

Table S3. Novel proteins tagged in this study.

IPI	Annotations	Ensembl No. of Human homolog	M.W. of Human homolog	RF score	Localization of GFP-tagged human homolog		New name
					Mitosis	Interphase	
IPI00593682	Uncharacterized protein C13orf3	ENSG00000165480	46,359	0.683	CENP	unlocalized	Ska3/Rama1
IPI00593212	Coiled-coil domain-containing protein 75	ENSG00000152133	18,356	0.683	CENP	N	CENP-Y
IPI00573409	Zinc finger protein 276	ENSG00000158805	59,849	0.852	CENP	No	CENP-Z
IPI00587257	Uncharacterized protein C10orf104	ENSG00000166295	11,667	0.742	CENP	N	CENP-27 /APC16
IPI00576815	Uncharacterized protein C1orf149	ENSG00000163875	21,634	0.898	CENP	N	CENP-28
IPI00595425	Craniofacial development protein 1	ENSG00000153774	32,904	0.402	CENP	N	CENP-29
IPI00576633	F-box only protein 28	ENSG00000143756	41,149	0.707	CENP	N	CENP-30
IPI00586209	PHD finger protein 6	ENSG00000156531	41,290	0.685	CENP	N	CENP-31
IPI00576606	Uncharacterized protein C9orf114	ENSG00000198917	43,576	0.654	CENP	No	CENP-32
IPI00573630	Leucine-rich repeat & WD repeat-containing protein 1	ENSG00000161036	70,860	0.830	CENP	N	CENP-33
IPI00602339	RASSF2	ENSG00000101265	37,953	0.205	CENP	N	CENP-34
IPI00575164	PHD finger protein 2	ENSG00000197724	121,103	0.930	CENP	No	CENP-35
IPI00575451	Uncharacterized protein KIAA1267	ENSG00000120071	120,980	0.870	CENP	N	CENP-36
IPI00604200	Uncharacterized protein C1orf131	ENSG00000143633	32,610	0.781	PERP	No	cPERP-A
IPI00600644	Coiled-coil domain-containing protein 137	ENSG00000185298	33,231	0.777	PERP	N	cPERP-B
IPI00574038	Unknown, KIAA0020	ENSG00000080608	73,584	0.759	PERP	No	cPERP-C
IPI00598837	DEAD box polypeptide 18	ENSG00000088205	75,406	0.701	PERP	No	cPERP-D
IPI00810705	Similar to Cirrhosis, autosomal recessive 1A	ENSG00000141076	76,890	0.711	PERP	No	cPERP-E
IPI00579774	DDX27	ENSG00000124228	89,834	0.913	PERP	No	cPERP-F
IPI00599686	Uncharacterized protein C12orf31	ENSG00000139233	15,225	0.787	PERP	No	cPERP-G
IPI00603304	Uncharacterized protein C12orf23	ENSG00000151135	11,748	0.383	CH	No	
IPI00680487	Uncharacterized protein C5orf24.	ENSG00000181904	20,160	0.715	CH	N	
IPI00595614	Uncharacterized protein FLJ11184	ENSG00000198498	25,624	0.414	CH	No	
IPI00573349	Coiled-coil domain containing 86	ENSG00000110104	40,235	0.739	CH	No	
IPI00601622	MSTP101	ENSG00000170234	50,748	0.899	CH	No	
IPI00574831	Uncharacterized protein C6orf150	ENSG00000164430	58,814	0.897	CH	No	
IPI00584805	Ring finger protein 184	ENSG00000174579	62,437	0.768	CH	unlocalized	
IPI00573215	LIM domain kinase 1	ENSG00000106683	72,584	0.583	CH	N	
IPI00683633	Uncharacterized protein KIAA1798	ENSG00000198945	88,348	0.911	CH	N	
IPI00597242	Bromodomain-containing protein 2	ENSG00000204256	92,195	0.815	CH	N	
IPI00598956	Chromodomain helicase-DNA-binding protein 4	ENSG00000111642	215,417	0.888	CH	N	
IPI00588910	Chromodomain helicase-DNA-binding protein 5	ENSG00000116254	223,046	0.823	CH	N	
IPI00602399	Leucine-rich repeat-containing protein 59	ENSG00000108829	18,962	0.319	unlocalized	unlocalized	
IPI00575717	Uncharacterized protein C16orf63	ENSG00000133393	19,778	0.365	unlocalized	unlocalized	
IPI00596279	Neighbor of COX4	ENSG00000131148	23,936	0.060	unlocalized	N	
IPI00582252	Uncharacterized protein C9orf32	ENSG00000148335	25,256	0.499	unlocalized	unlocalized	
IPI00597839	Uncharacterized protein CXorf56	ENSG00000018610	25,807	0.141	unlocalized	N	
IPI00579497	Uncharacterized protein C1orf77	ENSG00000160679	26,396	0.358	unlocalized	unlocalized	
IPI00589140	Uncharacterized protein UPF0430	ENSG00000134884	33,216	0.119	unlocalized	No	
IPI00584142	Uncharacterized protein C2orf29	ENSG00000158435	36,088	0.421	unlocalized	N	
IPI00580732	Uncharacterized protein G1218-PA homolog	ENSG00000056050	39,436	0.267	unlocalized	N	
IPI00822118	Signal transduction-associated protein 1	ENSG00000121774	43,564	0.413	unlocalized	N	
IPI00821506	Uncharacterized protein C10orf119	ENSG00000197771	52,785	0.236	unlocalized	unlocalized	
IPI00572725	Kelch domain containing 4	ENSG00000104731	57,907	0.075	unlocalized	N	
IPI00591207	Uncharacterized protein FLJ90500	ENSG00000119777	72,174	0.140	unlocalized	unlocalized	
IPI00602744	Ankyrin repeat domain-containing protein 28	ENSG00000206560	74,232	0.325	unlocalized	N	
IPI00583375	TBC1 domain family, member 15	ENSG00000121749	77,265	0.243	unlocalized	unlocalized	
IPI00602336	Uncharacterized protein C4orf14	ENSG00000084092	78,563	0.322	unlocalized	No	
IPI00588143	VAC14 homolog	ENSG00000103043	88,165	0.193	unlocalized	unlocalized	
IPI00600052	Uncharacterized protein FLJ43968	ENSG00000157741	136,685	0.827	unlocalized	N	

CENP - at centromeres in mitosis; CH - all over mitotic chromosomes; cPERP - chromosome periphery; N - Nuclear in interphase; No - Nucleoli in interphase