:37:GLU:OE2	1:F:369:LYS:NZ	2.45	0.48
1:F:435:GLU:O	1:F:435:GLU:OE1	2.30	0.48
1:A:113:VAL:HG11	1:B:256:ILE:CG2	2.43	0.48
1:A:122:LEU:HD23	1:A:139:ASP:HB2	1.95	0.48
1:B:242:MET:HG3	1:B:314:GLN:HE21	1.78	0.48
1:B:413:GLU:N	1:B:413:GLU:OE1	2.44	0.48
1:C:122:LEU:HD23	1:C:139:ASP:HB2	1.95	0.48
1:D:113:VAL:HG11	1:E:256:ILE:CG2	2.43	0.48
1:D:298:SER:OG	1:D:301:ASN:HB2	2.13	0.48
1:D:46:HIS:HD2	1:D:49:TYR:H	1.60	0.48
1:D:460:PRO:HB3	1:E:234:ALA:O	2.13	0.48
1:F:32:ILE:C	1:F:33:PHE:CD1	2.87	0.48
1:F:436:ASP:OD1	1:F:439:ALA:HB2	2.13	0.48
1:F:57:THR:O	1:A:422:PRO:CD	2.54	0.48
1:A:221:GLN:O	1:A:222:ASN:HB3	2.13	0.48
1:F:79:PHE:CE2	1:A:79:PHE:HA	2.49	0.48
1:B:164:TYR:N	1:B:164:TYR:CD2	2.80	0.48
1:B:46:HIS:NE2	1:B:48:TYR:HB2	2.28	0.48
1:C:252:TYR:CE2	1:C:293:SER:HB3	2.48	0.48
1:C:80:ALA:O	1:C:81:LEU:HD23	2.13	0.48
1:D:31:SER:C	1:D:32:ILE:HD12	2.34	0.48
1:D:81:LEU:CG	1:D:86:VAL:HG11	2.43	0.48
1:D:87:HIS:ND1	1:D:94:LEU:HD11	2.27	0.48
1:E:32:ILE:C	1:E:33:PHE:CD1	2.87	0.48
1:F:31:SER:C	1:F:32:ILE:HD12	2.33	0.48
1:F:397:LEU:HD22	1:F:402:ILE:HD11	1.94	0.48
1:F:397:LEU:CB	1:F:402:ILE:HD11	2.39	0.48
1:A:252:TYR:CE2	1:A:293:SER:HB3	2.48	0.48
1:F:82:PRO:HB2	1:A:86:VAL:HA	1.95	0.48
1:A:362:HIS:CE1	1:B:287:VAL:HG13	2.47	0.48
1:A:275:ASN:HA	1:D:353:TYR:H	1.78	0.48
1:E:122:LEU:HD23	1:E:139:ASP:HB2	1.95	0.48
1:E:145:LEU:HD23	1:E:217:PRO:CG	2.43	0.48
1:E:34:TYR:CD2	1:E:453:SER:O	2.66	0.48
1:A:104:SER:OG	1:B:231:LEU:HD21	2.14	0.48
1:A:148:LYS:HD3	1:A:148:LYS:O	2.13	0.48
1:A:77:ASN:OD1	1:A:93:ARG:HD2	2.13	0.48
1:B:205:ASN:O	1:B:205:ASN:OD1	2.30	0.48
1:B:142:GLN:NE2	1:C:258:THR:HG21	2.28	0.48
1:D:37:GLU:OE2	1:D:369:LYS:NZ	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:416:TYR:HB3	1:D:418:TYR:O	2.13	0.48
1:E:60:LYS:O	1:E:60:LYS:HG3	2.14	0.48
1:E:74:PRO:HG3	1:E:449:LYS:HA	1.94	0.48
1:A:119:PHE:O	1:A:140:ARG:HA	2.14	0.48
1:B:162:GLY:HA2	1:B:227:TYR:O	2.14	0.48
1:B:113:VAL:HG11	1:C:256:ILE:HG23	1.95	0.48
1:C:318:ASN:N	1:C:318:ASN:ND2	2.59	0.48
1:E:96:TRP:HA	1:E:96:TRP:CE3	2.47	0.48
1:F:34:TYR:CD2	1:F:453:SER:O	2.66	0.48
1:B:122:LEU:HD23	1:B:139:ASP:HB2	1.95	0.48
1:C:87:HIS:ND1	1:C:94:LEU:CG	2.76	0.48
1:C:94:LEU:HD23	1:C:378:SER:HB3	1.96	0.48
1:D:162:GLY:HA2	1:D:227:TYR:O	2.14	0.48
1:E:252:TYR:CE2	1:E:293:SER:HB3	2.48	0.48
1:D:142:GLN:NE2	1:E:258:THR:HG21	2.29	0.48
1:F:400:TRP:O	1:F:401:GLU:HB2	2.13	0.48
1:F:46:HIS:CD2	1:F:48:TYR:HB2	2.49	0.48
1:F:94:LEU:HD23	1:F:378:SER:HB3	1.95	0.48
1:A:46:HIS:HD2	1:A:49:TYR:H	1.62	0.48
1:B:32:ILE:C	1:B:33:PHE:CD1	2.87	0.48
1:C:257:TRP:NE1	1:D:127:ASN:ND2	2.61	0.48
1:D:252:TYR:CE2	1:D:293:SER:HB3	2.49	0.48
1:E:221:GLN:O	1:E:222:ASN:HB3	2.13	0.48
1:F:23:SER:HA	1:F:26:TYR:CZ	2.48	0.48
1:A:172:VAL:O	1:A:173:THR:C	2.51	0.48
1:A:162:GLY:HA2	1:A:227:TYR:O	2.14	0.48
1:B:353:TYR:CD1	1:C:140:ARG:NH2	2.82	0.48
1:C:417:ARG:HG3	1:C:417:ARG:NH1	2.28	0.48
1:C:64:ASN:ND2	1:C:64:ASN:N	2.62	0.48
1:D:151:GLN:NE2	1:D:302:GLN:HA	2.12	0.48
1:D:60:LYS:HG3	1:D:60:LYS:O	2.14	0.48
1:D:76:PRO:HD2	1:D:324:ASN:OD1	2.14	0.48
1:F:252:TYR:CE2	1:F:293:SER:HB3	2.48	0.48
1:F:60:LYS:O	1:F:60:LYS:HG3	2.14	0.48
1:A:116:HIS:CD2	1:A:218:LEU:HB2	2.49	0.47
1:A:397:LEU:HD22	1:A:402:ILE:HD11	1.90	0.47
1:A:436:ASP:OD1	1:A:439:ALA:HB2	2.13	0.47
1:A:94:LEU:HD23	1:A:378:SER:HB3	1.96	0.47
1:B:257:TRP:NE1	1:C:127:ASN:ND2	2.60	0.47
1:C:169:ARG:HD2	1:C:169:ARG:O	2.14	0.47
1:C:402:ILE:O	1:C:402:ILE:HG22	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:78:GLN:HG2	1:D:9:LYS:HB2	1.96	0.47
1:C:87:HIS:ND1	1:C:94:LEU:HG	2.23	0.47
1:E:32:ILE:N	1:E:32:ILE:CD1	2.72	0.47
1:A:322:TRP:CE3	1:A:322:TRP:HA	2.49	0.47
1:B:116:HIS:CD2	1:B:218:LEU:HB2	2.49	0.47
1:C:109:LEU:CD1	1:C:334:THR:HG22	2.44	0.47
1:D:122:LEU:HD23	1:D:139:ASP:HB2	1.94	0.47
1:D:206:PHE:HD2	1:D:216:LEU:HD13	1.78	0.47
1:D:64:ASN:ND2	1:D:64:ASN:N	2.61	0.47
1:E:46:HIS:CD2	1:E:48:TYR:HB2	2.49	0.47
1:A:477:ARG:HD2	1:A:479:ARG:HG2	1.97	0.47
1:B:200:GLY:CA	1:B:292:PRO:HG3	2.45	0.47
1:B:298:SER:OG	1:B:301:ASN:HB2	2.13	0.47
1:B:340:THR:HG21	1:C:259:ARG:HE	1.79	0.47
1:C:462:GLY:O	1:C:465:PHE:HB3	2.13	0.47
1:D:109:LEU:HD11	1:D:334:THR:CG2	2.44	0.47
1:C:365:MET:SD	1:D:165:TRP:CD2	3.07	0.47
1:D:416:TYR:O	1:D:417:ARG:C	2.53	0.47
1:D:361:TYR:HE1	1:E:181:CYS:N	2.11	0.47
1:E:95:VAL:CG1	1:E:400:TRP:CH2	2.96	0.47
1:F:298:SER:OG	1:F:301:ASN:HB2	2.14	0.47
1:F:243:PHE:HD2	1:F:319:GLY:HA2	1.71	0.47
1:A:37:GLU:OE2	1:A:369:LYS:NZ	2.47	0.47
1:C:298:SER:OG	1:C:301:ASN:HB2	2.14	0.47
1:C:32:ILE:C	1:C:33:PHE:CD1	2.87	0.47
1:C:21:LEU:HD23	1:C:388:HIS:CE1	2.49	0.47
1:D:109:LEU:CD1	1:D:334:THR:HG22	2.44	0.47
1:D:164:TYR:HE2	1:D:187:LYS:HB3	1.73	0.47
1:D:361:TYR:CE1	1:E:181:CYS:N	2.82	0.47
1:E:227:TYR:CD1	1:E:228:PRO:HD2	2.49	0.47
1:E:40:ARG:O	1:E:40:ARG:HG3	2.14	0.47
1:F:15:THR:N	1:F:16:PRO:CD	2.77	0.47
1:F:417:ARG:HD3	1:A:43:THR:HG21	1.97	0.47
1:F:64:ASN:N	1:F:64:ASN:ND2	2.61	0.47
1:A:298:SER:OG	1:A:301:ASN:HB2	2.14	0.47
1:A:46:HIS:CD2	1:A:48:TYR:HB2	2.50	0.47
1:F:82:PRO:HB2	1:A:86:VAL:HG22	1.97	0.47
1:C:227:TYR:CD1	1:C:228:PRO:HD2	2.49	0.47
1:D:119:PHE:O	1:D:140:ARG:HA	2.14	0.47
1:D:221:GLN:O	1:D:222:ASN:HB3	2.14	0.47
1:D:227:TYR:CD1	1:D:228:PRO:HD2	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:113:VAL:HG11	1:D:256:ILE:CG2	2.44	0.47
1:E:462:GLY:O	1:E:465:PHE:HB3	2.14	0.47
1:F:221:GLN:O	1:F:222:ASN:HB3	2.14	0.47
1:F:425:LYS:HD3	1:B:185:GLU:OE1	2.14	0.47
1:B:361:TYR:HD2	1:B:361:TYR:HA	1.51	0.47
1:C:109:LEU:HG	1:C:110:GLY:N	2.28	0.47
1:C:221:GLN:O	1:C:222:ASN:HB3	2.14	0.47
1:D:393:MET:HE1	1:D:396:VAL:CB	2.25	0.47
1:D:74:PRO:HG2	1:D:452:LEU:HD22	1.96	0.47
1:D:475:THR:O	1:E:312:ARG:CB	2.60	0.47
1:E:109:LEU:CD1	1:E:334:THR:HG22	2.45	0.47
1:E:116:HIS:CD2	1:E:218:LEU:HB2	2.49	0.47
1:A:140:ARG:NH2	1:E:353:TYR:CD1	2.82	0.47
1:E:37:GLU:OE2	1:E:369:LYS:NZ	2.47	0.47
1:F:162:GLY:HA2	1:F:227:TYR:O	2.13	0.47
1:F:251:VAL:HA	1:F:293:SER:O	2.15	0.47
1:F:390:GLN:OE1	1:F:390:GLN:HA	2.15	0.47
1:F:83:ASP:OD1	1:A:86:VAL:HG23	2.15	0.47
1:A:251:VAL:HA	1:A:293:SER:O	2.14	0.47
1:A:40:ARG:HG3	1:A:40:ARG:O	2.14	0.47
1:B:475:THR:O	1:C:312:ARG:CB	2.60	0.47
1:C:193:ASP:O	1:C:193:ASP:OD1	2.32	0.47
1:D:299:THR:CG2	1:E:249:GLU:N	2.77	0.47
1:D:435:GLU:HG2	1:D:439:ALA:CB	2.37	0.47
1:E:362:HIS:O	1:E:363:ARG:HD3	2.15	0.47
1:E:376:LEU:HA	1:E:376:LEU:HD12	1.79	0.47
1:A:28:GLN:HB2	1:A:378:SER:O	2.15	0.47
1:B:15:THR:O	1:B:15:THR:HG22	2.15	0.47
1:E:298:SER:OG	1:E:301:ASN:HB2	2.14	0.47
1:E:28:GLN:HB2	1:E:378:SER:O	2.15	0.47
1:E:41:LEU:O	1:E:42:LEU:HD23	2.15	0.47
1:E:64:ASN:HB3	1:E:197:MET:HB3	1.97	0.47
1:F:427:ALA:O	1:F:430:VAL:CG2	2.62	0.47
1:A:217:PRO:O	1:A:220:ILE:HG22	2.15	0.47
1:B:28:GLN:HB2	1:B:378:SER:O	2.15	0.47
1:B:64:ASN:ND2	1:B:64:ASN:N	2.61	0.47
1:C:148:LYS:HD3	1:C:148:LYS:O	2.15	0.47
1:C:162:GLY:HA2	1:C:227:TYR:O	2.14	0.47
1:C:431:ILE:HG22	1:C:432:PRO:N	2.30	0.47
1:C:458:GLN:NE2	1:D:19:LYS:CB	2.64	0.47
1:D:217:PRO:O	1:D:220:ILE:HG22	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:46:HIS:CD2	1:D:48:TYR:HB2	2.49	0.47
1:E:219:ASP:OD1	1:E:220:ILE:N	2.48	0.47
1:F:193:ASP:OD1	1:F:193:ASP:O	2.32	0.47
1:A:408:THR:HG23	1:A:409:SER:N	2.30	0.47
1:F:116:HIS:CD2	1:F:218:LEU:HB2	2.49	0.47
1:F:154:LEU:CD2	1:F:329:THR:HB	2.44	0.47
1:A:152:ILE:HD13	1:A:228:PRO:HG2	1.97	0.47
1:A:268:THR:CG2	1:A:269:THR:N	2.78	0.47
1:A:31:SER:C	1:A:32:ILE:HD12	2.36	0.47
1:B:477:ARG:HD3	1:B:477:ARG:HA	1.74	0.47
1:B:87:HIS:CE1	1:B:94:LEU:CD1	2.98	0.47
1:C:404:VAL:HG12	1:C:406:PRO:O	2.15	0.47
1:C:40:ARG:HG3	1:C:40:ARG:O	2.14	0.47
1:D:135:GLN:HE21	1:D:285:PRO:HD2	1.80	0.47
1:E:193:ASP:OD1	1:E:193:ASP:O	2.32	0.47
1:F:164:TYR:N	1:F:164:TYR:CD2	2.83	0.47
1:F:58:VAL:HG13	1:A:423:ALA:HB2	1.97	0.47
1:A:109:LEU:CD1	1:A:334:THR:HG22	2.45	0.46
1:A:93:ARG:HB2	1:A:400:TRP:CZ2	2.50	0.46
1:B:400:TRP:CE3	1:B:400:TRP:CA	2.98	0.46
1:D:219:ASP:OD1	1:D:220:ILE:N	2.48	0.46
1:F:135:GLN:HE21	1:F:285:PRO:HD2	1.80	0.46
1:A:193:ASP:O	1:A:193:ASP:OD1	2.33	0.46
1:B:119:PHE:O	1:B:140:ARG:HA	2.15	0.46
