

**TABLE I. AP-3-Derived Vesicle Protein Identification**

Category	Entry	GI Number	Name	Peptide #	Species	AP-3	Proteome
Coat proteins	1	34853134	adaptor protein complex 3 beta 1 subunit (Beta-adaptin 3A)	42	Rattus norvegicus	AP-3	
	2	34857415	adaptor protein complex 3 beta 2 subunit (Beta-adaptin 3B)	30	Rattus norvegicus	AP-3	
	3	6671565	adaptor protein complex 3 delta subunit	4	Mus musculus	AP-3	
	4	4502861	adaptor protein complex 3 sigma 1 subunit	4	Homo sapiens	AP-3	
Endocytic proteins	5	6978771	dynamitin II	13*	Rattus norvegicus	AP-3*	
	6	123647	hsc70	17**	Cricetulus griseus		CCV
	7	26006199	RME-8 (mKIAA0678 protein)	5	Mus musculus	AP-3	
Rabs	8	4758988	rab1a	64**	Homo sapiens		CCV
	9	92339	rab1b	75**	Rattus norvegicus		CCV
	10	6981452	rab3a	22**	Rattus norvegicus	AP-3	CCV
	11	13592037	rab3b	12	Rattus norvegicus		
	12	19424194	rab3c	22	Rattus norvegicus		CCV
	13	18034781	rab3d	16	Rattus norvegicus		
	14	12083645	rab5a	11	Rattus norvegicus		CCV
	15	34862219	rab5b	13	Rattus norvegicus		CCV
	16	20072723	rab5c	15	Mus musculus		CCV
	17	13027392	rab7	1	Rattus norvegicus		CCV
	18	420269	rab10	26	Rattus norvegicus		CCV
	19	4758984	rab11a	10	Homo sapiens		CCV
	20	420272	rab14	31	Mus musculus	AP-3	CCV
	21	15489394	rab15	27	Mus musculus		
GTPase interacting	22	11120714	arfaptin 1	4	Rattus norvegicus		
	23	31981363	arfaptin 2	9	Mus musculus		
	24	34864272	similar to guanine nucleotide exchange factor p532	16	Rattus norvegicus		
	25	38090233	oligophrenin RIKEN cDNA 9030420J04	13	Mus musculus		
Synaptic vesicle	26	38075087	SCAMP1, secretory carrier membrane protein 1	3	Mus musculus		CCV
	27	6755404	SCAMP3, secretory carrier membrane protein 3	20	Mus musculus		CCV
	28	9507167	synaptogyrin 1	6	Rattus norvegicus		CCV
	29	16758322	synaptogyrin 2	2	Rattus norvegicus		
	30	34870526	synaptogyrin 3	9	Rattus norvegicus		CCV
	31	6678195	synaptophysin	17	Mus musculus	AP-3	CCV
	32	285432	synaptic vesicle protein SV2	3	Rattus norvegicus	AP-3	CCV
	33	207308	thy-1 glycoprotein	1	Rattus norvegicus		CCV
	34	34873852	vat1 protein	33	Rattus norvegicus	AP-3	CCV
	35	2253399	VAMP2, vesicle associated membrane protein 2	18	Mus musculus	AP-3	CCV
	36	3955096	vacuolar adenosine triphosphatase, V0 subunit A, isoform 1	5	Mus musculus	AP-3	CCV
	37	34851617	vacuolar adenosine triphosphatase, V0 subunit D, isoform 1	6	Rattus norvegicus		CCV
	38	34869154	vacuolar adenosine triphosphatase, V1 subunit A, isoform 1	31	Rattus norvegicus		CCV
	39	1184661	vacuolar adenosine triphosphatase, V1 subunit B, isoform 2	27	Mus musculus		CCV
40	38454230	vacuolar adenosine triphosphatase, V1 subunit E, isoform 1	9	Rattus norvegicus		CCV	
41	6755552	zinc transporter 3; SCL 30, member 3	31	Mus musculus	AP-3		
Lysosome, protein degradation	42	7230618	adaptor protein SETA 123, RUK1, CIN85	12*	Rattus norvegicus		
	43	6680740	ataxia telangiectasia mutated homolog	5	Mus musculus	AP-3*	
	44	17390817	BLOC 1 complex, dysbindin	4	Mus musculus	AP-3	
	45	27684693	BLOC 1 complex, muted protein	7	Rattus norvegicus	AP-3	
	46	34856819	BLOC 1 complex, pallidin	4	Rattus norvegicus	AP-3	
	47	13879528	BLOC 1 complex, snapap protein	2	Mus musculus	AP-3	
	48	126378	LAMP 1	2	Rattus norvegicus	AP-3	
	49	126382	LAMP 2	2	Rattus norvegicus	AP-3	
	50	34863475	protein-tyrosine phosphatase MEG2; PTPase-MEG2	17	Rattus norvegicus		
	51	13938659	Sorcs1 protein	13*	Mus musculus		
	52	34869235	sorting nexin 4	5	Rattus norvegicus		
	53	27705482	TMS-2/KIAA1253	2	Rattus norvegicus	AP-3	
	54	29293817	vacuole 14 protein; Vac14 protein; hydin (KIAA0274)	3	Rattus norvegicus		
	55	7514115	vacuolar protein sorting protein 33b	6*	Rattus norvegicus		
56	16758296	VAMP7 vesicle associated membrane protein 7	7	Rattus norvegicus	AP-3		
57	91870	polyubiquitin	9	Mus musculus	AP-3		
58	38077035	ubiquitin-protein ligase ( RIKEN cDNA 4432411E13 )	10	Mus musculus			
59	33468901	hect	11	Mus musculus			

