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Protein interactome analysis for secretagogin in hypothalamus

Experiment: Rat_combined_merged modif Database Set: 1 Database Taxonomy: Rathus Number of Proteins: 84045

#

Search Engine: Mascot

Version: 2.5.0 Bannake, A.S. Bannake Angeunet, Toasson, S.M. D.D. Monrosoutopic) Frysen Modifications: 418 on D (1994), 947 on C (Cartaenskonethy) Variable Modifications: 418 on D (1994), 947 on M (Dataston) Databaset, in NCBIN: 2014 GBD4 datasase selected for Rates, variorum version, 8404 erites) Databaset, in NCBIN: 2014 GBD4 datasase selected for Rates, variorum version, 8404 erites) Databaset, in NCBIN: 2014 GBD4 datasase selected for Rates, variorum version, 8404 erites) Databaset, in NCBIN: 2014 GBD4 datasase selected for Rates, variorum version, 8404 erites) Databaset, in NCBIN: 2014 GBD4 datasase selected for Rates, variorum version, 8404 erites) Databaset, Model.

mascol_daemon_merge (F006258): Peptide Prophet (+2 and below,+3,+4,+5,+6 and above) mascol_daemon_merge (F006259): Peptide Prophet (+2 and below,+3,+4,+5,+6 and above) mascol_daemon_merge (F006010): Peptide Prophet (+2 and below,+3,+4,+5,+6 and above)

Supplemental Table 3



Scathol: Version: Scathol: 4.1.4 Protect Drough Strategy: Experiment-wide grouping with threwy peptide protein weights Protect Threadols: 56 (ch) minimum Protect Threadols: 56 (ch) minimum and 2 peptides minimum Protect Threadols: 56 (ch) minimum Protect Thread Color coding of functional groups corresponds to the one used in Fig. 5C1.

	Identified Proteins	Accession Number
1	SECRETAGOGIN	gi(672081799
2	supportin uppicie membrane protein MAT-1 borreine (Pattur socianicus)	0176096206
	a) report the memory in the protect of the monthly (remost introduced)	30,0030200
3	CCR4-NOT transcription complex subunit 1 [Rattus norvegicus]	gi 198386347 (+1)
4	26S proteasome non-ATPase regulatory subunit 2 (Rattus norvegious)	gi(72255509
5	ras-related protein Rab-1A isoform 1 [Rattus norvegicus]	gi 4758988
6	cell differentiation protein RCD1 homolog	gi 10946722
	and a local sector sector (Detter and a sector)	-1040000005

7	endoplasmin precursor [Rattus norvegicus]	gi(210032365
8	NSFL1 cofactor p47 [Rattus norvegicus]	gi 14010837 (+1)
9	rho GDP-dissociation inhibitor 1	gi(31982030
10	phosphoglycerate mutase 1	gi(114326546 (+1)
11	ras-related protein Rab-7a [Rattus norvegicus]	gi(13027392 (+2)
12	peroxiredoxin-6 [Rattus norvegicus]	gi 16758348
13	EF-hand domain-containing protein D2 [Rattus norvegicus]	gi(72255531

14	NDRG1 related protein NDRG2a2 [Rattus norvegicus]	gi(17977872 (+3)
15	cyclase-associated protein [Rattus norvegicus]	gi(310174 (+1)
16	alpha-synuclein [Rattus norvegicus]	gi(9507125 (+1)
17	Ca2+-dependent secretion activator, isoform CRA_a [Rattus norvegicus]	gi[149040049 (+1)
18	calreticulin precursor [Rattus norvegicus]	gi 11693172
19	exportin-2 [Rattus norvegicus]	gi 157820325
20	pyridoxal kinase [Rattus norvegicus]	gi(13929082 (+1)
21	myosin-10 [Rattus norvegicus]	gi 13928704 (+3)
22	26S proteasome non-ATPase regulatory subunit 6 [Rattus norvegicus]	gi(38454206
23	guanine nucleotide-binding protein G(q) subunit alpha [Rattus norvegicus]	gi(13591957 (+1)
24	coxsackievirus and adenovirus receptor homolog precursor [Rattus norvegicus]	gi(56961616 (+3)

