Supplementary Material

Neuropeptidomic Analysis Establishes a Major Role for Prohormone Convertase-2 in Neuropeptide Biosynthesis

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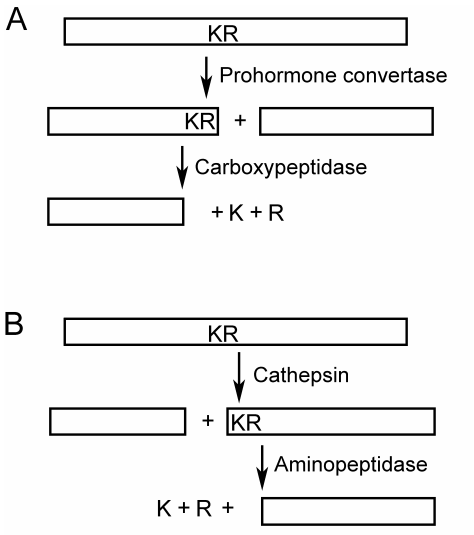
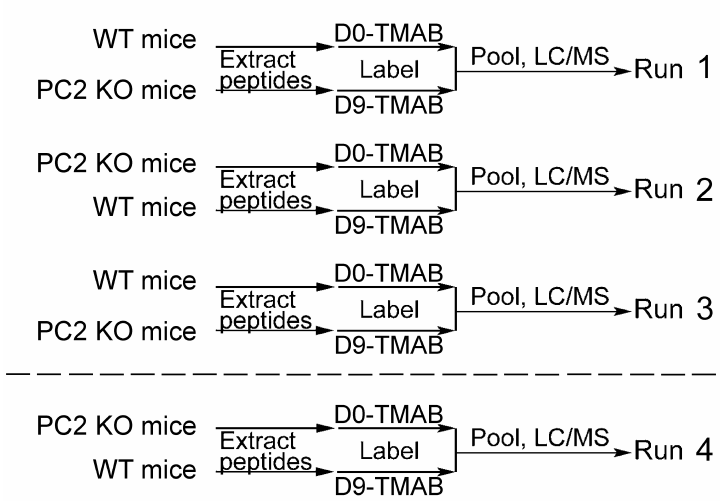
- Table S6. Peptides identified in both PC2 KO study and Cpefat/fat mouse study (data used for Figure 3).

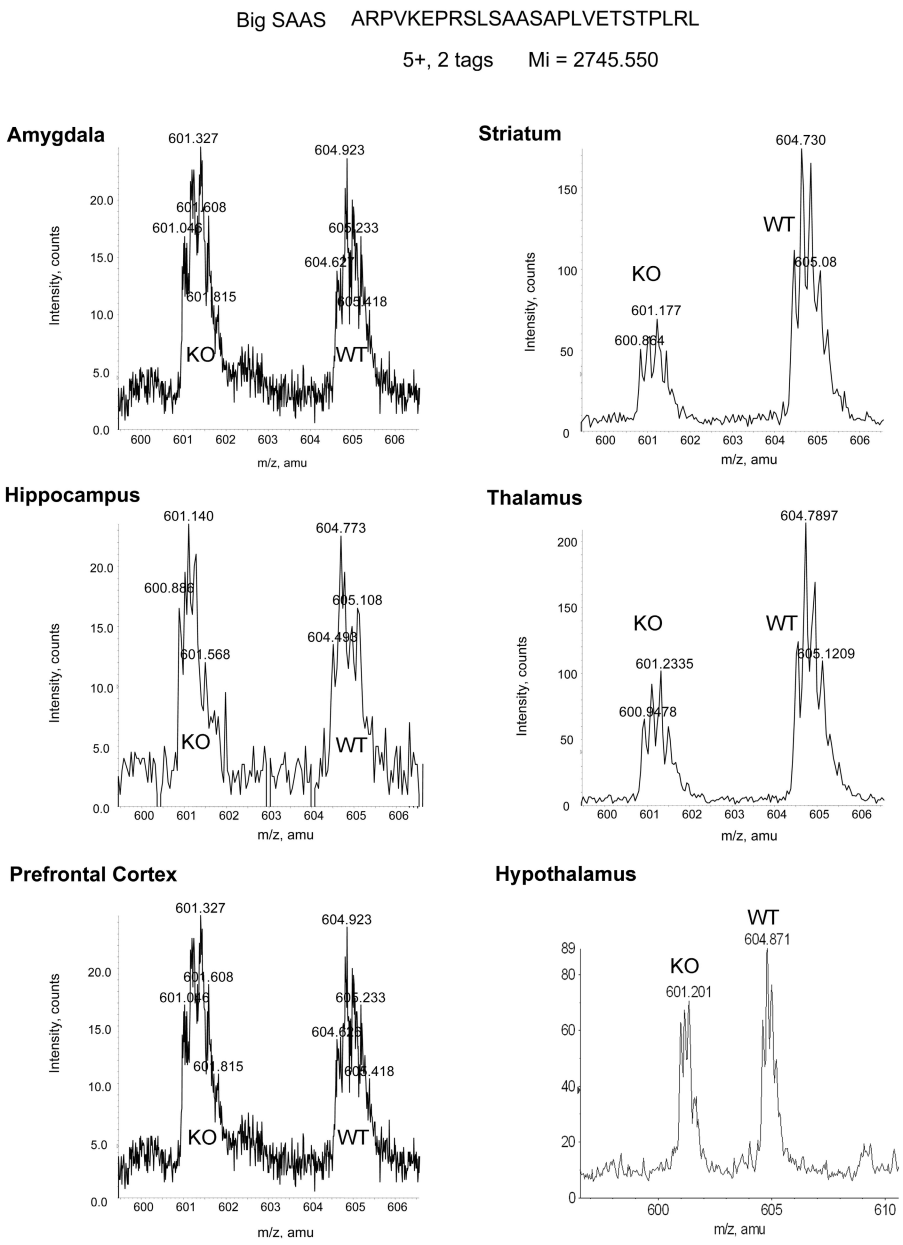


Supplemental Figure S1. Processing diagram showing the traditional (A) and alternative (B) processing schemes. A: In the traditional processing scheme, prohormone precursors are cleaved by a prohormone convertase C-terminal to the basic amino acid residues. A carboxypeptidase then trims the basic residues to generate the mature bioactive form of the peptide. B: In the alternative processing scheme that has been proposed but which is controversial, a cysteine protease such as cathepsin L cleaves the prohormone precursor N-terminal to the basic residues. An aminopeptidase then processes and removes the basic residues from the N-terminal end of the peptide intermediates

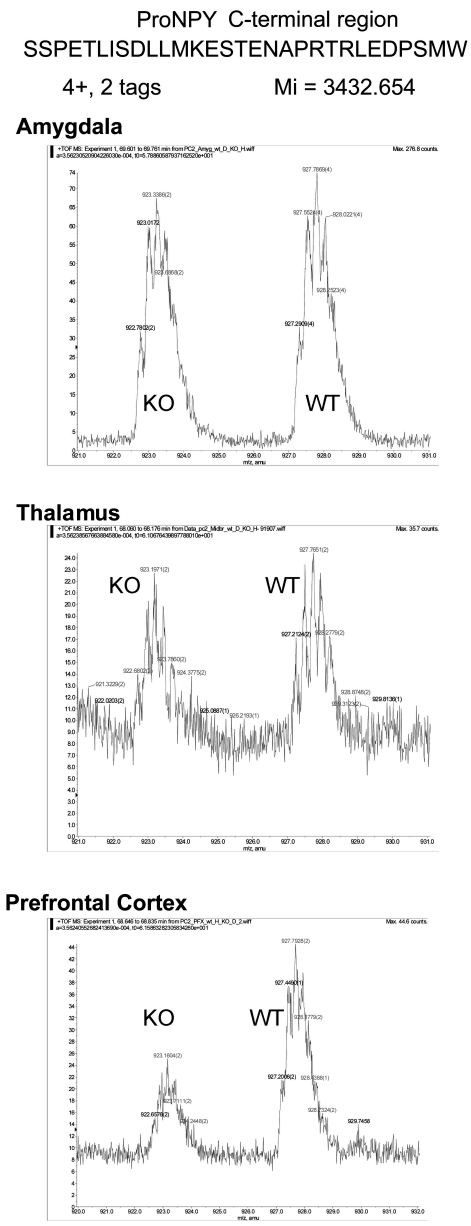


Brain Region	Number of replicates (LC/MS runs)
Amygdala	3
Hippocampus	3
Hypothalamus	4
Prefrontal Cortex	3
Striatum	3
Thalamus	3

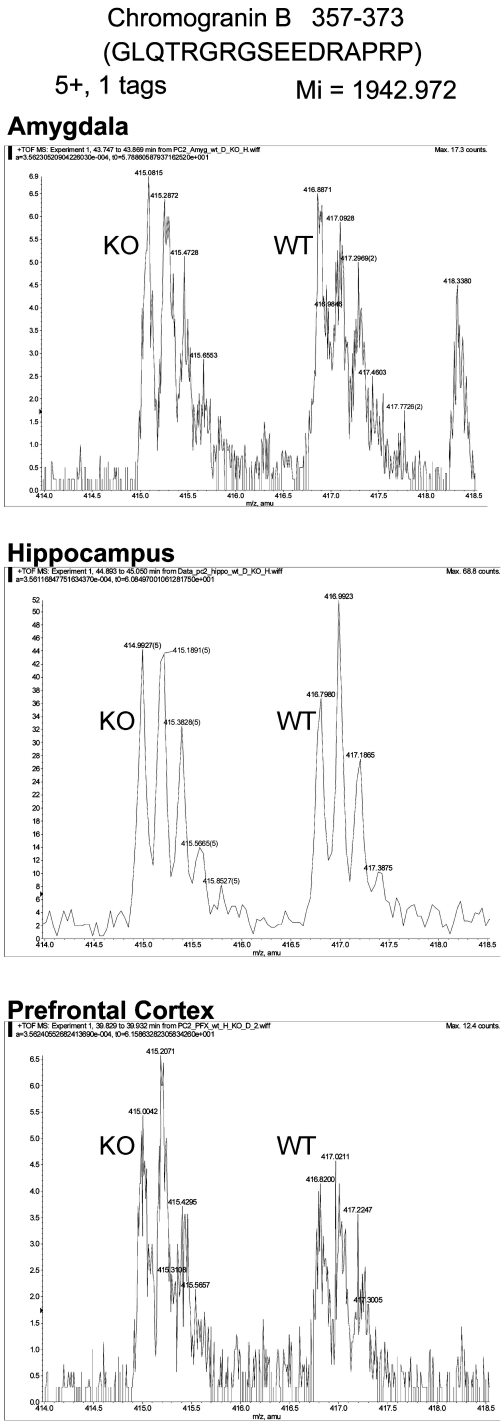
Supplemental Figure S2. Scheme showing the labeling strategy and the number of replicates performed for each brain region. Microwave irradiated tissue was extracted and processed as described in Material and Methods. The tissues from either WT or PC2 KO brains were differentially labeled as indicated. The labeled samples were combined and each PC2 KO/WT pool was analyzed in a single LC-MS run. Three replicates were analyzed for extracts from all brain regions except hypothalamus, which was analyzed in 4 replicates as previously described (Pan et al. 2006).