1:B:227:TYR:CD1	1:B:228:PRO:HD2	2.50	0.46
1:D:94:LEU:HD23	1:D:378:SER:HB3	1.96	0.46
1:E:162:GLY:HA2	1:E:227:TYR:O	2.15	0.46
1:E:169:ARG:HD2	1:E:169:ARG:O	2.15	0.46
1:E:66:TYR:HE2	1:E:196:MET:O	1.98	0.46
1:E:152:ILE:HD13	1:E:228:PRO:HG2	1.97	0.46
1:E:251:VAL:HA	1:E:293:SER:O	2.14	0.46
1:A:219:ASP:OD1	1:A:220:ILE:N	2.48	0.46
1:A:227:TYR:CD1	1:A:228:PRO:HD2	2.49	0.46
1:A:41:LEU:O	1:A:42:LEU:HD23	2.16	0.46
1:A:460:PRO:HG2	1:A:461:LEU:H	1.79	0.46
1:B:268:THR:CG2	1:B:269:THR:N	2.78	0.46
1:B:416:TYR:HB2	1:B:419:ILE:HG23	1.96	0.46
1:B:41:LEU:O	1:B:42:LEU:HD23	2.15	0.46
1:B:460:PRO:HG2	1:B:461:LEU:H	1.80	0.46
1:B:460:PRO:HB3	1:C:234:ALA:O	2.15	0.46
1:C:135:GLN:HE21	1:C:285:PRO:HD2	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:396:VAL:HG22	1:C:400:TRP:CE3	2.50	0.46
1:A:276:ASN:HA	1:D:352:GLU:OE2	2.16	0.46
1:D:462:GLY:O	1:D:465:PHE:HB3	2.16	0.46
1:F:109:LEU:HD11	1:F:334:THR:CG2	2.46	0.46
1:F:41:LEU:O	1:F:42:LEU:HD23	2.16	0.46
1:B:221:GLN:O	1:B:222:ASN:HB3	2.14	0.46
1:B:38:THR:CG2	1:B:370:LEU:HB2	2.46	0.46
1:B:64:ASN:HB3	1:B:197:MET:HB3	1.97	0.46
1:C:250:GLN:NE2	1:C:295:SER:HB3	2.14	0.46
1:C:460:PRO:HG2	1:C:461:LEU:H	1.81	0.46
1:D:193:ASP:OD1	1:D:193:ASP:O	2.33	0.46
1:F:169:ARG:HD2	1:F:169:ARG:O	2.15	0.46
1:F:109:LEU:CD1	1:F:334:THR:HG22	2.45	0.46
1:F:435:GLU:OE1	1:F:435:GLU:C	2.54	0.46
1:A:421:SER:OG	1:A:422:PRO:HD2	2.16	0.46
1:B:458:GLN:NE2	1:C:20:VAL:HG12	2.31	0.46
1:C:31:SER:C	1:C:32:ILE:HD12	2.36	0.46
1:C:60:LYS:O	1:C:60:LYS:HG3	2.15	0.46
1:D:148:LYS:HD2	1:D:198:GLU:OE1	2.16	0.46
1:E:122:LEU:HD11	1:E:260:GLY:CA	2.40	0.46
1:E:217:PRO:O	1:E:220:ILE:HG22	2.16	0.46
1:E:339:LEU:HB3	1:E:363:ARG:O	2.15	0.46
1:F:74:PRO:HG2	1:F:452:LEU:HD22	1.96	0.46
1:A:120:ASN:HD21	1:A:260:GLY:H	1.64	0.46
1:A:469:GLN:HE21	1:A:469:GLN:CA	2.21	0.46
1:A:58:VAL:HG11	1:A:363:ARG:NH1	2.29	0.46
1:B:109:LEU:HD11	1:B:334:THR:CG2	2.46	0.46
1:B:408:THR:C	1:B:410:SER:H	2.17	0.46
1:B:60:LYS:O	1:B:60:LYS:HG3	2.16	0.46
1:C:251:VAL:HA	1:C:293:SER:O	2.15	0.46
1:C:46:HIS:CD2	1:C:48:TYR:HB2	2.50	0.46
1:C:67:ARG:HA	1:C:67:ARG:HD3	1.58	0.46
1:D:32:ILE:C	1:D:33:PHE:CD1	2.89	0.46
1:D:41:LEU:O	1:D:42:LEU:HD23	2.15	0.46
1:D:460:PRO:HG2	1:D:461:LEU:H	1.81	0.46
1:D:477:ARG:HA	1:D:477:ARG:HD3	1.75	0.46
1:F:154:LEU:O	1:F:328:LEU:CD1	2.49	0.46
1:F:417:ARG:HH11	1:A:43:THR:HG21	1.81	0.46
1:A:462:GLY:O	1:A:465:PHE:HB3	2.15	0.46
1:A:64:ASN:ND2	1:A:64:ASN:N	2.64	0.46
1:A:67:ARG:HD3	1:A:67:ARG:HA	1.57	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:120:ASN:HD21	1:B:260:GLY:H	1.64	0.46
1:C:122:LEU:HD11	1:C:260:GLY:CA	2.39	0.46
1:C:149:GLN:HA	1:C:333:ASN:ND2	2.21	0.46
1:C:217:PRO:O	1:C:220:ILE:HG22	2.16	0.46
1:B:299:THR:CG2	1:C:249:GLU:N	2.79	0.46
1:D:120:ASN:HB2	1:D:214:SER:HB2	1.98	0.46
1:D:268:THR:CG2	1:D:269:THR:N	2.79	0.46
1:D:390:GLN:HA	1:D:390:GLN:OE1	2.15	0.46
1:E:135:GLN:HE21	1:E:285:PRO:HD2	1.81	0.46
1:D:353:TYR:CD1	1:E:140:ARG:NH2	2.83	0.46
1:F:119:PHE:O	1:F:140:ARG:HA	2.16	0.46
1:F:156:GLY:N	1:F:243:PHE:HD1	2.14	0.46
1:F:268:THR:CG2	1:F:269:THR:N	2.79	0.46
1:F:462:GLY:O	1:F:465:PHE:HB3	2.16	0.46
1:A:256:ILE:CG2	1:E:113:VAL:HG11	2.45	0.46
1:B:123:LEU:HD11	1:B:132:VAL:CG2	2.36	0.46
1:B:31:SER:C	1:B:32:ILE:HD12	2.36	0.46
1:B:77:ASN:OD1	1:B:93:ARG:HB3	2.16	0.46
1:C:219:ASP:OD1	1:C:220:ILE:N	2.48	0.46
1:B:146:ASP:CG	1:C:253:VAL:HG21	2.36	0.46
1:D:28:GLN:HB2	1:D:378:SER:O	2.16	0.46
1:D:365:MET:SD	1:E:165:TRP:CD2	3.09	0.46
1:E:123:LEU:HD11	1:E:132:VAL:CG2	2.37	0.46
1:E:268:THR:CG2	1:E:269:THR:N	2.78	0.46
1:F:148:LYS:O	1:F:148:LYS:HD3	2.15	0.46
1:F:217:PRO:O	1:F:220:ILE:HG22	2.16	0.46
1:A:164:TYR:N	1:A:164:TYR:CD2	2.82	0.46
1:A:234:ALA:O	1:E:460:PRO:HB3	2.16	0.46
1:B:109:LEU:CD1	1:B:334:THR:HG22	2.45	0.46
1:B:219:ASP:OD1	1:B:220:ILE:N	2.48	0.46
1:B:406:PRO:HA	1:B:407:PRO:HD3	1.63	0.46
1:C:119:PHE:O	1:C:140:ARG:HA	2.16	0.46
1:C:268:THR:CG2	1:C:269:THR:N	2.78	0.46
1:D:405:GLN:HB3	1:D:406:PRO:HD2	1.97	0.46
1:E:119:PHE:O	1:E:140:ARG:HA	2.15	0.46
1:F:219:ASP:OD1	1:F:220:ILE:N	2.48	0.46
1:F:227:TYR:CD1	1:F:228:PRO:HD2	2.51	0.46
1:F:425:LYS:HD3	1:B:185:GLU:CD	2.36	0.46
1:F:460:PRO:HG2	1:F:461:LEU:H	1.80	0.46
1:A:397:LEU:CD2	1:A:402:ILE:HD13	2.43	0.46
1:D:122:LEU:HD11	1:D:260:GLY:CA	2.41	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:401:GLU:OE1	1:D:401:GLU:HA	2.16	0.46
1:A:227:TYR:CZ	1:E:108:PRO:HA	2.50	0.46
1:F:102:GLN:HE21	1:F:305:ASN:HA	1.81	0.46
1:F:38:THR:CG2	1:F:370:LEU:HB2	2.46	0.46
1:A:435:GLU:C	1:A:435:GLU:OE1	2.54	0.45
1:B:135:GLN:HE21	1:B:285:PRO:HD2	1.80	0.45
1:B:102:GLN:HE21	1:B:305:ASN:HA	1.82	0.45
1:A:353:TYR:H	1:C:275:ASN:HA	1.80	0.45
1:F:404:VAL:HG12	1:F:405:GLN:N	2.31	0.45
1:F:417:ARG:HD3	1:A:43:THR:CG2	2.47	0.45
1:A:416:TYR:CE1	1:A:425:LYS:HE2	2.51	0.45
1:B:164:TYR:HD2	1:B:164:TYR:N	2.14	0.45
1:B:350:LEU:HD22	1:B:357:LYS:HB3	1.99	0.45
1:B:393:MET:HE2	1:B:396:VAL:N	2.24	0.45
1:C:120:ASN:HD21	1:C:260:GLY:H	1.65	0.45
1:C:400:TRP:O	1:C:401:GLU:CG	2.61	0.45
1:E:65:GLN:HG2	1:E:196:MET:HE1	1.98	0.45
1:E:460:PRO:HG2	1:E:461:LEU:H	1.80	0.45
1:F:419:ILE:CG2	1:F:419:ILE:O	2.64	0.45
1:A:102:GLN:HE21	1:A:305:ASN:HA	1.81	0.45
1:A:477:ARG:HD2	1:A:479:ARG:CG	2.46	0.45
1:D:120:ASN:HD21	1:D:260:GLY:H	1.64	0.45
1:D:40:ARG:O	1:D:40:ARG:HG3	2.15	0.45
1:D:80:ALA:O	1:D:81:LEU:HD23	2.16	0.45
1:F:120:ASN:HB2	1:F:214:SER:HB2	1.98	0.45
1:F:396:VAL:O	1:F:400:TRP:HB2	2.15	0.45
1:A:135:GLN:HE21	1:A:285:PRO:HD2	1.81	0.45
1:A:148:LYS:HD2	1:A:198:GLU:OE1	2.16	0.45
1:A:150:GLN:HG3	1:A:249:GLU:CB	2.25	0.45
1:B:123:LEU:HD11	1:B:132:VAL:CG1	2.45	0.45
1:B:148:LYS:HD3	1:B:148:LYS:O	2.16	0.45
1:B:217:PRO:O	1:B:220:ILE:HG22	2.16	0.45
1:C:123:LEU:HD11	1:C:132:VAL:CG1	2.45	0.45
1:C:109:LEU:HD11	1:C:334:THR:CG2	2.45	0.45
1:D:322:TRP:HA	1:D:322:TRP:HE3	1.81	0.45
1:F:120:ASN:HD21	1:F:260:GLY:H	1.64	0.45
1:F:362:HIS:O	1:F:363:ARG:HD3	2.16	0.45
1:F:364:HIS:HE2	1:F:366:GLU:CD	2.19	0.45
1:F:40:ARG:HG3	1:F:40:ARG:O	2.16	0.45
1:F:62:SER:OG	1:F:63:ALA:N	2.50	0.45
1:A:65:GLN:HG2	1:A:196:MET:HE1	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:150:GLN:HB2	1:C:249:GLU:HB2	1.99	0.45
1:D:164:TYR:CD2	1:D:187:LYS:O	2.70	0.45
1:D:245:PHE:CD1	1:D:245:PHE:C	2.90	0.45
1:D:87:HIS:ND1	1:D:94:LEU:CD2	2.78	0.45
1:E:252:TYR:CD2	1:E:293:SER:HB3	2.52	0.45
1:E:297:VAL:CG2	1:E:334:THR:HG23	2.28	0.45
1:E:47:PRO:O	1:E:60:LYS:HD3	2.16	0.45
1:F:417:ARG:O	1:F:418:TYR:HB2	2.17	0.45
1:F:65:GLN:HG2	1:F:196:MET:HE2	1.99	0.45
1:A:299:THR:CG2	1:B:249:GLU:N	2.78	0.45
1:A:350:LEU:HD22	1:A:357:LYS:HB3	1.99	0.45
1:A:76:PRO:HG3	1:A:95:VAL:HA	1.98	0.45
1:B:152:ILE:HD13	1:B:228:PRO:HG2	1.98	0.45
1:B:40:ARG:O	1:B:40:ARG:HG3	2.16	0.45
1:B:65:GLN:HG2	1:B:196:MET:HE1	1.98	0.45
1:C:322:TRP:HE3	1:C:322:TRP:HA	1.81	0.45
1:C:47:PRO:O	1:C:60:LYS:HD3	2.17	0.45
1:D:251:VAL:HA	1:D:293:SER:O	2.16	0.45
1:E:205:ASN:CA	1:E:224:ILE:HG12	2.45	0.45
1:F:28:GLN:HB2	1:F:378:SER:O	2.16	0.45
1:B:193:ASP:OD1	1:B:193:ASP:O	2.35	0.45
1:B:80:ALA:HB2	1:C:11:TYR:O	2.16	0.45
1:C:23:SER:HA	1:C:26:TYR:CZ	2.52	0.45
1:C:28:GLN:HB2	1:C:378:SER:O	2.16	0.45
1:C:478:LYS:CG	1:C:478:LYS:O	2.58	0.45
1:B:352:GLU:OE2	1:D:276:ASN:HA	2.17	0.45
1:D:350:LEU:HD22	1:D:357:LYS:HB3	1.99	0.45
1:F:252:TYR:CD2	1:F:293:SER:HB3	2.51	0.45
1:F:135:GLN:NE2	1:F:285:PRO:CD	2.80	0.45
1:A:109:LEU:HD11	1:A:334:THR:CG2	2.46	0.45
1:F:59:PRO:HG3	1:A:418:TYR:HD1	1.81	0.45
1:A:427:ALA:O	1:A:430:VAL:CG2	2.62	0.45
1:B:148:LYS:HD2	1:B:198:GLU:OE1	2.17	0.45
1:B:318:ASN:H	1:B:318:ASN:ND2	2.15	0.45
1:C:66:TYR:HE2	1:C:196:MET:O	2.00	0.45
1:D:19:LYS:O	1:D:19:LYS:HG3	2.17	0.45
1:D:257:TRP:NE1	1:E:127:ASN:ND2	2.63	0.45
1:B:353:TYR:HB3	1:D:275:ASN:HB3	1.98	0.45
1:B:459:PHE:N	1:B:459:PHE:CD1	2.85	0.45
1:C:164:TYR:CD2	1:C:187:LYS:O	2.69	0.45
1:D:389:LEU:HB2	1:D:397:LEU:HD21	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:120:ASN:HB2	1:E:214:SER:HB2	1.98	0.45
1:F:64:ASN:HB3	1:F:197:MET:HB3	1.99	0.45
1:F:318:ASN:ND2	1:F:318:ASN:H	2.14	0.45
