



# Full wwPDB X-ray Structure Validation Report ⓘ

Jun 11, 2024 – 06:00 PM EDT

PDB ID : 1IYJ  
Title : STRUCTURE OF A BRCA2-DSS1 COMPLEX  
Authors : Pavletich, N.P.; Jeffrey, P.D.; Yang, H.J.  
Deposited on : 2002-08-28  
Resolution : 3.40 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4.02b-467  
Xtrriage (Phenix) : **NOT EXECUTED**  
EDS : **NOT EXECUTED**  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.36.2

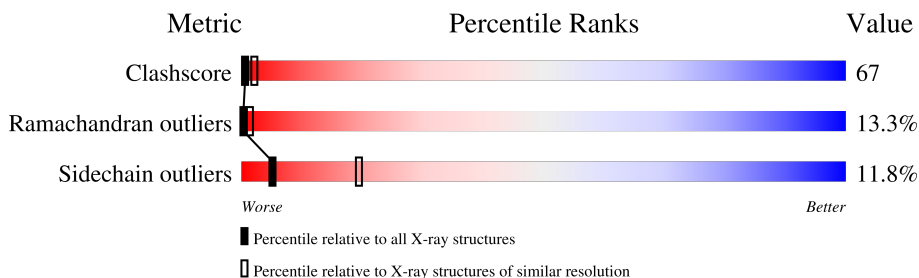
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.40 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	141614	1055 (3.48-3.32)
Ramachandran outliers	138981	1038 (3.48-3.32)
Sidechain outliers	138945	1038 (3.48-3.32)

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

Note EDS was not executed.

Mol	Chain	Length	Quality of chain
1	A	70	10% (green), 33% (yellow), 21% (orange), 36% (grey)
1	C	70	7% (green), 33% (yellow), 24% (orange), 36% (grey)
2	B	817	15% (green), 45% (yellow), 12% (orange), 28% (grey)
2	D	817	17% (green), 43% (yellow), 12% (orange), 28% (grey)

## 2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 10092 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 Deleted in split hand/split foot protein 1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
1	A	45	380	235	59	86	0	0	0
1	C	45	380	235	59	86	0	0	0

- Molecule 2 is a protein called breast cancer susceptibility.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	B	591	4666	2984	805	862	15	0	0	0
2	D	591	4666	2984	805	862	15	0	0	0

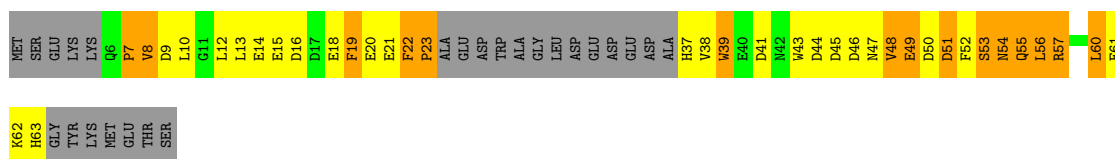
### 3 Residue-property plots

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

Note EDS was not executed.

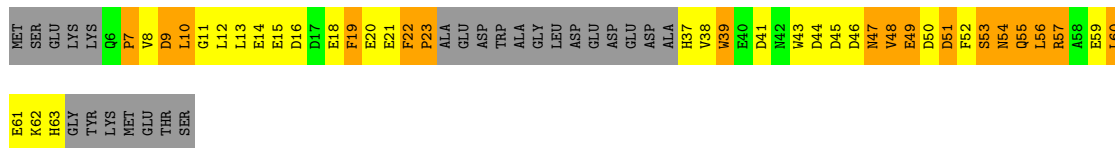
- Molecule 1: Deleted in split hand/split foot protein 1

Chain A:



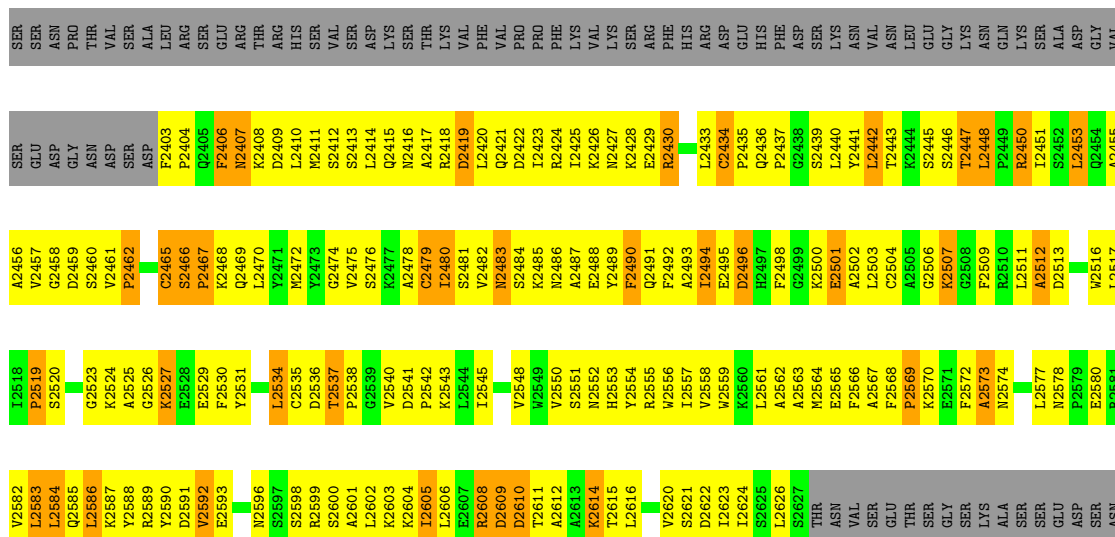
- Molecule 1: Deleted in split hand/split foot protein 1

Chain C:



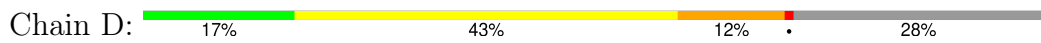
- Molecule 2: breast cancer susceptibility

Chain B:



T2652 D2653 G2654 W2655 V2656 L2657 W2658 K2659	L2662 D2663 P2664 V2665 L2666 L2667 G2668 L2669 K2670 D2671 L2672 L2673 W2674 V2675 L2676 D2677 L2678 L2679 L2680 L2681 L2682 L2683 L2684 L2685 L2686 L2687 L2688 L2689	L2691 L2692 L2693 L2694 L2695 L2696 L2697 L2698 L2699 L2700 L2701 L2702 L2703 L2704 L2705 L2706 L2707 L2708	L2709 L2710 L2711 L2712 L2713 L2714 L2715 L2716 L2717 L2718 L2719 L2720 L2721 L2722 L2723 L2724 L2725 L2726	L2727 L2728 L2729 L2730 L2731 L2732 L2733 L2734 L2735 L2736 L2737 L2738 L2739 L2740 L2741 L2742 L2743 L2744 L2745 L2746 L2747 L2748 L2749 L2750 L2751 L2752 L2753 L2754 L2755 L2756 L2757 L2758 L2759 L2760 L2761 L2762 L2763 L2764 L2765 L2766 L2767 L2768	L2769 L2770 L2771 L2772 L2773 L2774 L2775 L2776 L2777 L2778 L2779 L2780 L2781 L2782 L2783 L2784 ALA GLU HIS GLU GLU GLU GLN GLN LYS LYS PHE THR ALA LEU LEU ASN ASN HIS HIS THR GLU GLU MET MET HIS GLU SER GLU ASP LYS ILE GLN ALA GLN ALA ARG ARG ARG ARG ARG ARG ALA ALA ALA GLN GLN VAL ALA HIS GLY LEU GLY LEU	L2882 R2883 D2884 V2885 L2886 L2887 L2888 L2889 L2890 L2891 L2892 L2893 L2894 L2895 L2896 L2897 L2898 L2899 L2900 L2901 L2902 L2903 L2904 L2905 L2906 L2907 L2908 L2909 L2910 L2911 L2912 L2913 L2914 L2915 L2916 L2917 L2918 L2919 L2920 L2921 L2922 L2923 L2924 L2925 L2926 L2927 L2928 L2929 L2930 L2931 L2932 L2933 L2934 L2935 L2936 L2937 L2938 L2939 L2940 L2941 L2942 L2943 L2944 L2945 L2946 L2947 L2948 L2949 L2950 L2951 L2952	L2953 Q2954 L2955 L2956 L2957 L2958 L2959 R2960 T2961 L2962 L2963 L2964 L2965 L2966 L2967 L2968 L2969 L2970 L2971 L2972 L2973 L2974 L2975 L2976 L2977 L2978 L2979 L2980 L2981 L2982 L2983 L2984 L2985 L2986 L2987 L2988 L2989 L2990 L2991 L2992 L2993 L2994 L2995 L2996 L2997 L2998 L2999 L3000 D3001 V3002 V3003 V3004 V3005 V3006 V3007 S3008 V3009 V3010 K3011 P3012 L3013 G3014 L3015 A3016 P3017	L3018 V3019 Y3020 L3021 S3022 D3023 K3024 C3025 L3026 H3027 L3028 L3029 V3030 V3031 K3032 F3033 G3034 L3035 D3036 D3037 N3038 E3039 D3040 L3041 K3042 P3043 R3044 V3045 L3046 L3047 L3048 A3049 S3050 N3051 W3054 R3055 P3056 E3057 S3058 T3059 S3060 R3061 V3062 P3063 L3064 L3065 A3067 G3068 H3069 F3070 S3071 V3072 F3073 H3081 F3082 Q3083 E3084	R3085 V3086 T3087 N3088 K3089 K3090 H3091 A3092 L3093 E3094 N3095 L3096 D3097 F3098 F3099 K3101 E3102 A3103 E3104 K3105 K3106 L3107 I3108 G3109 V3110 L3111 G3112 G3113 D3114 S3115 P3116 K3117 TRP THR PRO LYS ASN ASP PRO THR ARG GLU PRO TYR PRO ALA SER THR CYS GLY ALA SER GLY GLY	GLN LEU PRU ARG SER PRU
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• Molecule 2: breast cancer susceptibility



SER GLU ASP GLY ASN ASP SER ASP L2403 P2404 Q2405 F2406 M2407 K2408 D2409 L2410 M2411 S2412 K2413 L2414 Q2415 N2416 L2417 D2418 R2419 L2420 Q2421 D2422 L2423 E2424 L2425 Q2426 F2427 L2428 S2429 E2430 D2431 L2432 E2433 L2434 Q2435 L2436 L2437 L2438 L2439 L2440 Y2441 L2442 L2443 K2444 S2445 L2446 T2447 L2448 P2449 R2450 L2451 L2452 L2453 V2457 G2458	D2459 S2460 V2461 P2462 S2463 C2464 C2465 S2466 P2467 L2468 Q2469 L2470 V2471 M2472 L2473 V2474 S2475 D2476 L2477 A2478 C2479 L2480 S2481 V2482 N2483 D2484 K2485 M2486 E2487 L2488 L2489 L2490 A2491 E2492 A2493 E2494 E2495 D2496 H2497 F2498 G2499 K2500 E2501 A2502 L2503 C2504 G2505 A2506 K2507 L2508 L2509 D2510 L2511 L2512 L2513 V2514 L2515 R2516 L2517 L2518 L2519 S2520 G2523	K2524 A2525 G2526 K2527 E2528 E2529 F2530 Y2531 L2532 L2533 L2534 L2535 D2536 T2537 P2538 G2539 L2540 L2541 D2542 S2543 K2544 L2545 L2546 V2547 L2548 S2549 L2550 L2551 L2552 H2553 Y2554 R2555 L2556 L2557 L2558 L2559 L2560 L2561 A2562 A2563 M2564 E2565 F2566 A2567 F2568 P2569 K2570 E2571 F2572 A2573 N2574 L2577 M2578 E2579 L2580 R2581 L2582 L2583 L2584 Q2585 L2586 K2587	Y2588 R2589 L2590 D2591 W2592 E2593 L2594 N2595 S2596 L2597 S2598 L2599 R2600 S2601 L2602 K2603 L2604 L2605 L2606 L2607 L2608 D2609 D2610 L2611 A2612 L2613 K2614 L2615 L2616 L2617 L2618 L2619 L2620 S2621 D2622 L2623 L2624 L2625 L2626 S2627 THR ASN VAL SER GLU THR SER GLY SER SER ALA SER SER GLU ASP SER L2628 L2629 L2630 L2631 L2632 L2633 L2634 L2635 L2636 L2637 L2638 L2639 L2640 L2641 L2642 L2643 L2644 L2645 L2646 L2647 L2648 L2649	T2652 D2653 G2654 W2655 V2656 L2657 W2658 K2659 L2662 D2663 P2664 V2665 L2666 L2667 G2668 L2669 K2670 D2671 L2672 L2673 W2674 V2675 L2676 D2677 L2678 L2679 L2680 L2681 L2682 L2683 L2684 L2685 L2686 L2687 L2688 L2689 L2690 S2691 P2692 D2693 A2694 P2697 L2698 P2701 L2704 R2705 L2706 K2707 L2708 S2709 L2710 L2711 S2712 L2713 R2714 P2715
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E3094	C3025	R2960	W2899	K2779	A2716
N3095	L3026	T2961	K2900	E2780	R2717
I3096	H3027	L2966	L2901	A2781	H2718
D3097	L3028	L2967	R2902	S2782	L2719
F3099	L3029	V2968	V2903	A2783	S2720
Y3100	V3030	V2969	T2904	F2784	K2721
K3101	V3031	S2970	S2905	ALA	ALA
F3102	K3032	E2971	Y2906	GLU	GLU
A3103	F3033	S2972	K2907	HIS	F2724
E3104	G3034	L2973	K2908	ALA	F2725
K3105	I3035	L2974	R2909	GLN	H2726
K3106	D3036	L2975	CYS	LYS	R2729
L3107	L3037	Q2976	K2910	LYS	R2730
I3108	N3038	Q2977	K2911	LYS	F2731
Q3109	E3039	Q2978	S2912	LEU	P2732
V3110	D3040	P2979	A2913	GLU	P2733
L3111	I3041	R2980	L2914	ALA	L2733
K3112	K3042	E2981	L2915	GLN	P2734
G3113	P3043	L2982	S2916	LEU	L2735
D3114	R3044	L2983	I2917	THR	S2736
S3115	V3045	P2984	W2918	LYS	S2737
P3116	L3046	F2985	R2919	VAL	L2738
K3117	I3047	S2986	P2920	HIS	F2739
TRP	A3048	K2987	S2921	THR	S2740
SER	A3049	L2988	S2922	GLU	D2741
THR	S3050	S2989	D2923	LEU	G2742
PRO	N3051	D2990	L2924	LYS	G2743
ASN	W3054	P2991	P2925	GLU	N2744
LYS	R3055	A2992	S2926	HIS	V2745
ASP	P3056	F2993	L2927	LEU	V2746
PRO	E3057	Q2984	L2928	GLU	G2747
THR	S3058	P2995	T2929	ASP	C2747
ARG	T3059	P2996	E2930	LYS	V2748
GLU	S3060	C2997	G2931	LYS	D2749
PRO	R3061	E2999	H2938	ALA	V2750
TYR	V3062	V3000	L2939	GLN	L2751
PRO	P3063	D3001	S2940	ARG	V2752
ALA	T3064	V3002	V2941	ILE	Q2753
SER	F3066	V3005	K2942	ARG	R2754
ASP	G3068	V3007	S2943	GLU	V2755
ALA	H3069	S3008	K2944	THR	V2756
SER	F3070	V3009	S2945	ARG	E2762
LEU	S3071	V3010	N2946	GLN	K2763
ALA	H3081	K3011	E2949	GLN	T2764
SER	F3082	P3012	P2950	VAL	T2764
GLY	Q3083	G3014	P2951	HIS	V2765
GLY	E3084	L3015	S2952	ALA	S2766
GLN	R3085	A3016	I2953	LYS	G2767
LEU	V3086	P3017	Q2954	GLU	S2768
PRO	T3087	L3018	L2955	ASP	Y2769
ARG	N3088	V3019	T2956	GLY	W2772
SER	M3089	Y3020	A2957	ALA	R2773
SER	K3090	L3021	T2896	LEU	E2774
PRO	H3091	S3022	T2897	TYR	R2775
	A3092	D3023	V2898	ALA	E2776
	I3093	E3024	K2959	ALA	E2777
				VAL	E2778

## 4 Data and refinement statistics

Xtrriage (Phenix) and EDS were not executed - this section is therefore incomplete.

Property	Value	Source
Space group	P 43	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	130.31Å 130.31Å 192.62Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	8.00 – 3.40	Depositor
% Data completeness (in resolution range)	(Not available) (8.00-3.40)	Depositor
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	(Not available)	Depositor
Refinement program	CNS	Depositor
R, $R_{free}$	0.244 , 0.295	Depositor
Estimated twinning fraction	No twinning to report.	Xtrriage
Total number of atoms	10092	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	56.0	wwPDB-VP

## 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  >5	RMSZ	# Z  >5
1	A	0.42	0/388	0.80	1/526 (0.2%)
1	C	0.41	0/388	0.80	1/526 (0.2%)
2	B	0.42	0/4774	0.71	2/6475 (0.0%)
2	D	0.42	0/4774	0.71	3/6475 (0.0%)
All	All	0.42	0/10324	0.71	7/14002 (0.0%)

There are no bond length outliers.

All (7) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	2467	PRO	N-CA-CB	6.04	110.54	103.30
2	D	2467	PRO	N-CA-CB	5.96	110.45	103.30
1	A	7	PRO	N-CA-CB	5.61	110.03	103.30
1	C	7	PRO	N-CA-CB	5.50	109.90	103.30
2	D	2941	VAL	N-CA-C	-5.50	96.16	111.00
2	B	2941	VAL	N-CA-C	-5.38	96.48	111.00
2	D	2501	GLU	N-CA-C	-5.02	97.45	111.00

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	380	0	306	61	0
1	C	380	0	306	66	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	B	4666	0	4694	652	0
2	D	4666	0	4694	629	0
All	All	10092	0	10000	1356	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 67.

