

Bait GeneID	Bait Gene Name	Prey Gene Name	Prey GeneID	HIS3	ADE2	lacZ
7347	UCHL3	LONRF1	91694	++		
7347	UCHL3	TRIM27	5987	+		
51377	UCHL5	TRIM27	5987	+		
51377	UCHL5	RBCK1	10616	++	++	
51377	UCHL5	TRIM46	80128	+		
9099	USP2	BRCA1	672	++		+++
9099	USP2	MNAT1	4331	++	++	
9099	USP2	TRIM21	6737	+	+	
9099	USP2	TRAP	10293	+	+	
9099	USP2	RBCK1	10616	++	++	
9099	USP2	UBOX5	22888	++	++	
9099	USP2	TRIM35	23087	++	++	
9099	USP2	TRIM27	5987	+	++	
9099	USP2	TRIM34	53840	++	++	+++
9099	USP2	RNF125	54941	++	++	+++
9099	USP2	RNF126	55658	++	++	+++
9099	USP2	TRIM39	56658	++		
9099	USP2	TRIM46	80128	++	++	+++
9099	USP2	TRIM8	81603	++	++	+++
9099	USP2	PCGF6	84108	+++	+++	+++
9099	USP2	TRIM5	85363	++		
9099	USP2	LRSAM1	90678	++	++	
9099	USP2	LONRF1	91694	++	++	
9099	USP2	TRIM9	114088	++		
9099	USP2	RNF166	115992	+	+	
9099	USP2	DTX3	196403	++	++	
9099	USP2	LNK2	222484	+	+	
9099	USP2	RNF144B	255488	+++	+++	+++
9099	USP2	TRIM74	378108	++	++	+++
9099	USP2	TRIM23	373	+	++	
9099	USP2	CBLC	23624	++	++	
7375	USP4	TRIM21	6737	++		
7375	USP4	BRAP	8315	++		
8078	USP5	TRIM26	7726	++		
8078	USP5	TRIM39	56658	++		
8078	USP5	TRIM5	85363	++		
7874	USP7	TRIM27	5987	+++	+++	
7874	USP7	RBCK1	10616	+++	+++	
7874	USP7	TRIM31	11074	++		
7874	USP7	MARCH7	64844	+++	++	
7874	USP7	TRIM8	81603	+++	+++	+++
7874	USP7	UHRF2	115426	++		
8237	USP11	TRAF6	7189	+		
8237	USP11	PHF7	51533	++	++	
8237	USP11	TRIM46	80128	+++	++	
8237	USP11	DTX3	196403	++	++	
9958	USP15	TRIM21	6737	++	++	
9958	USP15	BRAP	8315	+++		
9958	USP15	RBCK1	10616	+	+	
9958	USP15	TRIM17	51127	+		
9958	USP15	PHF7	51533	++	++	
9958	USP15	RNF126	55658	+	++	
9958	USP15	TRIM46	80128	++	++	
9958	USP15	TRIM5	85363	++		
9958	USP15	RNF144B	255488	++	++	

9958	USP15	TRIM74	378108	+	++	
27005	USP21	CBLC	23624	++	+	
27005	USP21	CCBL	867	++		
27005	USP21	TRIM23	373	+	+	
27005	USP21	RNF144A	9781	++		
27005	USP21	LRSAM1	90678	+		
27005	USP21	RBCK1	10616	+	++	
27005	USP21	TRIM8	81603	++	++	
27005	USP21	PCGF6	84108	+++	+++	
27005	USP21	TRIM5	85363	++		
27005	USP21	RNF185	91445	++		
27005	USP21	TRIM9	114088	++		
27005	USP21	DTX3	196403	++		
27005	USP21	RNF144B	255488	+++	+++	
84669	USP32	RBCK1	10616	++	++	
84669	USP32	TRIM46	80128	++	++	
84669	USP32	RNF144B	255488	++	++	
84669	USP32	TRIM74	378108	++	++	
57602	USP36	TRIM26	7726	++		
10713	USP39	TRAF6	7189	+		
10713	USP39	TRIM25	7706	+		
10713	USP39	TRIM26	7726	+		
10713	USP39	TRIM39	56658	+		
10713	USP39	TRIM8	81603	++		
10713	USP39	TRIM5	85363	+		
25862	USP49	TRIM35	23087	++		
25862	USP49	RBCK1	10616	+	+++	
9924	PAN2	RBCK1	10616	+	++	
9924	PAN2	TRIM35	23087	++	++	
9924	PAN2	RNF144B	255488	+	++	
55611	OTUB1	RNF126	55658	+	++	
78990	OTUB2	TRIM27	5987	+		
78990	OTUB2	TRAF6	7189	++		
78990	OTUB2	TRIM25	7706	++		
78990	OTUB2	TRIM26	7726	++		
78990	OTUB2	RBCK1	10616	+		
78990	OTUB2	TRIM2	23321	+		
78990	OTUB2	RNF126	55658	+		
78990	OTUB2	TRIM39	56658	++		
78990	OTUB2	TRIM8	81603	+++	+	
78990	OTUB2	TRIM5	85363	+++		
139562	OTUD6A	RNF2	6045	++	++	
139562	OTUD6A	RBCK1	10616	+	+	
139562	OTUD6A	CBLC	23624	++		
139562	OTUD6A	TRIM39	56658	++	++	+++
139562	OTUD6A	TRIM46	80128	++	++	+++
139562	OTUD6A	TRIM5	85363	++		
7128	TNFAIP3	TRIM23	373	++	++	
7128	TNFAIP3	RNF5	6048	++		
7128	TNFAIP3	TRAF6	7189	++		+++
7128	TNFAIP3	TRIM25	7706	+		
7128	TNFAIP3	TRIM26	7726	+		
7128	TNFAIP3	RNF144A	9781	++	++	
7128	TNFAIP3	RBCK1	10616	++	++	
7128	TNFAIP3	RNF126	55658	++		
7128	TNFAIP3	TRIM39	56658	+		
7128	TNFAIP3	TRIM8	81603	+++	+++	
7128	TNFAIP3	TRIM5	85363	+++	+	