1:F:376:LEU:HD12	1:F:376:LEU:HA	1.79	0.45
1:B:62:SER:OG	1:B:63:ALA:N	2.49	0.45
1:D:148:LYS:O	1:D:148:LYS:HD3	2.17	0.45
1:D:135:GLN:NE2	1:D:285:PRO:CD	2.80	0.45
1:E:102:GLN:HE21	1:E:305:ASN:HA	1.82	0.45
1:E:354:ASP:CB	1:E:357:LYS:HG2	2.45	0.45
1:F:152:ILE:HD13	1:F:228:PRO:HG2	1.99	0.45
1:A:303:ILE:O	1:A:304:PHE:CD1	2.71	0.44
1:A:420:GLU:CD	1:A:420:GLU:N	2.71	0.44
1:A:76:PRO:CG	1:A:95:VAL:HA	2.47	0.44
1:B:135:GLN:NE2	1:B:285:PRO:CD	2.80	0.44
1:B:252:TYR:HD1	1:B:253:VAL:O	2.00	0.44
1:C:154:LEU:HD11	1:C:160:ALA:HB2	2.00	0.44
1:C:390:GLN:HA	1:C:390:GLN:OE1	2.16	0.44
1:E:135:GLN:NE2	1:E:285:PRO:CD	2.80	0.44
1:E:31:SER:C	1:E:32:ILE:HD12	2.36	0.44
1:B:408:THR:O	1:B:408:THR:CG2	2.63	0.44
1:C:11:TYR:O	1:C:12:LEU:CD2	2.64	0.44
1:C:205:ASN:CA	1:C:224:ILE:HG12	2.46	0.44
1:C:28:GLN:OE1	1:C:28:GLN:HA	2.16	0.44
1:D:316:MET:N	1:D:316:MET:SD	2.91	0.44
1:D:47:PRO:O	1:D:60:LYS:HD3	2.17	0.44
1:E:9:LYS:HG2	1:E:11:TYR:HE1	1.83	0.44
1:E:123:LEU:HD11	1:E:132:VAL:CG1	2.45	0.44
1:E:181:CYS:SG	1:E:182:PRO:HD2	2.57	0.44
1:E:20:VAL:CG2	1:E:21:LEU:N	2.80	0.44
1:A:318:ASN:ND2	1:A:318:ASN:H	2.14	0.44
1:A:390:GLN:HA	1:A:390:GLN:OE1	2.17	0.44
1:A:47:PRO:O	1:A:60:LYS:HD3	2.17	0.44
1:B:66:TYR:HE2	1:B:196:MET:O	2.01	0.44
1:C:181:CYS:SG	1:C:182:PRO:HD2	2.58	0.44
1:D:64:ASN:HB3	1:D:197:MET:HB3	1.98	0.44
1:E:138:ASP:OD1	1:E:139:ASP:N	2.50	0.44
1:E:206:PHE:HD2	1:E:216:LEU:HD13	1.81	0.44
1:E:317:ASN:ND2	1:E:320:ILE:H	2.15	0.44
1:E:390:GLN:OE1	1:E:390:GLN:HA	2.17	0.44
1:E:410:SER:C	1:E:411:ILE:CG1	2.81	0.44
1:F:407:PRO:CG	1:F:410:SER:HB3	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:252:TYR:CD2	1:A:293:SER:HB3	2.52	0.44
1:A:365:MET:SD	1:B:165:TRP:CD2	3.10	0.44
1:A:417:ARG:O	1:A:418:TYR:HB2	2.18	0.44
1:B:138:ASP:OD1	1:B:139:ASP:N	2.50	0.44
1:B:245:PHE:C	1:B:245:PHE:CD1	2.91	0.44
1:B:263:GLU:CG	1:B:285:PRO:HA	2.47	0.44
1:B:28:GLN:OE1	1:B:28:GLN:HA	2.17	0.44
1:B:390:GLN:OE1	1:B:390:GLN:HA	2.16	0.44
1:C:350:LEU:HD22	1:C:357:LYS:HB3	1.99	0.44
1:C:87:HIS:HE1	1:C:94:LEU:HD12	1.79	0.44
1:E:148:LYS:O	1:E:148:LYS:HD3	2.17	0.44
1:E:28:GLN:HA	1:E:28:GLN:OE1	2.18	0.44
1:E:109:LEU:HD11	1:E:334:THR:CG2	2.46	0.44
1:F:148:LYS:HD2	1:F:198:GLU:OE1	2.18	0.44
1:F:350:LEU:HD22	1:F:357:LYS:HB3	1.99	0.44
1:F:420:GLU:N	1:F:420:GLU:CD	2.70	0.44
1:A:66:TYR:HE2	1:A:196:MET:O	2.00	0.44
1:A:263:GLU:CG	1:A:285:PRO:HA	2.47	0.44
1:A:419:ILE:CG2	1:A:419:ILE:O	2.64	0.44
1:F:86:VAL:HG22	1:A:82:PRO:HD2	1.98	0.44
1:B:145:LEU:CD1	1:B:291:SER:HB2	2.48	0.44
1:C:16:PRO:O	1:C:18:SER:N	2.51	0.44
1:C:102:GLN:HE21	1:C:305:ASN:HA	1.82	0.44
1:C:44:ILE:HG22	1:C:365:MET:HB3	1.99	0.44
1:C:97:ALA:HA	1:C:319:GLY:O	2.17	0.44
1:C:108:PRO:HA	1:D:227:TYR:CZ	2.52	0.44
1:D:459:PHE:CD1	1:D:459:PHE:N	2.85	0.44
1:D:62:SER:OG	1:D:63:ALA:N	2.50	0.44
1:E:245:PHE:CD1	1:E:245:PHE:C	2.91	0.44
1:E:120:ASN:HD21	1:E:260:GLY:H	1.64	0.44
1:A:407:PRO:HG2	1:A:410:SER:HB3	1.95	0.44
1:A:459:PHE:HB3	1:A:460:PRO:CD	2.42	0.44
1:B:251:VAL:CG2	1:B:292:PRO:HB2	2.47	0.44
1:B:275:ASN:HB3	1:E:353:TYR:HB3	1.99	0.44
1:B:390:GLN:CD	1:B:397:LEU:CD1	2.86	0.44
1:C:135:GLN:NE2	1:C:285:PRO:CD	2.80	0.44
1:C:318:ASN:H	1:C:318:ASN:ND2	2.15	0.44
1:D:102:GLN:HE21	1:D:305:ASN:HA	1.82	0.44
1:D:181:CYS:SG	1:D:182:PRO:HD2	2.58	0.44
1:D:299:THR:HG23	1:E:249:GLU:H	1.83	0.44
1:F:138:ASP:OD1	1:F:139:ASP:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:424:THR:CG2	1:F:425:LYS:H	2.31	0.44
1:A:135:GLN:NE2	1:A:285:PRO:CD	2.81	0.44
1:B:120:ASN:HB2	1:B:214:SER:HB2	2.00	0.44
1:B:181:CYS:SG	1:B:182:PRO:HD2	2.58	0.44
1:B:322:TRP:HA	1:B:322:TRP:HE3	1.83	0.44
1:B:44:ILE:HG22	1:B:365:MET:HB3	2.00	0.44
1:C:159:PRO:CD	1:C:438:TYR:HE2	2.30	0.44
1:D:28:GLN:OE1	1:D:28:GLN:HA	2.17	0.44
1:E:148:LYS:HD2	1:E:198:GLU:OE1	2.18	0.44
1:E:164:TYR:N	1:E:164:TYR:CD2	2.85	0.44
1:E:318:ASN:H	1:E:318:ASN:ND2	2.15	0.44
1:E:322:TRP:HA	1:E:322:TRP:HE3	1.83	0.44
1:F:478:LYS:CG	1:F:478:LYS:O	2.58	0.44
1:A:153:LEU:HD13	1:A:330:VAL:HG21	1.89	0.44
1:A:196:MET:HE2	1:A:196:MET:HA	2.00	0.44
1:A:245:PHE:C	1:A:245:PHE:CD1	2.91	0.44
1:A:477:ARG:HA	1:A:477:ARG:HD3	1.77	0.44
1:A:62:SER:OG	1:A:63:ALA:N	2.51	0.44
1:A:75:ASP:O	1:A:79:PHE:CE1	2.71	0.44
1:B:196:MET:HA	1:B:196:MET:HE2	1.99	0.44
1:F:408:THR:HG23	1:F:409:SER:N	2.33	0.44
1:F:417:ARG:HD2	1:A:444:TRP:CZ2	2.53	0.44
1:F:67:ARG:HD3	1:F:67:ARG:HA	1.58	0.44
1:A:120:ASN:HB2	1:A:214:SER:HB2	2.00	0.44
1:F:79:PHE:HD2	1:A:79:PHE:CA	2.31	0.44
1:A:81:LEU:CD2	1:A:86:VAL:HG11	2.42	0.44
1:B:136:THR:CG2	1:B:137:THR:N	2.66	0.44
1:D:123:LEU:HD11	1:D:132:VAL:CG2	2.37	0.44
1:E:459:PHE:N	1:E:459:PHE:CD1	2.85	0.44
1:E:477:ARG:HD3	1:E:477:ARG:HA	1.74	0.44
1:F:328:LEU:HD23	1:F:370:LEU:HD22	2.00	0.44
1:A:424:THR:CG2	1:A:425:LYS:H	2.31	0.43
1:B:153:LEU:HD12	1:B:330:VAL:CG2	2.16	0.43
1:B:50:PRO:N	1:B:60:LYS:HB3	2.33	0.43
1:C:41:LEU:O	1:C:42:LEU:HD23	2.17	0.43
1:D:328:LEU:HD23	1:D:370:LEU:HD22	2.00	0.43
1:D:458:GLN:HA	1:D:458:GLN:OE1	2.18	0.43
1:E:350:LEU:HD22	1:E:357:LYS:HB3	1.99	0.43
1:E:427:ALA:O	1:E:428:SER:OG	2.29	0.43
1:F:14:PRO:C	1:F:16:PRO:HD3	2.38	0.43
1:A:104:SER:HB3	1:A:369:LYS:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:228:PRO:HB2	1:A:230:TYR:CZ	2.53	0.43
1:A:459:PHE:CD1	1:A:459:PHE:N	2.86	0.43
1:A:92:GLU:N	1:A:92:GLU:OE1	2.51	0.43
1:B:67:ARG:HA	1:B:67:ARG:HD3	1.57	0.43
1:C:263:GLU:CG	1:C:285:PRO:HA	2.48	0.43
1:D:120:ASN:HB2	1:D:214:SER:CB	2.48	0.43
1:E:389:LEU:HB2	1:E:397:LEU:HD21	1.99	0.43
1:E:459:PHE:HB3	1:E:460:PRO:CD	2.41	0.43
1:E:62:SER:OG	1:E:63:ALA:N	2.51	0.43
1:F:123:LEU:HD11	1:F:132:VAL:CG1	2.45	0.43
1:F:81:LEU:CD2	1:F:86:VAL:HG11	2.43	0.43
1:A:97:ALA:HA	1:A:319:GLY:O	2.19	0.43
1:B:122:LEU:HD11	1:B:260:GLY:CA	2.40	0.43
1:A:296:LEU:HB3	1:B:252:TYR:CD2	2.54	0.43
1:C:152:ILE:HD13	1:C:228:PRO:HG2	1.99	0.43
1:C:182:PRO:HA	1:C:183:PRO:HD3	1.87	0.43
1:C:245:PHE:C	1:C:245:PHE:CD1	2.91	0.43
1:C:299:THR:CG2	1:D:249:GLU:N	2.81	0.43
1:C:151:GLN:NE2	1:C:302:GLN:HA	2.14	0.43
1:C:316:MET:N	1:C:316:MET:SD	2.92	0.43
1:D:120:ASN:HB2	1:D:214:SER:OG	2.19	0.43
1:D:242:MET:HE2	1:D:314:GLN:NE2	2.31	0.43
1:D:38:THR:CG2	1:D:370:LEU:HB2	2.47	0.43
1:D:70:LYS:HD3	1:D:443:PHE:HE1	1.83	0.43
1:E:74:PRO:HG2	1:E:452:LEU:CD2	2.48	0.43
1:A:154:LEU:HD11	1:A:160:ALA:HB2	2.00	0.43
1:A:28:GLN:HA	1:A:28:GLN:OE1	2.18	0.43
1:A:22:CYS:HB3	1:A:316:MET:HG3	2.00	0.43
1:A:297:VAL:CG2	1:A:334:THR:HG23	2.28	0.43
1:B:30:LYS:HB3	1:B:32:ILE:CD1	2.48	0.43
1:B:435:GLU:OE2	1:B:439:ALA:HB3	2.19	0.43
1:B:97:ALA:HA	1:B:319:GLY:O	2.18	0.43
1:D:318:ASN:H	1:D:318:ASN:ND2	2.14	0.43
1:E:390:GLN:CD	1:E:397:LEU:CD1	2.86	0.43
1:E:87:HIS:CD2	1:E:92:GLU:O	2.71	0.43
1:F:60:LYS:O	1:F:60:LYS:CG	2.67	0.43
1:A:322:TRP:HE3	1:A:322:TRP:HA	1.83	0.43
1:A:361:TYR:HD2	1:A:361:TYR:HA	1.51	0.43
1:B:113:VAL:HG11	1:C:256:ILE:CG2	2.47	0.43
1:C:400:TRP:C	1:C:401:GLU:HG2	2.38	0.43
1:C:62:SER:OG	1:C:63:ALA:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:223:GLU:OE1	1:D:223:GLU:HA	2.18	0.43
1:E:154:LEU:HD11	1:E:160:ALA:HB2	2.00	0.43
1:E:229:ASP:OD2	1:E:232:LYS:HB2	2.18	0.43
1:E:263:GLU:CG	1:E:285:PRO:HA	2.48	0.43
1:E:309:TRP:HB3	1:E:311:PHE:CE1	2.53	0.43
1:E:416:TYR:N	1:E:416:TYR:CD1	2.86	0.43
1:E:97:ALA:HA	1:E:319:GLY:O	2.19	0.43
1:F:205:ASN:CA	1:F:224:ILE:HG12	2.45	0.43
1:F:245:PHE:C	1:F:245:PHE:CD1	2.91	0.43
1:F:361:TYR:HA	1:F:361:TYR:HD2	1.52	0.43
1:A:23:SER:HA	1:A:26:TYR:CZ	2.53	0.43
1:A:316:MET:SD	1:A:316:MET:N	2.92	0.43
1:A:44:ILE:HG22	1:A:365:MET:HB3	2.00	0.43
1:B:68:VAL:CG2	1:B:329:THR:HG23	2.49	0.43
1:B:46:HIS:CG	1:B:47:PRO:HD2	2.54	0.43
1:C:252:TYR:CD2	1:C:293:SER:HB3	2.54	0.43
1:C:424:THR:CG2	1:C:425:LYS:N	2.81	0.43
1:D:228:PRO:HB2	1:D:230:TYR:CZ	2.54	0.43
1:D:97:ALA:HA	1:D:319:GLY:O	2.19	0.43
1:D:68:VAL:CG2	1:D:329:THR:HG23	2.49	0.43
1:E:196:MET:HE2	1:E:196:MET:HA	2.00	0.43
1:E:372:PHE:N	1:E:372:PHE:CD1	2.87	0.43
1:F:339:LEU:HB3	1:F:363:ARG:O	2.17	0.43
1:F:44:ILE:HG22	1:F:365:MET:HB3	2.00	0.43
1:A:120:ASN:HB2	1:A:214:SER:OG	2.19	0.43
1:A:150:GLN:HB2	1:A:249:GLU:HB2	2.01	0.43