All (1356) 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)
2:D:2683:THR:HG22	2:D:2713:THR:HB	1.22	1.16
2:D:2750:VAL:HG11	2:D:2903:VAL:HB	1.18	1.16
2:B:2683:THR:HG22	2:B:2713:THR:HB	1.20	1.13
2:B:2750:VAL:HG11	2:B:2903:VAL:HB	1.19	1.12
2:B:2942:SER:HB3	2:B:2953:ILE:HD11	1.39	1.03
2:B:2483:ASN:H	2:B:2486:ASN:ND2	1.56	1.02
2:B:2483:ASN:N	2:B:2486:ASN:HD21	1.58	1.02
2:D:2483:ASN:H	2:D:2486:ASN:ND2	1.57	1.01
2:B:2404:PRO:HB2	2:B:2410:LEU:HD22	1.37	1.01
2:B:3061:ARG:HG3	2:B:3062:VAL:HG12	1.41	1.01
2:D:2950:TRP:H	2:D:2951:PRO:HD2	1.26	1.00
2:D:2430:ARG:HG3	2:D:2430:ARG:HH11	1.27	1.00
2:D:2483:ASN:N	2:D:2486:ASN:HD21	1.59	0.99
2:B:2430:ARG:HG3	2:B:2430:ARG:HH11	1.28	0.99
2:B:2750:VAL:CG1	2:B:2903:VAL:HB	1.92	0.99
2:D:3061:ARG:HG3	2:D:3062:VAL:HG12	1.45	0.99
2:B:2950:TRP:H	2:B:2951:PRO:HD2	1.26	0.98
2:D:2483:ASN:H	2:D:2486:ASN:HD21	1.03	0.98
2:D:2750:VAL:CG1	2:D:2903:VAL:HB	1.92	0.98
2:D:2773:ASN:H	2:D:2776:GLU:HB2	1.29	0.97
2:D:2773:ASN:ND2	2:D:2776:GLU:HG3	1.80	0.96
2:B:2608:ARG:HH11	2:B:2608:ARG:HB2	1.30	0.95
2:B:2959:LYS:H	2:B:2959:LYS:HD3	1.32	0.95
2:D:2665:PRO:HG3	2:D:2742:GLY:HA2	1.44	0.95
2:B:2773:ASN:H	2:B:2776:GLU:HB2	1.32	0.94
2:D:2942:SER:HB3	2:D:2953:ILE:HD11	1.45	0.94
2:D:2758:LEU:HD21	2:D:2897:THR:HB	1.50	0.93
2:B:2403:PHE:HA	2:B:2503:LEU:HD11	1.52	0.92
2:D:2959:LYS:H	2:D:2959:LYS:HD3	1.30	0.91
2:B:2483:ASN:H	2:B:2486:ASN:HD21	0.99	0.91
2:D:2608:ARG:HH11	2:D:2608:ARG:HB2	1.34	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2608:ARG:HH22	2:B:2688:LEU:HD23	1.37	0.90
2:B:2758:LEU:HD21	2:B:2897:THR:HB	1.50	0.90
2:B:2773:ASN:ND2	2:B:2776:GLU:HG3	1.85	0.90
2:B:2665:PRO:HG3	2:B:2742:GLY:HA2	1.53	0.89
2:D:2709:SER:O	2:D:2713:THR:HG22	1.72	0.88
2:D:2917:ILE:HG22	2:D:2920:PRO:HG3	1.56	0.87
2:B:2917:ILE:HD13	2:B:2924:LEU:HD21	1.54	0.87
2:D:2656:TYR:CD2	2:D:2697:PRO:HB2	2.10	0.87
2:B:2750:VAL:HG11	2:B:2903:VAL:CB	2.04	0.87
2:B:2709:SER:O	2:B:2713:THR:HG22	1.76	0.86
2:D:2750:VAL:HG11	2:D:2903:VAL:CB	2.03	0.86
2:D:2552:ASN:HD21	2:D:2556:TRP:HE1	1.23	0.86
2:D:2944:SER:HB2	2:D:2954:GLN:HE21	1.41	0.85
2:D:2426:LYS:HG3	2:D:2430:ARG:HH22	1.41	0.85
2:B:2430:ARG:HG3	2:B:2430:ARG:NH1	1.88	0.85
2:B:2608:ARG:HH11	2:B:2608:ARG:CB	1.88	0.85
2:B:2552:ASN:HD21	2:B:2556:TRP:HE1	1.21	0.85
2:B:3116:PRO:O	2:B:3117:LYS:HG2	1.77	0.85
2:D:2608:ARG:HH11	2:D:2608:ARG:CB	1.89	0.85
2:D:2917:ILE:HD13	2:D:2924:LEU:HD21	1.57	0.84
2:B:2944:SER:HB2	2:B:2954:GLN:HE21	1.41	0.84
2:D:3048:ALA:HB1	2:D:3082:PHE:CD2	2.12	0.84
2:B:2414:LEU:HD23	2:B:2506:GLY:HA2	1.59	0.84
2:D:2430:ARG:HG3	2:D:2430:ARG:NH1	1.89	0.84
2:D:2953:ILE:HG13	2:D:2954:GLN:H	1.41	0.84
2:B:2656:TYR:CD2	2:B:2697:PRO:HB2	2.13	0.83
2:B:3048:ALA:HB1	2:B:3082:PHE:CD2	2.13	0.83
2:D:2733:LEU:HD23	2:D:2733:LEU:H	1.43	0.83
2:B:2744:ASN:HB2	2:B:2940:SER:CB	2.09	0.83
2:D:2608:ARG:HH22	2:D:2688:LEU:HD23	1.43	0.83
2:D:2904:THR:OG1	2:D:2910:GLU:HB2	1.79	0.83
2:B:2902:ARG:HH11	2:B:2902:ARG:HB2	1.42	0.83
2:D:2414:LEU:HD23	2:D:2506:GLY:HA2	1.59	0.82
2:D:2739:PHE:HB2	2:D:2742:GLY:HA3	1.60	0.82
2:B:2426:LYS:HG3	2:B:2430:ARG:HH22	1.45	0.82
2:D:2902:ARG:HH11	2:D:2902:ARG:HB2	1.43	0.82
2:D:2421:GLN:HB2	2:D:2424:ARG:NH2	1.95	0.82
2:D:2683:THR:HG22	2:D:2713:THR:CB	2.09	0.82
2:B:2953:ILE:HG13	2:B:2954:GLN:H	1.44	0.81
2:B:2764:THR:HB	2:B:2767:GLY:O	1.80	0.81
2:B:2752:VAL:HA	2:B:2903:VAL:HG12	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2404:PRO:HG2	2:B:2504:CYS:HA	1.63	0.81
2:B:2683:THR:CG2	2:B:2713:THR:HB	2.06	0.81
2:B:2904:THR:OG1	2:B:2910:GLU:HB2	1.81	0.81
2:D:2980:ARG:HH21	2:D:3051:ASN:HD21	1.29	0.81
2:D:3030:VAL:HG23	2:D:3062:VAL:HG22	1.62	0.80
2:B:2683:THR:HG22	2:B:2713:THR:CB	2.06	0.80
2:B:2713:THR:O	2:B:2714:ARG:HD3	1.81	0.80
2:B:2490:PHE:CZ	2:B:2577:LEU:HD21	2.16	0.80
2:B:2739:PHE:HB2	2:B:2742:GLY:HA3	1.63	0.80
2:D:2750:VAL:HG12	2:D:2751:ILE:H	1.46	0.80
2:D:2437:PRO:HG2	2:D:2442:LEU:HD11	1.63	0.79
2:B:2950:TRP:H	2:B:2951:PRO:CD	1.95	0.79
2:B:2479:CYS:O	2:B:2482:VAL:HG12	1.82	0.79
2:B:2744:ASN:HB2	2:B:2940:SER:HB3	1.64	0.79
2:D:3009:VAL:HG22	2:D:3019:VAL:HG22	1.61	0.79
2:B:2917:ILE:HG22	2:B:2920:PRO:HG3	1.64	0.79
2:B:3030:VAL:HG23	2:B:3062:VAL:HG22	1.64	0.79
2:D:2764:THR:HB	2:D:2767:GLY:O	1.82	0.79
2:D:2933:ARG:HB3	2:D:2966:LEU:O	1.83	0.79
2:B:2773:ASN:HD21	2:B:2776:GLU:HG3	1.46	0.78
2:D:2589:ARG:HG2	2:D:2655:TRP:CH2	2.18	0.78
2:B:2687:GLU:HB2	2:B:2707:LYS:HB3	1.63	0.78
2:B:3007:VAL:HB	2:B:3104:GLU:CD	2.03	0.78
2:D:2744:ASN:HB2	2:D:2940:SER:HB3	1.66	0.78
2:D:2744:ASN:HB2	2:D:2940:SER:CB	2.13	0.78
2:B:2589:ARG:HG3	2:B:2589:ARG:HH11	1.49	0.78
2:D:2404:PRO:HB2	2:D:2410:LEU:HD22	1.64	0.78
2:D:2675:LEU:HD21	2:D:2681:ILE:HD11	1.64	0.78
2:D:2683:THR:CG2	2:D:2713:THR:HB	2.09	0.78
2:B:2733:LEU:HD23	2:B:2733:LEU:H	1.48	0.78
2:D:2950:TRP:H	2:D:2951:PRO:CD	1.95	0.78
2:D:2427:ASN:HA	2:D:2430:ARG:CZ	2.14	0.77
2:D:2479:CYS:O	2:D:2482:VAL:HG12	1.84	0.77
2:D:2484:SER:HB2	2:D:2559:TRP:CZ2	2.19	0.77
2:B:2558:VAL:HG13	2:B:2577:LEU:HD11	1.64	0.77
2:D:2614:LYS:CG	2:D:2615:THR:H	1.98	0.77
2:D:2666:LEU:HG	2:D:2710:ALA:HB2	1.67	0.76
2:B:2772:ARG:HA	2:B:2776:GLU:OE1	1.85	0.76
2:D:2426:LYS:O	2:D:2430:ARG:NH1	2.19	0.76
2:D:2773:ASN:HD21	2:D:2776:GLU:HG3	1.47	0.76
2:B:2750:VAL:HG12	2:B:2751:ILE:H	1.51	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2980:ARG:NH2	2:D:3051:ASN:HD21	1.84	0.76
2:B:2909:ARG:O	2:B:2910:GLU:HG2	1.86	0.76
2:D:2713:THR:O	2:D:2714:ARG:HD3	1.84	0.75
2:B:2738:LEU:HD13	2:B:2745:VAL:HG21	1.69	0.75
2:B:2427:ASN:HA	2:B:2430:ARG:CZ	2.15	0.75
2:B:2980:ARG:HH21	2:B:3051:ASN:HD21	1.33	0.75
2:D:3007:VAL:HB	2:D:3104:GLU:CD	2.05	0.75
1:A:56:LEU:H	2:B:2462:PRO:HG2	1.51	0.75
2:B:3113:GLY:O	2:B:3114:ASP:HB2	1.87	0.75
2:D:2589:ARG:HG3	2:D:2589:ARG:HH11	1.52	0.75
2:D:2909:ARG:O	2:D:2910:GLU:HG2	1.86	0.75
2:D:3048:ALA:HB1	2:D:3082:PHE:HD2	1.52	0.75
2:B:2413:SER:HB2	2:B:2506:GLY:HA3	1.69	0.75
1:A:54:ASN:O	1:A:55:GLN:HB2	1.85	0.74
2:B:2933:ARG:HB3	2:B:2966:LEU:O	1.86	0.74
1:C:54:ASN:O	1:C:55:GLN:HB2	1.87	0.74
1:A:62:LYS:HE3	2:B:2676:THR:HG21	1.70	0.74
2:D:2780:GLU:HA	2:D:2783:ARG:HB3	1.70	0.74
2:B:2985:PHE:HD1	2:B:2985:PHE:H	1.36	0.74
2:D:2501:GLU:C	2:D:2503:LEU:H	1.90	0.74
2:D:3017:PRO:O	2:D:3018:LEU:HD23	1.87	0.74
2:D:3083:GLN:HA	2:D:3086:VAL:HG12	1.70	0.73
2:B:2944:SER:HB2	2:B:2954:GLN:NE2	2.02	0.73
2:B:2940:SER:O	2:B:2941:VAL:HG23	1.87	0.73
2:D:2494:ILE:HD12	2:D:2495:GLU:H	1.53	0.73
2:D:3033:PHE:HA	2:D:3067:ALA:HB3	1.71	0.73
2:B:2614:LYS:CG	2:B:2615:THR:H	1.99	0.73
2:B:3009:VAL:HG22	2:B:3019:VAL:HG22	1.70	0.73
2:B:2450:ARG:NH1	2:B:2450:ARG:HB3	2.04	0.73
2:B:3083:GLN:HA	2:B:3086:VAL:HG12	1.68	0.73
2:D:2534:LEU:HD22	2:D:2540:VAL:HG21	1.68	0.73
2:B:3048:ALA:HB1	2:B:3082:PHE:HD2	1.52	0.73
1:A:43:TRP:HZ3	2:B:2713:THR:HG23	1.53	0.73
2:B:3030:VAL:HG23	2:B:3062:VAL:CG2	2.19	0.73
2:B:3010:VAL:HG12	2:B:3012:PRO:HD3	1.70	0.72
2:D:2404:PRO:HG2	2:D:2504:CYS:HA	1.71	0.72
2:D:2558:VAL:HG13	2:D:2577:LEU:HD11	1.70	0.72
2:B:2534:LEU:HD22	2:B:2540:VAL:HG21	1.70	0.72
2:D:2687:GLU:HB2	2:D:2707:LYS:HB3	1.70	0.72
2:D:2944:SER:HB2	2:D:2954:GLN:NE2	2.03	0.72
2:B:3002:VAL:HG22	2:B:3049:ALA:HB3	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2413:SER:HB2	2:D:2506:GLY:HA3	1.71	0.72
2:D:2494:ILE:HG21	2:D:2519:PRO:HG3	1.72	0.72
2:B:2780:GLU:HA	2:B:2783:ARG:HB3	1.71	0.72
2:B:2610:ASP:C	2:B:2612:ALA:H	1.91	0.72
2:B:2501:GLU:C	2:B:2503:LEU:H	1.91	0.72
2:D:2610:ASP:C	2:D:2612:ALA:H	1.94	0.72
2:D:2512:ALA:CB	2:D:2584:LEU:HG	2.20	0.71
2:B:2666:LEU:HG	2:B:2710:ALA:HB2	1.71	0.71
2:D:2490:PHE:CZ	2:D:2577:LEU:HD21	2.25	0.71
2:D:2761:VAL:C	2:D:2895:VAL:HG23	2.11	0.71
2:D:2772:ARG:HA	2:D:2776:GLU:OE1	1.90	0.71
2:D:2940:SER:O	2:D:2941:VAL:HG23	1.91	0.71
2:D:2733:LEU:HD23	2:D:2733:LEU:N	2.05	0.71
2:D:2922:SER:O	2:D:2925:PRO:HD2	1.91	0.71
2:B:2604:LYS:HB3	2:B:2610:ASP:HB3	1.72	0.71
2:D:2620:VAL:HG23	2:D:2678:GLY:H	1.54	0.71
2:B:2494:ILE:HD12	2:B:2495:GLU:H	1.54	0.71
2:B:2494:ILE:HG21	2:B:2519:PRO:HG3	1.71	0.71
2:B:2483:ASN:N	2:B:2486:ASN:ND2	2.27	0.71
2:B:2620:VAL:HG23	2:B:2678:GLY:H	1.55	0.71
2:B:2761:VAL:C	2:B:2895:VAL:HG23	2.11	0.70
2:B:3028:LEU:HD12	2:B:3111:LEU:HD22	1.71	0.70
2:B:3033:PHE:HA	2:B:3067:ALA:HB3	1.73	0.70
1:C:39:TRP:HE1	2:D:2733:LEU:HD22	1.57	0.70
2:B:2403:PHE:HA	2:B:2503:LEU:CD1	2.20	0.70
2:B:2484:SER:HB2	2:B:2559:TRP:CZ2	2.27	0.70
2:D:3030:VAL:HG23	2:D:3062:VAL:CG2	2.21	0.70
2:B:2421:GLN:HB2	2:B:2424:ARG:NH2	2.06	0.70
2:D:2483:ASN:N	2:D:2486:ASN:ND2	2.26	0.70
2:D:2756:TYR:HD2	2:D:3070:PHE:HB3	1.57	0.69
2:D:3002:VAL:HG22	2:D:3049:ALA:HB3	1.74	0.69
2:D:3029:LEU:C	2:D:3029:LEU:HD23	2.12	0.69
2:B:3005:VAL:HG22	2:B:3046:LEU:HD11	1.72	0.69
2:D:2620:VAL:HG23	2:D:2678:GLY:N	2.06	0.69
2:B:2476:SER:OG	2:B:2478:ALA:HB3	1.92	0.69
2:B:2610:ASP:O	2:B:2612:ALA:N	2.25	0.69
2:B:2733:LEU:HD23	2:B:2733:LEU:N	2.08	0.69
2:D:2752:VAL:HA	2:D:2903:VAL:HG12	1.73	0.69
2:D:2476:SER:OG	2:D:2478:ALA:HB3	1.92	0.69
2:B:2663:ASP:OD2	2:B:2666:LEU:HB2	1.91	0.69
2:D:2604:LYS:HB3	2:D:2610:ASP:HB3	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2747:CYS:SG	2:D:2937:TYR:HE1	2.15	0.69
2:D:2758:LEU:HD23	2:D:2759:GLN:N	2.07	0.69
2:D:2985:PHE:HD1	2:D:2985:PHE:H	1.40	0.69
2:B:2922:SER:O	2:B:2925:PRO:HD2	1.92	0.69
2:D:2646:VAL:HB	2:D:2671:LYS:HE3	1.74	0.69
2:D:2663:ASP:OD2	2:D:2666:LEU:HB2	1.93	0.69
2:D:2936:ILE:CG2	2:D:2939:LEU:HB2	2.23	0.68
2:B:2620:VAL:HG23	2:B:2678:GLY:N	2.08	0.68
2:D:2450:ARG:NH1	2:D:2450:ARG:HB3	2.07	0.68
2:D:3055:ARG:O	2:D:3057:GLU:HG2	1.94	0.68
2:B:2672:SER:HB2	2:B:2674:ARG:HG2	1.75	0.68
2:D:2936:ILE:HG22	2:D:2939:LEU:HB2	1.74	0.68
2:D:3028:LEU:HD12	2:D:3111:LEU:HD22	1.74	0.68
2:B:2915:LEU:HD12	2:B:2916:SER:N	2.09	0.68
2:D:3111:LEU:O	2:D:3112:LYS:HD3	1.94	0.68
2:B:3029:LEU:C	2:B:3029:LEU:HD23	2.15	0.68
2:B:2512:ALA:CB	2:B:2584:LEU:HG	2.24	0.67
2:B:2475:VAL:HG12	2:B:2480:ILE:HG13	1.76	0.67
2:B:2662:LEU:HD22	2:B:2666:LEU:HD13	1.76	0.67
2:B:2494:ILE:HG22	2:B:2498:PHE:CE1	2.30	0.67
2:B:2589:ARG:HG2	2:B:2655:TRP:CH2	2.29	0.67
2:D:2601:ALA:O	2:D:2605:ILE:HG12	1.94	0.67
2:D:2729:ARG:HD3	2:D:2730:PRO:HD2	1.77	0.67
2:B:2520:SER:OG	2:B:2524:LYS:HB2	1.94	0.67
2:B:2430:ARG:HH11	2:B:2430:ARG:CG	2.04	0.67