<b>Cytoskeleton</b>	60	12711694	dynein, cytoplasmic, heavy chain 2	10	Rattus norvegicus	
	61	38091406	dynein, axonemal, heavy polypeptide 9	17	Mus musculus	
	62	34875563	dynein, axonemal, Beta heavy chain outer-arm	17	Rattus norvegicus	
	63	38092571	dynein heavy chain (RIKEN cDNA 2810003K23)	18	Mus musculus	
	64	38087391	similar to axonemal heavy chain dynein type 3	12	Mus musculus	
	65	4512330	kinesin kif1B-beta	6	Mus musculus	
	66	45476577	kinesin Kif11	10	Mus musculus	
	67	33285017	desmuslin	8	Rattus norvegicus	
	68	138531	vimentin	2	Rattus norvegicus	AP-3
	69	34874618	similar to bullous pemphigoid antigen 1-b	15	Rattus norvegicus	
	70	19882221	bullous pemphigoid antigen 1; dystonin isoform b	21	Mus musculus	
	71	19745146	bullous pemphigoid antigen 1; dystonin isoform e	17	Mus musculus	
	72	38077811	plectin 1	9	Mus musculus	
	73	41322931	plectin 1 isoform 6	10	Mus musculus	
	74	25021548	microtubule-actin crosslinking factor 1	11	Mus musculus	
	75	14285343	microtubule-actin crosslinking factor 1, Actin cross-linking family 7	11	Mus musculus	
	76	34870961	similar to macrophin 1 isoform 4	13	Rattus norvegicus	
	77	6981696	dystrophin-related protein 1 (utrophin)	9	Rattus norvegicus	
	78	34852958	spectrin alpha 1 (protein XP_346647)	10	Rattus norvegicus	
	79	34856454	titin	33	Rattus norvegicus	
80	7441396	tropomyosin	13	Rattus norvegicus		
<b>Kinases</b>	81	11560119	casein kinase 1 gamma 1	3	Rattus norvegicus	
	82	16758554	phosphatidylinositol 4-kinase type II	38**	Rattus norvegicus	AP-3
	83	34872893	protein kinase Njmu-R1	8	Rattus norvegicus	
	84	6679313	protein kinase C, alpha binding protein	8	Mus musculus	
<b>Golgi complex</b>	85	20302065	golgi-associated protein GCP360	23	Rattus norvegicus	
	86	20127150	golgi autoantigen, golgin subfamily a, 4; golgin-245	6	Mus musculus	
	87	32469711	GRIP and coiled-coil domain-containing protein 2	16	Rattus norvegicus	
	88	11693144	myomegalin	9	Rattus norvegicus	
	89	4852562	similar to Golgi coiled coil protein GCC185	14	Rattus norvegicus	
<b>Endoplasmic reticulum</b>	90	7949029	CDP-diacylglycerol synthase	14	Mus musculus	
	91	19424302	glucosyltransferase UGGT	8	Rattus norvegicus	
	92	13929188	nogo-A protein	14	Rattus norvegicus	
	93	6822249	nogo-B protein	13	Rattus norvegicus	CCV
<b>Early endosome</b>	94	34222535	early endosome antigen 1	9	Mus musculus	
<b>Other</b>	95	16758842	amyloid beta (A4) precursor protein-binding, family B, member 3	14	Rattus norvegicus	
	96	23346593	ATP-binding cassette, sub-family A (ABC1), member 8a	17	Mus musculus	