Supplemental Figure S3: Representative data of MS spectra for the peptide named big SAAS. Note that in amygdala, hippocampus, and prefrontal cortex the levels are comparable in the PC2 KO and WT groups, whereas in the striatum and thalamus levels are much lower in the KO group, and in the hypothalamus levels are slightly lower in the KO group. This peptide has a monoisotopic mass of 2745.550 in the absence of protons and isotopic tags. In the spectra shown the peptide has 2 TMAB tags and 3 protons (total charge 5+).



Supplemental Figure S4: Representative data of MS spectra showing proneuropeptide Y C-terminal peptide in amygdala, thalamus, and prefrontal cortex. The peptide has a monoisotopic mass of 3432.654 in the absence of protons and isotopic tags, and in the examples shown has 2 tags and 2 protons (total 4+).



Supplemental Figure S5: Representative data of MS spectra showing chromogranin B 357-373 in amygdala, hippocampus, and prefrontal cortex. The peptide has a monoisotopic mass of 1942.972 in the absence of protons and isotopic tags; the spectra shown are for the peptide with 1 TMAB tag and 4 protons (5+ total).

Supplemental Table S1 - PC2 KO data analyses (individual brain regions shown separately)												
Abbreviations are defined in other supplemental tables			Relative									
			Elute Time							PC2 KO:WT		
Precursor	Peptide Name	Peptide Sequence	(min)	z	#Tags	Obs. Mass	Theo. Mass	ppm	Regions	Avg	Stdev	n
7B2	167-176	(LLYEKMKGGQ)	58	3	3	1165.66	1165.60	36	Prefrontal cortex	<0.10		2
7B2	167-176	(LLYEKMKGGQ)	58	3	3	1165.68	1165.60	36	Thalamus	<0.10		1
CART	33-50	APGAMLQIEALQEVLKKL	82	3	3	1951.11	1951.12	-31	Amygdala	<0.10		2
CART	33-50	APGAMLQIEALQEVLKKL	82	3	3	1951.11	1951.12	-31	Hypothalamus	0.19	0.03	4
CART	33-50	APGAMLQIEALQEVLKKL	82	3	3	1951.11	1951.12	-31	Thalamus	0.10		3
CART	33-52	APGAMLQIEALQEVLKKLKS	76	4	4	2166.36	2166.25	-23	Amygdala	<0.10		3
CART	33-52	APGAMLQIEALQEVLKKLKS	76	4	4	2166.36	2166.25	-23	Hypothalamus	<0.10		1
CART	33-52	APGAMLQIEALQEVLKKLKS	76	4	4	2166.36	2166.25	-23	Thalamus	<0.10		1
Cerebellin 1 precursor	Cerebellin 2-15	GSAKVAFSAIRSTN	55	3	2	1407.75	1407.75	17	Amygdala	1.18	0.10	3
Cerebellin 1 precursor	Cerebellin 2-15	GSAKVAFSAIRSTN	55	3	2	1407.75	1407.75	17	Hippocampus	0.93	0.17	3
Cerebellin 1 precursor	Cerebellin 2-15	GSAKVAFSAIRSTN	55	3	2	1407.75	1407.75	17	Hypothalamus	1.22	0.34	3
Cerebellin 1 precursor	Cerebellin 2-15	GSAKVAFSAIRSTN	55	3	2	1407.75	1407.75	17	Prefrontal cortex	0.87	0.09	2
Cerebellin 1 precursor	Cerebellin 2-15	GSAKVAFSAIRSTN	55	3	2	1407.75	1407.75	17	Striatum	1.02	0.15	3
Cerebellin 1 precursor	Cerebellin 2-15	GSAKVAFSAIRSTN	55	3	2	1407.75	1407.75	17	Thalamus	0.94	0.40	3
Cerebellin 1 precursor	Cerebellin 1-15	SGSAKVAFSAIRSTN	55	3	1,2	1494.73	1494.78	20	Amygdala	1.11	0.09	2
Cerebellin 1 precursor	Cerebellin 1-15	SGSAKVAFSAIRSTN	55	3	1,2	1494.73	1494.78	20	Hippocampus	0.97	0.14	3
Cerebellin 1 precursor	Cerebellin 1-15	SGSAKVAFSAIRSTN	55	3	1,2	1494.73	1494.78	20	Hypothalamus	0.98	0.22	3
Cerebellin 1 precursor	Cerebellin 1-15	SGSAKVAFSAIRSTN	55	3	1,2	1494.73	1494.78	20	Prefrontal cortex	0.83	0.21	3
Cerebellin 1 precursor	Cerebellin 1-15	SGSAKVAFSAIRSTN	55	3	1,2	1494.73	1494.78	20	Striatum	0.78	0.23	3
Cerebellin 1 precursor	Cerebellin 1-15	SGSAKVAFSAIRSTN	55	3	1,2	1494.73	1494.78	20	Thalamus	0.93	0.36	3
Cerebellin 1 precursor	Cerebellin 2-16	GSAKVAFSAIRSTNH	53	4	2	1544.77	1544.81	-1	Amygdala	0.89	0.10	2
Cerebellin 1 precursor	Cerebellin 2-16	GSAKVAFSAIRSTNH	53	4	2	1544.77	1544.81	-1	Hippocampus	0.87	0.34	3
Cerebellin 1 precursor	Cerebellin 2-16	GSAKVAFSAIRSTNH	53	4	2	1544.77	1544.81	-1	Hypothalamus	1.18	0.18	3
Cerebellin 1 precursor	Cerebellin 2-16	GSAKVAFSAIRSTNH	53	4	2	1544.77	1544.81	-1	Prefrontal cortex	1.01	0.07	3
Cerebellin 1 precursor	Cerebellin 2-16	GSAKVAFSAIRSTNH	53	4	2	1544.77	1544.81	-1	Striatum	1.06	0.16	3
Cerebellin 1 precursor	Cerebellin 2-16	GSAKVAFSAIRSTNH	53	4	2	1544.77	1544.81	-1	Thalamus	1.05	0.40	3
Cerebellin 1 precursor	Cerebellin	SGSAKVAFSAIRSTNH	53	3,4	1,2	1631.79	1631.84	15	Amygdala	1.02	0.15	3
Cerebellin 1 precursor	Cerebellin	SGSAKVAFSAIRSTNH	53	3,4	1,2	1631.79	1631.84	15	Hippocampus	1.06	0.11	2
Cerebellin 1 precursor	Cerebellin	SGSAKVAFSAIRSTNH	53	3,4	1,2	1631.79	1631.84	15	Hypothalamus	1.03	0.32	4
Cerebellin 1 precursor	Cerebellin	SGSAKVAFSAIRSTNH	53	3,4	1,2	1631.79	1631.84	15	Prefrontal cortex	0.84	0.12	3
Cerebellin 1 precursor	Cerebellin	SGSAKVAFSAIRSTNH	53	3,4	1,2	1631.79	1631.84	15	Striatum	0.89	0.26	3
Cerebellin 1 precursor	Cerebellin	SGSAKVAFSAIRSTNH	53	3,4	1,2	1631.79	1631.84	15	Thalamus	0.83	0.28	3
Cerebellin 2 precursor	89-102	GSAKVAFSATRSTN	50	3	2	1395.71	1395.71	18	Prefrontal cortex	0.96	0.18	3
Cerebellin 2 precursor	89-102	GSAKVAFSATRSTN	50	3	2	1395.71	1395.71	18	Thalamus	1.19		1
Cerebellin 2 precursor	88-102	(SGSAKVAFSATRSTN)	51	3	2	1482.79	1482.74	-3	Amygdala	0.94	0.06	2
Cerebellin 2 precursor	88-102	(SGSAKVAFSATRSTN)	51	3	2	1482.79	1482.74	-3	Hippocampus	0.80		1
Cerebellin 2 precursor	88-102	(SGSAKVAFSATRSTN)	51	3	2	1482.79	1482.74	-3	Prefrontal cortex	0.89	0.08	3
Cerebellin 2 precursor	88-102	(SGSAKVAFSATRSTN)	51	3	2	1482.79	1482.74	-3	Thalamus	1.08		1
Cerebellin 2 precursor	89-103	(GSAKVAFSATRSTNH)	47	4	2	1532.66	1532.77	3	Prefrontal cortex	0.86	0.03	3
Cerebellin 2 precursor	89-103	(GSAKVAFSATRSTNH)	47	4	2	1532.66	1532.77	3	Thalamus	1.12		1
Cerebellin 2 precursor	88-103	(SGSAKVAFSATRSTNH)	48	3,4	1,2	1619.79	1619.80	39	Hippocampus	0.93		1
Cerebellin 2 precursor	88-103	(SGSAKVAFSATRSTNH)	48	3,4	1,2	1619.79	1619.80	39	Prefrontal cortex	0.89	0.09	3
Cerebellin 2 precursor	88-103	(SGSAKVAFSATRSTNH)	48	3,4	1,2	1619.79	1619.80	39	Striatum	1.05	0.00	1

