Supplementary Table 1D: The CIP2A interactome detected with individual antibodies specific to CIP2A protein region that is against residues surrounding valine 343 (monoclonal, Ab1), and 618-905 peptide (polyclonal, Ab2)

Unique proteins detected with CIP2A antibody 1 (Ab1, residues surrounding valine 343, monoclonal).

The most abundant of these are AIM1, IRF9, DCP1B, PCMT1 & KIF4A

Unique peptides	Sequence coverage [%]	Mol. weight [kDa]	Score	Intensity	MS/MS count	Majority protein IDs	Protein names	Gene names	elut_CST	elut_CST	elut_HM	elut_HM
22	17.6	188.67	203.54	590990000	70	Q9Y4K1	Absent in melanoma 1 protein	AIM1	88326316	96191761	0	0
10	41	43.696	114.36	845950000	50	Q00978	Interferon regulatory factor 9	IRF9	137229937	124880242	0	0
13	29.2	67.722	113.15	447990000	38	Q8IZD4	mRNA-decapping enzyme 1B	DCP1B	70125217	72609249	0	0
7	36.1	24.636	58.508	326180000	27	P22061	Protein-L-isoaspartate(D-aspartate) O-methyltransferase	PCMT1	47709062	37044089	0	0
9	8.8	139.88	64.029	98156000	24	O95239	Chromosome-associated kinesin KIF4A	KIF4A	20049042	11688043	0	0
5	5.1	136.06	36.354	85411000	12	P55265	Double-stranded RNA-specific adenosine deaminase	ADAR	14201008	10328017	0	0
4	2.6	208.73	30.353	44484000	7	P51610	Host cell factor 1	HCFC1	6972381.1	6321607.4	0	0
3	3.6	96.263	20.179	17134000	7	Q8N0Z3	Spindle and centriole-associated protein 1	SPICE1	1724695.2	1473004.1	0	0
2	17.3	15.179	14.186	69626000	6	O15116	U6 snRNA-associated Sm-like protein LSm1	LSM1	9820669.8	6383693.7	0	0
5	5.5	117.31	29.018	46141000	5	O75808	Calpain-15	CAPN15	7474781.6	6685388.6	0	0
3	29.6	14.585	29.641	208460000	5	Q9Y3B4	Splicing factor 3B subunit 6	SF3B6	20098995	21032981	0	0

3	6.3	58.449	20.462	80656000	4	O43172	U4/U6 small nuclear ribonucleoprotein Prp4	PRPF4	7470379	5443714.6	0	0
2	9.4	33.325	13.823	48560000	4	Q04323	UBX domain-containing protein 1	UBXN1	7919017.4	7433292.8	0	0
2	2.5	87.339	11.709	6309900	4	Q9ULG6	Cell cycle progression protein 1	CCPG1	914301.21	1191295.6	0	0
2	0.8	350.93	11.855	18812000	3	Q5VT06	Centrosome-associated protein 350	CEP350	3599113.1	2308605.1	0	0
2	3.8	48.457	10.909	18348000	3	Q8IU60	m7GpppN-mRNA hydrolase	DCP2	2818605.2	2234204.8	0	0
3	5.9	57.368	24.265	31898000	2	Q9Y6R9	Coiled-coil domain-containing protein 61	CCDC61	4939693.2	4437205.7	0	0
2	1	216.85	11.22	106610000	2	Q8TF72	Protein Shroom3	SHROOM3	15420006	14135994	0	0

<u>Unique proteins detected with CIP2A antibody 2 (Ab2, 618-905 peptide; polyclonal)</u>:

In terms of detection intensity and frequency, PPFIA1, FAF1, NFAT5, NAB1, KCTD10, TMEM43 & ACSL3 are strongest

Unique peptides	Sequence coverage [%]	Mol. weight [kDa]	Score	Intensity	MS/MS count	Majority protein IDs	Protein names	Gene names	Elute CST	Elute CST	Elute HM	Elute HM
8	17.1	69.366	101.78	1.399E+10	95	P02768-1; P02768	Serum albumin	ALB	0	0	1.5E+09	1.6E+09
19	27.1	135.78	252.52	805540000	77	Q13136	Liprin-alpha-1	PPFIA1	0	0	1.2E+08	8.7E+07
15	24.6	73.953	188.12	650210000	61	Q9UNN5	FAS-associated factor 1	FAF1	0	0	9.2E+07	7.1E+07