	97	23956076	ATP-binding cassette, sub-family A (ABC1), member 8b	23	Mus musculus	
	98	477319	calpain (EC 3.4.22.17) large chain 2	10	Rattus norvegicus	
	99	17148511	choline transporter like protein variant a	3	Rattus norvegicus	
	100	9910352	endophilin B2	14	Homo sapiens	
	101	34873536	GPR158-like 1 receptor (similar to mKIAA1136 protein)	8	Rattus norvegicus	
	102	1706187	high-affinity cationic amino acid transporter-1 (CAT-1)	4*	Rattus norvegicus	
	103	12018244	metastasis Associated protein 1	6*	Rattus norvegicus	
	104	33989897	NESCA, RUN and SH3 domain containing 1	12	Mus musculus	
	105	13507628	neurobeachin	17	Mus musculus	
	106	9507118	OCTN2 Slc22a5	1	Rattus norvegicus	
	107	24212084	piccolo protein, Presynaptic cytomatrix protein, Aczonin	11	Mus musculus	
	108	9790169	proteolipid protein 2	2	Mus musculus	
	109	34878924	protocadherin gamma A7	22	Rattus norvegicus	
	110	34881409	protocadherin 19, similar to	21	Rattus norvegicus	
	111	13929034	solute carrier family 27 (fatty acid transporter) member 2	3*	Rattus norvegicus	
	112	17865500	sodium/potassium/calcium exchanger 1 precursor	7*	Rattus norvegicus	
	113	20270273	synovial sarcoma, X breakpoint 2 interacting protein	11	Mus musculus	
	114	38454226	tumor protein D52-like 2	45	Rattus norvegicus	
115	34854984	similar to PC-1	14	Rattus norvegicus		
116	16933553	tumor endothelial marker 8 isoform 3 precursor	5*	Homo sapiens	AP-3	
117	41281746	VEPH isoform A	13	Mus musculus		
118	5833120	voltage-gated sodium channel Na(v)1.9/NaN	8	Mus musculus		
119	34859400	WD repeat domain 11, similar to	4	Rattus norvegicus		
<b>Metabolism</b>	120	543359	6-phosphofructo-2-kinase	4*	Rattus norvegicus	CCV
	121	204615	hexokinase type II	3	Rattus norvegicus	

**New Genes**

122	38049648	hypothetical protein	4	Mus musculus
123	38092053	hypothetical protein	31	Mus musculus
124	34880553	hypothetical protein FLJ14503	10	Rattus norvegicus
125	30424677	RIKEN cDNA A930021H16	9	Mus musculus
126	34856548	RIKEN cDNA B230365D05	12	Rattus norvegicus
127	26458730	RIKEN visual cortex cDNA clone	2	Mus musculus
128	26327937	unnamed protein product	13	Mus musculus
129	28972251	mKIAA0493 protein	23	Mus musculus
130	37359752	mKIAA0051 protein	9	Mus musculus
131	34866451	similar to KIAA0342 protein	7	Rattus norvegicus
132	34856467	similar to mKIAA1927 protein	17	Rattus norvegicus
133	38074469	similar to KIAA1074 protein	22	Rattus norvegicus
134	20071522	similar to hypothetical protein FLJ10900	12	Mus musculus
135	26458730	RIKEN visual cortex cDNA clone	2	Mus musculus
136	22834095	IMAGE 6530351	2	Mus musculus
137	18510397	IMAGE 5504109	2	Mus musculus