Cerebellin 2 precursor	88-103	(SGSAKVAFSATRSTNH)	48	3,4	1,2	1619.79	1619.80	39	Thalamus	0.95	0.27	2
Cerebellin 4 precursor	66-77	SKVAFSAVRSTN	51	3	1,2	1265.64	1265.67	32	Amygdala	0.91	0.10	3
Cerebellin 4 precursor	66-77	SKVAFSAVRSTN	51	3	1,2	1265.64	1265.67	32	Hippocampus	0.99	0.09	3
Cerebellin 4 precursor	66-77	SKVAFSAVRSTN	51	3	1,2	1265.64	1265.67	32	Prefrontal cortex	0.95	0.10	3
Cerebellin 4 precursor	66-77	SKVAFSAVRSTN	51	3	1,2	1265.64	1265.67	32	Striatum	0.81	0.17	3
Cerebellin 4 precursor	66-77	SKVAFSAVRSTN	51	3	1,2	1265.64	1265.67	32	Thalamus	0.89	0.19	3
Cerebellin 4 precursor	64-77	ANSKVAFSAVRSTN	53	3	2	1450.77	1450.75	9	Amygdala	0.98	0.05	3
Cerebellin 4 precursor	64-77	ANSKVAFSAVRSTN	53	3	2	1450.77	1450.75	9	Hippocampus	0.82	0.15	3
Cerebellin 4 precursor	64-77	ANSKVAFSAVRSTN	53	3	2	1450.77	1450.75	9	Prefrontal cortex	0.88	0.15	3
Cerebellin 4 precursor	64-77	ANSKVAFSAVRSTN	53	3	2	1450.77	1450.75	9	Thalamus	1.08		1
Cerebellin 4 precursor	63-77	AANSKVAFSAVRSTN	53	3	2	1521.77	1521.79	18	Hippocampus	1.04	0.20	3
Cerebellin 4 precursor	63-77	AANSKVAFSAVRSTN	53	3	2	1521.77	1521.79	18	Prefrontal cortex	1.16	0.02	2
Cerebellin 4 precursor	63-77	AANSKVAFSAVRSTN	53	3	2	1521.77	1521.79	18	Thalamus	1.18		1
Chromogranin A	392-402	AYGFRDPGPQL	60	2	1,2	1219.64	1219.60	9	Hippocampus	<0.10		3
Chromogranin A	392-402	AYGFRDPGPQL	60	2	1,2	1219.64	1219.60	9	Hypothalamus	<0.10		3
Chromogranin A	392-402	AYGFRDPGPQL	60	2	1,2	1219.64	1219.60	9	Prefrontal cortex	<0.10		2
Chromogranin A	358-371	WSRMDQLAKELTAE	61	3	2	1248.22	1676.82	8	Amygdala	<0.10		3
Chromogranin A	358-371	WSRMDQLAKELTAE	67	3	2	1676.85	1676.82	14	Hippocampus	<0.10		3
Chromogranin A	358-371	WSRMDQLAKELTAE	67	3	2	1676.85	1676.82	14	Hypothalamus	<0.10		2
Chromogranin A	358-371	WSRMDQLAKELTAE	67	3	2	1676.85	1676.82	14	Prefrontal cortex	<0.10		2
Chromogranin A	358-371	WSRMDQLAKELTAE	67	3	2	1676.85	1676.82	14	Thalamus	<0.10		3
Chromogranin A	374-390	LEGEDDPDRSMKLSFRT	59	4	2	1994.97	1994.94	24	Amygdala	<0.10		3
Chromogranin A	374-390	LEGEDDPDRSMKLSFRT	59	4	2	1994.97	1994.94	24	Hippocampus	<0.10		1
Chromogranin A	374-390	LEGEDDPDRSMKLSFRT	59	4	2	1994.97	1994.94	24	Hypothalamus	<0.10		4
Chromogranin A	374-390	LEGEDDPDRSMKLSFRT	59	4	2	1994.97	1994.94	24	Prefrontal cortex	<0.10		3
Chromogranin A	374-390	LEGEDDPDRSMKLSFRT	59	4	2	1994.97	1994.94	24	Striatum	<0.10		2
Chromogranin A	374-390	LEGEDDPDRSMKLSFRT	59	4	2	1994.97	1994.94	24	Thalamus	<0.10		3
Chromogranin B	438-446	LLDEGHYPV	62	2	1	1041.50	1041.52	9	Amygdala	0.56	0.02	2
Chromogranin B	438-446	LLDEGHYPV	62	2	1	1041.50	1041.52	9	Hippocampus	0.55	0.13	3
Chromogranin B	438-446	LLDEGHYPV	62	2	1	1041.50	1041.52	9	Hypothalamus	0.71	0.11	4
Chromogranin B	438-446	LLDEGHYPV	62	2	1	1041.50	1041.52	9	Prefrontal cortex	0.66	0.09	2
Chromogranin B	438-446	LLDEGHYPV	62	2	1	1041.50	1041.52	9	Striatum	0.43	0.05	2
Chromogranin B	438-446	LLDEGHYPV	62	2	1	1041.50	1041.52	9	Thalamus	0.46	0.24	2
Chromogranin B	588-597	SFARAPQLDL	62	2	1	1116.56	1116.59	1	Amygdala	0.32	0.04	3
Chromogranin B	588-597	SFARAPQLDL	62	2	1	1116.56	1116.59	1	Hippocampus	0.28	0.04	3
Chromogranin B	588-597	SFARAPQLDL	62	2	1	1116.56	1116.59	1	Hypothalamus	0.48	0.09	3
Chromogranin B	588-597	SFARAPQLDL	62	2	1	1116.56	1116.59	1	Prefrontal cortex	0.46	0.01	2
Chromogranin B	588-597	SFARAPQLDL	62	2	1	1116.56	1116.59	1	Striatum	0.17	0.10	3
Chromogranin B	588-597	SFARAPQLDL	62	2	1	1116.56	1116.59	1	Thalamus	0.25	0.03	2
Chromogranin B	457-466	YPQSKWQEQE	55	2	2	1321.67	1321.59	-14	Hippocampus	<0.10		1
Chromogranin B	457-466	YPQSKWQEQE	55	2	2	1321.67	1321.59	-14	Prefrontal cortex	<0.10		1
Chromogranin B	600-613	QYDGVAELDQLLHY	74	2	1	1662.76	1662.79	-2	Amygdala	<0.10		2
Chromogranin B	600-613	QYDGVAELDQLLHY	74	2	1	1662.76	1662.79	-2	Hippocampus	<0.10		3
Chromogranin B	600-613	QYDGVAELDQLLHY	74	2	1	1662.76	1662.79	-2	Prefrontal cortex	<0.10		2
Chromogranin B	600-613	QYDGVAELDQLLHY	74	2	1	1662.76	1662.79	-2	Thalamus	<0.10		2
Chromogranin B	438-453	LLDEGHYPVRESPIDT	60	3	1	1839.91	1839.90	-2	Amygdala	<0.10		3
Chromogranin B	438-453	LLDEGHYPVRESPIDT	60	3	1	1839.91	1839.90	-2	Hippocampus	<0.10		3

Chromogranin B	438-453	LLDEGHYPVRESPIDT	60	3	1	1839.91	1839.90	-2	Hypothalamus	<0.10		4
Chromogranin B	438-453	LLDEGHYPVRESPIDT	60	3	1	1839.91	1839.90	-2	Striatum	<0.10		1
Chromogranin B	438-454	LLDEGHYPVRESPIDTA	60	3	1	1910.91	1910.93	5	Amygdala	<0.10		3
Chromogranin B	438-454	LLDEGHYPVRESPIDTA	60	3	1	1910.91	1910.93	5	Hippocampus	<0.10		3
Chromogranin B	438-454	LLDEGHYPVRESPIDTA	60	3	1	1910.91	1910.93	5	Hypothalamus	<0.10		4
Chromogranin B	438-454	LLDEGHYPVRESPIDTA	60	3	1	1910.91	1910.93	5	Prefrontal cortex	<0.10		2
Chromogranin B	438-454	LLDEGHYPVRESPIDTA	60	3	1	1910.91	1910.93	5	Striatum	<0.10		3
Chromogranin B	438-454	LLDEGHYPVRESPIDTA	60	3	1	1910.91	1910.93	5	Thalamus	<0.10		2
Chromogranin B	313-330	PSPKESKEADVATVRLGE	55	4	3	1912.05	1911.99	16	Amygdala	<0.10		3
Chromogranin B	313-330	PSPKESKEADVATVRLGE	55	4	3	1912.05	1911.99	16	Hippocampus	<0.10		3
Chromogranin B	313-330	PSPKESKEADVATVRLGE	55	4	3	1912.05	1911.99	16	Prefrontal cortex	<0.10		2
Chromogranin B	313-330	PSPKESKEADVATVRLGE	55	4	3	1912.05	1911.99	16	Thalamus	<0.10		1
Chromogranin B	357-373	(GLQTRGRGSEEDRAPRP)	48	5	1	1943.09	1942.97	24	Amygdala	1.16	0.18	3
Chromogranin B	357-373	(GLQTRGRGSEEDRAPRP)	48	5	1	1943.09	1942.97	24	Hippocampus	1.25	0.28	3
Chromogranin B	357-373	(GLQTRGRGSEEDRAPRP)	48	5	1	1943.09	1942.97	24	Hypothalamus	0.99	0.14	2
Chromogranin B	357-373	(GLQTRGRGSEEDRAPRP)	48	5	1	1943.09	1942.97	24	Prefrontal cortex	1.48	0.20	3
Chromogranin B	357-373	(GLQTRGRGSEEDRAPRP)	48	5	1	1943.09	1942.97	24	Striatum	1.20		1
Chromogranin B	357-373	(GLQTRGRGSEEDRAPRP)	48	5	1	1943.09	1942.97	24	Thalamus	1.56		1
Chromogranin B	357-373 + phosphate	(GLQYRGRGpSEEDRAPRP)	50	4	1	2022.91	2022.97	-4	Amygdala	1.27	0.10	3
Chromogranin B	357-373 + phosphate	(GLQYRGRGpSEEDRAPRP)	49	4	1	2022.91	2022.97	-4	Hippocampus	1.55	0.20	2
Chromogranin B	357-373 + phosphate	(GLQYRGRGpSEEDRAPRP)	49	4	1	2022.91	2022.97	-4	Hypothalamus	1.06	0.19	3
Chromogranin B	357-373 + phosphate	(GLQYRGRGpSEEDRAPRP)	49	4	1	2022.91	2022.97	-4	Prefrontal cortex	1.51	0.21	2
Chromogranin B	357-373 + phosphate	(GLQYRGRGpSEEDRAPRP)	49	4	1	2022.91	2022.97	-4	Striatum	1.07	0.09	3
Chromogranin B	357-374	GLQYRGRGSEEDRAPRPR	45	5,6	1	2099.12	2099.07	37	Amygdala	0.82	0.06	3
Chromogranin B	357-374	GLQYRGRGSEEDRAPRPR	45	5,6	1	2099.12	2099.07	37	Hippocampus	0.96	0.16	3
Chromogranin B	357-374	GLQYRGRGSEEDRAPRPR	45	5,6	1	2099.12	2099.07	37	Prefrontal cortex	1.07	0.18	3
Chromogranin B	357-374	GLQYRGRGSEEDRAPRPR	45	5,6	1	2099.12	2099.07	37	Striatum	1.19	0.17	3
Chromogranin B	357-374 + phosphate	GLQYRGRG-phosphoSEEDRAPRPR	47	4,5	1	2179.05	2179.07	23	Amygdala	0.90	0.05	3
Chromogranin B	357-374 + phosphate	GLQYRGRG-phosphoSEEDRAPRPR	47	4,5	1	2179.05	2179.07	23	Hippocampus	1.12	0.19	3
Chromogranin B	357-374 + phosphate	GLQYRGRG-phosphoSEEDRAPRPR	47	4,5	1	2179.05	2179.07	23	Hypothalamus	1.09	0.07	2
Chromogranin B	357-374 + phosphate	GLQYRGRG-phosphoSEEDRAPRPR	47	4,5	1	2179.05	2179.07	23	Prefrontal cortex	1.15	0.20	3
Chromogranin B	357-374 + phosphate	GLQYRGRG-phosphoSEEDRAPRPR	47	4,5	1	2179.05	2179.07	23	Striatum	0.97	0.15	3
Chromogranin B	357-374 + phosphate	GLQYRGRG-phosphoSEEDRAPRPR	47	4,5	1	2179.05	2179.07	23	Thalamus	1.07	0.21	3
Chromogranin B	64-83	(SGKEVKGEEKGENQNSKFEV)	55	7	5	2222.13	2222.08	36	Hippocampus	0.94		1
Chromogranin B	64-83	(SGKEVKGEEKGENQNSKFEV)	55	7	5	2222.13	2222.08	36	Prefrontal cortex	1.00	0.09	3
Chromogranin B	64-83	(SGKEVKGEEKGENQNSKFEV)	55	7	5	2222.13	2222.08	36	Striatum	1.10		1
Chromogranin B	64-83	(SGKEVKGEEKGENQNSKFEV)	55	7	5	2222.13	2222.08	36	Thalamus	1.02	0.05	2
Chromogranin B	516-535	LGALFNPYFDPLQWKNSDFE	82	2,3	1,2	2400.24	2400.15	-4	Amygdala	0.44	0.06	2
Chromogranin B	516-535	LGALFNPYFDPLQWKNSDFE	82	2,3	1,2	2400.24	2400.15	-4	Hippocampus	0.20	0.10	2
Chromogranin B	516-535	LGALFNPYFDPLQWKNSDFE	82	2,3	1,2	2400.24	2400.15	-4	Hypothalamus	0.49	0.07	4
Chromogranin B	309-330	(EERRPSPKESKEADVATVRLGE)	63	6	3	2482.30	2482.28	-11	Hippocampus	1.11		1
Chromogranin B	309-330	(EERRPSPKESKEADVATVRLGE)	63	6	3	2482.30	2482.28	-11	Prefrontal cortex	1.09	0.15	2
Chromogranin B	64-86	SGKEVKGEEKGENQNSKFEVRLL	57	5,6	4,5	2604.30	2604.35	6	Amygdala	<0.10		3
Chromogranin B	64-86	SGKEVKGEEKGENQNSKFEVRLL	57	5,6	4,5	2604.30	2604.35	6	Hippocampus	<0.10		3
Chromogranin B	64-86	SGKEVKGEEKGENQNSKFEVRLL	57	5,6	4,5	2604.30	2604.35	6	Hypothalamus	<0.10		3
Chromogranin B	64-86	SGKEVKGEEKGENQNSKFEVRLL	57	5,6	4,5	2604.30	2604.35	6	Prefrontal cortex	<0.10		2