17	18.5	165.76	157.36	825200000	56	O94916	Nuclear factor of activated T-cells 5	NFAT5	0	0	8E+07	9.7E+07
11	27.3	54.401	166.08	378700000	46	Q13506	NGFI-A-binding protein 1	NAB1	0	0	4.9E+07	3E+07
6	37.4	15.998	60.88	3184800000	41	P68871;P02042	Hemoglobin subunit beta	HBB;HBD	0	0	3.1E+08	3.4E+08
8	7	192.78	204.25	915340000	39	P0C0L4;P0C0L5	Complement C4-A;	C4A;C4B	0	0	1.2E+08	9.9E+07
13	6.5	262.62	116.85	300600000	38	P02751	Fibronectin;	FN1	0	0	3.4E+07	4.1E+07
4	7.3	77.063	41.818	594430000	32	P02787	Serotransferrin	TF	0	0	7.9E+07	4.7E+07
4	29.7	35.432	56.196	236970000	25	Q9H3F6	BTB/POZ domain-containing adapter for CUL3-mediated RhoA degradation protein 3	KCTD10	0	0	3.2E+07	2.7E+07
6	20.2	44.875	65.299	236730000	24	Q9BTV4	Transmembrane protein 43	TMEM43	0	0	3E+07	2.7E+07
3	3.2	59.578	20.057	3349200000	21	P04196	Histidine-rich glycoprotein	HRG	0	0	4.3E+08	4E+08
6	13.9	80.419	72.779	309920000	20	O95573	Long-chain-fatty-acid--CoA ligase 3	ACSL3	0	0	3.6E+07	2.9E+07
3	4.1	51.676	31.67	297030000	17	P02790	Hemopexin	HPX	0	0	3.5E+07	4E+07
7	33.8	64.436	74.272	182660000	16	Q9H0L4	Cleavage stimulation factor subunit 2 tau variant	CSTF2T	0	0	2.8E+07	1.4E+07

4	16.1	37.67	40.972	209900000	14	Q96PU8	Protein quaking	QKI	0	0	2.8E+07	2.3E+07
4	6.6	101.11	53.011	140610000	13	P56192	Methionine--tRNA ligase, cytoplasmic	MARS	0	0	1.3E+07	1.1E+07
4	21.3	29.804	36.092	96256000	12	P35232	Prohibitin	PHB	0	0	9654499	1E+07
3	2.9	163.29	35.699	382900000	12	P01023;P20742	Alpha-2-macroglobulin;Pregnancy zone protein	A2M;PZP	0	0	4.4E+07	5E+07
2	4.1	187.15	42.953	141040000	12	P01024	Complement C3;	C3	0	0	1.8E+07	1.5E+07
6	9.9	80.592	51.167	82675000	11	P49959	Double-strand break repair protein MRE11A	MRE11A	0	0	8940413	9453715
4	3.6	129.39	25.594	110650000	10	Q28194;P07996	Thrombospondin-1	THBS1	0	0	1.3E+07	1.3E+07
2	6.3	35.979	22.782	83199000	9	Q03247;P02649	Apolipoprotein E	APOE	0	0	9327312	1E+07
4	9.8	51.11	30.689	65583000	8	P01730	T-cell surface glycoprotein CD4	CD4	0	0	7413020	8068673
4	8.9	80.31	34.626	85584000	8	Q9UH99	SUN domain-containing protein 2	SUN2	0	0	9499301	8268419
2	13.8	22.958	14.015	43155000	8	O15258	Protein RER1	RER1	0	0	4658584	5833984
2	2.5	228.86	13.176	100010000	8	P48634	Protein PRRC2A	PRRC2A	0	0	1E+07	1.1E+07
2	2.8	101.19	14.431	65157000	8	Q9BZF1	Oxysterol-binding protein-related protein 8	OSBPL8	0	0	5210101	4567806

