

Genes chosen for RCaMP/RNAi screen, based on Sieburth et al., 2005, and controls

sorted by agglomerative hierarchical clustering into 6 classes (Manhattan distance, complete linkage)

#	class 1		#	class 1		#	class 2		#	class 4	
1	<i>ins-22</i>	insulin like neuropeptide	34	<i>unc-10</i>	RIM (rab-3 interacting molecule)	67	<i>rle-1</i>	RING finger E3 ubiquitin ligase	87	<i>rbf-1</i>	Rabphilin
2	<i>sbt-1</i>	prohormone convertase	35	<i>glb-10</i>	globin	68	<i>unc-29</i>	nAChR subunit	88	<i>mat-3</i>	CDC23/APC8, APC/C regulator
3	<i>rab-3</i>	rab3, SV priming	36	<i>F18F11.4</i>	unknown	69	<i>rab-5</i>	RAB GTPase, endosome	89	<i>lin-1</i>	transcription factor
4	<i>fshr-1</i>	neuropeptide receptor	37	<i>aex-3</i>	rab-3 GEF	70	<i>F13A2.4</i>	unknown	90	<i>acy-1</i>	adenylyl cyclase
5	<i>sad-1</i>	Ser/Thr protein kinase	38	<i>Y69E1A.3</i>	Tyrosine-protein kinase	71	<i>rskn-2</i>	ribosomal protein S6 kinase a-2	91	<i>spp-10</i>	prosaposin
6	<i>glr-4</i>	ionotropic glutamater receptor	39	<i>C56G2.15</i>	putative N-acetyltransferase	72	<i>dig-1</i>	immunoglobulin superfamily	92	<i>W09D10.1</i>	membrane, ARF GAP
7	<i>unc-43</i>	CaMKII	40	<i>duo-2</i>	deubiquinating protein	73	<i>egl-10</i>	RGS for GOA-1	93	<i>mpk-1</i>	MAP kinase
8	<i>Y24F12A.1</i>	putative deoxyribonuclease	41	<i>pept-1</i>	oligopeptide transporter	74	<i>mrp-5</i>	ABC transporter, CFTR			
9	<i>inx-10</i>	Innixin, gap junction	42	<i>unc-2</i>	vGCC alpha subunit	75	<i>rab-10</i>	RAB GTPase, endocytosis	#	class 5	
10	<i>vps-26</i>	retromer complex	43	<i>prx-2</i>	peroxisomal membrane protein	76	<i>frm-5.1</i>	FERM domain, scaffold protein	94	<i>prk-2</i>	kinase
11	<i>rack-1</i>	receptor of activated C kinase	44	<i>egl-3</i>	proprotein convertase	77	<i>ric-4</i>	SNAP-25	95	<i>kip-12</i>	kinesin like protein
12	<i>let-60</i>	RAS	45	<i>F42G10.1</i>	neprilysin metallopeptidase	78	<i>mig-32</i>	Polycomb repressive complex 1			
13	<i>unc-26</i>	synaptotjanin	46	<i>apa-2</i>	adaptin complex alpha chain				#	class 6	
14	<i>par-5</i>	14-3-3 protein	47	<i>F23H11.4</i>	Arf-GAP with Rho-GAP domain	#	class 3		96	<i>srg-2</i>	GPCR
15	<i>F11E6.3</i>	brain acid insoluble protein 1	48	<i>C27B7.7</i>	Titin-like protein	79	<i>C24H11.2</i>	Ser/Thr protein phosphatase			
16	<i>srd-7</i>	GPCR	49	<i>par-3</i>	PDZ domain, polarization	80	<i>nlp-12</i>	neuropeptide			
17	<i>aps-2</i>	adaptin, sigma2 subunit of AP2	50	<i>C14A4.3</i>	glycosyltransferase	81	<i>gska-3</i>	Glycogen Synthase Kinase alpha			
18	<i>inx-8</i>	Innixin, gap junction	51	<i>snb-1</i>	synaptobrevin	82	<i>C34B7.2</i>	Phosphoinositide phosphatase			
19	<i>ndx-9</i>	NUDIX hydrolase	52	<i>egl-8</i>	phospholipase C beta	83	<i>goa-1</i>	G alpha O			
20	<i>gei-18</i>	GEX interacting protein	53	<i>flp-1</i>	FRMF neuropeptide precursor	84	<i>nab-1</i>	Neurabin/Spinophilin protein			
21	<i>C42C1.2</i>	protein phosphatase	54	<i>C25A8.5</i>	Tyrosine-protein kinase Fer	85	<i>ccb-1</i>	VGCC beta subunit			
22	<i>hpk-1</i>	Protein kinase	55	<i>gsa-1</i>	G alpha S	86	<i>egl-30</i>	G alpha Q			
23	<i>pdhk-2</i>	pyruvate dehydrogenase kinase	56	<i>osm-9</i>	TRPV channel						
24	<i>unc-36</i>	VGCC alpha2/delta subunit	57	<i>snn-1</i>	synapsin						
25	<i>eat-5</i>	Innixin, gap junction	58	<i>unc-17</i>	vAChT						
26	<i>nep-1</i>	Neprilysin metallopeptidase	59	<i>unc-104</i>	kinesin						
27	<i>C06A1.3</i>	Ser/Thr protein phosphatase	60	<i>F01E11.3</i>	unknown						
28	<i>sphk-1</i>	Sphingosine kinase	61	<i>dyn-1</i>	dynamin						
29	<i>cam-1</i>	receptor tyrosine kinase	62	<i>itsn-1</i>	intersectin						
30	<i>nasp-1</i>	Nuclear autoantigenic sperm prot.	63	<i>snt-1</i>	synaptotagmin						
31	<i>ulp-4</i>	Ubiquitin-like protease	64	<i>unc-41</i>	stonin						
32	<i>erp-1</i>	endophilin B	65	<i>unc-57</i>	endophilin A						
33	<i>eel-1</i>	Hect E3 ubiquitin ligase	66	<i>unc-78</i>	actin-interacting protein						

did not meet significance (2-way ANOVA vs. neg. control)	
<i>inx-15</i>	Innixin, gap junction
<i>unc-18</i>	SV priming factor
<i>usp-46</i>	Ubiquitin specific protease
<i>let-70</i>	E2 ubiquitin conjugating enzyme
<i>arx-3</i>	Arp2/3 complex component
<i>wdr-23</i>	ubiquitin ligase complex
<i>pkc-1</i>	Protein kinase C
<i>fer-1</i>	Ferlin, membrane fusion
<i>tbc-7</i>	Tre-2/Bub2/Cdc16 domain family
<i>tag-232</i>	PACS1 sorting protein

unc-26 (reference SV recycling gene)

aldicarb resistant, systemic RNAi, Sieburth et al., 2005

aldicarb resistant, also in mutants; Sieburth et al., 2005

lethal in systemic RNAi, Sieburth et al., 2005

other aldicarb resistant genes (www.wormbase.org)

GABA aldicarb RNAi phenotypes; Vashlishan et al., 2008

random controls

RNAi positive controls of other known SV recycling genes