Chromogranin B	64-86	SGKEVKGEEKGENQNSKFEVRLL	57	5,6	4,5	2604.30	2604.35	6	Striatum	<0.10		3
Chromogranin B	64-86	SGKEVKGEEKGENQNSKFEVRLL	57	5,6	4,5	2604.30	2604.35	6	Thalamus	<0.10		3
Procholecystokinin	56-63	ARLGALLA	61	2	1	783.49	783.50	-28	Amygdala	<0.10		3
Procholecystokinin	56-63	ARLGALLA	61	2	1	783.49	783.50	-28	Prefrontal cortex	<0.10		3
Procholecystokinin	52-62	(GEPRARLGALL)	55	3	1	1151.60	1151.68	8	Hippocampus	1.01	0.17	3
Procholecystokinin	52-62	(GEPRARLGALL)	55	3	1	1151.60	1151.68	8	Prefrontal cortex	1.02	0.01	2
Procholecystokinin	52-62	(GEPRARLGALL)	55	3	1	1151.60	1151.68	8	Striatum	0.87	0.15	3
Procholecystokinin	52-62	(GEPRARLGALL)	55	3	1	1151.60	1151.68	8	Thalamus	0.77	0.20	3
Procholecystokinin	46-58 amide	(AVLRTDGEPRARL-amide)	51	4	1	1451.81	1451.82	34	Amygdala	1.05	0.06	2
Procholecystokinin	46-58 amide	(AVLRTDGEPRARL-amide)	51	4	1	1451.81	1451.82	34	Hippocampus	0.87	0.20	3
Procholecystokinin	46-58 amide	(AVLRTDGEPRARL-amide)	51	4	1	1451.81	1451.82	34	Prefrontal cortex	0.92	0.09	3
Procholecystokinin	46-58 amide	(AVLRTDGEPRARL-amide)	51	4	1	1451.81	1451.82	34	Striatum	1.18	0.06	2
Procholecystokinin	46-58 amide	(AVLRTDGEPRARL-amide)	51	4	1	1451.81	1451.82	34	Thalamus	0.92	0.11	2
Procholecystokinin	43-55	(QLRAVLRTDGEPR)	52	4	1	1509.84	1509.84	36	Amygdala	0.87	0.19	2
Procholecystokinin	43-55	(QLRAVLRTDGEPR)	52	4	1	1509.84	1509.84	36	Hippocampus	1.08	0.04	2
Procholecystokinin	43-55	(QLRAVLRTDGEPR)	52	4	1	1509.84	1509.84	36	Prefrontal cortex	0.66	0.06	2
Procholecystokinin	43-55	(QLRAVLRTDGEPR)	52	4	1	1509.84	1509.84	36	Striatum	1.01	0.18	3
Procholecystokinin	43-55	(QLRAVLRTDGEPR)	52	4	1	1509.84	1509.84	36	Thalamus	0.63		1
Procholecystokinin	46-60	AVLRTDGEPRARLGA	52	4	1	1580.89	1580.88	25	Amygdala	0.91	0.25	3
Procholecystokinin	46-60	AVLRTDGEPRARLGA	52	4	1	1580.89	1580.88	25	Hippocampus	1.12		1
Procholecystokinin	46-60	AVLRTDGEPRARLGA	52	4	1	1580.89	1580.88	25	Prefrontal cortex	1.21	0.23	3
Procholecystokinin	46-60	AVLRTDGEPRARLGA	52	4	1	1580.89	1580.88	25	Striatum	1.14	0.15	3
Procholecystokinin	46-60	AVLRTDGEPRARLGA	52	4	1	1580.89	1580.88	25	Thalamus	0.85		1
Procholecystokinin	46-61	AVLRTDGEPRARLGAL	57	4	1	1693.95	1693.97	30	Amygdala	0.85	0.19	3
Procholecystokinin	46-61	AVLRTDGEPRARLGAL	57	4	1	1693.95	1693.97	30	Hippocampus	0.91	0.30	3
Procholecystokinin	46-61	AVLRTDGEPRARLGAL	57	4	1	1693.95	1693.97	30	Prefrontal cortex	1.10	0.17	3
Procholecystokinin	46-61	AVLRTDGEPRARLGAL	57	4	1	1693.95	1693.97	30	Striatum	1.04	0.31	2
Procholecystokinin	46-61	AVLRTDGEPRARLGAL	57	4	1	1693.95	1693.97	30	Thalamus	0.99	0.29	3
Procholecystokinin	46-62	AVLRTDGEPRARLGALL	60	4	1	1807.00	1807.04	8	Amygdala	1.00	0.14	3
Procholecystokinin	46-62	AVLRTDGEPRARLGALL	60	4	1	1807.00	1807.04	8	Hippocampus	0.87	0.19	3
Procholecystokinin	46-62	AVLRTDGEPRARLGALL	60	4	1	1807.00	1807.04	8	Hypothalamus	0.98	0.22	3
Procholecystokinin	46-62	AVLRTDGEPRARLGALL	60	4	1	1807.00	1807.04	8	Prefrontal cortex	1.18	0.28	3
Procholecystokinin	46-62	AVLRTDGEPRARLGALL	60	4	1	1807.00	1807.04	8	Striatum	0.99	0.28	2
Procholecystokinin	46-62	AVLRTDGEPRARLGALL	60	4	1	1807.00	1807.04	8	Thalamus	0.88	0.21	2
Procholecystokinin	46-63	AVLRTDGEPRARLGALLA	60	4	1	1878.06	1878.08	11	Amygdala	0.70	0.25	3
Procholecystokinin	46-63	AVLRTDGEPRARLGALLA	60	4	1	1878.06	1878.08	11	Hippocampus	0.87	0.11	2
Procholecystokinin	46-63	AVLRTDGEPRARLGALLA	60	4	1	1878.06	1878.08	11	Hypothalamus	0.67	0.18	3
Procholecystokinin	46-63	AVLRTDGEPRARLGALLA	60	4	1	1878.06	1878.08	11	Prefrontal cortex	0.84	0.23	3
Procholecystokinin	46-63	AVLRTDGEPRARLGALLA	60	4	1	1878.06	1878.08	11	Striatum	0.78	0.13	3
Procholecystokinin	46-63	AVLRTDGEPRARLGALLA	60	4	1	1878.06	1878.08	11	Thalamus	0.86		1
Procholecystokinin	43-60	(QLRAVLRTDGEPRARLGA)	51	5,6	1	1978.22	1978.12	9	Amygdala	<0.10		3
Procholecystokinin	43-60	(QLRAVLRTDGEPRARLGA)	51	5,6	1	1978.22	1978.12	9	Hippocampus	<0.10		1
Procholecystokinin	43-60	(QLRAVLRTDGEPRARLGA)	51	5,6	1	1978.22	1978.12	9	Hypothalamus	<0.10		3
Procholecystokinin	43-60	(QLRAVLRTDGEPRARLGA)	51	5,6	1	1978.22	1978.12	9	Prefrontal cortex	<0.10		2
Procholecystokinin	43-60	(QLRAVLRTDGEPRARLGA)	51	5,6	1	1978.22	1978.12	9	Thalamus	<0.10		2
Procholecystokinin	72-93	(APSGRMSVLKNLQSLDPSHRIS)	62	5	2	2392.19	2392.26	-8	Amygdala	<0.10		1
Procholecystokinin	72-93	(APSGRMSVLKNLQSLDPSHRIS)	62	5	2	2392.19	2392.26	-8	Hippocampus	<0.10		3