1:A:39:TRP:HE1	2:B:2733:LEU:HD22	1.59	0.67
2:B:2450:ARG:HB3	2:B:2450:ARG:HH11	1.60	0.67
2:D:2610:ASP:O	2:D:2612:ALA:N	2.27	0.66
2:D:2756:TYR:HB3	2:D:2757:PRO:HD2	1.76	0.66
2:D:3010:VAL:HG12	2:D:3012:PRO:HD3	1.76	0.66
1:C:56:LEU:H	2:D:2462:PRO:HG2	1.59	0.66
2:B:3107:LEU:HD23	2:B:3108:ILE:N	2.10	0.66
2:B:2413:SER:CB	2:B:2506:GLY:HA3	2.25	0.66
2:B:2441:TYR:O	2:B:2445:SER:HB3	1.96	0.66
2:B:2919:ARG:N	2:B:2920:PRO:HD3	2.11	0.66
2:D:2441:TYR:O	2:D:2445:SER:HB3	1.95	0.66
2:D:2953:ILE:HG13	2:D:2954:GLN:N	2.11	0.66
2:D:2534:LEU:O	2:D:2537:THR:HB	1.96	0.66
1:A:51:ASP:HB3	2:B:2717:ARG:HG3	1.78	0.65
2:B:2541:ASP:OD1	2:B:2543:LYS:HB2	1.95	0.65
2:D:2541:ASP:OD1	2:D:2543:LYS:HB2	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2466:SER:O	2:D:2468:LYS:N	2.29	0.65
2:B:2426:LYS:O	2:B:2430:ARG:NH1	2.29	0.65
2:D:2425:ILE:HG23	2:D:2542:PRO:HG2	1.78	0.65
2:D:3037:LEU:O	2:D:3039:GLU:N	2.24	0.65
2:B:2646:VAL:HB	2:B:2671:LYS:HE3	1.78	0.65
2:D:2413:SER:CB	2:D:2506:GLY:HA3	2.26	0.65
2:D:2567:ALA:C	2:D:2569:PRO:HD3	2.17	0.65
2:D:2764:THR:HG22	2:D:2765:VAL:H	1.62	0.65
2:D:2404:PRO:HD3	2:D:2503:LEU:CD1	2.27	0.65
2:D:2484:SER:HB2	2:D:2559:TRP:CE2	2.31	0.65
2:D:2672:SER:HB2	2:D:2674:ARG:HG2	1.76	0.65
2:D:2919:ARG:N	2:D:2920:PRO:HD3	2.11	0.65
2:B:2927:LEU:HD11	2:B:2934:TYR:HE1	1.62	0.65
2:B:2675:LEU:HD21	2:B:2681:ILE:HD11	1.78	0.65
2:B:2758:LEU:HD23	2:B:2759:GLN:N	2.12	0.65
2:B:3017:PRO:O	2:B:3018:LEU:HD23	1.96	0.65
2:B:3111:LEU:O	2:B:3112:LYS:HD3	1.96	0.65
2:D:2614:LYS:CG	2:D:2615:THR:N	2.60	0.65
2:B:2980:ARG:NH2	2:B:3051:ASN:HD21	1.94	0.64
2:D:2667:LEU:O	2:D:2667:LEU:HD23	1.96	0.64
2:D:2714:ARG:HG3	2:D:2715:PRO:HD2	1.79	0.64
2:B:2466:SER:O	2:B:2468:LYS:N	2.30	0.64
2:B:2978:GLN:HG2	2:B:2996:PRO:HG2	1.79	0.64
2:D:2747:CYS:SG	2:D:2937:TYR:CE1	2.91	0.64
2:D:2918:TRP:C	2:D:2920:PRO:HD3	2.18	0.64
2:D:2512:ALA:O	2:D:2513:ASP:HB2	1.95	0.64
2:D:3031:VAL:HA	2:D:3065:LEU:O	1.97	0.64
1:A:13:LEU:HD12	2:B:2451:ILE:O	1.96	0.64
2:B:2410:LEU:O	2:B:2414:LEU:HG	1.96	0.64
2:B:2428:LYS:HD3	2:B:2542:PRO:HD3	1.79	0.64
2:B:2959:LYS:H	2:B:2959:LYS:CD	2.09	0.64
2:D:2939:LEU:O	2:D:2939:LEU:HG	1.98	0.64
2:B:2736:SER:HB3	2:B:2909:ARG:HH21	1.63	0.64
2:D:2662:LEU:HD22	2:D:2666:LEU:HD13	1.79	0.64
2:B:2526:GLY:H	2:B:2529:GLU:HB2	1.62	0.64
2:D:2738:LEU:HD13	2:D:2745:VAL:HG21	1.80	0.64
2:B:2902:ARG:HB2	2:B:2902:ARG:NH1	2.10	0.63
2:B:2764:THR:HG22	2:B:2765:VAL:H	1.63	0.63
2:D:2620:VAL:HG21	2:D:2676:THR:O	1.98	0.63
2:D:3058:SER:O	2:D:3059:THR:HB	1.97	0.63
2:B:2567:ALA:C	2:B:2569:PRO:HD3	2.18	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2984:PRO:HG2	2:B:2987:LYS:CG	2.27	0.63
2:B:2489:TYR:O	2:B:2490:PHE:HB3	1.96	0.63
2:D:2736:SER:HB3	2:D:2909:ARG:HH21	1.63	0.63
2:D:3087:THR:HG22	2:D:3088:ASN:N	2.12	0.63
2:B:2620:VAL:HG21	2:B:2676:THR:O	1.99	0.63
2:B:2893:ARG:O	2:B:2894:ASP:HB3	1.99	0.63
2:D:2450:ARG:HB3	2:D:2450:ARG:HH11	1.61	0.63
2:B:2616:LEU:HD13	2:B:2724:PHE:CD2	2.34	0.63
2:D:3107:LEU:HD23	2:D:3108:ILE:N	2.14	0.63
2:B:2738:LEU:CD1	2:B:2745:VAL:HG21	2.28	0.62
2:B:2939:LEU:HG	2:B:2939:LEU:O	1.99	0.62
2:B:3058:SER:O	2:B:3059:THR:HB	1.99	0.62
2:B:3061:ARG:HG2	2:B:3061:ARG:HH11	1.64	0.62
2:B:2404:PRO:HD3	2:B:2503:LEU:CD1	2.29	0.62
2:B:2747:CYS:SG	2:B:2937:TYR:HE1	2.21	0.62
1:A:16:ASP:OD2	1:A:57:ARG:NH2	2.32	0.62
2:B:3100:TYR:O	2:B:3102:GLU:N	2.33	0.62
2:D:2520:SER:OG	2:D:2524:LYS:HB2	1.99	0.62
2:B:2437:PRO:HG2	2:B:2442:LEU:HD11	1.82	0.62
2:D:2503:LEU:HD13	2:D:2503:LEU:O	1.99	0.62
2:B:3037:LEU:O	2:B:3039:GLU:N	2.29	0.62
2:D:2751:ILE:HG23	2:D:2751:ILE:O	1.99	0.62
2:B:2414:LEU:CD2	2:B:2506:GLY:HA2	2.29	0.62
1:A:56:LEU:O	1:A:57:ARG:CB	2.48	0.62
1:C:56:LEU:O	1:C:57:ARG:CB	2.48	0.62
2:D:2902:ARG:HB2	2:D:2902:ARG:NH1	2.14	0.62
2:D:2915:LEU:HD12	2:D:2916:SER:N	2.14	0.62
2:B:2745:VAL:HG12	2:B:2746:GLY:N	2.15	0.62
2:D:2500:LYS:HD3	2:D:2503:LEU:HD12	1.81	0.62
2:D:2995:PRO:HD2	2:D:3054:TRP:CZ3	2.35	0.62
2:B:2425:ILE:HG23	2:B:2542:PRO:HG2	1.82	0.61
2:B:2614:LYS:CG	2:B:2615:THR:N	2.62	0.61
2:D:2972:THR:O	2:D:2975:GLN:HB3	2.00	0.61
2:B:2693:ASP:O	2:B:2694:ALA:HB3	2.00	0.61
2:B:2936:ILE:CG2	2:B:2939:LEU:HB2	2.30	0.61
2:D:2944:SER:HB3	2:D:2952:SER:O	1.99	0.61
2:D:2475:VAL:HG12	2:D:2480:ILE:HG13	1.82	0.61
2:D:2761:VAL:HG13	2:D:2761:VAL:O	2.01	0.61
2:B:2537:THR:HG23	2:B:2538:PRO:HD2	1.82	0.61
2:B:2552:ASN:ND2	2:B:2556:TRP:NE1	2.46	0.61
2:D:2755:VAL:HG13	2:D:2899:TRP:HE1	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2936:ILE:HG22	2:B:2939:LEU:HB2	1.80	0.61
2:B:3116:PRO:O	2:B:3117:LYS:CG	2.48	0.61
1:A:50:ASP:CG	1:A:51:ASP:H	2.04	0.61
2:B:2763:LYS:HB2	2:B:2894:ASP:OD2	2.00	0.61
2:B:3002:VAL:CG2	2:B:3049:ALA:HB3	2.31	0.61
2:D:2404:PRO:HD3	2:D:2503:LEU:HD12	1.82	0.61
2:D:2893:ARG:O	2:D:2894:ASP:HB3	2.01	0.61
2:D:2985:PHE:CE2	2:D:3029:LEU:HD13	2.36	0.61
2:B:3026:LEU:HD21	2:B:3104:GLU:HA	1.81	0.61
2:D:2714:ARG:NH2	2:D:2733:LEU:HD12	2.16	0.61
2:B:2751:ILE:HG22	2:B:2904:THR:O	2.00	0.61
2:D:2407:ASN:O	2:D:2411:MET:HG3	2.01	0.61
2:D:2984:PRO:HG2	2:D:2987:LYS:CG	2.30	0.61
2:D:3015:LEU:O	2:D:3016:ALA:HB3	2.01	0.61
2:B:2972:THR:O	2:B:2975:GLN:HB3	2.00	0.61
2:B:2984:PRO:HG2	2:B:2987:LYS:HG2	1.82	0.61
1:C:62:LYS:HE3	2:D:2676:THR:HG21	1.81	0.61
2:D:2430:ARG:HH11	2:D:2430:ARG:CG	2.04	0.61
2:D:2997:CYS:O	2:D:2999:GLU:HG3	2.01	0.61
2:D:3061:ARG:HG2	2:D:3061:ARG:HH11	1.65	0.61
2:B:2406:PHE:O	2:B:2408:LYS:N	2.34	0.61
2:B:2714:ARG:HG3	2:B:2715:PRO:HD2	1.82	0.61
2:D:2565:GLU:CD	2:D:2574:ASN:HA	2.21	0.61
2:D:3100:TYR:O	2:D:3102:GLU:N	2.34	0.60
2:B:2601:ALA:O	2:B:2605:ILE:HG12	2.00	0.60
2:D:2565:GLU:HG2	2:D:2572:PHE:O	2.01	0.60
2:B:2732:PRO:HB3	2:B:2747:CYS:SG	2.42	0.60
2:B:2747:CYS:SG	2:B:2937:TYR:CE1	2.94	0.60
2:D:2719:HIS:CG	2:D:2720:SER:H	2.20	0.60
2:D:2982:LEU:O	2:D:2984:PRO:HD3	2.00	0.60
2:B:2918:TRP:C	2:B:2920:PRO:HD3	2.22	0.60
2:B:2995:PRO:HD2	2:B:3054:TRP:CZ3	2.37	0.60
2:D:2614:LYS:HG2	2:D:2615:THR:N	2.16	0.60
2:D:2750:VAL:HG12	2:D:2751:ILE:N	2.15	0.60
2:B:2457:VAL:HG11	2:B:2568:PHE:CE2	2.37	0.60
2:B:2500:LYS:HD3	2:B:2503:LEU:HD12	1.83	0.60
2:B:2751:ILE:HG23	2:B:2751:ILE:O	2.01	0.60
2:B:2756:TYR:HD2	2:B:3070:PHE:HB3	1.65	0.60
2:D:2410:LEU:O	2:D:2414:LEU:HG	2.02	0.60
2:B:2717:ARG:HH11	2:B:2717:ARG:HG2	1.65	0.60
2:D:2754:ARG:HA	2:D:2930:GLU:OE2	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2484:SER:HB2	2:B:2559:TRP:CE2	2.37	0.60
2:B:2953:ILE:HG13	2:B:2954:GLN:N	2.13	0.60
2:B:3055:ARG:O	2:B:3057:GLU:HG2	2.01	0.60
2:D:2494:ILE:HG22	2:D:2498:PHE:CE1	2.36	0.60
2:D:2526:GLY:H	2:D:2529:GLU:HB2	1.65	0.60
2:D:2693:ASP:O	2:D:2694:ALA:HB3	2.00	0.60
2:D:2589:ARG:HG2	2:D:2655:TRP:CZ3	2.36	0.60
2:D:2917:ILE:CG2	2:D:2920:PRO:HG3	2.32	0.60
2:D:3001:ASP:OD1	2:D:3050:SER:HA	2.02	0.60
2:B:2503:LEU:HD13	2:B:2503:LEU:O	2.00	0.59
2:B:3087:THR:HG22	2:B:3088:ASN:N	2.16	0.59
2:D:2580:GLU:O	2:D:2584:LEU:HB2	2.02	0.59
2:B:2414:LEU:HD23	2:B:2506:GLY:CA	2.29	0.59
2:B:2614:LYS:HG2	2:B:2615:THR:N	2.17	0.59
2:B:2744:ASN:HB2	2:B:2940:SER:HB2	1.84	0.59
1:C:50:ASP:CG	1:C:51:ASP:H	2.04	0.59
1:C:56:LEU:O	1:C:57:ARG:HB2	2.01	0.59
2:D:3005:VAL:HG22	2:D:3046:LEU:HD11	1.83	0.59
2:B:2534:LEU:O	2:B:2537:THR:HB	2.02	0.59
2:B:2602:LEU:HB2	2:B:2653:ASP:OD2	2.02	0.59
2:D:2500:LYS:HA	2:D:2503:LEU:HB3	1.84	0.59
1:A:43:TRP:CH2	2:B:2666:LEU:HD21	2.37	0.59
2:B:2592:VAL:HG12	2:B:2593:GLU:N	2.18	0.59
2:B:3015:LEU:O	2:B:3016:ALA:HB3	2.02	0.59
2:D:2754:ARG:HB2	2:D:2756:TYR:CE1	2.38	0.59
2:D:2949:GLU:HB3	2:D:2951:PRO:HD2	1.85	0.59
2:B:3031:VAL:HA	2:B:3065:LEU:O	2.03	0.59
2:B:2949:GLU:HB3	2:B:2951:PRO:HD2	1.85	0.59
2:B:2997:CYS:O	2:B:2999:GLU:HG3	2.03	0.59
1:C:51:ASP:HB3	2:D:2717:ARG:HG3	1.84	0.59
2:B:2756:TYR:HB3	2:B:2757:PRO:HD2	1.84	0.59
2:D:2738:LEU:CD1	2:D:2745:VAL:HG21	2.33	0.59
2:B:3028:LEU:HD12	2:B:3111:LEU:CD2	2.32	0.58
2:D:2973:LEU:C	2:D:2975:GLN:H	2.06	0.58
2:D:2984:PRO:HG2	2:D:2987:LYS:HG2	1.84	0.58
2:D:2933:ARG:NH1	2:D:2966:LEU:HB3	2.18	0.58
2:D:3110:VAL:C	2:D:3112:LYS:H	2.04	0.58
2:D:2756:TYR:N	2:D:2756:TYR:CD1	2.70	0.58
2:B:2404:PRO:HD3	2:B:2503:LEU:HD12	1.84	0.58
2:B:2414:LEU:O	2:B:2416:ASN:N	2.36	0.58
2:B:2933:ARG:NH1	2:B:2966:LEU:HB3	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2428:LYS:O	2:D:2430:ARG:N	2.36	0.58
2:D:2494:ILE:HD12	2:D:2494:ILE:N	2.18	0.58
2:D:2602:LEU:HB2	2:D:2653:ASP:OD2	2.03	0.58
2:D:2616:LEU:HD13	2:D:2724:PHE:CD2	2.38	0.58
2:B:2720:SER:OG	2:B:2721:LYS:N	2.36	0.58
2:D:3023:ASP:OD1	2:D:3027:HIS:HB2	2.04	0.58
2:B:3001:ASP:OD1	2:B:3050:SER:HA	2.02	0.58
1:C:37:HIS:O	1:C:38:VAL:HG12	2.04	0.58
2:D:2927:LEU:HD11	2:D:2934:TYR:HE1	1.67	0.58
2:D:3002:VAL:CG2	2:D:3049:ALA:HB3	2.33	0.58
2:B:2500:LYS:HA	2:B:2503:LEU:HB3	1.84	0.58
1:C:15:GLU:HB2	1:C:18:GLU:HG3	1.85	0.58
2:D:3055:ARG:HG2	2:D:3056:PRO:HD2	1.86	0.58
2:B:2616:LEU:HD13	2:B:2724:PHE:HD2	1.68	0.58
2:B:2667:LEU:O	2:B:2667:LEU:HD23	2.04	0.58
2:B:3094:GLU:C	2:B:3096:ILE:H	2.06	0.58
2:B:3110:VAL:C	2:B:3112:LYS:H	2.07	0.58
2:D:2512:ALA:HB1	2:D:2584:LEU:HG	1.86	0.58
2:D:3094:GLU:C	2:D:3096:ILE:H	2.05	0.58
2:B:2483:ASN:ND2	2:B:2486:ASN:HD22	2.02	0.58
1:A:56:LEU:O	1:A:57:ARG:HB2	2.04	0.57
2:B:3097:ASP:C	2:B:3099:PHE:H	2.07	0.57
2:B:2418:ARG:O	2:B:2421:GLN:N	2.37	0.57
2:B:2756:TYR:N	2:B:2756:TYR:CD1	2.72	0.57
2:B:3090:LYS:O	2:B:3094:GLU:HG3	2.04	0.57
1:C:16:ASP:OD2	1:C:57:ARG:NH2	2.37	0.57
2:D:2717:ARG:HH11	2:D:2717:ARG:HG2	1.68	0.57
2:D:2732:PRO:HB3	2:D:2747:CYS:SG	2.44	0.57
2:B:2512:ALA:O	2:B:2513:ASP:HB2	2.04	0.57
2:B:2754:ARG:HB2	2:B:2756:TYR:CE1	2.38	0.57
2:B:2982:LEU:O	2:B:2984:PRO:HD3	2.04	0.57
2:D:2720:SER:OG	2:D:2721:LYS:N	2.37	0.57
1:A:56:LEU:HD23	1:A:57:ARG:HB2	1.86	0.57
2:B:2664:PRO:HB2	2:B:2741:ASP:OD2	2.04	0.57
2:B:2719:HIS:CG	2:B:2720:SER:H	2.21	0.57
2:B:2939:LEU:HD11	2:B:2955:LEU:HB3	1.85	0.57
2:D:3007:VAL:HB	2:D:3104:GLU:OE2	2.03	0.57
2:B:2479:CYS:SG	2:B:2480:ILE:N	2.78	0.57
1:C:21:GLU:HG3	1:C:22:PHE:CD2	2.39	0.57
1:C:43:TRP:C	1:C:45:ASP:H	2.07	0.57
2:D:2465:CYS:SG	2:D:2466:SER:N	2.76	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2763:LYS:HB2	2:D:2894:ASP:OD2	2.04	0.57
2:D:2537:THR:HG23	2:D:2538:PRO:HD2	1.86	0.57
2:D:2665:PRO:HG3	2:D:2742:GLY:CA	2.29	0.57
2:D:2953:ILE:CG1	2:D:2954:GLN:H	2.14	0.57