1:A:145:LEU:CD1	1:A:291:SER:HB2	2.49	0.43
1:B:309:TRP:HB3	1:B:311:PHE:CE1	2.54	0.43
1:B:414:ASP:N	1:B:414:ASP:OD1	2.51	0.43
1:C:120:ASN:HB2	1:C:214:SER:HB2	1.99	0.43
1:C:138:ASP:OD1	1:C:139:ASP:N	2.51	0.43
1:D:252:TYR:CD2	1:D:293:SER:HB3	2.54	0.43
1:D:424:THR:CG2	1:D:425:LYS:N	2.81	0.43
1:D:60:LYS:CG	1:D:60:LYS:O	2.67	0.43
1:E:47:PRO:O	1:E:60:LYS:CD	2.66	0.43
1:F:120:ASN:HB2	1:F:214:SER:CB	2.48	0.43
1:A:364:HIS:C	1:A:365:MET:HG3	2.39	0.43
1:A:64:ASN:HB3	1:A:197:MET:HB3	1.99	0.43
1:F:83:ASP:CG	1:A:85:THR:HB	2.38	0.43
1:B:228:PRO:HB2	1:B:230:TYR:CZ	2.53	0.43
1:C:354:ASP:CB	1:C:357:LYS:HG2	2.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:459:PHE:N	1:C:459:PHE:CD1	2.85	0.43
1:D:154:LEU:HD11	1:D:160:ALA:HB2	2.00	0.43
1:D:66:TYR:HE2	1:D:196:MET:O	2.01	0.43
1:E:120:ASN:HB2	1:E:214:SER:OG	2.19	0.43
1:E:396:VAL:HG22	1:E:400:TRP:NE1	2.33	0.43
1:F:223:GLU:HA	1:F:223:GLU:OE1	2.18	0.43
1:F:263:GLU:CG	1:F:285:PRO:HA	2.48	0.43
1:F:47:PRO:O	1:F:60:LYS:HD3	2.18	0.43
1:A:138:ASP:OD1	1:A:139:ASP:N	2.52	0.43
1:A:38:THR:CG2	1:A:370:LEU:HB2	2.49	0.43
1:B:120:ASN:HB2	1:B:214:SER:OG	2.18	0.43
1:F:155:LEU:O	1:F:243:PHE:HD1	2.02	0.43
1:F:206:PHE:HD2	1:F:216:LEU:HD13	1.83	0.43
1:F:28:GLN:HA	1:F:28:GLN:OE1	2.18	0.43
1:F:93:ARG:HB2	1:F:400:TRP:CZ2	2.54	0.43
1:F:459:PHE:HB3	1:F:460:PRO:CD	2.42	0.43
1:A:328:LEU:HA	1:A:328:LEU:HD12	1.70	0.43
1:A:60:LYS:O	1:A:60:LYS:CG	2.66	0.43
1:B:108:PRO:HA	1:C:227:TYR:CZ	2.54	0.43
1:B:60:LYS:HE2	1:B:223:GLU:OE2	2.18	0.43
1:C:120:ASN:HB2	1:C:214:SER:OG	2.18	0.43
1:B:458:GLN:HE21	1:C:19:LYS:HE3	1.84	0.43
1:C:37:GLU:OE2	1:C:369:LYS:HE2	2.19	0.43
1:C:60:LYS:O	1:C:60:LYS:CG	2.67	0.43
1:C:65:GLN:HG2	1:C:196:MET:HE1	2.01	0.43
1:D:138:ASP:OD1	1:D:139:ASP:N	2.51	0.43
1:E:3:LEU:CD1	1:E:3:LEU:C	2.80	0.43
1:F:79:PHE:CA	1:A:79:PHE:HD2	2.32	0.43
1:F:88:ASN:OD1	1:F:91:LYS:NZ	2.48	0.43
1:A:309:TRP:HB3	1:A:311:PHE:CE1	2.53	0.42
1:B:154:LEU:HD11	1:B:160:ALA:HB2	2.00	0.42
1:B:242:MET:HE2	1:B:314:GLN:NE2	2.32	0.42
1:B:317:ASN:ND2	1:B:320:ILE:H	2.16	0.42
1:B:458:GLN:NE2	1:C:20:VAL:H	2.11	0.42
1:C:120:ASN:HB2	1:C:214:SER:CB	2.49	0.42
1:C:223:GLU:OE1	1:C:223:GLU:HA	2.19	0.42
1:C:309:TRP:HB3	1:C:311:PHE:CE1	2.54	0.42
1:C:37:GLU:OE2	1:C:369:LYS:CE	2.67	0.42
1:E:150:GLN:HB2	1:E:249:GLU:HB2	2.01	0.42
1:E:223:GLU:OE1	1:E:223:GLU:HA	2.18	0.42
1:A:127:ASN:ND2	1:E:257:TRP:NE1	2.62	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:60:LYS:O	1:E:60:LYS:CG	2.66	0.42
1:F:459:PHE:N	1:F:459:PHE:CD1	2.86	0.42
1:A:169:ARG:O	1:A:169:ARG:HD2	2.19	0.42
1:B:328:LEU:HD23	1:B:370:LEU:HD22	2.00	0.42
1:B:400:TRP:HB3	1:B:402:ILE:HG23	2.00	0.42
1:B:437:PRO:HB2	1:B:438:TYR:CD1	2.53	0.42
1:B:444:TRP:HD1	1:B:445:ASN:N	2.17	0.42
1:C:196:MET:HA	1:C:196:MET:HE2	2.01	0.42
1:D:9:LYS:O	1:D:9:LYS:CG	2.67	0.42
1:E:393:MET:HE2	1:E:396:VAL:N	2.27	0.42
1:F:120:ASN:HB2	1:F:214:SER:OG	2.19	0.42
1:F:316:MET:SD	1:F:316:MET:N	2.92	0.42
1:A:167:THR:HG23	1:A:182:PRO:HB2	2.01	0.42
1:B:186:LEU:HG	1:B:187:LYS:N	2.35	0.42
1:B:413:GLU:C	1:B:414:ASP:OD1	2.57	0.42
1:C:228:PRO:HB2	1:C:230:TYR:CZ	2.54	0.42
1:C:47:PRO:O	1:C:60:LYS:CD	2.68	0.42
1:D:150:GLN:HB2	1:D:249:GLU:HB2	2.00	0.42
1:D:74:PRO:HG2	1:D:452:LEU:CD2	2.50	0.42
1:A:181:CYS:CB	1:E:361:TYR:CD1	3.02	0.42
1:A:181:CYS:CB	1:E:361:TYR:CE1	3.02	0.42
1:E:38:THR:CG2	1:E:370:LEU:HB2	2.48	0.42
1:F:14:PRO:HD2	1:B:14:PRO:HD3	2.00	0.42
1:F:303:ILE:O	1:F:304:PHE:CD1	2.72	0.42
1:B:130:ARG:HG2	1:B:131:LYS:H	1.85	0.42
1:D:354:ASP:CB	1:D:357:LYS:HG2	2.45	0.42
1:E:40:ARG:HB2	1:E:367:GLU:OE2	2.20	0.42
1:E:95:VAL:HG22	1:E:377:CYS:O	2.19	0.42
1:F:66:TYR:HE2	1:F:196:MET:O	2.02	0.42
1:F:40:ARG:HB2	1:F:367:GLU:OE2	2.20	0.42
1:A:47:PRO:O	1:A:60:LYS:CD	2.68	0.42
1:C:144:GLY:HA3	1:D:125:ALA:HB2	2.01	0.42
1:C:186:LEU:HG	1:C:187:LYS:N	2.34	0.42
1:D:229:ASP:OD2	1:D:232:LYS:HB2	2.19	0.42
1:D:317:ASN:ND2	1:D:320:ILE:H	2.16	0.42
1:D:67:ARG:HA	1:D:67:ARG:HD3	1.58	0.42
1:E:44:ILE:HG22	1:E:365:MET:HB3	2.01	0.42
1:E:92:GLU:HA	1:E:381:ILE:HG12	2.01	0.42
1:F:309:TRP:HB3	1:F:311:PHE:CE1	2.54	0.42
1:F:87:HIS:ND1	1:F:94:LEU:CD1	2.75	0.42
1:A:186:LEU:HG	1:A:187:LYS:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:82:PRO:CG	1:A:86:VAL:HG13	2.45	0.42
1:B:274:LYS:HG2	1:B:275:ASN:N	2.35	0.42
1:B:41:LEU:C	1:B:42:LEU:HD23	2.40	0.42
1:C:30:LYS:HB3	1:C:32:ILE:CD1	2.49	0.42
1:C:328:LEU:HD23	1:C:370:LEU:HD22	2.01	0.42
1:C:74:PRO:HG2	1:C:452:LEU:CD2	2.49	0.42
1:C:459:PHE:HB3	1:C:460:PRO:CD	2.41	0.42
1:D:40:ARG:HB2	1:D:367:GLU:OE2	2.20	0.42
1:E:313:ALA:CB	1:E:318:ASN:HA	2.50	0.42
1:E:456:LEU:HA	1:E:456:LEU:HD23	1.86	0.42
1:F:22:CYS:HG	1:F:316:MET:HG3	1.79	0.42
1:F:438:TYR:N	1:F:438:TYR:CD1	2.88	0.42
1:F:74:PRO:HG2	1:F:452:LEU:CD2	2.50	0.42
1:A:122:LEU:HD11	1:A:260:GLY:CA	2.41	0.42
1:D:328:LEU:HD12	1:D:328:LEU:HA	1.73	0.42
1:D:144:GLY:HA3	1:E:125:ALA:HB2	2.01	0.42
1:E:328:LEU:HD23	1:E:370:LEU:HD22	2.02	0.42
1:E:77:ASN:ND2	1:E:94:LEU:H	2.18	0.42
1:F:228:PRO:HB2	1:F:230:TYR:CZ	2.55	0.42
1:F:354:ASP:CB	1:F:357:LYS:HG2	2.46	0.42
1:A:19:LYS:O	1:A:19:LYS:HG3	2.20	0.42
1:A:313:ALA:CB	1:A:318:ASN:HA	2.50	0.42
1:B:120:ASN:HB2	1:B:214:SER:CB	2.50	0.42
1:B:205:ASN:CA	1:B:224:ILE:HG12	2.47	0.42
1:B:40:ARG:HB2	1:B:367:GLU:OE2	2.19	0.42
1:C:16:PRO:O	1:C:17:VAL:C	2.57	0.42
1:C:17:VAL:O	1:C:17:VAL:HG12	2.19	0.42
1:C:64:ASN:HB3	1:C:197:MET:HB3	2.01	0.42
1:D:205:ASN:CA	1:D:224:ILE:HG12	2.46	0.42
1:D:226:LEU:HA	1:D:226:LEU:HD23	1.88	0.42
1:D:47:PRO:CB	1:D:62:SER:HA	2.49	0.42
1:E:364:HIS:HE2	1:E:366:GLU:CD	2.21	0.42
1:E:193:ASP:CB	1:E:443:PHE:HA	2.41	0.42
1:E:463:ARG:NH1	1:E:463:ARG:HB2	2.31	0.42
1:F:122:LEU:HD11	1:F:260:GLY:CA	2.40	0.42
1:F:420:GLU:N	1:F:420:GLU:OE1	2.52	0.42
1:F:59:PRO:HG3	1:A:418:TYR:CD1	2.55	0.42
1:A:116:HIS:CE1	1:A:118:THR:H	2.38	0.42
1:A:404:VAL:HG12	1:A:405:GLN:N	2.33	0.42
1:A:420:GLU:OE1	1:A:420:GLU:N	2.53	0.42
1:A:458:GLN:HA	1:A:458:GLN:OE1	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:74:PRO:HG2	1:A:452:LEU:CD2	2.49	0.42
1:B:150:GLN:HB2	1:B:249:GLU:HB2	2.01	0.42
1:B:316:MET:N	1:B:316:MET:SD	2.92	0.42
1:B:372:PHE:N	1:B:372:PHE:CD1	2.87	0.42
1:C:16:PRO:HG2	1:C:17:VAL:N	2.34	0.42
1:D:123:LEU:HD11	1:D:132:VAL:CG1	2.46	0.42
1:D:154:LEU:HB3	1:D:245:PHE:HB2	2.02	0.42
1:D:463:ARG:NH1	1:D:463:ARG:HB2	2.32	0.42
1:E:77:ASN:HD22	1:E:77:ASN:HA	1.62	0.42
1:A:193:ASP:HB2	1:A:443:PHE:CB	2.50	0.42
1:A:193:ASP:CB	1:A:443:PHE:HA	2.41	0.42
1:F:78:GLN:NE2	1:A:450:GLU:O	2.40	0.42
1:B:154:LEU:HB3	1:B:245:PHE:HB2	2.01	0.42
1:B:458:GLN:OE1	1:B:458:GLN:HA	2.19	0.42
1:B:77:ASN:HD22	1:B:77:ASN:HA	1.62	0.42
1:C:233:MET:HB2	1:C:242:MET:CE	2.48	0.42
1:C:376:LEU:HA	1:C:376:LEU:HD12	1.76	0.42
1:C:431:ILE:HA	1:C:432:PRO:HA	1.81	0.42
1:D:196:MET:HA	1:D:196:MET:HE2	2.01	0.42
1:E:228:PRO:HB2	1:E:230:TYR:CZ	2.55	0.42
1:E:274:LYS:HG2	1:E:275:ASN:N	2.35	0.42
1:E:361:TYR:HD2	1:E:361:TYR:HA	1.51	0.42
1:F:259:ARG:HA	1:F:259:ARG:HD3	1.82	0.42
1:F:317:ASN:ND2	1:F:320:ILE:H	2.17	0.42
1:A:164:TYR:N	1:A:164:TYR:HD2	2.18	0.41
1:A:299:THR:HG23	1:B:249:GLU:H	1.84	0.41
1:A:40:ARG:HB2	1:A:367:GLU:OE2	2.20	0.41
1:A:438:TYR:CD1	1:A:438:TYR:N	2.88	0.41
1:A:64:ASN:HD21	1:A:112:THR:HG21	1.85	0.41
1:B:226:LEU:HD23	1:B:226:LEU:HA	1.86	0.41
1:A:296:LEU:CA	1:B:252:TYR:HB3	2.40	0.41
1:C:40:ARG:HB2	1:C:367:GLU:OE2	2.19	0.41
1:D:108:PRO:HA	1:E:227:TYR:CZ	2.55	0.41
1:D:44:ILE:HG22	1:D:365:MET:HB3	2.01	0.41
1:E:316:MET:SD	1:E:316:MET:N	2.93	0.41
1:E:390:GLN:HA	1:E:397:LEU:HD11	2.01	0.41
1:E:405:GLN:CD	1:E:405:GLN:H	2.23	0.41
1:F:150:GLN:HB2	1:F:249:GLU:HB2	2.00	0.41
1:F:68:VAL:CG2	1:F:329:THR:HG23	2.49	0.41
1:A:123:LEU:HD11	1:A:132:VAL:CG1	2.46	0.41
1:A:182:PRO:HA	1:A:183:PRO:HD3	1.87	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:317:ASN:ND2	1:A:320:ILE:H	2.16	0.41
1:B:353:TYR:H	1:D:275:ASN:HA	1.85	0.41
1:B:402:ILE:HG13	1:B:403:GLY:N	2.34	0.41
1:C:404:VAL:HG11	1:C:406:PRO:O	2.20	0.41
1:C:421:SER:N	1:C:422:PRO:CD	2.82	0.41
1:D:263:GLU:CG	1:D:285:PRO:HA	2.48	0.41
1:D:71:ILE:HG23	1:D:448:LEU:HD12	1.99	0.41