Procholecystokinin	72-93	(APSGRMSVLKNLQSLDPSHRIS)	62	5	2	2392.19	2392.26	-8	Prefrontal cortex	<0.10		3
Procholecystokinin	72-94	APSGRMSVLKNLQSLDPSHRISD	62	4,5	2	2507.29	2507.29	9	Amygdala	<0.10		3
Procholecystokinin	72-94	APSGRMSVLKNLQSLDPSHRISD	62	4,5	2	2507.29	2507.29	9	Hippocampus	<0.10		3
Procholecystokinin	72-94	APSGRMSVLKNLQSLDPSHRISD	62	4,5	2	2507.29	2507.29	9	Prefrontal cortex	<0.10		3
Procholecystokinin	71-94	KAPSGRMSVLKNLQSLDPSHRISD	60	5,6	3	2635.42	2635.39	-18	Amygdala	0.45	0.02	3
Procholecystokinin	71-94	KAPSGRMSVLKNLQSLDPSHRISD	60	5,6	3	2635.42	2635.39	-18	Hippocampus	0.41	0.03	2
Procholecystokinin	71-94	KAPSGRMSVLKNLQSLDPSHRISD	60	5,6	3	2635.42	2635.39	-18	Prefrontal cortex	0.39	0.10	3
Procholecystokinin	46-69	(AVLRTDGEPRARLGALLARYIQQV)	69	4,5	1	2665.51	2665.51	9	Amygdala	<0.10		3
Procholecystokinin	46-69	(AVLRTDGEPRARLGALLARYIQQV)	69	4,5	1	2665.51	2665.51	9	Hippocampus	<0.10		3
Procholecystokinin	46-69	(AVLRTDGEPRARLGALLARYIQQV)	69	4,5	1	2665.51	2665.51	9	Prefrontal cortex	<0.10		3
Procholecystokinin	46-69	(AVLRTDGEPRARLGALLARYIQQV)	69	4,5	1	2665.51	2665.51	9	Thalamus	<0.10		2
Procholecystokinin	65-94	(YIQQVRKAPSGRMSVLKNLQSLDPSHRISD)	61	7	3	3422.70	3422.82	-18	Prefrontal cortex	1.45	0.19	3
Prodynorphin	Dynorphin A8	YGGFLRRI	60	3	1	980.56	980.56	9	Amygdala	<0.10		3
Prodynorphin	Dynorphin A8	YGGFLRRI	60	3	1	980.56	980.56	9	Hippocampus	<0.10		3
Prodynorphin	Dynorphin A8	YGGFLRRI	60	3	1	980.56	980.56	9	Hypothalamus	<0.10		4
Prodynorphin	Dynorphin A8	YGGFLRRI	60	3	1	980.56	980.56	9	Prefrontal cortex	<0.10		3
Prodynorphin	Dynorphin A8	YGGFLRRI	60	3	1	980.56	980.56	9	Striatum	<0.10		3
Prodynorphin	Dynorphin A8	YGGFLRRI	60	3	1	980.56	980.56	9	Thalamus	<0.10		3
Prodynorphin	Dynorphin A10-17	PKLKWDNQ	54	3	3	1027.61	1027.55	8	Amygdala	<0.10		3
Prodynorphin	Dynorphin A10-17	PKLKWDNQ	54	3	3	1027.61	1027.55	8	Hippocampus	<0.10		1
Prodynorphin	Dynorphin A10-17	PKLKWDNQ	54	3	3	1027.61	1027.55	8	Prefrontal cortex	<0.10		2
Prodynorphin	Dynorphin A10-17	PKLKWDNQ	54	3	3	1027.61	1027.55	8	Thalamus	<0.10		1
Prodynorphin	Beta-neoendorphin	YGGFLRKYP	58	3	2	1099.62	1099.58	4	Hypothalamus	0.83	0.07	4
Prodynorphin	Beta-neoendorphin	YGGFLRKYP	58	3	2	1099.62	1099.58	4	Thalamus	0.83		1
Prodynorphin	Alpha-neoendorphin	YGGFLRKYPK	55	4	2,3	1227.66	1227.68	-6	Amygdala	0.36	0.11	3
Prodynorphin	Alpha-neoendorphin	YGGFLRKYPK	55	4	2,3	1227.66	1227.68	-6	Hippocampus	0.19	0.08	3
Prodynorphin	Alpha-neoendorphin	YGGFLRKYPK	55	4	2,3	1227.66	1227.68	-6	Hypothalamus	0.58	0.12	4
Prodynorphin	Alpha-neoendorphin	YGGFLRKYPK	55	4	2,3	1227.66	1227.68	-6	Prefrontal cortex	0.34	0.06	3
Prodynorphin	Alpha-neoendorphin	YGGFLRKYPK	55	4	2,3	1227.66	1227.68	-6	Striatum	0.22	0.07	3
Prodynorphin	Alpha-neoendorphin	YGGFLRKYPK	55	4	2,3	1227.66	1227.68	-6	Thalamus	0.21	0.04	3
Prodynorphin	Dynorphin B13	(YGGFLRRQFKVVT)	60	4	1,2	1569.89	1569.88	-13	Amygdala	<0.10		3
Prodynorphin	Dynorphin B13	(YGGFLRRQFKVVT)	60	4	1,2	1569.89	1569.88	-13	Hippocampus	<0.10		1
Prodynorphin	Dynorphin B13	(YGGFLRRQFKVVT)	60	4	1,2	1569.89	1569.88	-13	Hypothalamus	<0.10		3
Prodynorphin	Dynorphin B13	(YGGFLRRQFKVVT)	60	4	1,2	1569.89	1569.88	-13	Prefrontal cortex	<0.10		3
Prodynorphin	Dynorphin B13	(YGGFLRRQFKVVT)	60	4	1,2	1569.89	1569.88	-13	Thalamus	<0.10		3
Prodynorphin	Dynorphin A17	(YGGFLRRIRPKLKWDNQ)	58	6	3	2146.10	2146.19	2	Hippocampus	<0.10		1
Prodynorphin	Dynorphin A17	(YGGFLRRIRPKLKWDNQ)	58	6	3	2146.10	2146.19	2	Thalamus	<0.10		1
Proenkephalin	Leu-Enkephalin	YGGFL	67	1	1	555.25	555.27	-11	Amygdala	<0.10		3
Proenkephalin	Leu-Enkephalin	YGGFL	67	1	1	555.25	555.27	-11	Striatum	<0.10		3
Proenkephalin	Heptapeptide	YGGFMRF	65	2	1	876.38	876.40	-6	Amygdala	0.42	0.12	3
Proenkephalin	Heptapeptide	YGGFMRF	65	2	1	876.38	876.40	-6	Hippocampus	0.34	0.15	3
Proenkephalin	Heptapeptide	YGGFMRF	65	2	1	876.38	876.40	-6	Hypothalamus	0.53	0.07	4
Proenkephalin	Heptapeptide	YGGFMRF	65	2	1	876.38	876.40	-6	Prefrontal cortex	0.69	0.09	3
Proenkephalin	Heptapeptide	YGGFMRF	65	2	1	876.38	876.40	-6	Striatum	0.20	0.02	2
Proenkephalin	Heptapeptide	YGGFMRF	65	2	1	876.38	876.40	-6	Thalamus	0.24	0.01	2
Proenkephalin	Octapeptide	YGGFMRSL	63	2	1	929.42	929.45	-13	Amygdala	<0.10		3
Proenkephalin	Octapeptide	YGGFMRSL	63	2	1	929.42	929.45	-13	Hippocampus	<0.10		3

Proenkephalin	Octapeptide	YGGFMRSL	63	2	1	929.42	929.45	-13	Hypothalamus	<0.10		3
Proenkephalin	Octapeptide	YGGFMRSL	63	2	1	929.42	929.45	-13	Striatum	<0.10		3
Proenkephalin	Octapeptide	YGGFMRSL	63	2	1	929.42	929.45	-13	Thalamus	<0.10		3
Proenkephalin	Metorphamide	YGGFMRRV-amide	55	3	1	983.50	983.50	24	Thalamus	<0.10		1
Proenkephalin	Metorphamide precursor	YGGFMRRVGR	53	4	1	1197.60	1197.62	1	Thalamus	<0.10		1
Proenkephalin	197-208	SPQLEDEAKELQ	57	2,3	2	1385.74	1385.67	-16	Hypothalamus	0.74	0.07	4
Proenkephalin	218-228	VGRPEWWMDYQ	67	2	1	1465.63	1465.65	3	Amygdala	<0.10		3
Proenkephalin	218-228	VGRPEWWMDYQ	67	2	1	1465.63	1465.65	3	Hippocampus	<0.10		2
Proenkephalin	218-228	VGRPEWWMDYQ	67	2	1	1465.63	1465.65	3	Hypothalamus	<0.10		4
Proenkephalin	218-228	VGRPEWWMDYQ	67	2	1	1465.63	1465.65	3	Prefrontal cortex	<0.10		2
Proenkephalin	218-228	VGRPEWWMDYQ	67	2	1	1465.63	1465.65	3	Striatum	<0.10		3
Proenkephalin	218-228	VGRPEWWMDYQ	67	2	1	1465.63	1465.65	3	Thalamus	<0.10		3
Proenkephalin	238-261	FAESLPSDEEGENYSKEVPEIE	66	3	2	2497.19	2497.10	-14	Hypothalamus	0.55	0.07	3
Proenkephalin	238-261 + phosphate	FAESLP-phosphoS-DEEGENYSKEVPEIE	68	2,3	1,2	2577.11	2577.06	22	Hypothalamus	0.57	0.07	4
Progastrin releasing peptide	43-52 amide	(GSHWAVGHLM-amide)	58	3	1	1092.52	1092.51	-5	Prefrontal cortex	<0.10		2
Progastrin releasing peptide	24-41	(APVSTGAGGGTVLAKMYP)	80	2	2	1675.89	1675.86	-35	Hypothalamus	1.04	0.14	2
Prohormone convertase 1	619-628	GVEKMVNVVE	59	2	2	1102.64	1102.57	-1	Hypothalamus	<0.10		3
Prohormone convertase 1	90-108	LSDDDRVTWAEQQYEKERS	59	4	2	2354.25	2354.07	26	Hippocampus	0.97		1
Prohormone convertase 1	90-108	LSDDDRVTWAEQQYEKERS	59	4	2	2354.25	2354.07	26	Hypothalamus	1.01	0.24	3
Prohormone convertase 2	C-terminal fragment	SLQSILRKN	57	3	2	1057.60	1057.62	5	Amygdala	<0.10		3
Prohormone convertase 2	C-terminal fragment	SLQSILRKN	57	3	2	1057.60	1057.62	5	Hippocampus	<0.10		3
Prohormone convertase 2	C-terminal fragment	SLQSILRKN	57	3	2	1057.60	1057.62	5	Hypothalamus	<0.10		2
Prohormone convertase 2	C-terminal fragment	SLQSILRKN	57	3	2	1057.60	1057.62	5	Prefrontal cortex	<0.10		3
Prohormone convertase 2	C-terminal fragment	SLQSILRKN	57	3	2	1057.60	1057.62	5	Striatum	<0.10		3
Prohormone convertase 2	C-terminal fragment	SLQSILRKN	57	3	2	1057.60	1057.62	5	Thalamus	<0.10		3
Prohormone convertase 2	94-104	IKMALQQEGFD	63	2	2	1278.69	1278.64	-22	Amygdala	<0.10		2
Prohormone convertase 2	94-104	IKMALQQEGFD	63	2	2	1278.69	1278.64	-22	Hippocampus	<0.10		1
Prohormone convertase 2	94-104	IKMALQQEGFD	63	2	2	1278.69	1278.64	-22	Hypothalamus	<0.10		2
Prohormone convertase 2	94-104	IKMALQQEGFD	63	2	2	1278.69	1278.64	-22	Prefrontal cortex	<0.10		2
Prohormone convertase 2	C-terminal fragment	pyroE-ELEEELDEAVERSLQSILRKN	89	3	1	2610.50	2610.31	22	Hypothalamus	<0.10		4
Promelanin concentrating hor	Neuropeptide EI	EIGDEENSAKFPI-amide	59	2,3	1,2	1446.74	1446.68	8	Hippocampus	<0.10		2
Promelanin concentrating hor	Neuropeptide EI	EIGDEENSAKFPI-amide	59	2,3	1,2	1446.74	1446.68	8	Hypothalamus	<0.10		4
Promelanin concentrating hor	Neuropeptide EI	EIGDEENSAKFPI-amide	59	2,3	1,2	1446.74	1446.68	8	Prefrontal cortex	<0.10		2
Proneurotensin	Neuromedin N	KIPYIL	63	2	1,2	745.44	745.47	-15	Amygdala	0.51	0.23	2
Proneurotensin	Neuromedin N	KIPYIL	63	2	1,2	745.44	745.47	-15	Hippocampus	0.61	0.17	3
Proneurotensin	Neuromedin N	KIPYIL	63	2	1,2	745.44	745.47	-15	Hypothalamus	0.64	0.17	4
Proneurotensin	Neuromedin N	KIPYIL	63	2	1,2	745.44	745.47	-15	Striatum	0.51	0.14	3
Proneurotensin	Neuromedin N	KIPYIL	63	2	1,2	745.44	745.47	-15	Thalamus	0.55	0.10	2
Proneurotensin	Neurotensin	pELYENKPRRPYIL	59	3	1	1671.93	1671.91	11	Amygdala	1.18	0.23	3
Proneurotensin	Neurotensin	pELYENKPRRPYIL	59	3	1	1671.93	1671.91	11	Hypothalamus	0.74	0.10	4
Proneurotensin	Neurotensin	pELYENKPRRPYIL	59	3	1	1671.93	1671.91	11	Striatum	0.75	0.10	2
Proneurotensin	Neurotensin	pELYENKPRRPYIL	59	3	1	1671.93	1671.91	11	Thalamus	0.68	0.13	2
Pronociceptin/orphanin FQ	Nociceptin	FGGFTGARKSARKLANQ	54	4,5	3	1808.07	1807.98	17	Amygdala	0.48	0.21	3
Pronociceptin/orphanin FQ	Nociceptin	FGGFTGARKSARKLANQ	54	4,5	3	1808.07	1807.98	17	Hippocampus	<0.10		1
Pronociceptin/orphanin FQ	Nociceptin	FGGFTGARKSARKLANQ	54	4,5	3	1808.07	1807.98	17	Prefrontal cortex	<0.10		3
Pronociceptin/orphanin FQ	Nociceptin	FGGFTGARKSARKLANQ	54	4,5	3	1808.07	1807.98	17	Thalamus	0.31		1
ProNPY	C-terminal region	SSPETLISDLLMKESTENAPRTRLEDPSMW	76	4	2	3432.57	3432.65	-3	Amygdala	1.01	0.04	2