2:D:2489:TYR:O	2:D:2490:PHE:HB3	2.04	0.57
2:B:2750:VAL:HG12	2:B:2751:ILE:N	2.18	0.57
2:B:3018:LEU:HD21	2:B:3032:LYS:HG2	1.86	0.57
2:B:3055:ARG:HG2	2:B:3056:PRO:HD2	1.86	0.57
2:D:2428:LYS:C	2:D:2430:ARG:H	2.08	0.57
2:D:2745:VAL:HG12	2:D:2746:GLY:N	2.20	0.57
2:D:2987:LYS:C	2:D:2989:SER:H	2.08	0.57
2:D:3090:LYS:O	2:D:3094:GLU:HG3	2.04	0.57
1:A:8:VAL:O	1:A:10:LEU:N	2.38	0.57
2:B:2469:GLN:O	2:B:2472:MET:HB3	2.05	0.57
2:B:2665:PRO:HG3	2:B:2742:GLY:CA	2.31	0.57
2:B:2978:GLN:HG2	2:B:2996:PRO:CG	2.34	0.57
1:C:38:VAL:O	1:C:38:VAL:HG22	2.03	0.57
2:B:2565:GLU:HG2	2:B:2572:PHE:O	2.05	0.56
2:B:2944:SER:HB3	2:B:2952:SER:O	2.05	0.56
2:B:2953:ILE:CG1	2:B:2954:GLN:H	2.17	0.56
2:D:2667:LEU:HD23	2:D:2667:LEU:C	2.25	0.56
2:D:2906:TYR:CD1	2:D:2933:ARG:NE	2.72	0.56
2:B:2468:LYS:C	2:B:2470:LEU:H	2.09	0.56
2:B:2624:ILE:CD1	2:B:2659:LYS:HE3	2.35	0.56
2:B:2973:LEU:C	2:B:2975:GLN:H	2.07	0.56
2:B:3093:ILE:HG23	2:B:3094:GLU:N	2.20	0.56
2:D:2414:LEU:HD23	2:D:2506:GLY:CA	2.31	0.56
2:D:2483:ASN:ND2	2:D:2486:ASN:HD22	2.04	0.56
2:B:2945:LYS:HD2	2:B:2945:LYS:O	2.05	0.56
2:D:2552:ASN:ND2	2:D:2556:TRP:NE1	2.47	0.56
1:A:43:TRP:C	1:A:45:ASP:H	2.08	0.56
2:D:2780:GLU:O	2:D:2780:GLU:HG3	2.06	0.56
1:A:21:GLU:HG3	1:A:22:PHE:CD2	2.41	0.56
1:A:15:GLU:HB2	1:A:18:GLU:HG3	1.87	0.56
2:D:2468:LYS:C	2:D:2470:LEU:H	2.09	0.56
2:D:2945:LYS:HD2	2:D:2945:LYS:O	2.05	0.56
2:B:2761:VAL:HG13	2:B:2761:VAL:O	2.05	0.56
1:A:18:GLU:OE1	2:B:2450:ARG:NH2	2.39	0.56
2:D:2494:ILE:O	2:D:2498:PHE:HD1	1.89	0.56
2:B:2745:VAL:HB	2:B:2940:SER:OG	2.06	0.56
2:D:2761:VAL:HG12	2:D:2896:SER:O	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2937:TYR:O	2:D:2961:THR:HA	2.06	0.56
2:B:2666:LEU:HA	2:B:2669:LEU:HD12	1.87	0.55
2:B:2693:ASP:O	2:B:2694:ALA:CB	2.54	0.55
2:B:2745:VAL:CG1	2:B:2746:GLY:N	2.69	0.55
1:C:49:GLU:C	1:C:53:SER:OG	2.45	0.55
2:D:2744:ASN:HB2	2:D:2940:SER:HB2	1.87	0.55
2:D:3026:LEU:HD21	2:D:3104:GLU:HA	1.88	0.55
2:D:2693:ASP:O	2:D:2694:ALA:CB	2.54	0.55
2:D:2745:VAL:HB	2:D:2940:SER:OG	2.06	0.55
2:B:2729:ARG:HD3	2:B:2730:PRO:HD2	1.89	0.55
2:B:2945:LYS:HD2	2:B:2945:LYS:C	2.26	0.55
2:B:3018:LEU:CD2	2:B:3032:LYS:HG2	2.36	0.55
2:B:2937:TYR:O	2:B:2961:THR:HA	2.07	0.55
2:D:2783:ARG:HG3	2:D:2783:ARG:HH11	1.71	0.55
2:D:3097:ASP:C	2:D:3099:PHE:H	2.08	0.55
2:D:2655:TRP:C	2:D:2656:TYR:CD1	2.79	0.55
2:B:2494:ILE:HD12	2:B:2494:ILE:N	2.22	0.55
2:B:2669:LEU:O	2:B:2674:ARG:HB2	2.06	0.55
2:B:2758:LEU:HD22	2:B:2760:TRP:CZ3	2.42	0.55
2:B:3007:VAL:HB	2:B:3104:GLU:OE2	2.06	0.55
2:D:2939:LEU:HD11	2:D:2955:LEU:HB3	1.87	0.55
2:B:2421:GLN:HE21	2:B:2536:ASP:CG	2.10	0.55
2:B:2600:SER:O	2:B:2603:LYS:HB3	2.06	0.55
2:B:2755:VAL:HG13	2:B:2899:TRP:HE1	1.70	0.55
2:B:3023:ASP:OD1	2:B:3027:HIS:HB2	2.06	0.55
2:D:2441:TYR:CZ	2:D:2596:ASN:ND2	2.75	0.55
2:D:2751:ILE:HG22	2:D:2904:THR:O	2.07	0.55
1:C:48:VAL:HG23	1:C:49:GLU:HG3	1.88	0.55
2:D:2469:GLN:O	2:D:2472:MET:HB3	2.06	0.55
2:D:2479:CYS:SG	2:D:2480:ILE:N	2.80	0.55
2:D:2664:PRO:N	2:D:2665:PRO:HD2	2.21	0.55
2:B:2738:LEU:HD13	2:B:2745:VAL:CG2	2.36	0.55
2:D:2669:LEU:HB3	2:D:2674:ARG:HB2	1.89	0.55
2:D:2418:ARG:O	2:D:2421:GLN:N	2.39	0.55
2:D:2915:LEU:HD13	2:D:2939:LEU:HD13	1.88	0.55
2:B:2565:GLU:CD	2:B:2574:ASN:HA	2.27	0.54
2:D:2945:LYS:HD2	2:D:2945:LYS:C	2.27	0.54
2:D:3014:GLY:O	2:D:3015:LEU:HG	2.07	0.54
1:A:38:VAL:HG22	1:A:38:VAL:O	2.07	0.54
2:B:3014:GLY:O	2:B:3015:LEU:HG	2.08	0.54
2:D:2428:LYS:HD3	2:D:2542:PRO:HD3	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2494:ILE:HD11	2:B:2523:GLY:C	2.28	0.54
2:B:2580:GLU:O	2:B:2584:LEU:HB2	2.07	0.54
2:B:2666:LEU:HD23	2:B:2669:LEU:HD12	1.88	0.54
2:B:2780:GLU:O	2:B:2780:GLU:HG3	2.07	0.54
2:D:2419:ASP:O	2:D:2423:ILE:HG13	2.07	0.54
2:D:2755:VAL:CG1	2:D:2899:TRP:HE1	2.21	0.54
2:B:2437:PRO:HA	2:B:2591:ASP:OD1	2.08	0.54
2:B:2537:THR:HG23	2:B:2538:PRO:CD	2.36	0.54
2:D:2997:CYS:O	2:D:2999:GLU:N	2.40	0.54
2:B:2494:ILE:HD11	2:B:2523:GLY:CA	2.37	0.54
2:B:2610:ASP:C	2:B:2612:ALA:N	2.60	0.54
2:B:2906:TYR:CD1	2:B:2933:ARG:NE	2.73	0.54
2:D:3018:LEU:CD2	2:D:3032:LYS:HG2	2.37	0.54
1:A:48:VAL:C	1:A:49:GLU:HG3	2.28	0.54
2:B:2558:VAL:HG13	2:B:2577:LEU:CD1	2.36	0.54
2:B:2666:LEU:HD11	2:B:2708:ILE:HG22	1.90	0.54
2:B:3026:LEU:CD2	2:B:3104:GLU:HA	2.38	0.54
1:C:43:TRP:HZ3	2:D:2713:THR:HG23	1.71	0.54
2:D:2666:LEU:HA	2:D:2669:LEU:HD12	1.90	0.54
2:D:2932:GLN:HA	2:D:2932:GLN:OE1	2.08	0.54
2:B:2491:GLN:HA	2:B:2525:ALA:O	2.08	0.54
2:B:2929:THR:O	2:B:2930:GLU:O	2.26	0.54
2:B:3099:PHE:CD2	2:B:3099:PHE:N	2.75	0.54
1:C:48:VAL:C	1:C:49:GLU:HG3	2.28	0.54
2:B:2501:GLU:C	2:B:2503:LEU:N	2.59	0.54
2:D:2689:VAL:HG21	2:D:2707:LYS:HE3	1.90	0.54
2:B:2506:GLY:O	2:B:2507:LYS:C	2.47	0.53
2:B:2516:TRP:HB2	2:B:2536:ASP:OD1	2.08	0.53
2:D:2409:ASP:O	2:D:2413:SER:N	2.34	0.53
1:A:56:LEU:HD23	1:A:56:LEU:C	2.28	0.53
2:B:2441:TYR:CZ	2:B:2596:ASN:ND2	2.76	0.53
2:B:2927:LEU:O	2:B:2929:THR:HG23	2.08	0.53
2:D:3089:MET:C	2:D:3091:HIS:N	2.61	0.53
1:A:54:ASN:O	1:A:55:GLN:CB	2.53	0.53
2:B:2501:GLU:O	2:B:2502:ALA:HB3	2.08	0.53
2:B:2409:ASP:O	2:B:2412:SER:N	2.40	0.53
2:B:3089:MET:C	2:B:3091:HIS:N	2.60	0.53
2:B:3095:ASN:HD22	2:B:3095:ASN:N	2.05	0.53
2:D:2600:SER:O	2:D:2603:LYS:HB3	2.08	0.53
1:A:48:VAL:HG23	1:A:49:GLU:HG3	1.89	0.53
2:B:2589:ARG:HG2	2:B:2655:TRP:CZ3	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3116:PRO:O	2:B:3117:LYS:CB	2.57	0.53
2:D:2587:LYS:O	2:D:2590:TYR:HB3	2.08	0.53
2:B:2676:THR:HG23	2:B:2679:GLN:HG3	1.89	0.53
2:B:3015:LEU:O	2:B:3016:ALA:CB	2.56	0.53
1:C:8:VAL:O	1:C:10:LEU:N	2.42	0.53
2:D:2592:VAL:HG12	2:D:2593:GLU:N	2.24	0.53
2:B:2552:ASN:O	2:B:2555:ARG:HB3	2.08	0.53
2:D:2414:LEU:O	2:D:2416:ASN:N	2.42	0.53
2:D:2479:CYS:C	2:D:2481:SER:H	2.12	0.53
2:D:2537:THR:HG23	2:D:2538:PRO:CD	2.38	0.53
2:D:3099:PHE:N	2:D:3099:PHE:CD2	2.74	0.53
2:B:2568:PHE:N	2:B:2569:PRO:HD3	2.24	0.53
2:B:3030:VAL:HG12	2:B:3031:VAL:N	2.24	0.53
1:C:19:PHE:CD1	1:C:19:PHE:C	2.82	0.53
2:D:2414:LEU:CD2	2:D:2506:GLY:HA2	2.33	0.53
2:D:2764:THR:HG22	2:D:2765:VAL:N	2.24	0.53
2:D:2908:LYS:O	2:D:2909:ARG:C	2.47	0.53
2:D:3015:LEU:O	2:D:3016:ALA:CB	2.56	0.53
1:A:56:LEU:N	2:B:2462:PRO:HG2	2.24	0.53
2:B:2772:ARG:HB3	2:B:2776:GLU:HB2	1.91	0.53
2:B:2778:GLU:O	2:B:2781:ALA:HB3	2.09	0.53
2:B:3050:SER:O	2:B:3051:ASN:HB2	2.09	0.53
2:D:2457:VAL:HG11	2:D:2568:PHE:CE2	2.44	0.53
2:D:2506:GLY:O	2:D:2507:LYS:C	2.47	0.53
2:D:2928:LEU:HA	2:D:2934:TYR:CZ	2.43	0.53
2:D:3100:TYR:HD1	2:D:3101:LYS:HD2	1.74	0.53
2:B:2531:TYR:CE1	2:B:2535:CYS:SG	3.02	0.53
2:B:2933:ARG:NH1	2:B:2966:LEU:CB	2.72	0.53
1:C:49:GLU:C	1:C:53:SER:HG	2.12	0.53
2:D:2494:ILE:HD12	2:D:2495:GLU:N	2.22	0.53
2:D:2624:ILE:CD1	2:D:2659:LYS:HE3	2.39	0.53
2:B:2409:ASP:O	2:B:2413:SER:N	2.34	0.52
1:A:19:PHE:CD1	1:A:19:PHE:C	2.83	0.52
2:B:2494:ILE:HD11	2:B:2523:GLY:O	2.09	0.52
2:B:2711:ASN:HD21	2:B:2739:PHE:H	1.56	0.52
2:D:3028:LEU:HD12	2:D:3111:LEU:CD2	2.39	0.52
2:B:2483:ASN:OD1	2:B:2485:LYS:N	2.42	0.52
2:B:2568:PHE:O	2:B:2570:LYS:N	2.42	0.52
2:B:2772:ARG:NH2	2:B:2780:GLU:HG2	2.25	0.52
2:B:2915:LEU:HD13	2:B:2939:LEU:CD1	2.39	0.52
2:B:2424:ARG:NH1	2:B:2536:ASP:OD1	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2426:LYS:HG3	2:B:2430:ARG:NH2	2.19	0.52
2:B:2428:LYS:C	2:B:2430:ARG:H	2.13	0.52
2:B:2755:VAL:CG1	2:B:2899:TRP:HE1	2.22	0.52
2:B:2764:THR:HG22	2:B:2765:VAL:N	2.24	0.52
2:D:2656:TYR:CD2	2:D:2697:PRO:CB	2.90	0.52
2:B:2616:LEU:HD11	2:B:2724:PHE:CE2	2.44	0.52
2:D:2606:LEU:CD1	2:D:2704:LEU:HD11	2.39	0.52
2:D:3091:HIS:O	2:D:3093:ILE:N	2.43	0.52
2:D:3093:ILE:HG23	2:D:3094:GLU:N	2.25	0.52
1:A:39:TRP:HA	1:A:39:TRP:CE3	2.45	0.52
1:A:49:GLU:C	1:A:53:SER:HG	2.13	0.52
2:B:2608:ARG:NH2	2:B:2688:LEU:HD23	2.16	0.52
2:B:2783:ARG:HG3	2:B:2783:ARG:HH11	1.75	0.52
2:B:2915:LEU:HD13	2:B:2939:LEU:HD13	1.90	0.52
1:C:59:GLU:OE1	2:D:2464:ALA:N	2.43	0.52
2:D:2426:LYS:HG3	2:D:2430:ARG:NH2	2.18	0.52
2:D:2758:LEU:HD22	2:D:2760:TRP:CZ3	2.43	0.52
2:D:2763:LYS:HG2	2:D:2769:TYR:HD2	1.73	0.52
2:D:2778:GLU:O	2:D:2781:ALA:HB3	2.10	0.52
2:D:2782:LEU:C	2:D:2784:PHE:N	2.63	0.52
2:B:2754:ARG:HA	2:B:2930:GLU:OE2	2.09	0.52
2:B:2983:LEU:HD11	2:B:2988:LEU:HG	1.92	0.52
2:D:2648:THR:HG21	2:D:2705:ARG:HH12	1.75	0.52
2:D:2669:LEU:O	2:D:2674:ARG:HB2	2.10	0.52
2:B:2717:ARG:HG2	2:B:2717:ARG:NH1	2.25	0.52
2:D:2665:PRO:CG	2:D:2742:GLY:HA2	2.30	0.52
2:D:2898:VAL:HG22	2:D:2918:TRP:CZ3	2.44	0.52
2:D:2941:VAL:HG12	2:D:2943:LYS:HG3	1.92	0.52
2:B:2655:TRP:C	2:B:2656:TYR:CD1	2.83	0.52
2:B:2987:LYS:C	2:B:2989:SER:H	2.12	0.52
2:D:2624:ILE:HG22	2:D:2647:ASP:HB3	1.92	0.52
2:D:2927:LEU:O	2:D:2934:TYR:OH	2.28	0.52
1:A:49:GLU:C	1:A:53:SER:OG	2.48	0.51
2:B:2666:LEU:O	2:B:2669:LEU:N	2.40	0.51
2:D:2408:LYS:O	2:D:2409:ASP:HB2	2.10	0.51
2:D:2494:ILE:HD11	2:D:2523:GLY:CA	2.39	0.51
2:D:2516:TRP:HB2	2:D:2536:ASP:OD1	2.10	0.51
2:D:2676:THR:HG23	2:D:2679:GLN:HG3	1.92	0.51
2:D:2915:LEU:HD13	2:D:2939:LEU:CD1	2.39	0.51
2:D:2483:ASN:OD1	2:D:2485:LYS:N	2.43	0.51
2:D:2987:LYS:C	2:D:2989:SER:N	2.64	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2465:CYS:SG	2:B:2466:SER:N	2.79	0.51
2:B:2479:CYS:C	2:B:2481:SER:H	2.13	0.51
2:B:2749:ASP:OD1	2:B:2933:ARG:NH2	2.43	0.51
1:C:54:ASN:O	1:C:55:GLN:CB	2.54	0.51
2:D:3018:LEU:HD21	2:D:3032:LYS:HG2	1.93	0.51
2:B:2664:PRO:N	2:B:2665:PRO:HD2	2.24	0.51
1:C:43:TRP:CH2	2:D:2666:LEU:HD21	2.45	0.51
2:D:2437:PRO:CG	2:D:2442:LEU:HD11	2.36	0.51
2:D:3093:ILE:HD11	2:D:3100:TYR:CE1	2.46	0.51
2:B:2421:GLN:NE2	2:B:2536:ASP:OD1	2.37	0.51
2:B:2541:ASP:OD1	2:B:2541:ASP:C	2.49	0.51
2:B:2624:ILE:CG2	2:B:2626:LEU:HG	2.40	0.51
2:B:2763:LYS:HG2	2:B:2769:TYR:HD2	1.75	0.51
2:B:3109:GLN:NE2	2:B:3110:VAL:HG12	2.25	0.51
2:D:2685:GLY:H	2:D:2712:SER:HB3	1.74	0.51
2:B:2772:ARG:HB3	2:B:2776:GLU:CB	2.41	0.51
2:D:3116:PRO:O	2:D:3117:LYS:HB2	2.09	0.51
2:B:2622:ASP:OD2	2:B:2623:ILE:N	2.44	0.51
2:D:2552:ASN:O	2:D:2555:ARG:HB3	2.10	0.51
2:D:2614:LYS:HG2	2:D:2615:THR:H	1.75	0.51
2:D:2901:LEU:HD11	2:D:2928:LEU:HD13	1.93	0.51
2:D:3095:ASN:HD22	2:D:3095:ASN:N	2.08	0.51
1:A:37:HIS:O	1:A:38:VAL:HG12	2.09	0.51
2:B:2494:ILE:O	2:B:2498:PHE:HD1	1.94	0.51
2:B:2782:LEU:C	2:B:2784:PHE:N	2.63	0.51
2:D:2763:LYS:HG2	2:D:2769:TYR:CD2	2.45	0.51
2:D:3058:SER:O	2:D:3059:THR:CB	2.58	0.51
2:D:3089:MET:C	2:D:3091:HIS:H	2.14	0.51