25	dihydropteridine reductase [Rattus norvegicus]	gi(11693160 (+2)
26	ras-related protein Rab-5B (Rattus norvegicus)	gi(121583768
27	protein FAM49B	gi(21450053 (+1)
28	omega-amidase NIT2 [Rattus norvegicus]	gi(77628000
29	glutaredoxin-3 (Rattus norvegicus)	gi(78187979 (+1)
30	dual specificity mitogen-activated protein kinase kinase 4	gi(22095023 (+1)
31	Vps35 protein [Rattus norvegicus]	gi 197246879 (+1)
32	WD repeat protein 1 [Rattus norvegicus]	gi 149047324 (+1)
33	peptidyl-prolyl cis-trans isomerase D (Rattus norvegicus)	gi(51948528
34	alpha-soluble NSF attachment protein (Rattus norvegicus)	gi(18034791
35	small glutamine-rich tetratricopeptide repeat containing protein alpha (Rattus norvegicus)	gi(12083667 (+3)
36	ras-related protein Rab-6A isoform 2	gi 13195674 (+1)
37	adenylate kinase 1, isoform CRA_c [Rattus norvegicus]	gi(149039004 (+1)
38	Chain A, Nmr Solution Structure Of Ca2+-Loaded Calbindin D28k	gi(110590202 (+2)
39	PREDICTED: biliverdin reductase A isoform X1 [Rattus norvegious]	gi(564342705
40	transketolase [Rattus norvegicus]	gi(12018252 (+3)
41	phosphoserine aminotransferase (Rattus norvegicus)	gi(149062533 (+2)
42	CCR4-NOT transcription complex subunit 7	gi(6755126
43	RAP1, GTP-GDP dissociation stimulator 1 (predicted), isoform CRA_a [Rattus norvegicus]	gi(149026086 (+1)
44	purine nucleoside phosphorylase [Rattus norvegicus]	gi(564385910
45	transmembrane protein (TMED10) [Rattus norvegicus]	gi 1360136 (+1)
46	26S proteasome non-ATPase regulatory subunit 13 [Rattus norvegicus]	gi 157821581
	and a second sec	

48	kinesin-1 heavy chain [Rattus norvegicus]	gi(149032557 (+1)
49	phosphatidylinositol transfer protein alpha isoform [Rattus norvegicus]	gi(8393962
50	Plasma membrane calcium-transporting ATPase 2	gi 14286100 (+1)
51	Iprin alpha 3 (Rattus norvegicus)	gi(149055940 (+3)
52	hydroxymethylglutaryl-CoA synthase, cytoplasmic [Rattus norvegicus]	gi(149059420 (+1)
53	nuclear migration protein nudC [Rattus norvegicus]	gi(8394272 (+1)
54	gamma-soluble NSF attachment protein [Rattus norvegicus]	gi 149064444 (+2)
55	exportin 1, CRM1 homolog (yeast), isoform CRA_b [Rattus norvegicus]	gi(149044800 (+1)
56	Cytosolic 10-formy/tetrahydrofolate dehydrogenase [Rattus norvegicus]	gi(380865476
57	glycerol-3-phosphate dehydrogenase 1-like protein [Rattus norvegicus]	gi(300798457
58	transaldolase [Rattus norvegicus]	gi 12002054 (+3)
59	protein phosphatase 1, regulatory (inhibitor) subunit 7, [Rattus norvegicus]	gi 149037520 (+2)
60	transforming protein RhoA precursor [Rattus norvegicus]	gi 16923986 (+1)
61	COP9 signalosome complex subunit 4 [Rattus norvegicus]	gi(51948518 (+1)
62	ataxin-10 [Rattus norvegicus]	gi 25742674
63	syntaxin 7, isoform CRA_b [Rattus norvegicus]	gi(149032911 (+2)
64	PREDICTED: LOW QUALITY PROTEIN: ran-binding protein 9, partial [Rattus norvegicus]	gi 293342681 (+1)
65	succinate semialdehyde dehydrogenase, partial [Rattus norvegicus]	gi(556395
66	synaptophysin [Rattus norvegicus]	gi(56823 (+1)
67	CCR4-NOT transcription complex, subunit 3 [Rattus norvegicus]	gi 294345478
68	tumor protein D52 [Rattus norvegicus]	gi(157823391 (+8)
69	tubulin polymerization-promoting protein family member 3 [Rattus norvegicus]	gi(57526937
70	prostaglandin E synthase 3	gi(9790017 (+1)
71	diphosphomevalonate decarboxylase [Rattus norvegicus]	gi 13592005 (+1)
72	ras-related protein Rab-5A [Rattus norvegicus]	gi 12083645 (+1)
73	phosphoglycolate phosphatase [Rattus norvegicus]	gi 281332119
-	and a second	