ProNPY	C-terminal region	SSPETLISDLLMKESTENAPRTRLEDPSMW	76	4	2	3432.57	3432.65	-3	Hippocampus	0.79	0.12	3
ProNPY	C-terminal region	SSPETLISDLLMKESTENAPRTRLEDPSMW	76	4	2	3432.57	3432.65	-3	Hypothalamus	1.07	0.16	4
ProNPY	C-terminal region	SSPETLISDLLMKESTENAPRTRLEDPSMW	76	4	2	3432.57	3432.65	-3	Prefrontal cortex	0.44	0.05	2
ProNPY	C-terminal region	SSPETLISDLLMKESTENAPRTRLEDPSMW	76	4	2	3432.57	3432.65	-3	Striatum	0.83	0.28	3
ProNPY	C-terminal region	SSPETLISDLLMKESTENAPRTRLEDPSMW	76	4	2	3432.57	3432.65	-3	Thalamus	0.88	0.28	3
ProNPY	NPY	(YPSKPDNPGEDAPAEDMARYYSALRHYINLITRQ	72	7	2	4271.58	4271.73	-42	Prefrontal cortex	0.43	0.08	2
Proopiomelanocortin	Des-acetyl-MSH	SYSMEHFRWGKPV-amide	57	4	1	1621.92	1621.77	38	Hypothalamus	<0.10		4
Proopiomelanocortin	Alpha-MSH	Ac-SYSMEHFRWGKPV-amide	60	2,3	1	1663.86	1663.79	-6	Hypothalamus	<0.10		4
Proopiomelanocortin	Alpha-MSH (oxidized)	Ac-SYS-Mox-EHFRWGKPV-amide	58	3	1	1679.93	1679.80	22	Hypothalamus	<0.10		2
Proopiomelanocortin	J-peptide	AEEEAVWGDGSPEPSPRE-amide	57	2,3	1	1940.01	1939.86	22	Hypothalamus	0.37	0.01	3
Proopiomelanocortin	CLIP	RPVKVYPNVAENESAEAFPLEF	68	3	1,2	2505.43	2505.26	12	Hypothalamus	<0.10		4
Proopiomelanocortin	CLIP + phosphate	RPVKVYPNVAENE-phosphoS-AEAFPLEF	71	3	2	2585.42	2585.23	20	Hypothalamus	<0.10		2
Proopiomelanocortin	165-189	(ELEGERPLGLEQVLESDAEKDDGPY)	85	2	2	2787.50	2787.31	1	Hypothalamus	0.52	0.10	4
Propeptidyl-amidating-monoo	Cleaved pro peptide	FRSPLSVF	68	2	1	951.49	951.53	-14	Amygdala	0.94	0.12	2
Propeptidyl-amidating-monoo	Cleaved pro peptide	FRSPLSVF	68	2	1	951.49	951.53	-14	Hippocampus	0.73	0.08	3
Propeptidyl-amidating-monoo	Cleaved pro peptide	FRSPLSVF	68	2	1	951.49	951.53	-14	Hypothalamus	0.79	0.12	4
Propeptidyl-amidating-monoo	Cleaved pro peptide	FRSPLSVF	68	2	1	951.49	951.53	-14	Prefrontal cortex	0.92	0.23	3
Propeptidyl-amidating-monoo	Cleaved pro peptide	FRSPLSVF	68	2	1	951.49	951.53	-14	Striatum	0.80	0.18	2
Propeptidyl-amidating-monoo	Cleaved pro peptide	FRSPLSVF	68	2	1	951.49	951.53	-14	Thalamus	0.77	0.32	2
ProSAAS	Little SAAS 5-18	ASAPLVETSTPLRL	65	2	1	1453.85	1453.81	6	Hypothalamus	0.86	0.13	4
ProSAAS	Little SAAS 5-18	ASAPLVETSTPLRL	65	2	1	1453.85	1453.81	9	Thalamus	0.74	0.08	2
ProSAAS	Little SAAS 1-16	SLSAASAPLVETSTPL	67	2	1	1542.80	1542.81	1	Amygdala	1.03	0.09	3
ProSAAS	Little SAAS 1-16	SLSAASAPLVETSTPL	67	2	1	1542.80	1542.81	1	Hippocampus	1.15	0.29	3
ProSAAS	Little SAAS 1-16	SLSAASAPLVETSTPL	67	2	1	1542.80	1542.81	1	Hypothalamus	0.90	0.14	4
ProSAAS	Little SAAS 1-16	SLSAASAPLVETSTPL	67	2	1	1542.80	1542.81	1	Prefrontal cortex	0.87		1
ProSAAS	Little SAAS 1-16	SLSAASAPLVETSTPL	67	2	1	1542.80	1542.81	1	Striatum	0.89	0.18	3
ProSAAS	Little SAAS 1-16	SLSAASAPLVETSTPL	67	2	1	1542.80	1542.81	1	Thalamus	0.84	0.23	3
ProSAAS	Big LEN 1-15	(LENPSPQAPARRLLP)	58	3	1	1657.96	1657.93	6	Hypothalamus	0.82	0.10	4
ProSAAS	Big LEN 1-15	(LENPSPQAPARRLLP)	58	3	1	1657.96	1657.93	6	Thalamus	0.75	0.09	2
ProSAAS	Big LEN	LENPSPQAPARRLLPP	58	3	1	1754.97	1754.98	9	Amygdala	0.88	0.14	3
ProSAAS	Big LEN	LENPSPQAPARRLLPP	58	3	1	1754.97	1754.98	9	Hippocampus	0.84	0.06	3
ProSAAS	Big LEN	LENPSPQAPARRLLPP	58	3	1	1754.97	1754.98	9	Hypothalamus	0.80	0.06	4
ProSAAS	Big LEN	LENPSPQAPARRLLPP	58	3	1	1754.97	1754.98	9	Prefrontal cortex	0.84	0.18	2
ProSAAS	Big LEN	LENPSPQAPARRLLPP	58	3	1	1754.97	1754.98	9	Striatum	0.65	0.09	3
ProSAAS	Big LEN	LENPSPQAPARRLLPP	58	3	1	1754.97	1754.98	9	Thalamus	0.74	0.14	3
ProSAAS	Little SAAS	SLSAASAPLVETSTPLRL	68	2,3	1	1811.96	1812.01	-5	Amygdala	0.82	0.16	3
ProSAAS	Little SAAS	SLSAASAPLVETSTPLRL	68	2,3	1	1811.96	1812.01	-5	Hippocampus	0.78	0.10	3
ProSAAS	Little SAAS	SLSAASAPLVETSTPLRL	68	2,3	1	1811.96	1812.01	-5	Hypothalamus	0.81	0.12	4
ProSAAS	Little SAAS	SLSAASAPLVETSTPLRL	68	2,3	1	1811.96	1812.01	-5	Prefrontal cortex	0.87	0.14	3
ProSAAS	Little SAAS	SLSAASAPLVETSTPLRL	68	2,3	1	1811.96	1812.01	-5	Striatum	0.78	0.15	3
ProSAAS	Little SAAS	SLSAASAPLVETSTPLRL	68	2,3	1	1811.96	1812.01	-5	Thalamus	0.68	0.20	3
ProSAAS	PEN-20	SVDQDLGPEVPPENVLGALL	82	2	1	2061.30	2061.06	6	Hypothalamus	0.87		1
ProSAAS	PEN	SVDQDLGPEVPPENVLGALLRV	82	2,3	1	2316.37	2316.23	-4	Amygdala	0.97	0.06	2
ProSAAS	PEN	SVDQDLGPEVPPENVLGALLRV	82	2,3	1	2316.37	2316.23	-5	Hypothalamus	0.76	0.08	4
ProSAAS	Big SAAS 1-24	ARPVKEPRSLSAASAPLVETSTPL	59	4	2	2476.55	2476.37	23	Hypothalamus	0.76	0.07	4
ProSAAS	GAV 5-28	GEAAGAVQELARALAHLLEAERQE	81	4	1	2531.32	2531.31	-4	Amygdala	0.91	0.11	3