2:B:2735:LEU:HD13	2:B:2748:VAL:HG11	1.93	0.51
1:C:12:LEU:O	2:D:2450:ARG:NH1	2.44	0.51
2:D:2404:PRO:HD3	2:D:2500:LYS:HE2	1.91	0.51
2:D:2568:PHE:N	2:D:2569:PRO:HD3	2.25	0.51
2:B:2441:TYR:O	2:B:2441:TYR:CD2	2.63	0.51
2:B:2978:GLN:CG	2:B:2996:PRO:HG2	2.40	0.51
2:B:3007:VAL:O	2:B:3008:SER:HB3	2.10	0.51
2:B:3019:VAL:HG12	2:B:3021:LEU:HD21	1.93	0.51
2:D:2437:PRO:HA	2:D:2591:ASP:OD1	2.10	0.51
2:D:2465:CYS:O	2:D:2466:SER:CB	2.59	0.51
2:D:2987:LYS:O	2:D:2989:SER:N	2.44	0.51
2:D:3107:LEU:HD23	2:D:3107:LEU:C	2.31	0.51
2:D:2898:VAL:HG22	2:D:2918:TRP:CE3	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2933:ARG:NH1	2:D:2966:LEU:CB	2.74	0.50
2:D:3050:SER:O	2:D:3051:ASN:HB2	2.11	0.50
2:D:3058:SER:C	2:D:3060:SER:H	2.13	0.50
2:B:2984:PRO:HG2	2:B:2987:LYS:HG3	1.92	0.50
2:B:3081:HIS:CD2	2:B:3082:PHE:HD1	2.28	0.50
2:D:2548:VAL:O	2:D:2551:SER:HB2	2.12	0.50
2:D:2610:ASP:C	2:D:2612:ALA:N	2.62	0.50
2:D:2733:LEU:N	2:D:2733:LEU:CD2	2.74	0.50
2:D:3043:PRO:O	2:D:3044:ARG:HB2	2.10	0.50
2:B:2414:LEU:O	2:B:2417:ALA:N	2.44	0.50
2:B:2465:CYS:O	2:B:2466:SER:CB	2.59	0.50
2:B:2602:LEU:O	2:B:2606:LEU:HB2	2.11	0.50
2:B:2620:VAL:HG22	2:B:2679:GLN:O	2.11	0.50
2:B:2667:LEU:HD23	2:B:2667:LEU:C	2.32	0.50
2:D:2491:GLN:HA	2:D:2525:ALA:O	2.11	0.50
2:D:2616:LEU:HD11	2:D:2724:PHE:CE2	2.47	0.50
2:B:2479:CYS:C	2:B:2481:SER:N	2.65	0.50
2:B:3005:VAL:HG22	2:B:3046:LEU:CD1	2.39	0.50
2:B:3021:LEU:HB2	2:B:3029:LEU:HD22	1.92	0.50
2:B:3097:ASP:C	2:B:3099:PHE:N	2.64	0.50
2:D:2501:GLU:O	2:D:2503:LEU:N	2.41	0.50
2:D:2531:TYR:CE1	2:D:2535:CYS:SG	3.05	0.50
2:D:3057:GLU:OE2	2:D:3064:THR:HB	2.11	0.50
1:A:13:LEU:HD11	2:B:2453:LEU:HA	1.94	0.50
2:B:2476:SER:C	2:B:2478:ALA:N	2.62	0.50
2:B:2761:VAL:HG12	2:B:2896:SER:O	2.11	0.50
2:B:2777:GLU:O	2:B:2781:ALA:N	2.44	0.50
2:B:3089:MET:C	2:B:3091:HIS:H	2.13	0.50
2:D:2589:ARG:O	2:D:2593:GLU:HB3	2.12	0.50
2:D:2704:LEU:O	2:D:2705:ARG:HD3	2.12	0.50
2:B:2704:LEU:HD23	2:B:2704:LEU:O	2.11	0.50
1:C:56:LEU:C	1:C:56:LEU:HD23	2.31	0.50
2:D:2738:LEU:HD13	2:D:2745:VAL:CG2	2.42	0.50
2:B:2531:TYR:CD1	2:B:2531:TYR:C	2.83	0.50
2:B:2955:LEU:CD1	2:B:2955:LEU:N	2.75	0.50
2:D:2414:LEU:O	2:D:2417:ALA:N	2.44	0.50
2:D:2421:GLN:NE2	2:D:2536:ASP:OD1	2.39	0.50
2:D:2479:CYS:C	2:D:2481:SER:N	2.65	0.50
2:D:2927:LEU:O	2:D:2929:THR:HG23	2.11	0.50
2:D:3019:VAL:HG12	2:D:3021:LEU:HD21	1.94	0.50
2:B:2419:ASP:O	2:B:2423:ILE:HG13	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2616:LEU:CD1	2:B:2724:PHE:CD2	2.94	0.50
2:B:2667:LEU:CD2	2:B:2671:LYS:HD3	2.41	0.50
2:D:2447:THR:HG22	2:D:2448:LEU:N	2.27	0.50
2:D:2602:LEU:O	2:D:2606:LEU:HB2	2.12	0.50
2:B:2406:PHE:C	2:B:2408:LYS:H	2.15	0.50
2:B:2908:LYS:O	2:B:2909:ARG:C	2.50	0.50
2:D:2622:ASP:OD2	2:D:2623:ILE:N	2.45	0.50
2:D:2745:VAL:CG1	2:D:2746:GLY:N	2.75	0.50
2:B:2428:LYS:O	2:B:2430:ARG:N	2.45	0.49
2:D:2667:LEU:CD2	2:D:2671:LYS:HD3	2.42	0.49
2:D:2704:LEU:O	2:D:2704:LEU:HD23	2.12	0.49
2:D:3081:HIS:CD2	2:D:3082:PHE:HD1	2.30	0.49
1:A:39:TRP:HA	1:A:39:TRP:HE3	1.77	0.49
2:B:2606:LEU:CD1	2:B:2704:LEU:HD11	2.41	0.49
2:B:2745:VAL:N	2:B:2940:SER:OG	2.45	0.49
2:B:3058:SER:C	2:B:3060:SER:H	2.14	0.49
2:B:2754:ARG:HB2	2:B:2756:TYR:HE1	1.77	0.49
2:D:2955:LEU:N	2:D:2955:LEU:CD1	2.74	0.49
2:B:2548:VAL:O	2:B:2551:SER:HB2	2.12	0.49
2:B:2585:GLN:O	2:B:2588:TYR:HB3	2.13	0.49
2:B:2941:VAL:HG12	2:B:2943:LYS:HG3	1.95	0.49
2:B:3102:GLU:OE1	2:B:3102:GLU:HA	2.13	0.49
2:B:3107:LEU:HD23	2:B:3107:LEU:C	2.33	0.49
1:C:22:PHE:O	1:C:23:PRO:C	2.50	0.49
2:D:2406:PHE:O	2:D:2411:MET:HG2	2.13	0.49
2:D:2419:ASP:HA	2:D:2422:ASP:HB2	1.94	0.49
2:D:2936:ILE:HG21	2:D:2939:LEU:HD22	1.94	0.49
2:D:3026:LEU:CD2	2:D:3104:GLU:HA	2.43	0.49
2:B:2408:LYS:O	2:B:2409:ASP:HB2	2.13	0.49
2:B:2501:GLU:O	2:B:2503:LEU:N	2.45	0.49
1:C:39:TRP:NE1	2:D:2733:LEU:HB3	2.28	0.49
2:D:2439:SER:HB3	2:D:2584:LEU:HD21	1.94	0.49
2:D:2663:ASP:C	2:D:2665:PRO:HD2	2.33	0.49
2:D:2773:ASN:N	2:D:2776:GLU:HB2	2.13	0.49
2:B:2730:PRO:HB2	2:B:2747:CYS:HB2	1.94	0.49
2:B:2987:LYS:C	2:B:2989:SER:N	2.66	0.49
2:B:3043:PRO:O	2:B:3044:ARG:HB2	2.12	0.49
1:C:39:TRP:HA	1:C:39:TRP:CE3	2.47	0.49
2:D:2489:TYR:O	2:D:2491:GLN:N	2.45	0.49
2:D:2555:ARG:CZ	2:D:2556:TRP:CH2	2.95	0.49
2:D:2616:LEU:HD13	2:D:2724:PHE:HD2	1.74	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2953:ILE:O	2:D:2954:GLN:HB2	2.12	0.49
1:C:37:HIS:ND1	1:C:38:VAL:HG12	2.27	0.49
2:D:2726:HIS:ND1	2:D:2726:HIS:N	2.61	0.49
2:D:3035:ILE:HG23	2:D:3068:GLY:O	2.12	0.49
2:D:2772:ARG:NH2	2:D:2780:GLU:HG2	2.27	0.49
2:B:2434:CYS:SG	2:B:2435:PRO:N	2.86	0.49
2:B:2985:PHE:CE2	2:B:3029:LEU:HD13	2.48	0.49
2:D:2545:ILE:HG13	2:D:2545:ILE:O	2.13	0.49
2:D:2777:GLU:O	2:D:2781:ALA:N	2.46	0.49
2:D:3030:VAL:HG12	2:D:3031:VAL:N	2.27	0.49
2:B:2406:PHE:C	2:B:2408:LYS:N	2.66	0.48
2:B:2763:LYS:HG2	2:B:2769:TYR:CD2	2.49	0.48
2:B:2932:GLN:HA	2:B:2932:GLN:OE1	2.13	0.48
2:B:3057:GLU:OE2	2:B:3064:THR:HB	2.13	0.48
1:C:19:PHE:C	1:C:19:PHE:HD1	2.15	0.48
2:D:2754:ARG:HB2	2:D:2756:TYR:HE1	1.78	0.48
2:D:2919:ARG:N	2:D:2920:PRO:CD	2.76	0.48
2:D:3102:GLU:OE1	2:D:3102:GLU:HA	2.13	0.48
1:C:39:TRP:HZ3	2:D:2682:ILE:HB	1.77	0.48
2:D:2501:GLU:O	2:D:2502:ALA:HB3	2.13	0.48
1:A:19:PHE:C	1:A:19:PHE:HD1	2.15	0.48
2:B:2458:GLY:O	2:B:2459:ASP:HB2	2.14	0.48
2:D:2664:PRO:HB2	2:D:2741:ASP:OD2	2.13	0.48
2:D:3016:ALA:H	2:D:3017:PRO:HD3	1.79	0.48
2:B:2608:ARG:CB	2:B:2608:ARG:NH1	2.68	0.48
2:B:3058:SER:O	2:B:3059:THR:CB	2.61	0.48
2:B:2762:GLU:OE2	2:B:2893:ARG:NH1	2.47	0.48
2:B:2919:ARG:N	2:B:2920:PRO:CD	2.76	0.48
2:B:2927:LEU:O	2:B:2934:TYR:OH	2.31	0.48
2:B:3093:ILE:HD11	2:B:3100:TYR:CE1	2.48	0.48
2:D:2500:LYS:O	2:D:2501:GLU:HB3	2.13	0.48
2:D:2751:ILE:HD11	2:D:2973:LEU:HD13	1.96	0.48
2:D:2761:VAL:HG11	2:D:2918:TRP:CZ3	2.49	0.48
2:D:2409:ASP:O	2:D:2412:SER:N	2.40	0.48
2:D:2476:SER:C	2:D:2478:ALA:N	2.65	0.48
2:D:2717:ARG:HG2	2:D:2717:ARG:NH1	2.28	0.48
2:D:2745:VAL:N	2:D:2940:SER:OG	2.47	0.48
2:B:2704:LEU:HD23	2:B:2704:LEU:C	2.34	0.48
2:B:2750:VAL:HG13	2:B:2904:THR:C	2.34	0.48
1:C:50:ASP:O	1:C:52:PHE:N	2.46	0.48
2:D:2761:VAL:O	2:D:2895:VAL:HG23	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2503:LEU:HD13	2:B:2503:LEU:C	2.34	0.48
1:C:56:LEU:O	1:C:56:LEU:HD23	2.13	0.48
2:D:2437:PRO:HG2	2:D:2442:LEU:CD1	2.39	0.48
2:D:2493:ALA:O	2:D:2496:ASP:N	2.46	0.48
2:D:2494:ILE:HD11	2:D:2523:GLY:C	2.34	0.48
2:D:2558:VAL:HG13	2:D:2577:LEU:CD1	2.40	0.48
2:D:2756:TYR:N	2:D:2756:TYR:HD1	2.12	0.48
2:D:3097:ASP:C	2:D:3099:PHE:N	2.66	0.48
2:B:2403:PHE:HD1	2:B:2503:LEU:CD1	2.26	0.48
2:B:2692:PRO:HG2	2:B:2693:ASP:N	2.29	0.48
2:B:2933:ARG:CB	2:B:2968:VAL:HG22	2.43	0.48
1:C:60:LEU:HD11	2:D:2562:ALA:HB1	1.96	0.48
2:D:2531:TYR:CD1	2:D:2531:TYR:C	2.85	0.48
2:B:2937:TYR:C	2:B:2939:LEU:N	2.67	0.48
2:B:3057:GLU:HA	2:B:3057:GLU:OE1	2.14	0.48
2:D:2599:ARG:HH22	2:D:2609:ASP:CB	2.27	0.48
2:D:2616:LEU:CD1	2:D:2724:PHE:CD2	2.96	0.48
2:D:2973:LEU:C	2:D:2975:GLN:N	2.67	0.48
2:D:2983:LEU:HD11	2:D:2988:LEU:HG	1.95	0.48
2:B:2475:VAL:O	2:B:2476:SER:C	2.53	0.47
2:B:2752:VAL:HG12	2:B:2930:GLU:HA	1.96	0.47
2:D:2458:GLY:O	2:D:2459:ASP:HB2	2.14	0.47
2:D:2541:ASP:OD1	2:D:2541:ASP:C	2.51	0.47
2:B:2447:THR:HG22	2:B:2448:LEU:N	2.29	0.47
2:B:2669:LEU:HB3	2:B:2674:ARG:HB2	1.95	0.47
2:B:2714:ARG:NH2	2:B:2733:LEU:HD12	2.29	0.47
2:B:2917:ILE:HD13	2:B:2924:LEU:CD2	2.36	0.47
2:B:2928:LEU:HA	2:B:2934:TYR:CZ	2.49	0.47
2:B:2973:LEU:C	2:B:2975:GLN:N	2.68	0.47
2:B:2987:LYS:O	2:B:2989:SER:N	2.47	0.47
2:D:2620:VAL:HG22	2:D:2679:GLN:O	2.14	0.47
1:A:37:HIS:ND1	1:A:38:VAL:HG12	2.28	0.47
2:B:3007:VAL:HB	2:B:3104:GLU:OE1	2.13	0.47
2:B:3010:VAL:HG12	2:B:3012:PRO:CD	2.43	0.47
2:D:2501:GLU:C	2:D:2503:LEU:N	2.58	0.47
2:D:2503:LEU:HD13	2:D:2503:LEU:C	2.35	0.47
2:D:2585:GLN:O	2:D:2588:TYR:HB3	2.13	0.47
2:D:2589:ARG:HG3	2:D:2589:ARG:NH1	2.26	0.47
2:D:2937:TYR:O	2:D:2961:THR:HG23	2.14	0.47
2:D:3007:VAL:O	2:D:3008:SER:HB3	2.13	0.47
2:D:3024:GLU:OE2	2:D:3085:ARG:NH2	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2733:LEU:N	2:B:2733:LEU:CD2	2.76	0.47
1:C:13:LEU:HD12	2:D:2451:ILE:O	2.15	0.47
2:D:2939:LEU:CD1	2:D:2955:LEU:HB3	2.45	0.47
2:D:2984:PRO:HG2	2:D:2987:LYS:HG3	1.96	0.47
2:D:3101:LYS:O	2:D:3105:LYS:HG3	2.15	0.47
2:D:3109:GLN:NE2	2:D:3109:GLN:C	2.67	0.47
1:A:56:LEU:O	1:A:56:LEU:HD23	2.14	0.47
2:B:2407:ASN:O	2:B:2411:MET:HG3	2.13	0.47
2:B:2493:ALA:O	2:B:2496:ASP:N	2.47	0.47
2:B:2541:ASP:OD1	2:B:2543:LYS:N	2.47	0.47
2:B:2761:VAL:HG11	2:B:2918:TRP:CZ3	2.50	0.47
2:B:2773:ASN:OD1	2:B:2776:GLU:OE1	2.32	0.47
2:B:3108:ILE:HG12	2:B:3112:LYS:HE3	1.95	0.47
2:D:2498:PHE:HB2	2:D:2503:LEU:HD23	1.97	0.47
2:D:2557:ILE:O	2:D:2561:LEU:HD12	2.14	0.47
2:D:2772:ARG:HB3	2:D:2776:GLU:HB2	1.96	0.47
2:D:3109:GLN:HE21	2:D:3110:VAL:N	2.12	0.47
2:B:2755:VAL:HG23	2:B:2930:GLU:HG2	1.97	0.47
2:B:2997:CYS:O	2:B:2999:GLU:N	2.47	0.47
1:C:38:VAL:O	1:C:38:VAL:HG13	2.14	0.47
1:C:56:LEU:HD23	1:C:57:ARG:HB2	1.95	0.47
2:D:2441:TYR:O	2:D:2441:TYR:CD2	2.68	0.47
2:D:2553:HIS:O	2:D:2557:ILE:HG13	2.15	0.47
2:D:2565:GLU:OE1	2:D:2574:ASN:HA	2.13	0.47
1:A:51:ASP:CB	2:B:2717:ARG:HG3	2.45	0.47
2:B:2412:SER:O	2:B:2413:SER:C	2.51	0.47
2:B:2489:TYR:O	2:B:2491:GLN:N	2.47	0.47
2:B:2534:LEU:CD2	2:B:2540:VAL:HG21	2.41	0.47
2:B:2689:VAL:HG21	2:B:2707:LYS:HE3	1.96	0.47
2:B:2939:LEU:CD1	2:B:2955:LEU:HB3	2.45	0.47
2:B:2969:SER:O	2:B:2970:SER:C	2.52	0.47
2:B:3062:VAL:HG22	2:B:3062:VAL:O	2.14	0.47
2:B:3100:TYR:O	2:B:3103:ALA:N	2.48	0.47
1:C:46:ASP:OD2	2:D:2674:ARG:NH1	2.48	0.47
2:D:2969:SER:O	2:D:2970:SER:C	2.53	0.47
2:D:3061:ARG:HG2	2:D:3061:ARG:NH1	2.29	0.47
2:D:2424:ARG:NH1	2:D:2536:ASP:OD1	2.48	0.47
2:D:2777:GLU:OE2	2:D:2893:ARG:NH2	2.46	0.47
2:D:2909:ARG:O	2:D:2910:GLU:CG	2.60	0.47
2:B:2403:PHE:CA	2:B:2503:LEU:HD11	2.36	0.47
2:B:3108:ILE:CG1	2:B:3112:LYS:HE3	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2487:ALA:C	2:D:2489:TYR:H	2.19	0.47
2:D:2983:LEU:HB3	2:D:3002:VAL:HG12	1.97	0.47
2:B:2512:ALA:HB1	2:B:2584:LEU:HG	1.93	0.47
2:B:2545:ILE:HG13	2:B:2545:ILE:O	2.15	0.47
2:B:2685:GLY:H	2:B:2712:SER:HB3	1.80	0.47
2:B:3083:GLN:HA	2:B:3086:VAL:CG1	2.43	0.47
2:D:2568:PHE:O	2:D:2570:LYS:N	2.48	0.47
2:D:2600:SER:HB2	2:D:2655:TRP:HB2	1.97	0.47
2:D:2719:HIS:CG	2:D:2720:SER:N	2.82	0.47