1:E:120:ASN:HB2	1:E:214:SER:CB	2.49	0.41
1:E:478:LYS:O	1:E:478:LYS:CG	2.58	0.41
1:F:79:PHE:CA	1:A:79:PHE:CD2	3.03	0.41
1:A:460:PRO:HB3	1:B:234:ALA:O	2.21	0.41
1:B:401:GLU:HA	1:B:401:GLU:OE1	2.19	0.41
1:C:123:LEU:HD11	1:C:132:VAL:CG2	2.36	0.41
1:D:309:TRP:HB3	1:D:311:PHE:CE1	2.55	0.41
1:D:313:ALA:CB	1:D:318:ASN:HA	2.50	0.41
1:D:456:LEU:O	1:D:462:GLY:HA3	2.20	0.41
1:E:405:GLN:HB2	1:E:406:PRO:HD2	2.01	0.41
1:F:393:MET:CE	1:F:396:VAL:H	2.32	0.41
1:F:97:ALA:HA	1:F:319:GLY:O	2.19	0.41
1:A:249:GLU:H	1:E:299:THR:HG23	1.83	0.41
1:A:95:VAL:HG22	1:A:377:CYS:O	2.21	0.41
1:A:76:PRO:HD2	1:A:324:ASN:OD1	2.21	0.41
1:B:258:THR:HA	1:B:287:VAL:O	2.21	0.41
1:B:80:ALA:C	1:B:81:LEU:HD23	2.41	0.41
1:C:16:PRO:HB2	1:C:18:SER:HB3	2.02	0.41
1:C:20:VAL:HG22	1:C:21:LEU:N	2.35	0.41
1:C:313:ALA:CB	1:C:318:ASN:HA	2.50	0.41
1:C:328:LEU:HA	1:C:328:LEU:HD12	1.72	0.41
1:E:328:LEU:HA	1:E:328:LEU:HD12	1.74	0.41
1:F:222:ASN:O	1:F:222:ASN:CG	2.59	0.41
1:F:193:ASP:CB	1:F:443:PHE:HA	2.40	0.41
1:A:108:PRO:HA	1:B:227:TYR:CZ	2.55	0.41
1:A:274:LYS:HG2	1:A:275:ASN:N	2.35	0.41
1:B:153:LEU:HD13	1:B:330:VAL:HG21	1.89	0.41
1:C:299:THR:HG23	1:D:249:GLU:H	1.86	0.41
1:D:382:THR:O	1:D:383:ALA:C	2.58	0.41
1:D:476:VAL:HG12	1:D:476:VAL:O	2.20	0.41
1:F:79:PHE:HA	1:A:79:PHE:HD2	1.84	0.41
1:A:120:ASN:HB2	1:A:214:SER:CB	2.50	0.41
1:A:212:SER:O	1:A:213:LYS:HB2	2.21	0.41
1:B:382:THR:O	1:B:383:ALA:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:88:ASN:ND2	1:B:89:PRO:N	2.68	0.41
1:C:77:ASN:OD1	1:C:93:ARG:HB3	2.19	0.41
1:D:304:PHE:C	1:D:306:ARG:N	2.74	0.41
1:D:454:LEU:HG	1:D:454:LEU:O	2.20	0.41
1:A:125:ALA:HB2	1:E:144:GLY:HA3	2.02	0.41
1:F:182:PRO:HA	1:F:183:PRO:HD3	1.92	0.41
1:F:233:MET:HB2	1:F:242:MET:CE	2.51	0.41
1:F:313:ALA:CB	1:F:318:ASN:HA	2.51	0.41
1:A:222:ASN:CG	1:A:222:ASN:O	2.59	0.41
1:A:77:ASN:CG	1:A:93:ARG:HD2	2.41	0.41
1:C:417:ARG:NE	1:C:418:TYR:HE1	2.17	0.41
1:C:454:LEU:HG	1:C:454:LEU:O	2.20	0.41
1:D:30:LYS:HB3	1:D:32:ILE:CD1	2.48	0.41
1:E:138:ASP:OD1	1:E:140:ARG:N	2.45	0.41
1:F:201:PHE:HE2	1:F:217:PRO:HD3	1.86	0.41
1:F:247:ARG:O	1:F:247:ARG:HG3	2.20	0.41
1:F:193:ASP:HB2	1:F:443:PHE:CB	2.51	0.41
1:A:99:ILE:CD1	1:A:375:GLU:HB3	2.46	0.41
1:B:476:VAL:O	1:B:476:VAL:HG12	2.21	0.41
1:C:145:LEU:CD1	1:C:291:SER:HB2	2.51	0.41
1:C:433:ALA:HA	1:C:434:LYS:HA	1.58	0.41
1:B:78:GLN:NE2	1:C:8:GLN:O	2.54	0.41
1:D:317:ASN:C	1:D:317:ASN:ND2	2.74	0.41
1:D:376:LEU:HA	1:D:376:LEU:HD12	1.79	0.41
1:D:47:PRO:O	1:D:60:LYS:CD	2.69	0.41
1:D:64:ASN:HD21	1:D:112:THR:HG21	1.86	0.41
1:E:304:PHE:C	1:E:306:ARG:N	2.74	0.41
1:E:68:VAL:CG2	1:E:329:THR:HG23	2.50	0.41
1:E:41:LEU:C	1:E:42:LEU:HD23	2.41	0.41
1:F:297:VAL:CG2	1:F:334:THR:HG23	2.28	0.41
1:A:376:LEU:HD12	1:A:376:LEU:HA	1.77	0.41
1:A:41:LEU:C	1:A:42:LEU:HD23	2.40	0.41
1:B:149:GLN:HE22	1:B:297:VAL:CB	2.33	0.41
1:B:338:ASN:HD22	1:B:338:ASN:N	2.19	0.41
1:C:201:PHE:CE2	1:C:217:PRO:HD3	2.55	0.41
1:D:212:SER:O	1:D:213:LYS:HB2	2.20	0.41
1:E:259:ARG:HA	1:E:259:ARG:HD3	1.83	0.41
1:E:464:ARG:HA	1:E:464:ARG:HD3	1.87	0.41
1:F:456:LEU:O	1:F:462:GLY:HA3	2.21	0.41
1:F:47:PRO:O	1:F:60:LYS:CD	2.68	0.41
1:A:328:LEU:HD23	1:A:370:LEU:HD22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:104:SER:HB3	1:B:369:LYS:HB3	2.03	0.41
1:B:193:ASP:HB2	1:B:443:PHE:CB	2.51	0.41
1:B:222:ASN:O	1:B:222:ASN:CG	2.59	0.41
1:B:92:GLU:HA	1:B:381:ILE:HG12	2.02	0.41
1:B:60:LYS:O	1:B:60:LYS:CG	2.68	0.41
1:C:116:HIS:CE1	1:C:118:THR:H	2.39	0.41
1:C:148:LYS:HD2	1:C:198:GLU:OE1	2.20	0.41
1:C:229:ASP:OD2	1:C:232:LYS:HB2	2.21	0.41
1:C:475:THR:O	1:D:312:ARG:CB	2.64	0.41
1:D:36:ALA:HB2	1:D:452:LEU:HD13	2.03	0.41
1:E:116:HIS:CE1	1:E:118:THR:H	2.39	0.41
1:E:198:GLU:O	1:E:198:GLU:OE1	2.39	0.41
1:E:104:SER:HB3	1:E:369:LYS:HB3	2.02	0.41
1:F:274:LYS:HG2	1:F:275:ASN:N	2.36	0.41
1:F:322:TRP:O	1:F:323:ASN:CB	2.68	0.41
1:F:104:SER:HB3	1:F:369:LYS:HB3	2.03	0.41
1:F:99:ILE:CD1	1:F:375:GLU:HB3	2.46	0.41
1:A:113:VAL:CG1	1:A:114:THR:N	2.84	0.41
1:B:205:ASN:O	1:B:205:ASN:CG	2.60	0.41
1:B:95:VAL:HG22	1:B:377:CYS:O	2.21	0.41
1:B:478:LYS:O	1:B:478:LYS:CG	2.58	0.41
1:B:47:PRO:O	1:B:62:SER:HB2	2.21	0.41
1:B:64:ASN:HD21	1:B:112:THR:HG21	1.87	0.41
1:C:92:GLU:HA	1:C:381:ILE:HG12	2.03	0.41
1:C:417:ARG:NE	1:C:418:TYR:CE1	2.89	0.41
1:C:416:TYR:CD2	1:C:424:THR:HG23	2.55	0.41
1:D:274:LYS:HG2	1:D:275:ASN:N	2.36	0.41
1:D:104:SER:HB3	1:D:369:LYS:HB3	2.03	0.41
1:E:186:LEU:HG	1:E:187:LYS:N	2.35	0.41
1:E:317:ASN:C	1:E:317:ASN:ND2	2.74	0.41
1:F:168:ALA:O	1:F:169:ARG:C	2.59	0.41
1:F:87:HIS:ND1	1:F:94:LEU:CG	2.82	0.41
1:A:205:ASN:CG	1:A:205:ASN:O	2.59	0.40
1:A:258:THR:HA	1:A:287:VAL:O	2.21	0.40
1:A:30:LYS:HB3	1:A:32:ILE:CD1	2.48	0.40
1:A:32:ILE:HG22	1:A:34:TYR:CE1	2.56	0.40
1:C:372:PHE:N	1:C:372:PHE:CD1	2.89	0.40
1:C:398:GLU:CG	1:C:399:ASN:N	2.84	0.40
1:D:372:PHE:N	1:D:372:PHE:CD1	2.88	0.40
1:E:80:ALA:C	1:E:81:LEU:HD23	2.41	0.40
1:F:113:VAL:CG1	1:F:114:THR:N	2.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:44:ILE:HG21	1:F:44:ILE:HD13	1.85	0.40
1:A:431:ILE:O	1:A:431:ILE:HG22	2.20	0.40
1:A:454:LEU:HG	1:A:454:LEU:O	2.21	0.40
1:B:233:MET:HB2	1:B:242:MET:CE	2.51	0.40
1:B:328:LEU:HD12	1:B:328:LEU:HA	1.73	0.40
1:B:364:HIS:C	1:B:365:MET:HG3	2.41	0.40
1:C:148:LYS:NZ	1:C:198:GLU:OE1	2.48	0.40
1:C:458:GLN:OE1	1:C:458:GLN:HA	2.21	0.40
1:D:130:ARG:HG2	1:D:131:LYS:H	1.85	0.40
1:D:182:PRO:HA	1:D:183:PRO:HD3	1.87	0.40
1:D:186:LEU:HG	1:D:187:LYS:N	2.35	0.40
1:D:193:ASP:HB2	1:D:443:PHE:CB	2.51	0.40
1:E:168:ALA:O	1:E:169:ARG:C	2.60	0.40
1:E:182:PRO:HA	1:E:183:PRO:HD3	1.87	0.40
1:E:338:ASN:ND2	1:E:338:ASN:N	2.69	0.40
1:F:201:PHE:CE2	1:F:217:PRO:HD3	2.56	0.40
1:F:372:PHE:N	1:F:372:PHE:CD1	2.89	0.40
1:F:41:LEU:C	1:F:42:LEU:HD23	2.42	0.40
1:A:317:ASN:ND2	1:A:317:ASN:C	2.75	0.40
1:B:116:HIS:CE1	1:B:118:THR:H	2.39	0.40
1:B:386:VAL:CG1	1:B:402:ILE:HD12	2.51	0.40
1:B:435:GLU:HG3	1:B:436:ASP:O	2.22	0.40
1:B:299:THR:HG23	1:C:249:GLU:H	1.85	0.40
1:C:32:ILE:HG22	1:C:34:TYR:CE1	2.56	0.40
1:C:41:LEU:C	1:C:42:LEU:HD23	2.42	0.40
1:E:169:ARG:H	1:E:169:ARG:HG3	1.75	0.40
1:E:222:ASN:CG	1:E:222:ASN:O	2.59	0.40
1:E:226:LEU:HD23	1:E:226:LEU:HA	1.88	0.40
1:E:323:ASN:O	1:E:324:ASN:C	2.59	0.40
1:E:338:ASN:HD22	1:E:338:ASN:N	2.18	0.40
1:F:116:HIS:CE1	1:F:118:THR:H	2.39	0.40
1:F:169:ARG:HA	1:F:170:PRO:HD2	1.85	0.40
1:F:404:VAL:HG12	1:F:406:PRO:HD2	2.04	0.40
1:F:458:GLN:OE1	1:F:458:GLN:HA	2.20	0.40
1:A:154:LEU:HB3	1:A:245:PHE:HB2	2.03	0.40
1:A:251:VAL:CG2	1:A:252:TYR:N	2.85	0.40
1:A:317:ASN:HD21	1:A:320:ILE:HB	1.87	0.40
1:B:317:ASN:ND2	1:B:317:ASN:C	2.74	0.40
1:B:424:THR:CG2	1:B:425:LYS:N	2.83	0.40
1:C:212:SER:O	1:C:213:LYS:HB2	2.22	0.40
1:C:68:VAL:CG2	1:C:329:THR:HG23	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:113:VAL:CG1	1:E:114:THR:N	2.85	0.40
1:E:205:ASN:O	1:E:205:ASN:CG	2.59	0.40
1:A:249:GLU:N	1:E:299:THR:HG23	2.37	0.40
1:E:456:LEU:O	1:E:462:GLY:HA3	2.20	0.40
1:F:186:LEU:HG	1:F:187:LYS:N	2.36	0.40
1:F:304:PHE:C	1:F:306:ARG:N	2.75	0.40
1:F:322:TRP:HA	1:F:322:TRP:HE3	1.83	0.40
1:F:477:ARG:HD3	1:F:477:ARG:HA	1.76	0.40
1:F:95:VAL:HG22	1:F:377:CYS:O	2.21	0.40
1:A:35:HIS:C	1:A:35:HIS:CD2	2.94	0.40
1:A:400:TRP:HB3	1:A:402:ILE:HG23	2.03	0.40
1:A:87:HIS:ND1	1:A:94:LEU:HG	2.34	0.40
1:B:313:ALA:CB	1:B:318:ASN:HA	2.51	0.40
1:B:354:ASP:CB	1:B:357:LYS:HG2	2.45	0.40
1:C:193:ASP:HB2	1:C:443:PHE:CB	2.51	0.40
1:C:205:ASN:CG	1:C:205:ASN:O	2.60	0.40
1:C:304:PHE:C	1:C:306:ARG:N	2.75	0.40
1:C:382:THR:O	1:C:383:ALA:C	2.60	0.40
1:C:80:ALA:C	1:C:81:LEU:HD23	2.42	0.40
1:D:150:GLN:NE2	1:D:152:ILE:HD11	2.35	0.40
1:D:201:PHE:CE2	1:D:217:PRO:HD3	2.57	0.40
1:D:222:ASN:O	1:D:222:ASN:CG	2.59	0.40
1:D:361:TYR:HD2	1:D:361:TYR:HA	1.51	0.40
1:D:405:GLN:HE21	1:D:405:GLN:HB2	1.59	0.40
1:E:135:GLN:HG3	1:E:135:GLN:H	1.74	0.40
1:E:212:SER:O	1:E:213:LYS:HB2	2.21	0.40
1:E:193:ASP:HB2	1:E:443:PHE:CB	2.51	0.40
1:F:205:ASN:CB	1:F:224:ILE:HG12	2.51	0.40
1:F:431:ILE:HG22	1:F:431:ILE:O	2.20	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles

### 5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	479/495 (97%)	436 (91%)	42 (9%)	1 (0%)	51	84
1	B	467/495 (94%)	430 (92%)	36 (8%)	1 (0%)	51	84
1	C	479/495 (97%)	435 (91%)	41 (9%)	3 (1%)	28	70
1	D	479/495 (97%)	444 (93%)	35 (7%)	0	100	100
1	E	479/495 (97%)	438 (91%)	39 (8%)	2 (0%)	38	76
1	F	467/495 (94%)	425 (91%)	41 (9%)	1 (0%)	51	84
All	All	2850/2970 (96%)	2608 (92%)	234 (8%)	8 (0%)	48	81

All (8) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	F	406	PRO
1	A	406	PRO
1	C	406	PRO
1	C	430	VAL
1	E	432	PRO
1	B	432	PRO
1	E	411	ILE
1	C	13	PRO

### 5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	417/430 (97%)	388 (93%)	29 (7%)	18	53
1	B	407/430 (95%)	372 (91%)	35 (9%)	12	45
1	C	417/430 (97%)	382 (92%)	35 (8%)	13	46
1	D	417/430 (97%)	382 (92%)	35 (8%)	13	46
1	E	417/430 (97%)	381 (91%)	36 (9%)	12	45
1	F	407/430 (95%)	379 (93%)	28 (7%)	18	53
All	All	2482/2580 (96%)	2284 (92%)	198 (8%)	18	48