		Exclusive Unique Peptide Cor	unt	Protein score for a-SCGN IP, 10 uM Ca2+
Molecular Weight	a-SCGN IP, Ca2+-free	a-SCGN IP, 10 uM Ca2+	a-non-target IgG, 10 uM Ca2+	
32 kDa	9	11		528
43 kDa		6		222
267 kDa	13	6		114
100 kDa		5		231
23 kDa		5		222
34 kDa	3	5		199
93 kDa	0	5		196
23 kDa		5		136
29 kDa		5		157
24 kDa		5		144
25 kDa		5		122
27 NDa		5		121
39 kDa		4		175
52 kDa		4		168
15 kDa		4		120
153 NDa				112
110 kDa		4		105
35 kDa		4		97
229 kDa		4		94
46 kDa		4		94
42 kDa		4		90
30 804				00
26 kDa		3		290
24 kDa		3		146
37 kDa		3		141
38 kDa	0	3		132
44 kDa		3		127
72 kDa		3		124
66 kDa		3		124
41 kDa 22 kDa		3		115
34 kDa		3		112
24 kDa		3		101
23 kDa		3		101
30 kDa		3		99
7		3		93
41 kDa		3		91
33 kDa	4	3		85
58 kDa		3		85
24 kDa		3		84
23 kDa 43 kDa		3		80
36 kDa		3		71
110 kDa 22 kDa		2		131
137 kDa		2		125
116 kDa	0	2		123
61 kDa		2		118
38 kDa		2		110
34 к.)a		2		109
99 kDa	1	2		108
38 kDa		2		106
37 kDa		2		104
37 kDa 22 kDa		2		103
46 kDa		2		99
54 kDa		2		92
25 kDa		2		92
69 kDa	1	2		90
52 kDa		2		90
32 KDa	3	2		86
24 kDa	0	2		86
19 kDa	1.	2		85
19 kDa		2	-	84
44 kDa		2		84
24 N.M		2		83
47 kDa		2		82