2:B:2937:TYR:O	2:B:2961:THR:HG23	2.14	0.46
2:B:3024:GLU:OE2	2:B:3085:ARG:NH2	2.48	0.46
1:C:39:TRP:HA	1:C:39:TRP:HE3	1.79	0.46
2:D:2554:TYR:O	2:D:2558:VAL:HG23	2.15	0.46
2:D:2738:LEU:HD22	2:D:2745:VAL:CG2	2.45	0.46
2:D:3060:SER:C	2:D:3062:VAL:N	2.67	0.46
1:A:60:LEU:HD11	2:B:2562:ALA:HB1	1.97	0.46
2:B:2446:SER:OG	2:B:2448:LEU:HD12	2.15	0.46
2:B:2719:HIS:CG	2:B:2720:SER:N	2.83	0.46
2:B:3060:SER:C	2:B:3062:VAL:N	2.69	0.46
2:D:2403:PHE:HA	2:D:2503:LEU:HD11	1.96	0.46
2:D:2563:ALA:O	2:D:2566:PHE:N	2.49	0.46
2:D:3109:GLN:NE2	2:D:3110:VAL:HG12	2.30	0.46
1:A:51:ASP:O	2:B:2717:ARG:HA	2.16	0.46
2:B:2935:ARG:HD3	2:B:2937:TYR:OH	2.15	0.46
1:C:62:LYS:O	1:C:63:HIS:C	2.54	0.46
2:D:2487:ALA:C	2:D:2489:TYR:N	2.69	0.46
2:D:2525:ALA:HA	2:D:2529:GLU:OE1	2.16	0.46
2:D:2624:ILE:CG2	2:D:2626:LEU:HG	2.46	0.46
2:D:3010:VAL:C	2:D:3012:PRO:HD3	2.36	0.46
2:D:3108:ILE:CG1	2:D:3112:LYS:HE3	2.46	0.46
2:B:3062:VAL:HB	2:B:3111:LEU:HD21	1.96	0.46
2:D:2500:LYS:O	2:D:2501:GLU:CB	2.64	0.46
2:D:2765:VAL:HG23	2:D:2766:SER:N	2.31	0.46
2:B:2403:PHE:CA	2:B:2500:LYS:HE2	2.45	0.46
2:B:2553:HIS:O	2:B:2557:ILE:HG13	2.15	0.46
2:B:2681:ILE:HG22	2:B:2683:THR:HG23	1.97	0.46
2:B:2761:VAL:O	2:B:2895:VAL:HG23	2.16	0.46
2:B:3100:TYR:HD1	2:B:3101:LYS:HD2	1.80	0.46
2:D:2933:ARG:CB	2:D:2968:VAL:HG22	2.46	0.46
2:D:3062:VAL:HB	2:D:3111:LEU:HD21	1.96	0.46
2:B:2414:LEU:C	2:B:2416:ASN:N	2.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3020:TYR:CD2	2:B:3030:VAL:HG22	2.51	0.46
2:D:2412:SER:O	2:D:2413:SER:C	2.53	0.46
2:D:2482:VAL:HA	2:D:2486:ASN:HD21	1.80	0.46
2:D:2773:ASN:OD1	2:D:2776:GLU:OE1	2.34	0.46
2:B:2500:LYS:O	2:B:2501:GLU:HB3	2.15	0.46
2:B:2711:ASN:OD1	2:B:2738:LEU:HA	2.16	0.46
2:B:2773:ASN:N	2:B:2776:GLU:HB2	2.15	0.46
2:D:2534:LEU:CD2	2:D:2540:VAL:HG21	2.41	0.46
2:B:2701:PRO:O	2:B:2704:LEU:HB3	2.15	0.46
2:D:2729:ARG:HD3	2:D:2730:PRO:CD	2.46	0.46
2:B:2418:ARG:O	2:B:2421:GLN:HB3	2.16	0.46
2:B:2447:THR:O	2:B:2448:LEU:O	2.34	0.46
2:B:2565:GLU:OE1	2:B:2574:ASN:HA	2.16	0.46
2:B:2744:ASN:CB	2:B:2940:SER:HB2	2.46	0.46
2:B:3109:GLN:NE2	2:B:3109:GLN:C	2.69	0.46
2:D:2461:VAL:HB	2:D:2462:PRO:HD2	1.98	0.46
2:D:2900:LYS:C	2:D:2901:LEU:HD23	2.36	0.46
2:D:3020:TYR:CD2	2:D:3030:VAL:HG22	2.51	0.46
1:A:8:VAL:HG12	1:A:10:LEU:HD23	1.98	0.46
2:B:2663:ASP:C	2:B:2665:PRO:HD2	2.35	0.46
2:B:2761:VAL:HG11	2:B:2918:TRP:CH2	2.51	0.46
2:B:2765:VAL:HG23	2:B:2766:SER:N	2.31	0.46
2:B:3016:ALA:H	2:B:3017:PRO:HD3	1.80	0.46
2:D:2608:ARG:CB	2:D:2608:ARG:NH1	2.70	0.46
2:D:2701:PRO:O	2:D:2704:LEU:HB3	2.16	0.46
2:D:2969:SER:HB2	2:D:2972:THR:HG23	1.98	0.46
1:A:12:LEU:O	2:B:2450:ARG:NH1	2.49	0.45
1:A:46:ASP:OD2	2:B:2674:ARG:NH1	2.49	0.45
2:B:2587:LYS:O	2:B:2590:TYR:HB3	2.16	0.45
2:B:2614:LYS:HG2	2:B:2615:THR:H	1.74	0.45
2:B:2909:ARG:O	2:B:2910:GLU:CG	2.60	0.45
2:B:3010:VAL:C	2:B:3012:PRO:HD3	2.36	0.45
2:B:3109:GLN:HE21	2:B:3110:VAL:N	2.13	0.45
2:D:2407:ASN:C	2:D:2411:MET:HG3	2.36	0.45
2:B:2416:ASN:O	2:B:2420:LEU:HB2	2.16	0.45
2:B:2428:LYS:CD	2:B:2542:PRO:HD3	2.46	0.45
2:B:2554:TYR:O	2:B:2558:VAL:HG23	2.16	0.45
2:B:2900:LYS:C	2:B:2901:LEU:HD23	2.37	0.45
2:D:2552:ASN:ND2	2:D:2552:ASN:C	2.69	0.45
2:D:2621:SER:O	2:D:2622:ASP:HB2	2.17	0.45
2:D:2937:TYR:C	2:D:2939:LEU:N	2.69	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2563:ALA:O	2:B:2566:PHE:N	2.49	0.45
2:B:3095:ASN:N	2:B:3095:ASN:ND2	2.64	0.45
1:C:9:ASP:O	1:C:11:GLY:N	2.50	0.45
2:D:2666:LEU:O	2:D:2669:LEU:N	2.43	0.45
2:D:2927:LEU:HG	2:D:2928:LEU:N	2.32	0.45
2:D:3110:VAL:C	2:D:3112:LYS:N	2.70	0.45
1:A:46:ASP:CG	2:B:2674:ARG:HH12	2.20	0.45
1:A:61:GLU:C	1:A:63:HIS:H	2.19	0.45
2:B:2494:ILE:HD12	2:B:2495:GLU:N	2.25	0.45
2:B:2750:VAL:HG11	2:B:2903:VAL:CG2	2.47	0.45
2:B:2911:LYS:O	2:B:2912:SER:O	2.34	0.45
1:C:46:ASP:CG	2:D:2674:ARG:HH12	2.20	0.45
2:D:3091:HIS:O	2:D:3094:GLU:N	2.50	0.45
2:D:3100:TYR:CD1	2:D:3101:LYS:HD2	2.52	0.45
1:A:39:TRP:HZ3	2:B:2682:ILE:HB	1.81	0.45
2:B:2656:TYR:CD2	2:B:2697:PRO:CB	2.93	0.45
2:B:2917:ILE:CG2	2:B:2920:PRO:HG3	2.40	0.45
2:D:2427:ASN:O	2:D:2428:LYS:C	2.54	0.45
2:D:2749:ASP:O	2:D:2906:TYR:HB2	2.17	0.45
2:D:3021:LEU:HB2	2:D:3029:LEU:HD22	1.97	0.45
2:D:3111:LEU:C	2:D:3112:LYS:HD3	2.36	0.45
1:A:57:ARG:HG2	2:B:2559:TRP:CZ2	2.52	0.45
2:B:2555:ARG:CZ	2:B:2556:TRP:CH2	2.99	0.45
2:B:2675:LEU:HD23	2:B:2675:LEU:HA	1.72	0.45
2:B:2726:HIS:ND1	2:B:2726:HIS:N	2.62	0.45
2:D:3005:VAL:HG22	2:D:3046:LEU:CD1	2.47	0.45
1:A:15:GLU:HB2	1:A:18:GLU:CG	2.47	0.45
2:B:2552:ASN:O	2:B:2555:ARG:N	2.49	0.45
2:D:2676:THR:HG22	2:D:2679:GLN:CD	2.36	0.45
2:D:2772:ARG:HB3	2:D:2776:GLU:CB	2.46	0.45
2:D:2978:GLN:HG2	2:D:2996:PRO:HG2	1.99	0.45
2:D:2554:TYR:CE1	2:D:2582:VAL:HG11	2.51	0.45
2:D:2572:PHE:O	2:D:2573:ALA:C	2.55	0.45
2:D:2666:LEU:HD11	2:D:2708:ILE:HG22	1.99	0.45
2:D:2772:ARG:NE	2:D:2780:GLU:HG2	2.32	0.45
2:D:3097:ASP:HA	2:D:3100:TYR:HB2	1.99	0.45
2:B:2500:LYS:O	2:B:2501:GLU:CB	2.65	0.45
2:B:2901:LEU:HD11	2:B:2928:LEU:HD13	1.99	0.45
2:B:3035:ILE:HG23	2:B:3068:GLY:O	2.17	0.45
2:B:3097:ASP:HA	2:B:3100:TYR:HB2	1.99	0.45
2:D:2783:ARG:HG3	2:D:2783:ARG:NH1	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2900:LYS:HD2	2:D:3070:PHE:CE2	2.51	0.45
2:D:3095:ASN:N	2:D:3095:ASN:ND2	2.65	0.45
2:B:2648:THR:HG21	2:B:2705:ARG:HH12	1.81	0.45
2:B:2666:LEU:O	2:B:2667:LEU:C	2.55	0.45
2:B:2772:ARG:NE	2:B:2780:GLU:HG2	2.32	0.45
2:B:3048:ALA:HB1	2:B:3082:PHE:CE2	2.52	0.45
2:D:2936:ILE:HG21	2:D:2939:LEU:HB2	1.97	0.45
2:B:2498:PHE:HB2	2:B:2503:LEU:HD23	1.98	0.44
2:B:2509:PHE:O	2:B:2517:LEU:N	2.48	0.44
2:B:3109:GLN:HE22	2:B:3110:VAL:HG12	1.80	0.44
2:D:2461:VAL:HB	2:D:2462:PRO:CD	2.47	0.44
2:B:3091:HIS:O	2:B:3093:ILE:N	2.51	0.44
2:B:3111:LEU:C	2:B:3112:LYS:HD3	2.37	0.44
2:D:2765:VAL:HG23	2:D:2766:SER:H	1.82	0.44
2:B:2676:THR:HG22	2:B:2679:GLN:CD	2.37	0.44
2:D:2569:PRO:O	2:D:2573:ALA:HA	2.18	0.44
2:D:2761:VAL:HG11	2:D:2918:TRP:CH2	2.52	0.44
2:D:2921:SER:O	2:D:2924:LEU:HB2	2.17	0.44
2:D:2959:LYS:H	2:D:2959:LYS:CD	2.09	0.44
2:D:2995:PRO:HD2	2:D:3054:TRP:CE3	2.52	0.44
1:A:43:TRP:CZ3	2:B:2713:THR:HG23	2.41	0.44
2:B:2589:ARG:HG3	2:B:2589:ARG:NH1	2.25	0.44
2:B:3061:ARG:HG2	2:B:3061:ARG:NH1	2.29	0.44
2:D:2620:VAL:HG23	2:D:2677:VAL:HA	2.00	0.44
2:D:3105:LYS:O	2:D:3109:GLN:HB2	2.17	0.44
2:B:2717:ARG:O	2:B:2718:TRP:C	2.56	0.44
2:B:2751:ILE:HD11	2:B:2973:LEU:HD13	1.99	0.44
2:D:2421:GLN:HA	2:D:2424:ARG:NE	2.33	0.44
2:D:2480:ILE:O	2:D:2480:ILE:CG2	2.65	0.44
2:D:2680:LYS:NZ	2:D:2719:HIS:O	2.50	0.44
2:B:2419:ASP:HA	2:B:2422:ASP:HB2	2.00	0.44
2:B:2704:LEU:O	2:B:2705:ARG:HD3	2.17	0.44
2:B:2745:VAL:H	2:B:2940:SER:CB	2.30	0.44
2:B:2756:TYR:N	2:B:2756:TYR:HD1	2.15	0.44
2:B:2772:ARG:CZ	2:B:2780:GLU:HG2	2.48	0.44
2:B:2744:ASN:HB2	2:B:2941:VAL:N	2.33	0.44
2:B:2950:TRP:N	2:B:2951:PRO:CD	2.68	0.44
1:C:18:GLU:OE2	2:D:2444:LYS:NZ	2.43	0.44
2:D:2541:ASP:OD1	2:D:2543:LYS:N	2.50	0.44
2:D:2620:VAL:CG2	2:D:2677:VAL:HA	2.46	0.44
2:D:2911:LYS:O	2:D:2912:SER:O	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2750:VAL:CG1	2:B:2904:THR:N	2.81	0.44
2:B:2765:VAL:HG23	2:B:2766:SER:H	1.82	0.44
1:C:39:TRP:HE1	2:D:2733:LEU:HB3	1.83	0.44
2:D:2752:VAL:HG12	2:D:2930:GLU:HA	2.00	0.44
2:D:2956:THR:O	2:D:2957:ALA:C	2.55	0.44
2:D:3060:SER:O	2:D:3063:PRO:HD3	2.18	0.44
1:A:43:TRP:HH2	2:B:2713:THR:HG1	1.62	0.43
2:B:2719:HIS:O	2:B:2720:SER:C	2.56	0.43
2:B:2744:ASN:CB	2:B:2940:SER:HB3	2.41	0.43
1:C:56:LEU:N	2:D:2462:PRO:HG2	2.29	0.43
2:D:2494:ILE:HD11	2:D:2523:GLY:O	2.18	0.43
2:D:2745:VAL:H	2:D:2940:SER:CB	2.31	0.43
2:D:2924:LEU:HB3	2:D:2925:PRO:HD3	1.99	0.43
1:A:48:VAL:C	1:A:49:GLU:CG	2.86	0.43
2:B:2410:LEU:HD13	2:B:2504:CYS:O	2.18	0.43
2:B:2929:THR:O	2:B:2930:GLU:C	2.55	0.43
2:B:2940:SER:O	2:B:2941:VAL:CG2	2.61	0.43
1:C:12:LEU:HD21	2:D:2443:THR:HG23	2.00	0.43
1:C:48:VAL:C	1:C:49:GLU:CG	2.87	0.43
1:C:60:LEU:HD12	2:D:2563:ALA:N	2.33	0.43
2:D:2418:ARG:O	2:D:2421:GLN:HB3	2.18	0.43
2:D:2666:LEU:HD23	2:D:2669:LEU:HD12	2.00	0.43
2:D:2675:LEU:HA	2:D:2675:LEU:HD23	1.79	0.43
2:D:3094:GLU:C	2:D:3096:ILE:N	2.72	0.43
1:A:21:GLU:HG3	1:A:22:PHE:CG	2.53	0.43
1:A:43:TRP:C	1:A:45:ASP:N	2.72	0.43
2:B:2476:SER:C	2:B:2478:ALA:H	2.21	0.43
2:B:2557:ILE:O	2:B:2561:LEU:HD12	2.19	0.43
2:B:2610:ASP:O	2:B:2610:ASP:CG	2.56	0.43
2:B:2744:ASN:CB	2:B:2940:SER:CB	2.88	0.43
2:B:2762:GLU:CB	2:B:2772:ARG:HH12	2.32	0.43
1:C:21:GLU:HG3	1:C:22:PHE:CG	2.53	0.43
2:D:2479:CYS:O	2:D:2481:SER:N	2.51	0.43
2:D:2492:PHE:CE2	2:D:2578:ASN:HA	2.52	0.43
2:D:2676:THR:HG22	2:D:2679:GLN:NE2	2.34	0.43
2:D:3029:LEU:HD23	2:D:3030:VAL:N	2.32	0.43
2:B:2667:LEU:HD23	2:B:2671:LYS:HD3	2.00	0.43
2:B:2778:GLU:HA	2:B:2781:ALA:HB3	2.01	0.43
2:B:2915:LEU:HD12	2:B:2915:LEU:C	2.38	0.43
2:B:2933:ARG:HB3	2:B:2968:VAL:HG22	2.00	0.43
2:B:3058:SER:O	2:B:3060:SER:N	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:39:TRP:CD1	2:D:2733:LEU:HB3	2.53	0.43
1:C:43:TRP:C	1:C:45:ASP:N	2.71	0.43
2:D:2608:ARG:HH11	2:D:2608:ARG:CA	2.30	0.43
2:D:2730:PRO:HB2	2:D:2747:CYS:HB2	1.99	0.43
2:D:3111:LEU:HD12	2:D:3111:LEU:HA	1.84	0.43
1:A:43:TRP:O	1:A:45:ASP:N	2.47	0.43
2:B:2592:VAL:HG11	2:B:2655:TRP:CH2	2.54	0.43
2:B:2745:VAL:N	2:B:2940:SER:CB	2.81	0.43
2:B:2991:PRO:O	2:B:2993:PHE:N	2.51	0.43
2:B:3105:LYS:O	2:B:3109:GLN:HB2	2.18	0.43
2:D:2688:LEU:HD12	2:D:2688:LEU:HA	1.77	0.43
2:D:2756:TYR:HD2	2:D:3070:PHE:CB	2.30	0.43
2:D:2762:GLU:CB	2:D:2772:ARG:HH12	2.31	0.43
2:D:2902:ARG:NH1	2:D:2914:LEU:HD13	2.33	0.43
2:D:3042:LYS:O	2:D:3045:VAL:HG23	2.18	0.43
2:D:3048:ALA:HB1	2:D:3082:PHE:CE2	2.52	0.43
2:B:2672:SER:CB	2:B:2674:ARG:HG2	2.46	0.43
2:B:2898:VAL:HG22	2:B:2918:TRP:CZ3	2.53	0.43
2:B:2953:ILE:O	2:B:2954:GLN:HB2	2.17	0.43
2:B:3117:LYS:HA	2:B:3117:LYS:HD3	1.72	0.43
2:D:2903:VAL:O	2:D:2913:ALA:N	2.48	0.43
2:D:3057:GLU:O	2:D:3060:SER:HB2	2.19	0.43
1:A:50:ASP:O	1:A:52:PHE:N	2.51	0.43
1:A:60:LEU:HA	2:B:2566:PHE:CE2	2.54	0.43
2:B:2436:GLN:HA	2:B:2437:PRO:HD2	1.88	0.43
2:B:2476:SER:HG	2:B:2478:ALA:HB3	1.81	0.43
2:B:2492:PHE:CE2	2:B:2578:ASN:HA	2.53	0.43
2:B:2589:ARG:HH11	2:B:2589:ARG:CG	2.22	0.43
1:C:46:ASP:O	1:C:47:ASN:O	2.37	0.43
2:D:2552:ASN:O	2:D:2555:ARG:N	2.52	0.43
2:D:2943:LYS:O	2:D:2944:SER:O	2.36	0.43
2:D:3083:GLN:HA	2:D:3086:VAL:CG1	2.45	0.43