All (198) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	F	60	LYS
1	F	64	ASN
1	F	88	ASN
1	F	98	VAL
1	F	139	ASP
1	F	154	LEU
1	F	157	CYS
1	F	164	TYR
1	F	199	ILE
1	F	220	ILE
1	F	225	CYS
1	F	276	ASN
1	F	296	LEU
1	F	299	THR
1	F	301	ASN
1	F	305	ASN
1	F	317	ASN
1	F	318	ASN
1	F	322	TRP
1	F	355	SER
1	F	365	MET
1	F	387	SER
1	F	400	TRP
1	F	442	LYS
1	F	443	PHE
1	F	445	ASN
1	F	463	ARG
1	F	473	CYS
1	A	22	CYS
1	A	60	LYS
1	A	64	ASN
1	A	88	ASN
1	A	98	VAL
1	A	139	ASP
1	A	154	LEU
1	A	157	CYS
1	A	164	TYR
1	A	199	ILE
1	A	220	ILE
1	A	225	CYS
1	A	250	GLN
1	A	276	ASN

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Mol	Chain	Res	Type
1	A	296	LEU
1	A	299	THR
1	A	301	ASN
1	A	305	ASN
1	A	317	ASN
1	A	318	ASN
1	A	322	TRP
1	A	355	SER
1	A	365	MET
1	A	387	SER
1	A	400	TRP
1	A	442	LYS
1	A	443	PHE
1	A	463	ARG
1	A	473	CYS
1	B	22	CYS
1	B	60	LYS
1	B	64	ASN
1	B	77	ASN
1	B	79	PHE
1	B	83	ASP
1	B	88	ASN
1	B	98	VAL
1	B	139	ASP
1	B	154	LEU
1	B	157	CYS
1	B	164	TYR
1	B	171	CYS
1	B	199	ILE
1	B	220	ILE
1	B	225	CYS
1	B	276	ASN
1	B	296	LEU
1	B	299	THR
1	B	301	ASN
1	B	305	ASN
1	B	317	ASN
1	B	318	ASN
1	B	322	TRP
1	B	355	SER
1	B	365	MET
1	B	387	SER