ProSAAS	GAV 5-28	GEAAGAVQELARALAHLLEAERQE	81	4	1	2531.32	2531.31	-4	Hippocampus	0.91	0.00	2
ProSAAS	GAV 5-28	GEAAGAVQELARALAHLLEAERQE	81	4	1	2531.32	2531.31	-4	Hypothalamus	0.92	0.10	4
ProSAAS	GAV 5-28	GEAAGAVQELARALAHLLEAERQE	81	4	1	2531.32	2531.31	-4	Striatum	0.91		1
ProSAAS	GAV 5-28	GEAAGAVQELARALAHLLEAERQE	81	4	1	2531.32	2531.31	-4	Thalamus	0.62	0.21	3
ProSAAS	Big SAAS	ARPVKEPRSLSAASAPLVETSTPLRL	61	4,5	2	2745.50	2745.55	3	Amygdala	0.81	0.10	3
ProSAAS	Big SAAS	ARPVKEPRSLSAASAPLVETSTPLRL	61	4,5	2	2745.50	2745.55	3	Hippocampus	0.95	0.24	3
ProSAAS	Big SAAS	ARPVKEPRSLSAASAPLVETSTPLRL	61	4,5	2	2745.50	2745.55	3	Hypothalamus	0.60	0.03	2
ProSAAS	Big SAAS	ARPVKEPRSLSAASAPLVETSTPLRL	61	4,5	2	2745.50	2745.55	3	Prefrontal cortex	1.06	0.13	2
ProSAAS	Big SAAS	ARPVKEPRSLSAASAPLVETSTPLRL	61	4,5	2	2745.50	2745.55	3	Striatum	0.57	0.13	3
ProSAAS	Big SAAS	ARPVKEPRSLSAASAPLVETSTPLRL	61	4,5	2	2745.50	2745.55	3	Thalamus	0.46	0.02	2
ProSAAS	GAV	AVPRGEAAGAVQELARALAHLLEAERQE	78	4,5	1	2954.49	2954.58	-1	Amygdala	0.61	0.08	3
ProSAAS	GAV	AVPRGEAAGAVQELARALAHLLEAERQE	78	4,5	1	2954.49	2954.58	-1	Hippocampus	0.63	0.10	3
ProSAAS	GAV	AVPRGEAAGAVQELARALAHLLEAERQE	78	4,5	1	2954.49	2954.58	-1	Hypothalamus	0.67	0.07	4
ProSAAS	GAV	AVPRGEAAGAVQELARALAHLLEAERQE	78	4,5	1	2954.49	2954.58	-1	Prefrontal cortex	0.49	0.13	3
ProSAAS	GAV	AVPRGEAAGAVQELARALAHLLEAERQE	78	4,5	1	2954.49	2954.58	-1	Striatum	0.53	0.10	3
ProSAAS	GAV	AVPRGEAAGAVQELARALAHLLEAERQE	78	4,5	1	2954.49	2954.58	-1	Thalamus	0.72	0.08	3
ProSAAS	62-91	(AVPRGEAAGAVQELARALAHLLEAERQERA)	75	6	1	3181.48	3181.71	34	Striatum	0.99	0.09	2
ProSAAS	62-91	(AVPRGEAAGAVQELARALAHLLEAERQERA)	75	6	1	3181.48	3181.71	34	Thalamus	1.18	0.16	3
Protachykinin A	Neurokinin A	HKTDSFVGLM-amide	59	3	2	1132.54	1132.55	12	Amygdala	0.55	0.22	3
Protachykinin A	Neurokinin A	HKTDSFVGLM-amide	59	3	2	1132.54	1132.55	12	Hippocampus	0.33	0.01	2
Protachykinin A	Neurokinin A	HKTDSFVGLM-amide	59	3	2	1132.54	1132.55	12	Hypothalamus	0.55	0.13	3
Protachykinin A	Neurokinin A	HKTDSFVGLM-amide	59	3	2	1132.54	1132.55	12	Striatum	0.28	0.09	3
Protachykinin A	Neurokinin A	HKTDSFVGLM-amide	59	3	2	1132.54	1132.55	12	Thalamus	0.33	0.13	3
Protachykinin A	Substance P	RPKPQQFFGLM-amide	62	2,3	1,2	1346.71	1346.74	-6	Amygdala	0.76	0.14	3
Protachykinin A	Substance P	RPKPQQFFGLM-amide	62	2,3	1,2	1346.71	1346.74	-6	Hippocampus	0.57	0.11	3
Protachykinin A	Substance P	RPKPQQFFGLM-amide	62	2,3	1,2	1346.71	1346.74	-6	Hypothalamus	0.74	0.12	4
Protachykinin A	Substance P	RPKPQQFFGLM-amide	62	2,3	1,2	1346.71	1346.74	-6	Striatum	0.45	0.13	3
Protachykinin A	Substance P	RPKPQQFFGLM-amide	62	2,3	1,2	1346.71	1346.74	-6	Thalamus	0.58	0.16	3
Protachykinin A	C-terminal flanking peptide	ALNSVAYERSAMQNYE	60	2,3	1	1844.85	1844.84	26	Hypothalamus	0.64	0.15	4
Protachykinin A	C-terminal flanking peptide	ALNSVAYERSAMQNYE	60	2,3	1	1844.85	1844.84	26	Striatum	0.41	0.02	2
Protachykinin A	C-terminal flanking peptide	ALNSVAYERSAMQNYE	60	2,3	1	1844.85	1844.84	26	Thalamus	0.56	0.04	2
Protachykinin A	72-95	DADSSVEKQVALLKALYGHGQISH	67	5	3	2565.34	2565.32	20	Hippocampus	<0.10		1
Protachykinin A	72-95	DADSSVEKQVALLKALYGHGQISH	67	5	3	2565.34	2565.32	20	Thalamus	<0.10		1
Protachykinin B	Neurokinin B	DMHDFFVGLM-amide	76	2	1	1209.52	1209.52	24	Hypothalamus	0.85	0.20	4
Protachykinin B	Neurokinin B	DMHDFFVGLM-amide	76	2	1	1209.52	1209.52	24	Prefrontal cortex	0.88	0.10	2
Protachykinin B	Neurokinin B	DMHDFFVGLM-amide	76	2	1	1209.52	1209.52	24	Striatum	0.81	0.17	2
Protachykinin B	Neurokinin B	DMHDFFVGLM-amide	76	2	1	1209.52	1209.52	24	Thalamus	0.82		1
Prothyrotropin releasing horm	160-169	SFPWMESDVT	71	1	1	1197.55	1197.50	-9	Hypothalamus	0.84	0.15	4
Prothyrotropin releasing horm	57-74	DLQRVRGDLGAALDSWIT	74	3	1	1985.17	1985.03	18	Hypothalamus	1.02	0.09	4
Prothyrotropin releasing horm	178-200	FIDPELQRSWEETEGEEGGLMPE	74	2	1	2677.34	2677.19	7	Hypothalamus	0.97	0.07	4
Prothyrotropin releasing horm	25-50	LLEAAQEEGAVTPDLPGLEKVQVRPE	69	3,4	2	2787.48	2787.48	-13	Amygdala	1.05	0.29	3
Prothyrotropin releasing horm	25-50	LLEAAQEEGAVTPDLPGLEKVQVRPE	69	3,4	2	2787.48	2787.48	-13	Hypothalamus	0.86	0.06	4
Prothyrotropin releasing horm	25-50	LLEAAQEEGAVTPDLPGLEKVQVRPE	69	3,4	2	2787.48	2787.48	-13	Striatum	0.98	0.23	2
Prothyrotropin releasing horm	25-50	LLEAAQEEGAVTPDLPGLEKVQVRPE	69	3,4	2	2787.48	2787.48	-13	Thalamus	0.91	0.13	2
ProVasoactive Intestinal Pept	111-122	ISSSISEDPVPI	67	2	1	1242.70	1242.63	-17	Hypothalamus	<0.10		3
ProVasoactive Intestinal Pept	111-122	ISSSISEDPVPI	67	2	1	1242.70	1242.63	-17	Prefrontal cortex	<0.10		2

Provasopressin	151-165	VQLAGTRESVDSAKP	52	3	2	1556.82	1556.82	-3	Hypothalamus	0.93		1
Provasopressin	154-end	(AGTRESVDSAKPRVY)	51	4	2	1634.94	1634.84	4	Hypothalamus	0.78	0.11	2
Provasopressin	154-end	(AGTRESVDSAKPRVY)	51	4	2	1634.94	1634.84	4	Thalamus	0.88		1
Provasopressin	151-end	VQLAGTRESVDSAKPRVY	55	3,4	1,2	1975.12	1975.05	8	Amygdala	1.32	0.12	2
Provasopressin	151-end	VQLAGTRESVDSAKPRVY	55	3,4	1,2	1975.12	1975.05	8	Hypothalamus	0.93	0.20	4
Provasopressin	151-end	VQLAGTRESVDSAKPRVY	55	3,4	1,2	1975.12	1975.05	8	Striatum	0.82	0.35	2
Provasopressin	151-end	VQLAGTRESVDSAKPRVY	55	3,4	1,2	1975.12	1975.05	8	Thalamus	0.72	0.15	3
Secretogranin II	300-316	ESKDQLSEDASKVITYL	70	3	3	1924.95	1924.96	-3	Amygdala	1.09	0.11	3
Secretogranin II	300-316	ESKDQLSEDASKVITYL	70	3	3	1924.95	1924.96	-3	Hippocampus	1.20	0.12	3
Secretogranin II	300-316	ESKDQLSEDASKVITYL	70	3	3	1924.95	1924.96	-3	Hypothalamus	0.97	0.14	4
Secretogranin II	300-316	ESKDQLSEDASKVITYL	70	3	3	1924.95	1924.96	-3	Prefrontal cortex	1.04	0.08	2
Secretogranin II	300-316	ESKDQLSEDASKVITYL	70	3	3	1924.95	1924.96	-3	Striatum	1.31	0.21	2
Secretogranin II	300-316	ESKDQLSEDASKVITYL	70	3	3	1924.95	1924.96	-3	Thalamus	0.95	0.16	3
Secretogranin II	569-610	IPVGSLKNEDTPNRQYLDEDMLLKVLEYLNQEQA	76	5,6	2,3	4895.73	4895.44	-8	Hypothalamus	0.54	0.05	4
Secretogranin III	23-36	FPKPEGSQDKSLHN	51	4	3	1582.73	1582.77	16	Amygdala	0.96	0.12	3
Secretogranin III	23-36	FPKPEGSQDKSLHN	51	4	3	1582.73	1582.77	16	Hippocampus	1.03	0.12	3
Secretogranin III	23-36	FPKPEGSQDKSLHN	51	4	3	1582.73	1582.77	16	Hypothalamus	0.91	0.14	3
Secretogranin III	23-36	FPKPEGSQDKSLHN	51	4	3	1582.73	1582.77	16	Prefrontal cortex	0.96	0.24	3
Secretogranin III	23-36	FPKPEGSQDKSLHN	51	4	3	1582.73	1582.77	16	Striatum	0.91	0.26	3
Secretogranin III	23-36	FPKPEGSQDKSLHN	51	4	3	1582.73	1582.77	16	Thalamus	0.87	0.18	3
VGF	489-507	NAPPEPVPPPRAAPAPTHV	54	3	1	1914.00	1914.01	16	Amygdala	0.60	0.16	3
VGF	489-507	NAPPEPVPPPRAAPAPTHV	54	3	1	1914.00	1914.01	16	Hippocampus	0.52	0.06	3
VGF	489-507	NAPPEPVPPPRAAPAPTHV	54	3	1	1914.00	1914.01	16	Hypothalamus	0.79	0.12	2
VGF	489-507	NAPPEPVPPPRAAPAPTHV	54	3	1	1914.00	1914.01	16	Prefrontal cortex	0.45	0.09	3
VGF	489-507	NAPPEPVPPPRAAPAPTHV	54	3	1	1914.00	1914.01	16	Striatum	0.42	0.15	2
VGF	489-507	NAPPEPVPPPRAAPAPTHV	54	3	1	1914.00	1914.01	16	Thalamus	0.47	0.22	3
VGF	487-507	KKNAPPEPVPPPRAAPAPTHV	51	5	3	2170.21	2170.20	4	Amygdala	<0.10		3
VGF	487-507	KKNAPPEPVPPPRAAPAPTHV	51	5	3	2170.21	2170.20	4	Hippocampus	<0.10		3
VGF	487-507	KKNAPPEPVPPPRAAPAPTHV	51	5	3	2170.21	2170.20	4	Hypothalamus	<0.10		4
VGF	487-507	KKNAPPEPVPPPRAAPAPTHV	51	5	3	2170.21	2170.20	4	Prefrontal cortex	<0.10		3
VGF	487-507	KKNAPPEPVPPPRAAPAPTHV	51	5	3	2170.21	2170.20	4	Thalamus	<0.10		3
VGF	285-310	(LEGSFLGGSEAGERLLQQGLAQVEA-amide)	78	3	1	2557.20	2557.32	3	Hypothalamus	0.68	0.08	4
VGF	285-310	(LEGSFLGGSEAGERLLQQGLAQVEA-amide)	78	3	1	2557.20	2557.32	3	Striatum	0.40		1
VGF	285-310	(LEGSFLGGSEAGERLLQQGLAQVEA-amide)	78	3	1	2557.20	2557.32	3	Thalamus	0.66	0.15	3
VGF	180-209	(QQETAAAETETRTHTLTRVNLESPGPERVW)	60	5	1	3406.70	3406.69	-16	Hippocampus	<0.10		1
VGF	180-209	(QQETAAAETETRTHTLTRVNLESPGPERVW)	60	5	1	3406.70	3406.69	-16	Prefrontal cortex	<0.10		2
VGF	588-617	(AQEEADAEERRLQEQEELENYIEHVLLHRP)	70	6	1	3672.55	3672.78	4	Hippocampus	0.44		1
VGF	588-617	(AQEEADAEERRLQEQEELENYIEHVLLHRP)	70	6	1	3672.55	3672.78	4	Prefrontal cortex	0.29	0.05	2
VGF	588-617	(AQEEADAEERRLQEQEELENYIEHVLLHRP)	70	6	1	3672.55	3672.78	4	Striatum	0.26	0.01	3
VGF	588-617	(AQEEADAEERRLQEQEELENYIEHVLLHRP)	70	6	1	3672.55	3672.78	4	Thalamus	0.44	0.07	3

Supplemental Table S-2. Neuropeptides and other secretory pathway peptides detected in wild type mouse brain but not detectable in PC2 KO mouse brain.