2	15.6	17.201	14.372	122410000	8	Q9HBL7	Plasminogen receptor (KT)	PLGRKT	0	0	1.7E+07	1.4E+07
2	10.4	30.394	15.004	65134000	7	O15260	Surfeit locus protein 4	SURF4	0	0	9742631	3637712
2	5.1	39.731	15.138	152360000	7	P27169	Serum paraoxonase/arylesterase 1	PON1	0	0	1.6E+07	2.2E+07
2	10.7	24.95	51.871	29685000	7	Q9H444	Charged multivesicular body protein 4b	CHMP4B	0	0	3688212	3056205
3	10.7	47.137	23.759	66993000	6	Q53H12	Acylglycerol kinase, mitochondrial	AGK	0	0	4868109	7879595
3	14	34.93	24.525	171940000	6	Q96AG4	Leucine-rich repeat-containing protein 59	LRRC59	0	0	1.4E+07	1.4E+07
2	0.9	209.31	11.091	76298000	6	Q2WGJ9	Fer-1-like protein 6	FER1L6	0	0	9861530	6060897
2	11.3	22.487	20.502	67158000	6	Q92522	Histone H1x	H1FX	0	0	5457921	4858097
4	5.9	90.98	29.499	55678000	5	P25205	DNA replication licensing factor MCM3	MCM3	0	0	4221897	5309299
4	29.3	23.865	27.997	116690000	5	Q8WUY1	Protein THEM6	THEM6	0	0	1.7E+07	1.4E+07
4	8.7	69.187	27.47	29401000	5	Q96Q07	BTB/POZ domain-containing protein 9	BTBD9	0	0	4519087	2801795
3	10.3	39.499	19.324	53963000	5	Q9BPY3	Protein FAM118B	FAM118B	0	0	9855994	4112915
2	0.7	165.39	11.039	178590000	5	O94823	Probable phospholipid-transporting ATPase VB	ATP10B	0	0	1.3E+07	1.7E+07

2	2.5	90.568	14.051	52480000	5	P00747	Plasminogen;	PLG	0	0	7687324	5388006
2	10.7	16.762	10.803	45777000	5	P20674	Cytochrome c oxidase subunit 5A, mitochondrial	COX5A	0	0	4321108	4411904
2	2.5	95.925	15.081	22133000	5	Q8NE71	ATP-binding cassette sub-family F member 1	ABCF1	0	0	1934005	1656297
4	9.3	54.577	30.624	56321000	4	P06127	T-cell surface glycoprotein CD5	CD5	0	0	4403991	5103410
3	7	80.874	36.98	44556000	4	Q9Y2L9	Leucine-rich repeat and calponin homology domain-containing protein 1	LRCH1	0	0	2876793	4653614
2	2	233.51	31.737	35166000	4	O15027	Protein transport protein Sec16A	SEC16A	0	0	4186491	3690999
2	26.7	21.308	14.328	104770000	4	P84095	Rho-related GTP-binding protein RhoG	RHOG	0	0	9261921	9401373
2	4.1	46.513	10.874	3333300000	4	Q9Y383;Q9NQ29	Putative RNA-binding protein Luc7-like 2;Putative RNA-binding protein Luc7-like 1	LUC7L2;LUC7L	0	0	2.8E+08	2.8E+08
4	24.4	28.804	29.112	82758000	3	P18669;P15259;Q8N0Y7	Phosphoglycerate mutase 1;Phosphoglycerate mutase 2;Probable phosphoglycerate mutase 4	PGAM1;PGAM2;PGAM4	0	0	7020781	7851898
2	1.9	136.37	11.127	31347000	3	Q86VP6	Cullin-associated NEDD8-dissociated protein 1	CAND1	0	0	3135491	3455708

2	1.1	234.71	12.724	9588800	3	Q9NZM1	Myoferlin	MYOF	0	0	1647195	941068
3	3.2	138.34	17.922	80483000	2	P53621	Coatomer subunit alpha;Xenin;Proxenin	COPA	0	0	5889607	6986120
3	9.6	45.626	20.847	53708000	2	P62195	26S protease regulatory subunit 8	PSMC5	0	0	4853184	4278489
2	2.8	113.08	12.495	122370000	2	P09874	Poly [ADP-ribose] polymerase 1	PARP1	0	0	1.3E+07	9698969
2	5.5	48.115	16.322	33264000	2	P37268	Squalene synthase	FDFT1	0	0	4395391	3889006
2	9.8	24.347	12.795	11340000	2	Q9UL25	Ras-related protein Rab-21	RAB21	0	0	1536802	1262796
2	7.1	37.839	11.263	16607000	1	O94905;O75477	Erlin-2;Erlin-1	ERLIN2;ERLIN1	0	0	1976299	1684104