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Mol	Chain	Res	Type
1	B	400	TRP
1	B	415	THR
1	B	419	ILE
1	B	426	CYS
1	B	442	LYS
1	B	443	PHE
1	B	445	ASN
1	B	473	CYS
1	C	6	GLN
1	C	15	THR
1	C	22	CYS
1	C	60	LYS
1	C	64	ASN
1	C	77	ASN
1	C	79	PHE
1	C	83	ASP
1	C	88	ASN
1	C	98	VAL
1	C	139	ASP
1	C	154	LEU
1	C	157	CYS
1	C	164	TYR
1	C	199	ILE
1	C	220	ILE
1	C	225	CYS
1	C	276	ASN
1	C	296	LEU
1	C	299	THR
1	C	301	ASN
1	C	305	ASN
1	C	317	ASN
1	C	318	ASN
1	C	322	TRP
1	C	355	SER
1	C	364	HIS
1	C	365	MET
1	C	387	SER
1	C	438	TYR
1	C	442	LYS
1	C	443	PHE
1	C	445	ASN
1	C	463	ARG

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Mol	Chain	Res	Type
1	C	473	CYS
1	D	9	LYS
1	D	60	LYS
1	D	64	ASN
1	D	77	ASN
1	D	79	PHE
1	D	83	ASP
1	D	88	ASN
1	D	98	VAL
1	D	139	ASP
1	D	154	LEU
1	D	157	CYS
1	D	164	TYR
1	D	199	ILE
1	D	220	ILE
1	D	225	CYS
1	D	276	ASN
1	D	296	LEU
1	D	299	THR
1	D	301	ASN
1	D	305	ASN
1	D	317	ASN
1	D	318	ASN
1	D	322	TRP
1	D	355	SER
1	D	364	HIS
1	D	365	MET
1	D	387	SER
1	D	400	TRP
1	D	415	THR
1	D	417	ARG
1	D	442	LYS
1	D	443	PHE
1	D	445	ASN
1	D	463	ARG
1	D	473	CYS
1	E	3	LEU
1	E	12	LEU
1	E	22	CYS
1	E	60	LYS
1	E	64	ASN
1	E	77	ASN

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Mol	Chain	Res	Type
1	E	79	PHE
1	E	83	ASP
1	E	88	ASN
1	E	98	VAL
1	E	139	ASP
1	E	154	LEU
1	E	157	CYS
1	E	164	TYR
1	E	199	ILE
1	E	220	ILE
1	E	225	CYS
1	E	276	ASN
1	E	296	LEU
1	E	299	THR
1	E	301	ASN
1	E	305	ASN
1	E	317	ASN
1	E	318	ASN
1	E	322	TRP
1	E	355	SER
1	E	365	MET
1	E	387	SER
1	E	413	GLU
1	E	414	ASP
1	E	426	CYS
1	E	442	LYS
1	E	443	PHE
1	E	445	ASN
1	E	463	ARG
1	E	473	CYS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (115) such sidechains are listed below:

Mol	Chain	Res	Type
1	F	64	ASN
1	F	72	GLN
1	F	77	ASN
1	F	87	HIS
1	F	102	GLN
1	F	135	GLN
1	F	149	GLN
1	F	151	GLN

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Mol	Chain	Res	Type
1	F	221	GLN
1	F	250	GLN
1	F	305	ASN
1	F	314	GLN
1	F	317	ASN
1	F	318	ASN
1	F	338	ASN
1	F	359	ASN
1	F	445	ASN
1	F	468	GLN
1	A	64	ASN
1	A	72	GLN
1	A	77	ASN
1	A	87	HIS
1	A	102	GLN
1	A	135	GLN
1	A	142	GLN
1	A	149	GLN
1	A	151	GLN
1	A	221	GLN
1	A	250	GLN
1	A	305	ASN
1	A	314	GLN
1	A	317	ASN
1	A	318	ASN
1	A	338	ASN
1	A	429	ASN
1	A	468	GLN
1	A	469	GLN
1	B	64	ASN
1	B	72	GLN
1	B	78	GLN
1	B	87	HIS
1	B	88	ASN
1	B	102	GLN
1	B	135	GLN
1	B	142	GLN
1	B	149	GLN
1	B	151	GLN
1	B	221	GLN
1	B	250	GLN
1	B	305	ASN

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Mol	Chain	Res	Type
1	B	314	GLN
1	B	317	ASN
1	B	318	ASN
1	B	338	ASN
1	B	445	ASN
1	B	458	GLN
1	B	468	GLN
1	C	6	GLN
1	C	64	ASN
1	C	72	GLN
1	C	87	HIS
1	C	88	ASN
1	C	102	GLN
1	C	135	GLN
1	C	142	GLN
1	C	149	GLN
1	C	151	GLN
1	C	221	GLN
1	C	250	GLN
1	C	305	ASN
1	C	314	GLN
1	C	317	ASN
1	C	318	ASN
1	C	338	ASN
1	C	388	HIS
1	C	445	ASN
1	C	468	GLN
1	D	64	ASN
1	D	72	GLN
1	D	87	HIS
1	D	88	ASN
1	D	102	GLN
1	D	135	GLN
1	D	142	GLN
1	D	149	GLN
1	D	151	GLN
1	D	221	GLN
1	D	250	GLN
1	D	305	ASN
1	D	314	GLN
1	D	317	ASN
1	D	318	ASN

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Mol	Chain	Res	Type
1	D	338	ASN
1	D	405	GLN
1	D	445	ASN
1	D	468	GLN
1	E	64	ASN
1	E	72	GLN
1	E	87	HIS
1	E	88	ASN
1	E	102	GLN
1	E	135	GLN
1	E	142	GLN
1	E	149	GLN
1	E	151	GLN
1	E	221	GLN
1	E	250	GLN
1	E	305	ASN
1	E	314	GLN
1	E	317	ASN
1	E	318	ASN
1	E	338	ASN
1	E	399	ASN
1	E	445	ASN
1	E	468	GLN

### 5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

### 5.6 Ligand geometry ⓘ

There are no ligands in this entry.

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

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

There are no chain breaks in this entry.