520	
222	Internal manthering metalation deblacement promotile website through to be landward to uncleater transmost
114	Integrate memory of the control of contraged synthetic vesticals integrates to be involved in vesticals integrates Scalifolding component of the CCR4NOT complex, one of the major colliar mRNA deaderhylasse. Linked to repression during translational initiation and general transcription regulation.
231	The multisuburit 285 proteasome recognizes, urholds, and degrades polybiojulinated substrates into small pageides. Resultates versionations from the encloseries restrictions IFPA to the following and rest the cell surface.
199	Component of the CCR4-NOT complex and is lifed to repression during translational initiation and general transportion regulation.
196	Molecular chaperone that functions in the processing and transport of secreted proteins.
196	Necessary for the fragmentation of Golgi stacks during milosis and for VCP-mediated reassembly of Golgi stacks after milosis.
174	Controls Rho proteins homeostasis. Regulates the GDP/GTP exchange reaction of the Rho proteins by inhibiting the dissociation of GDP from them, and the subsequent binding of GTP to them.
157	Erzyme.
144	Key regulator in endo-lysoscenal trafficient, Governs early-to-late endoscenal maturation, microtabule minus-end as well as plus-end directed endoscenal migration and positioning, and endoscene-lysoscene transport, and axonal transport, local and an endoted and the set of t
122	Involved in feature regulation of the certain way in the regulation of programping tambver. A nearbite regulation of the certain way in the regulation of programping tambver.
1/5	Early immendecendence specific induced gene. Controllers to the regulation of the Virt signaling pathway.
168	Unexp regulates nament dynamics and has been implication in morphological processes. Nam be inselved in the recentions of discoverse indexes on difference.
112	and be instances in one legament of opportunity requests of neurophysics of ne
112	Calcium-binding chaperone that promotes folding, oligomeric assembly and quality control in the ER. Interacts with the DNA-binding domain of the glucocorticoid receptor and prevents if from binding to its specific glucocorticoid response elements.
105	Mediates importin-alpha re-export from the nucleus to the cytoplasm after import substrates (cargos) have been released into the nucleoplasm.
97	Required for the synthesis of pyridoxel-5-phosphate from vitamin B6.
94	Binds to actin filaments and actin bundles and functions as plus end-directed motor. May play arole in neutrol outgrowth and axion guidance.
90	The management and provide interview of the second se
88	Component of the epithelial apical junction complex that may function as a homophilic cell adhesion molecule and is essential for tight junction integrity.
290	Catalyzes the NAUH-mediated reduction of quinonical diriydrobulpterin. Periobial investigates' trafficia
140	From the first of the second s
132	A role in arti-citotoxicity has been implied.
128	Glutaredoxins are oxidoreductase enzymes that reduce a variety of substrates using glutathione as a collactor.
127	Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway.
124	A component of a large mulamenic complex, termed the restories complex, involved in restograde transport of proteins from endosomes to the trans-using network.
124	Induces deassemely of actin taments in conjunction with AUH/COMIN tamily proteins.
112	Pairs a role dorbit intermediation of points minute populations in independent on inclusion populations in inclusion population populat
108	Co-chaperone that binds directly to HSC70 and HSP70 and regulates their ATPase activity.
101	Located at the Golgi apparatus, regulates trafficking in both retrograde and anterograde directions.
101	Catalyzes the reversible transfer of the terminal phosphate group between ATP and AMP.
99	Calcum kinding protein.
92	Transformer and generalized biologies of the spectral approximation of the spectral strategy and
91	A phosphoserine aminotransferase whose decreased expression may be associated with schizophrenia.
85	Catalytic component of the CCR4-NOT complex.
85	Stimulates GDP/GTP exchange reaction of a group of small GTP-binding proteins. Neurite outgrowth.
84	Purine nucleoside phosphorylase.
80	This type intertionine protein is localized at the plasma memorane and loogli cistemaa and is involved in vesticular protein transloving. The myllicit vestig 455 proteiname processing is unclude, and the plasma is the protein transloving.
71	Exhibits phosphotic diester hydrolase (phospholipase) activity and signal transducer activity.
131	Microbube-dependent motor required for slow axional transport of neurolitament proteins.
125	Compare on an and the of them and proceeding to the determinant of the property of the second s
123	May regulate the disassembly of focal adhesions.
118	Calcium-transporting ATPase.
110	Plays a role in neurogenesis and neuronal migration.
109	Required for vasicular transport between the endoplasmic rediculum and the Golg apparatus.
108	Medanas ne nocear expertor cesar proves (cargos) beaning a nocearent report signal (NES) and or NeAS.
106	Exprime.
104	Protein phosphatase inhibitory subunit.
103	Regulatory subunit of protein phosphatase 1.
102	Regulates a signal transduction pathway linking plasma membrane receptors to the assembly of focal adhesions and actin stress fibers.
99	Control over ubiquitin-proteasome-mediated protein degradation.
92	Nay be involved in protein statistican memory and the state of the sta
90	May act as an adapter protein to couple membrane receptors to intracellular signaling pathways. May be involved in signaling of ITGB2LFA+1 and other integrins.
90	Erzyme.
87	Possibly involved in structural functions as organizing other membrane components or in targeting vesicles to the plasma membrane.
86	Component of the CCR4-NOT complex which is one of the major cellular mRNA deadenylases.
85	A nove molecular manifer in ovarian cancer, extracts calcume-ending activity. Biolog huidin and has microshidu huidina activity
84	And a constraint of a microsover of the constraints to generative sectors of the constraints of the constrai
84	Enzyme
83	Required for the fusion of the plasma membrane and early endosomes.
83	Has high phosphatase activity toward ADP, ATP, GDP, GTP and p-nitrophenylphosphate.
82	Enzyme.