2:B:2606:LEU:HD21	2:B:2658:VAL:HG11	2.00	0.43
2:D:2610:ASP:O	2:D:2610:ASP:CG	2.55	0.43
2:D:3100:TYR:C	2:D:3102:GLU:N	2.71	0.43
1:A:43:TRP:CZ3	2:B:2713:THR:O	2.71	0.43
1:A:62:LYS:O	1:A:63:HIS:C	2.57	0.43
2:B:2666:LEU:CD1	2:B:2708:ILE:HG22	2.48	0.43
2:B:2943:LYS:O	2:B:2944:SER:O	2.36	0.43
2:D:2782:LEU:O	2:D:2784:PHE:N	2.51	0.43
1:A:60:LEU:HD12	2:B:2563:ALA:CA	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2465:CYS:HB3	2:B:2566:PHE:CE1	2.54	0.43
2:B:2479:CYS:O	2:B:2481:SER:N	2.52	0.43
2:B:2501:GLU:O	2:B:2501:GLU:HG3	2.19	0.43
2:B:2744:ASN:OD1	2:B:2744:ASN:C	2.57	0.43
2:B:3093:ILE:CG2	2:B:3094:GLU:N	2.82	0.43
1:C:37:HIS:O	1:C:37:HIS:ND1	2.52	0.43
2:D:2599:ARG:HH22	2:D:2609:ASP:HB3	1.83	0.43
2:D:2745:VAL:N	2:D:2940:SER:CB	2.82	0.43
2:D:2772:ARG:CZ	2:D:2780:GLU:HG2	2.49	0.43
2:D:2704:LEU:HD23	2:D:2704:LEU:C	2.40	0.42
2:D:2720:SER:O	2:D:2721:LYS:HB2	2.19	0.42
2:D:3100:TYR:O	2:D:3101:LYS:C	2.57	0.42
2:B:2421:GLN:HA	2:B:2424:ARG:NE	2.34	0.42
2:B:2427:ASN:O	2:B:2428:LYS:C	2.57	0.42
2:B:3089:MET:O	2:B:3091:HIS:N	2.52	0.42
2:B:3100:TYR:C	2:B:3102:GLU:N	2.71	0.42
2:D:2439:SER:HB3	2:D:2584:LEU:CD2	2.49	0.42
2:D:2551:SER:O	2:D:2554:TYR:HB3	2.19	0.42
2:D:2648:THR:OG1	2:D:2649:ILE:N	2.51	0.42
2:D:2908:LYS:O	2:D:2910:GLU:N	2.52	0.42
2:D:3096:ILE:O	2:D:3099:PHE:HD2	2.02	0.42
2:B:2911:LYS:O	2:B:2912:SER:C	2.57	0.42
2:B:2956:THR:O	2:B:2957:ALA:C	2.58	0.42
2:B:3094:GLU:C	2:B:3096:ILE:N	2.72	0.42
2:B:3110:VAL:C	2:B:3112:LYS:N	2.72	0.42
1:C:60:LEU:HA	2:D:2566:PHE:CE2	2.54	0.42
1:C:60:LEU:HA	2:D:2566:PHE:CD2	2.54	0.42
2:D:2447:THR:O	2:D:2448:LEU:O	2.36	0.42
2:D:2492:PHE:CE2	2:D:2578:ASN:CA	3.02	0.42
2:D:3100:TYR:CD1	2:D:3101:LYS:N	2.87	0.42
1:A:39:TRP:NE1	2:B:2733:LEU:HB3	2.35	0.42
2:B:2511:LEU:O	2:B:2512:ALA:C	2.58	0.42
2:B:2582:VAL:O	2:B:2586:LEU:HD12	2.19	0.42
2:B:3101:LYS:O	2:B:3105:LYS:HG3	2.19	0.42
2:D:2655:TRP:HB3	2:D:2656:TYR:CE1	2.54	0.42
2:D:2687:GLU:O	2:D:2706:LEU:HD22	2.19	0.42
2:B:2492:PHE:CE2	2:B:2578:ASN:CA	3.03	0.42
2:B:3028:LEU:HD11	2:B:3108:ILE:HB	2.02	0.42
2:D:2689:VAL:HG12	2:D:2690:GLY:N	2.35	0.42
2:D:2782:LEU:C	2:D:2784:PHE:H	2.23	0.42
2:D:2783:ARG:HD2	2:D:2783:ARG:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:3115:SER:HB2	2:D:3116:PRO:HD2	2.01	0.42
2:B:2439:SER:HB3	2:B:2584:LEU:HD21	2.01	0.42
2:B:2440:LEU:C	2:B:2442:LEU:N	2.72	0.42
2:B:2582:VAL:O	2:B:2582:VAL:HG12	2.20	0.42
2:B:2941:VAL:O	2:B:2942:SER:O	2.37	0.42
1:C:18:GLU:OE1	2:D:2450:ARG:NH2	2.52	0.42
1:C:60:LEU:HD12	2:D:2563:ALA:CA	2.50	0.42
2:D:2779:LYS:C	2:D:2781:ALA:H	2.23	0.42
2:B:3060:SER:O	2:B:3063:PRO:HD3	2.20	0.42
2:B:3115:SER:OG	2:B:3116:PRO:HD2	2.19	0.42
2:D:2425:ILE:HG23	2:D:2542:PRO:CG	2.49	0.42
2:D:2597:SER:O	2:D:2598:SER:C	2.58	0.42
2:D:2684:GLN:HE21	2:D:2684:GLN:HB2	1.54	0.42
2:D:2895:VAL:HG22	2:D:2896:SER:N	2.33	0.42
2:D:2933:ARG:HB2	2:D:2968:VAL:HG22	2.01	0.42
2:D:2997:CYS:O	2:D:2998:SER:C	2.58	0.42
1:A:60:LEU:HD12	2:B:2563:ALA:N	2.34	0.42
2:B:2669:LEU:O	2:B:2674:ARG:N	2.48	0.42
2:D:2465:CYS:HB3	2:D:2566:PHE:CE1	2.55	0.42
2:D:2483:ASN:HD22	2:D:2486:ASN:HD22	1.68	0.42
2:D:2995:PRO:HA	2:D:2996:PRO:HD3	1.89	0.42
2:B:2487:ALA:C	2:B:2489:TYR:H	2.22	0.42
2:B:2782:LEU:O	2:B:2784:PHE:N	2.52	0.42
2:B:2783:ARG:HD2	2:B:2783:ARG:O	2.20	0.42
2:D:2719:HIS:O	2:D:2720:SER:C	2.58	0.42
2:D:3057:GLU:OE1	2:D:3057:GLU:HA	2.19	0.42
2:D:3109:GLN:HE22	2:D:3110:VAL:HG12	1.84	0.42
2:B:2927:LEU:HD12	2:B:2927:LEU:C	2.40	0.42
2:B:2955:LEU:N	2:B:2955:LEU:HD12	2.35	0.42
2:B:3109:GLN:NE2	2:B:3110:VAL:CG1	2.83	0.42
1:C:13:LEU:HD11	2:D:2453:LEU:HA	2.01	0.42
1:C:20:GLU:O	1:C:21:GLU:C	2.59	0.42
2:D:2749:ASP:OD1	2:D:2933:ARG:NH2	2.53	0.42
2:D:2762:GLU:OE2	2:D:2893:ARG:NH1	2.53	0.42
2:D:2953:ILE:CG1	2:D:2954:GLN:N	2.74	0.42
1:A:38:VAL:O	1:A:38:VAL:HG13	2.19	0.41
2:B:2490:PHE:HE2	2:B:2492:PHE:CZ	2.37	0.41
2:B:2525:ALA:HA	2:B:2529:GLU:OE1	2.20	0.41
2:B:2621:SER:HB3	2:B:2652:THR:HG22	2.02	0.41
2:B:2777:GLU:O	2:B:2778:GLU:C	2.58	0.41
1:C:43:TRP:O	1:C:45:ASP:N	2.44	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2906:TYR:CE1	2:D:2933:ARG:NE	2.88	0.41
2:D:3046:LEU:HD22	2:D:3090:LYS:HB2	2.02	0.41
2:D:3100:TYR:O	2:D:3103:ALA:N	2.53	0.41
2:B:2488:GLU:HG2	2:B:2527:LYS:HD2	2.02	0.41
2:B:2688:LEU:HD13	2:B:2706:LEU:HD23	2.02	0.41
2:B:2958:THR:O	2:B:2961:THR:HB	2.19	0.41
1:C:45:ASP:O	1:C:45:ASP:OD2	2.39	0.41
2:D:2735:LEU:HD13	2:D:2748:VAL:HG11	2.02	0.41
2:D:2750:VAL:HG11	2:D:2903:VAL:CG2	2.48	0.41
2:D:3007:VAL:HB	2:D:3104:GLU:OE1	2.21	0.41
2:B:2457:VAL:HG21	2:B:2568:PHE:CE2	2.56	0.41
2:B:2461:VAL:HB	2:B:2462:PRO:HD2	2.01	0.41
2:B:2710:ALA:HA	2:B:2713:THR:HG23	2.01	0.41
2:B:2782:LEU:C	2:B:2784:PHE:H	2.23	0.41
2:B:2908:LYS:O	2:B:2910:GLU:N	2.53	0.41
2:B:3047:ILE:HA	2:B:3047:ILE:HD13	1.80	0.41
2:B:3091:HIS:O	2:B:3094:GLU:N	2.53	0.41
2:B:3097:ASP:O	2:B:3099:PHE:N	2.52	0.41
2:D:2414:LEU:O	2:D:2415:GLN:C	2.58	0.41
2:D:2667:LEU:HD23	2:D:2671:LYS:HD3	2.03	0.41
2:D:2773:ASN:C	2:D:2775:ARG:N	2.73	0.41
2:D:2969:SER:HB2	2:D:2972:THR:CG2	2.50	0.41
2:B:2412:SER:O	2:B:2414:LEU:N	2.53	0.41
2:B:2455:ALA:O	2:B:2456:ALA:C	2.58	0.41
2:B:2624:ILE:HG22	2:B:2647:ASP:HB3	2.01	0.41
2:B:2692:PRO:HG2	2:B:2693:ASP:H	1.84	0.41
2:B:3030:VAL:CG1	2:B:3031:VAL:N	2.84	0.41
2:D:2475:VAL:O	2:D:2476:SER:C	2.58	0.41
2:D:2778:GLU:HA	2:D:2781:ALA:HB3	2.02	0.41
2:D:3060:SER:O	2:D:3062:VAL:N	2.54	0.41
1:A:22:PHE:O	1:A:23:PRO:C	2.59	0.41
2:B:2530:PHE:HD2	2:B:2583:LEU:HD23	1.86	0.41
2:B:2608:ARG:HH11	2:B:2608:ARG:CA	2.30	0.41
2:B:2909:ARG:HH11	2:B:2909:ARG:HG3	1.86	0.41
2:B:2985:PHE:CD1	2:B:2985:PHE:N	2.81	0.41
2:B:3081:HIS:O	2:B:3084:GLU:HB3	2.20	0.41
2:D:2929:THR:O	2:D:2930:GLU:O	2.38	0.41
2:D:3005:VAL:HG23	2:D:3089:MET:HE1	2.02	0.41
2:D:2900:LYS:HD2	2:D:3070:PHE:CZ	2.55	0.41
2:D:3108:ILE:HG12	2:D:3112:LYS:HE3	2.01	0.41
2:B:2480:ILE:O	2:B:2480:ILE:CG2	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2487:ALA:C	2:B:2489:TYR:N	2.73	0.41
2:B:2651:LEU:HD12	2:B:2660:ALA:HB2	2.03	0.41
2:B:2676:THR:HG22	2:B:2679:GLN:NE2	2.36	0.41
2:B:2755:VAL:HG23	2:B:2930:GLU:CG	2.50	0.41
2:B:2902:ARG:NH1	2:B:2914:LEU:HD13	2.36	0.41
2:B:2918:TRP:O	2:B:2919:ARG:C	2.58	0.41
2:B:2924:LEU:HB3	2:B:2925:PRO:HD3	2.02	0.41
2:D:2421:GLN:HE21	2:D:2536:ASP:CG	2.21	0.41
2:D:2692:PRO:O	2:D:2694:ALA:N	2.43	0.41
2:D:2950:TRP:O	2:D:2952:SER:N	2.49	0.41
2:D:3047:ILE:HA	2:D:3047:ILE:HD13	1.83	0.41
2:B:2753:GLN:HB2	2:B:2902:ARG:O	2.20	0.41
2:B:3068:GLY:N	2:B:3071:SER:OG	2.54	0.41
2:B:3096:ILE:O	2:B:3099:PHE:HD2	2.03	0.41
2:D:2578:ASN:O	2:D:2582:VAL:HG23	2.20	0.41
2:D:2991:PRO:O	2:D:2993:PHE:N	2.54	0.41
2:D:3109:GLN:C	2:D:3109:GLN:HE21	2.23	0.41
2:B:2403:PHE:HD1	2:B:2503:LEU:HD13	1.85	0.41
2:B:2554:TYR:CE1	2:B:2582:VAL:HG11	2.56	0.41
2:B:2600:SER:HB2	2:B:2655:TRP:HB2	2.03	0.41
2:B:2620:VAL:HG23	2:B:2677:VAL:HA	2.02	0.41
2:B:2735:LEU:HD11	2:B:2955:LEU:HD11	2.02	0.41
2:B:2779:LYS:C	2:B:2781:ALA:H	2.24	0.41
2:B:2921:SER:O	2:B:2924:LEU:HB2	2.21	0.41
2:B:2981:GLU:HG3	2:B:2982:LEU:N	2.36	0.41
2:B:3100:TYR:O	2:B:3101:LYS:C	2.58	0.41
2:B:3107:LEU:O	2:B:3108:ILE:C	2.59	0.41
1:C:51:ASP:O	2:D:2717:ARG:HA	2.21	0.41
1:C:61:GLU:C	1:C:63:HIS:H	2.23	0.41
2:D:2428:LYS:C	2:D:2430:ARG:N	2.72	0.41
2:D:2511:LEU:HD12	2:D:2517:LEU:HB2	2.02	0.41
2:D:2600:SER:HB3	2:D:2603:LYS:HB2	2.02	0.41
2:D:2602:LEU:HA	2:D:2605:ILE:HB	2.03	0.41
2:D:2621:SER:HB3	2:D:2652:THR:HG22	2.03	0.41
2:D:2663:ASP:OD1	2:D:2710:ALA:N	2.39	0.41
2:D:2666:LEU:O	2:D:2667:LEU:C	2.57	0.41
2:D:2748:VAL:HG21	2:D:2939:LEU:HD23	2.03	0.41
2:D:2762:GLU:HB3	2:D:2772:ARG:HH12	1.85	0.41
2:D:2909:ARG:HH11	2:D:2909:ARG:HG3	1.85	0.41
2:D:3068:GLY:O	2:D:3071:SER:OG	2.39	0.41
2:B:2413:SER:HB2	2:B:2506:GLY:CA	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2621:SER:O	2:B:2622:ASP:HB2	2.20	0.41
2:B:2700:ALA:HA	2:B:2701:PRO:HD3	1.91	0.41
2:B:2772:ARG:HD3	2:B:2776:GLU:O	2.20	0.41
2:B:2995:PRO:HD2	2:B:3054:TRP:CE3	2.56	0.41
2:B:3081:HIS:CD2	2:B:3082:PHE:N	2.89	0.41
2:D:2623:ILE:HA	2:D:2649:ILE:HG22	2.02	0.41
2:D:2738:LEU:HD22	2:D:2745:VAL:HG22	2.03	0.41
2:D:2755:VAL:HG13	2:D:2899:TRP:NE1	2.33	0.41
2:B:2550:VAL:O	2:B:2554:TYR:HB2	2.22	0.40
2:B:2615:THR:O	2:B:2615:THR:HG23	2.21	0.40
2:B:2676:THR:HG23	2:B:2679:GLN:CG	2.50	0.40
2:B:2969:SER:HB2	2:B:2972:THR:HG23	2.03	0.40
2:D:2448:LEU:O	2:D:2449:PRO:C	2.58	0.40
2:D:2480:ILE:O	2:D:2480:ILE:HG22	2.20	0.40
2:D:2490:PHE:O	2:D:2491:GLN:HB2	2.22	0.40
2:D:2744:ASN:OD1	2:D:2744:ASN:C	2.60	0.40
2:B:2403:PHE:CD1	2:B:2503:LEU:HD13	2.56	0.40
2:B:2588:TYR:O	2:B:2591:ASP:N	2.53	0.40
2:B:2599:ARG:HH22	2:B:2609:ASP:CB	2.34	0.40
2:B:2762:GLU:HB3	2:B:2772:ARG:HH12	1.86	0.40
2:B:2936:ILE:HG21	2:B:2939:LEU:HB2	2.03	0.40
2:B:3072:VAL:CG1	2:B:3073:PHE:N	2.82	0.40
1:C:50:ASP:CG	1:C:51:ASP:N	2.74	0.40
1:C:57:ARG:HG2	2:D:2559:TRP:CZ2	2.56	0.40
2:D:2541:ASP:O	2:D:2542:PRO:C	2.60	0.40
2:D:2903:VAL:O	2:D:2912:SER:HA	2.21	0.40
2:B:2687:GLU:O	2:B:2707:LYS:N	2.54	0.40
2:D:2414:LEU:C	2:D:2416:ASN:N	2.72	0.40
2:D:2488:GLU:HG2	2:D:2527:LYS:HD2	2.04	0.40
2:D:2490:PHE:HE2	2:D:2492:PHE:CZ	2.38	0.40
2:D:2553:HIS:ND1	2:D:2589:ARG:HD3	2.37	0.40
2:B:2427:ASN:OD1	2:B:2430:ARG:HD2	2.21	0.40
2:B:2461:VAL:HB	2:B:2462:PRO:CD	2.51	0.40
2:B:2482:VAL:HA	2:B:2486:ASN:HD21	1.86	0.40
2:B:2602:LEU:CB	2:B:2653:ASP:OD2	2.69	0.40
2:B:2653:ASP:C	2:B:2722:LEU:HD13	2.41	0.40
2:B:2939:LEU:HD21	2:B:2955:LEU:HD23	2.04	0.40
2:B:3042:LYS:O	2:B:3045:VAL:HG23	2.21	0.40
2:B:3108:ILE:HA	2:B:3111:LEU:CB	2.52	0.40
2:D:2911:LYS:O	2:D:2912:SER:C	2.59	0.40
2:D:2917:ILE:HD13	2:D:2924:LEU:CD2	2.41	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:20:GLU:O	1:A:21:GLU:C	2.59	0.40
2:B:2494:ILE:HD11	2:B:2523:GLY:HA3	2.03	0.40
2:B:2569:PRO:O	2:B:2573:ALA:HA	2.21	0.40
2:B:2738:LEU:HD22	2:B:2745:VAL:CG2	2.52	0.40
2:B:2903:VAL:O	2:B:2912:SER:HA	2.22	0.40
2:B:2906:TYR:CE1	2:B:2933:ARG:NE	2.89	0.40
2:B:3100:TYR:CD1	2:B:3101:LYS:N	2.90	0.40
2:D:2499:GLY:O	2:D:2501:GLU:HG2	2.22	0.40
2:D:2501:GLU:O	2:D:2501:GLU:HG3	2.21	0.40
2:D:2719:HIS:CD2	2:D:2720:SER:H	2.40	0.40
2:D:2950:TRP:N	2:D:2951:PRO:CD	2.68	0.40
2:D:2985:PHE:C	2:D:2987:LYS:N	2.74	0.40
2:D:3060:SER:C	2:D:3062:VAL:H	2.24	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