7128	TNFAIP3	RNF185	91445	++		
80124	VCPIP1	TRAF6	7189	++		+++
80124	VCPIP1	TRIM46	80128	++	++	++
80124	VCPIP1	DTX3	196403	++		
55432	YOD1	RNF5	6048	+		
55432	YOD1	TRAF6	7189	++		+++
55432	YOD1	TRIM25	7706	++		+++
55432	YOD1	TRIM26	7726	++		
55432	YOD1	TRIM39	56658	++		+++
55432	YOD1	TRIM8	81603	+++	+++	+++
55432	YOD1	TRIM5	85363	+++		
55432	YOD1	DTX3	196403	++		
5713	PSMD7	TRIM34	53840	+++	+++	
5713	PSMD7	RNF32	140545	++		
57559	STAMBPL1	TRAF6	7189	++		+++
57559	STAMBPL1	TRAIIP	10293	++		
57559	STAMBPL1	RBCK1	10616	++	++	
57559	STAMBPL1	UBOX5	22888	++		
57559	STAMBPL1	TRIM35	23087	++		
57559	STAMBPL1	MKRN1	23608	++		
57559	STAMBPL1	ANAPC11	51529	+		
57559	STAMBPL1	TRIM39	56658	++		
57559	STAMBPL1	TRIM46	80128	++		
57559	STAMBPL1	TRIM74	378108	++		
79184	BRCC3	TRAF6	7189	++		+++
79184	BRCC3	RBCK1	10616	++	++	
79184	BRCC3	TRIM35	23087	++	++	
79184	BRCC3	MKRN1	23608	++	++	
79184	BRCC3	RNF126	55658	++	++	+++
79184	BRCC3	TRIM46	80128	++	++	
79184	BRCC3	RNF144B	255488	+++	+++	
79184	BRCC3	TRIM74	378108	+	++	
10980	COPS6	MNAT1	4331	+	+	
10980	COPS6	RBCK1	10616	++	++	
10980	COPS6	TRIM31	11074	+	++	
10980	COPS6	TRIM35	23087	+	++	
10980	COPS6	TRIM34	53840	++	++	
10980	COPS6	RNF126	55658	++	++	
10980	COPS6	TRIM46	80128	++	++	+++
10980	COPS6	RNF144B	255488	++	++	
10980	COPS6	TRIM74	378108	++	++	
8667	EIF3H	TRIM46	80128	++	++	
8665	EIF3F	RBCK1	10616	+++	+++	+++
8665	EIF3F	RNF126	55658	++	++	
8665	EIF3F	TRIM46	80128	++		+++
8665	EIF3F	RNF144B	255488	+++	+++	+++
92552	ATXN3L	TRAF6	7189	+		
92552	ATXN3L	BFAR	51283	++		
92552	ATXN3L	RFWD3	55159	++		
92552	ATXN3L	TRIM36	55521	+		

Supplementary Table 1: DUB-RING E3 ligase interaction summary. Bait DUB and prey RING E3 ligase GenelDs and Gene Symbols are indicated. Interactions were scored as weak (+), medium strength (++), or strong (+++). These descriptive words refer to the level of reporter activation, assessed by the level of yeast colony growth. The three reporters used are indicated (*HIS3*, *ADE2*, and *lacZ*).