Presumed or known protein fun

75	ras-related protein Rab-SC [Rattus norvegicus]	gi(347800697
76	protein kinase, cAMP-dependent, regulatory, type 2, alpha [Rattus norvegicus]	gi(149018505 (+3)
77	dnaJ (Hsp40) homolog subfamily B member 1[Rattus norvegicus]	g(564394967
78	secemin-1 [Rattus norvegicus]	gi(68163565
79	Vdac1 protein, partial [Rattus norvegicus]	gi(38051979 (+3)
80	protein phosphatase 1A [Rattus norvegicus]	gi(8394012 (+2)
81	NmrA-like family domain-containing protein 1	gi(224493153 (+2)
82	COP9 signalosome complex subunit 3 [Rattus norvegicus]	g(51948372
83	D-3-phosphoglycerate dehydrogenase [Rattus norvegicus]	gi(13928850
84	ADP-ribosylation factor-like protein 3 [Rattus norvegicus]	gi(12083661 (+1)
85	Cathepsin D	gi[115720 (+1)
86	alpha actinin [Rattus norvegicus]	gi(1142640 (+10)
87	26S proteasome non-ATPase regulatory subunit 1 [Rattus norvegicus]	gi[14010879 (+1)
88	N-alpha-acetyltransferase 25, NatB auxiliary subunit [Rattus norvegicus]	gi 114145788 (+2)
89	UMP-CMP kinase [Rattus norvegicus]	gi(150383503 (+1)
90	protein FAM65B (Rattus norvegicus)	gi(110625641 (+2)
91	N-acetylneuraminic acid synthase (sialic acid synthase) (predicted), isoform CRA_b [Rattus norvegicus]	gi(149045843 (+1)
92	26S protease regulatory subunit 6A [Rattus norvegicus]	gi[13928808 (+4)
93	Hypoxia up-regulated protein 1	gi(10720174 (+2)
94	vacuolar protein sorting-associated protein 29 [Rattus norvegicus]	gi(157786944 (+1)
95	glyoxalase domain-containing protein 4 [Rattus norvegicus]	gi(149053439 (+1)
96	prefoldin subunit 4-like isoform 1 [Rattus norvegicus]	gi(149042757 (+1)
97	vimentin [Rattus norvegicus]	gi(14389299 (+1)
98	complement C3 precursor [Rattus norvegicus]	gi(158138561
99	aminopeptidase puromycin sensitive [Rattus norvegicus]	gi 149054035 (+1)
100	serine/threonine-protein phosphatase 2A 56 kDa regulatory subunit epsilon isoform [Rattus norvegicus]	gi(157818441 (+3)
101	quinone oxidoreductase-like protein 1 [Rattus norvegicus]	gi(61556783 (+1)
102	vesicular inhibitory amino acid transporter [Rattus norvegicus]	gi 13929106 (+1)
103	Glutamate decarboxylase (GAD1)	gi 227913 (+2)
104	serotransferrin precursor [Rattus norvegicus]	gi(61556986
105	brain and heart protein NDRG4-B1 [Rattus norvegicus]	gi(37788067 (+11)
106	hippocalcin-like protein 4 [Rattus norvegicus]	gi(8393861
107	inositol polyphosphate 1-phosphatase [Rattus norvegicus]	gi(58865832 (+1)
108	General vesicular transport factor p115	gi 1171952 (+1)
109	alcohol dehydrogenase [NADP(+)] [Rattus norvegicus]	gi 13591894
110	multifunctional protein ADE2 [Rattus norvegicus]	gi(18266726
111	Parkinson disease 7 domain containing 1 [Rattus norvegicus]	gi 149061618 (+1)
112	N(G),N(G)-dimethylarginine dimethylaminohydrolase 1 [Rattus norvegicus]	gi 11560131
113	coatomer subunit delta (Rattus porvenicus)	0056090634