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

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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	41/70 (59%)	18 (44%)	11 (27%)	12 (29%)	0	0
1	C	41/70 (59%)	18 (44%)	11 (27%)	12 (29%)	0	0
2	B	585/817 (72%)	387 (66%)	128 (22%)	70 (12%)	0	3
2	D	585/817 (72%)	391 (67%)	122 (21%)	72 (12%)	0	2
All	All	1252/1774 (71%)	814 (65%)	272 (22%)	166 (13%)	0	1

All (166) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	41	ASP
1	A	47	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	51	ASP
1	A	53	SER
1	A	57	ARG
2	B	2429	GLU
2	B	2448	LEU
2	B	2465	CYS
2	B	2466	SER
2	B	2467	PRO
2	B	2501	GLU
2	B	2512	ALA
2	B	2573	ALA
2	B	2610	ASP
2	B	2611	THR
2	B	2647	ASP
2	B	2686	ALA
2	B	2692	PRO
2	B	2737	SER
2	B	2752	VAL
2	B	2907	LYS
2	B	2909	ARG
2	B	2912	SER
2	B	2930	GLU
2	B	2941	VAL
2	B	2942	SER
2	B	2944	SER
2	B	2946	ASN
2	B	2950	TRP
2	B	3016	ALA
2	B	3038	ASN
2	B	3099	PHE
2	B	3101	LYS
2	B	3114	ASP
1	C	9	ASP
1	C	41	ASP
1	C	47	ASN
1	C	51	ASP
1	C	53	SER
1	C	57	ARG
2	D	2429	GLU
2	D	2448	LEU
2	D	2465	CYS
2	D	2466	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	D	2467	PRO
2	D	2501	GLU
2	D	2512	ALA
2	D	2573	ALA
2	D	2610	ASP
2	D	2611	THR
2	D	2647	ASP
2	D	2686	ALA
2	D	2692	PRO
2	D	2737	SER
2	D	2752	VAL
2	D	2907	LYS
2	D	2909	ARG
2	D	2912	SER
2	D	2941	VAL
2	D	2942	SER
2	D	2944	SER
2	D	2946	ASN
2	D	2950	TRP
2	D	2998	SER
2	D	3016	ALA
2	D	3038	ASN
2	D	3099	PHE
2	D	3101	LYS
2	D	3114	ASP
1	A	9	ASP
1	A	39	TRP
1	A	55	GLN
2	B	2407	ASN
2	B	2415	GLN
2	B	2460	SER
2	B	2507	LYS
2	B	2605	ILE
2	B	2694	ALA
2	B	2721	LYS
2	B	2893	ARG
2	B	2945	LYS
2	B	2979	PRO
2	B	2992	ALA
2	B	2998	SER
2	B	3040	ASP
2	B	3092	ALA

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	39	TRP
1	C	55	GLN
2	D	2415	GLN
2	D	2460	SER
2	D	2507	LYS
2	D	2694	ALA
2	D	2721	LYS
2	D	2893	ARG
2	D	2930	GLU
2	D	2945	LYS
2	D	2979	PRO
2	D	2992	ALA
2	D	3040	ASP
2	D	3088	ASN
2	D	3092	ALA
2	B	2406	PHE
2	B	2519	PRO
2	B	2564	MET
2	B	2569	PRO
2	B	2710	ALA
2	B	2738	LEU
2	B	2970	SER
2	B	2988	LEU
2	B	3095	ASN
2	D	2519	PRO
2	D	2564	MET
2	D	2697	PRO
2	D	2710	ALA
2	D	2910	GLU
2	D	2954	GLN
2	D	2970	SER
2	D	2988	LEU
2	D	3095	ASN
1	A	44	ASP
2	B	2697	PRO
2	B	2764	THR
2	B	2910	GLU
2	B	2954	GLN
2	B	3008	SER
2	B	3088	ASN
1	C	10	LEU
1	C	44	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	D	2407	ASN
2	D	2464	ALA
2	D	2490	PHE
2	D	2569	PRO
2	D	2605	ILE
2	D	2672	SER
2	D	2738	LEU
2	D	2764	THR
2	B	2490	PHE
2	D	2779	LYS
2	D	2985	PHE
2	D	3008	SER
2	D	3039	GLU
2	B	2447	THR
2	B	2685	GLY
2	B	2779	LYS
2	B	2991	PRO
2	D	2447	THR
2	D	2991	PRO
2	B	2462	PRO
1	C	48	VAL
2	D	2919	ARG
1	A	7	PRO
1	A	48	VAL
2	B	2592	VAL
2	B	3035	ILE
1	C	7	PRO
2	D	2462	PRO
2	D	2480	ILE
2	D	3035	ILE
1	A	8	VAL
2	D	2685	GLY
2	B	2474	GLY
2	B	3063	PRO
2	D	2592	VAL
2	D	2953	ILE
2	B	2480	ILE
2	B	2953	ILE

### 5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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	41/63 (65%)	33 (80%)	8 (20%)	1	4
1	C	41/63 (65%)	33 (80%)	8 (20%)	1	4
2	B	517/721 (72%)	459 (89%)	58 (11%)	6	22
2	D	517/721 (72%)	459 (89%)	58 (11%)	6	22
All	All	1116/1568 (71%)	984 (88%)	132 (12%)	5	19

All (132) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	14	GLU
1	A	19	PHE
1	A	22	PHE
1	A	23	PRO
1	A	49	GLU
1	A	54	ASN
1	A	56	LEU
1	A	60	LEU
2	B	2419	ASP
2	B	2430	ARG
2	B	2433	LEU
2	B	2434	CYS
2	B	2442	LEU
2	B	2443	THR
2	B	2450	ARG
2	B	2453	LEU
2	B	2479	CYS
2	B	2483	ASN
2	B	2494	ILE
2	B	2496	ASP
2	B	2527	LYS
2	B	2534	LEU
2	B	2537	THR
2	B	2583	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	B	2584	LEU
2	B	2586	LEU
2	B	2598	SER
2	B	2608	ARG
2	B	2609	ASP
2	B	2614	LYS
2	B	2658	VAL
2	B	2675	LEU
2	B	2684	GLN
2	B	2698	LEU
2	B	2706	LEU
2	B	2713	THR
2	B	2714	ARG
2	B	2717	ARG
2	B	2726	HIS
2	B	2733	LEU
2	B	2736	SER
2	B	2744	ASN
2	B	2748	VAL
2	B	2756	TYR
2	B	2769	TYR
2	B	2773	ASN
2	B	2901	LEU
2	B	2915	LEU
2	B	2944	SER
2	B	2945	LYS
2	B	2968	VAL
2	B	2985	PHE
2	B	3007	VAL
2	B	3026	LEU
2	B	3029	LEU
2	B	3040	ASP
2	B	3055	ARG
2	B	3056	PRO
2	B	3058	SER
2	B	3062	VAL
2	B	3063	PRO
2	B	3081	HIS
2	B	3087	THR
2	B	3099	PHE
2	B	3104	GLU
2	B	3109	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	14	GLU
1	C	19	PHE
1	C	22	PHE
1	C	23	PRO
1	C	49	GLU
1	C	54	ASN
1	C	56	LEU
1	C	60	LEU
2	D	2405	GLN
2	D	2419	ASP
2	D	2430	ARG
2	D	2433	LEU
2	D	2434	CYS
2	D	2442	LEU
2	D	2443	THR
2	D	2450	ARG
2	D	2453	LEU
2	D	2479	CYS
2	D	2483	ASN
2	D	2494	ILE
2	D	2496	ASP
2	D	2527	LYS
2	D	2534	LEU
2	D	2583	LEU
2	D	2584	LEU
2	D	2586	LEU
2	D	2598	SER
2	D	2608	ARG
2	D	2609	ASP
2	D	2614	LYS
2	D	2658	VAL
2	D	2675	LEU
2	D	2684	GLN
2	D	2698	LEU
2	D	2706	LEU
2	D	2713	THR
2	D	2714	ARG
2	D	2717	ARG
2	D	2726	HIS
2	D	2733	LEU
2	D	2736	SER
2	D	2744	ASN

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Mol	Chain	Res	Type
2	D	2748	VAL
2	D	2756	TYR
2	D	2769	TYR
2	D	2773	ASN
2	D	2901	LEU
2	D	2915	LEU
2	D	2944	SER
2	D	2945	LYS
2	D	2955	LEU
2	D	2968	VAL
2	D	2985	PHE
2	D	3026	LEU
2	D	3029	LEU
2	D	3040	ASP
2	D	3055	ARG
2	D	3056	PRO
2	D	3058	SER
2	D	3062	VAL
2	D	3063	PRO
2	D	3081	HIS
2	D	3099	PHE
2	D	3104	GLU
2	D	3109	GLN
2	D	3117	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (34) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	54	ASN
2	B	2421	GLN
2	B	2436	GLN
2	B	2454	GLN
2	B	2486	ASN
2	B	2552	ASN
2	B	2596	ASN
2	B	2684	GLN
2	B	2954	GLN
2	B	2962	GLN
2	B	2965	GLN
2	B	3051	ASN
2	B	3053	GLN
2	B	3081	HIS

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*Continued from previous page...*

Mol	Chain	Res	Type
2	B	3083	GLN
2	B	3095	ASN
2	B	3109	GLN
1	C	54	ASN
2	D	2405	GLN
2	D	2436	GLN
2	D	2454	GLN
2	D	2486	ASN
2	D	2552	ASN
2	D	2596	ASN
2	D	2684	GLN
2	D	2954	GLN
2	D	2962	GLN
2	D	2965	GLN
2	D	3051	ASN
2	D	3053	GLN
2	D	3081	HIS
2	D	3083	GLN
2	D	3095	ASN
2	D	3109	GLN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

### 5.6 Ligand geometry [i](#)

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.

## 6 Fit of model and data

### 6.1 Protein, DNA and RNA chains

EDS was not executed - this section is therefore empty.

### 6.2 Non-standard residues in protein, DNA, RNA chains

EDS was not executed - this section is therefore empty.

### 6.3 Carbohydrates

EDS was not executed - this section is therefore empty.

### 6.4 Ligands

EDS was not executed - this section is therefore empty.

### 6.5 Other polymers

EDS was not executed - this section is therefore empty.