82	Protein transport. Probably involved in vesicular traffic.
80	The regulatory subunit of proteinkinase A.
80	Interacts with HSP70 and can stimulate its ATPase activity.
79	Regulates exocytosis in mast cells.
79	A voltage-dependent anion channel protein that is a major component of the outer mitochondrial membrane.
78	protain phosphatase.
78	Redox sensor protein.
78	Controls ubiquitin-proteasome-mediated protein degradation.
77	Is involved in the early steps of L-serine synthesis in animal cells.
77	Required for normal cytokinesis and cilia signaling.
76	Acid protease, e active in intracellular protein breakdown.
76	F-actin cross-linking proteinthought to anchor actin to a variety of intracellular structures.
75	The multisubunit 26S proteasome recognizes, unfolds, and degrades polyubiquitinated substrates into small peptides.
75	Non-catalytic subunit of the NatB complex which catalyzes acetylation of the N-terminal methionine residues of peptides beginning with Met-Asp-Glu. May play a role in normal cell-cycle progression.
73	Plays an important role in de novo pyrimidine nucleotide biosynthesis.
72	Isoform 2 plays a role in promoting myogenic cell differentiation, cytoskeletal rearrangement and filopodia formation.
71	Erzyme.
71	The multisubunit 26S proteasome recognizes, unfolds, and degrades polyubiquitinated substrates into small peptides.
70	Has a pivotal role in cytoprotective cellular mechanisms triggered by oxygen deprivation, likely as a molecular chaperone.
69	Essential component of the retromer complex, required to retrieve lysosomal enzyme receptors (IGF2R and M6PR) from endosomes to the trans-Golgi network.
67	Function has yet to be defined.
66	The encoded protein is one of six subunits of prefoldin, a molecular chaperone complex that binds and stabilizes newly synthesized polypeptide.
64	Vimentins are class-III intermediate filaments found in various non-epithelial cells, especially mesenchymal cells. Vimentin is attached to the nucleus, endoplasmic reticulum, and mitochondria, either laterally or terminally.
63	Plays a central role in the activation of the complement system.
63	Aminopeptidase with broad substrate specificity for several peptides. Involved in proteolytic events essential for cell growth and viability.
62	Is one of the four major Set/Thr phosphatases, implicated in the negative control of cell growth and division. The B regulatory suburit might modulate substrate selectivity and catalytic activity.
60	A protein that has sequence similarity to zeta crystallin, also known as quinone oxidoreductase.
60	Involved in the uptake of GABA and glycine into the synaptic vesicles.
60	An enzyme encoded responsible for catalyzing the production of gamma-aminobutyric acid from L-glutamic acid.
59	It is responsible for the transport of iron from sites of absorption and here degradation to those of storage and utilization.
57	Contributes to the maintenance of intracerebral BDNF levels within the normal range.
57	May be involved in the calcium-dependent regulation of modopsin phosphorylation.
57	One of the enzymes involved in phosphatidylinositol signaling pathways since it removes the phosphate group at position 1 of the inositol ring from the polyphosphates inositol 1,4-bisphosphate and inositol 1,3,4-trisphophosphate.
56	General vesicular transport factor required for intercistemal transport in the Golgi stack; it is required for transcytotic fusion and/or subsequent binding of the vesicles to the target membrane.
55	Alcohol dehydrogenase, enzyme.
53	A bifunctional enzyme containing phosphoribosylaminoimidazole carboxylase activity in its N-terminal region and phosphoribosylaminoimidazole succinocarboxamide synthetase in its C-terminal region. It catalyzes steps 6 and 7 of purine biosynthesis.
53	Diseases associated with PDDC1 include Parkinson's disease.
50	Regulation of nitric oxide generation.
49	A cytosolic protein complex that binds to dilysine motifs and reversibly associates with Golgi non-clathrin-coated vesicles.

Regulation of nitric oxide generation. A cytosolic protein complex that binds to dilysine motif's and reversibly associates with Golgi non-clathrin-coated vesicles.