Precursor	Peptide Name	N-term Flanking	Peptide Sequence	C-term Flanking	Theor. Mass	Region	PC2:WT Avg	n
7B2	167-176	*KWNKK*	(LLYEKMKGGQ)	*RRKRR*	1165.60	PC, T	<0.10	3
CART	33-50	*RRQLR*	APGAMLQIEALQEVLKKL	*KSKRI*	1951.12	A, Hy, T	<0.13	9
CART	33-52	*RRQLR*	APGAMLQIEALQEVLKKLKS	*KRIPI*	2166.25	A, Hy, T	<0.10	5
Chromogranin A	392-402	*SFRTR*	AYGFRDPGPQL	*RRGWR*	1219.60	Hi, Hy, PC	<0.10	8
Chromogranin A	358-371	*WEDKR*	WSRMDQLAKELTAE	*KRLEG*	1676.82	A, Hi, Hy, PC, T	<0.10	13
Chromogranin A	374-390	*TAEKR*	LEGEDDPDRSMKLSFRT	*RAYGF*	1994.94	A, Hi, Hy, PC, S, T	<0.10	16
Chromogranin B	457-466	*DTAKR*	YPQSKWQEQE	*KNYLN*	1321.59	Hi, PC	<0.10	2
Chromogranin B	600-613	*LDLKR*	QYDGVAELDQLLHY	*RKKAD*	1662.79	A, Hi, PC, T	<0.10	9
Chromogranin B	438-453	*REEKR*	LLDEGHYPVRESPIDT	*AKRYP*	1839.90	A, Hi, Hy, S	<0.10	11
Chromogranin B	438-454	*REEKR*	LLDEGHYPVRESPIDTA	*KRYPQ*	1910.93	A, Hi, Hy, PC, S, T	<0.10	17
Chromogranin B	313-330	*SEERR*	PSPKESKEADVATVRLGE	*KRSHH*	1911.99	A, Hi, PC, T	<0.10	9
Chromogranin B	64-86	*QVLKK*	SGKEVKGEEKGENQNSKFEVRLL	*RDPAD*	2604.35	A, Hi, Hy, PC, S, T	<0.10	17
Procholecystokinin	56-63	*DGEPR*	ARLGALLA	*RYIQQ*	783.50	A, PC	<0.10	6
Procholecystokinin	43-60	*EAPRR*	(QLRAVLRTDGEPRARLGA)	*RYIQQ*	1978.12	A, Hi, Hy, PC, T	<0.10	11
Procholecystokinin	72-93	*APRRK*	(APSGRMSVLKNLQSLDPSHRIS)	*DRDYM*	2392.26	A, Hi, PC	<0.10	7
Procholecystokinin	72-94	*APRRK*	APSGRMSVLKNLQSLDPSHRISD	*RDYMG*	2507.29	A, Hi, PC	<0.10	9
Procholecystokinin	46-69	*RRQLR*	(AVLRTDGEPRARLGALLARYIQQV)	*RKAPS*	2665.51	A, Hi, PC, T	<0.10	11
Prodynorphin	Dynorphin A8	*DLYKR*	YGGFLRRI	*RPKLK*	980.56	A, Hi, Hy, PC, S, T	<0.10	19
Prodynorphin	Dynorphin A10-17	*LRRIR*	PKLKWDNQ	*KRYGG*	1027.55	A, Hi, PC, T	<0.10	7
Prodynorphin	Dynorphin B13	*DNQKR*	(YGGFLRRQFKVVT)	*RSQEN*	1569.88	A, Hi, Hy, PC, T	<0.10	13
Prodynorphin	Dynorphin A17	*DLYKR*	(YGGFLRRIRPKLKWDNQ)	*KRYGG*	2146.19	Hi, T	<0.10	2
Proenkephalin	Leu-Enkephalin	*DYQKR*	YGGFL	*KRFAE*	555.27	A, S	<0.10	6
Proenkephalin	Octapeptide	*MSSKR*	YGGFMRSL	*KRSPQ*	929.45	A, Hi, Hy, S, T	<0.10	15
Proenkephalin	Metorphamide	*ELQKR*	YGGFMRRV-amide	*GRPEW*	983.50	T	<0.10	1
Proenkephalin	Metorphamide precursor	*ELQKR*	YGGFMRRVGR	*PEWWM*	1197.62	T	<0.10	1
Proenkephalin	218-228	*GFMRR*	VGRPEWWMDYQ	*KRYGG*	1465.65	A, Hi, Hy, PC, S, T	<0.10	17
Progastrin Releasing Peptide	43-52 amide	*KMYPR*	(GSHWAVGHLM-amide)	*GKKST*	1092.51	PC	<0.10	2
Prohormone Convertase 1/3	619-628	*QNDRR*	GVEKMVNVVE	*KRPTQ*	1102.57	Hy	<0.10	3
Prohormone Convertase 2	C-terminal fragment	*EAVER*	SLQSILRKN	*	1057.62	A, Hi, Hy, PC, S, T	<0.10	17
Prohormone Convertase 2	94-104	*ERDPR*	IKMALQQEGFD	*RKKRG*	1278.64	A, Hi, Hy, PC	<0.10	7
Prohormone Convertase 2	C-terminal fragment	*AMSKK*	pyroE-ELEEELDEAVERSLQSILRKN	*	2610.31	Hy	<0.10	4
Promelanin Concentrating	Neuropeptide EI	*EQEKR*	EIGDEENSAKFPI-amide	*GRRDF*	1446.68	Hi, Hy, PC	<0.10	8

Hormone								
Proopiomelanocortin	Des-acetyl-MSH	*REGKR*	SYSMEHFRWGKPV-amide	*GKKRR*	1621.77	Hy	<0.10	4
Proopiomelanocortin	Alpha-MSH	*REGKR*	Ac-SYSMEHFRWGKPV-amide	*GKKRR*	1663.79	Hy	<0.10	4
Proopiomelanocortin	Alpha-MSH (oxide)	*REGKR*	Ac-SYS-Mox-EHFRWGKPV-amide	*GKKRR*	1679.80	Hy	<0.10	2
Proopiomelanocortin	CLIP	*VGKKR*	RPVKVYPNVAENESAEAFPLEF	*KRELE*	2505.26	Hy	<0.10	4
Proopiomelanocortin	CLIP + phosphate	*VGKKR*	RPVKVYPNVAENE-phosphoS-AEAFPLEF	*KRELE*	2585.23	Hy	<0.10	2
Protachykinin A	72-95	*LMGKR*	DADSSVEKQVALLKALYGHGQISH	*KRHKT*	2565.32	Hi, T	<0.10	2
Provasoactive Intestinal Peptide	111-122	*LIGKR*	ISSSISEDPVPI	*KRHSD*	1242.63	Hy, PC	<0.10	5
VGF	487-507	*EKRKR*	KKNAPPEPVPPPRAAPAPTHV	*RSPQP*	2170.20	A, Hi, Hy, PC, T	<0.10	16
VGF	180-209	*SNAKR*	(QQETAAAETETRTHTLTRVNLESPGPERVW)	*RASWG*	3406.69	Hi, PC	<0.10	3

Precursor: name of protein precursor from which peptide is derived. CART, cocaine- and amphetamine-regulated transcript. Note that 7B2 and VGF are names, not abbreviations. **Peptide name**: common name of peptide, or sequence position within precursor. CLIP, corticotropin-like intermediate lobe peptide; MSH, melanocyte-stimulating hormone. **N-term flanking**: the 5 amino acids in the precursor adjacent to the N-terminus of the peptide are indicated. **Peptide sequence**: The peptide sequences bracketed by parentheses represent tentatively identified peptides (i.e. based on mass, charge state, and number of isotopic tags incorporated). All other peptides were identified unambiguously by sequencing. Mox, oxidized Met; phosphoS, phosphorylated Ser. **C-term flanking**: the 5 amino acids in the precursor adjacent to the C-terminus of the peptide are indicated. * in this column represent the C-terminal end of the precursor protein. **Theor. mass**: theoretical monoisotopic mass (in Da) of the unprotonated peptide (after subtracting the mass of the tags). **Region**: A, amygdala; Hi, hippocampus; Hy, hypothalamus; PC, prefrontal cortex; S, striatum; T, thalamus. **PC2:WT Avg**: the average ratio of peptide levels in extracts of PC2 KO mouse brain regions relative to the levels in extracts from wild type mice. **n**: number of times the peptide was detected in different samples.

Supplemental Table S-3. Neuropeptides and other secretory pathway peptides detected in wild type mouse brain and also detectable at lower levels in PC2 KO mouse brain.

Precursor	Peptide Name	N-term Flanking	Peptide Sequence	C-term Flanking	Theor. Mass	Region	PC2 :WT Avg	SD	n	WT: WT Avg	SD	n	p-value
Chromogranin B	438-446	*REEKR*	LLDEGHYPV	*RESPI*	1041.52	A, Hi, Hy, PC, S, T	0.56	0.16	15	1.04	0.16	8	**
Chromogranin B	588-597	*GYEKR*	SFARAPQLDL	*KRQYD*	1116.59	A, Hi, Hy, PC, S, T	0.33	0.13	15	1.08	0.27	8	**
Chromogranin B	516-535	*EKRKR*	LGALFNPYFDPLQWKNSDFE	*KRGNP*	2400.15	A, Hi, Hy	0.38	0.11	8	1.02	0.18	7	**
Procholecystokinin	46-63	*RRQLR*	AVLRTDGEPRARLGALLA	*RYIQQ*	1878.08	A, Hi, Hy, PC, S, T	0.79	0.20	15	0.96	0.08	7	*
Procholecystokinin	71-94	*EAPRR*	KAPSGRMSVLKNLQSLDPSHRISD	*RDYMG*	2635.39	A, Hi, PC	0.42	0.07	8	1.08	0.12	6	**
Prodynorphin	α-neoendorphin	*KQAKR*	YGGFLRKYPK	*RSSEM*	1227.68	A, Hi, Hy, PC, S, T	0.32	0.18	19	1.04	0.12	9	**
Proenkephalin	Heptapeptide	*EIEKR*	YGGFMRF	*	876.40	A, Hi, Hy, PC, S, T	0.40	0.18	17	1.03	0.19	10	**
Proenkephalin	197-208	*RSLKR*	SPQLEDEAKELQ	*KRYGG*	1385.67	Hy	0.74	0.07	4	0.93	0.19	14	NS
Proenkephalin	238-261	*GFLKR*	FAESLPSDEEGENYSKEVPEIE	*KRYGG*	2497.10	Hy	0.55	0.07	3	0.93	0.25	3	*
Proenkephalin	238-261 + phosphate	*GFLKR*	FAESLP-phosphoS-DEEGENYSKEVPEIE	*KRYGG*	2577.06	Hy	0.57	0.07	4	0.99	0.24	3	**
Proneuropeptide Y	Neuropeptide Y	*Sig pep*	(YPSKPDNPGEDAPAEDMARYYSALR HYINLITRQRY-amide)	*GKRSS*	4271.73[a]	PC	0.43	0.08	2	1.09	0.27	4	*
Proneurotensin	Neuromedin N	*EVIKR*	KIPYIL	*KRQLY*	745.47	A, Hi, Hy, S, T	0.56	0.18	14	0.93	0.13	6	**
Proopiomelanocortin	J-peptide	*AAQRR*	AEEEAVWGDGSPEPSPRE-amide	*GKRSY*	1939.86	Hy	0.42	0.06	3	0.63	0.29	3	NS
Proopiomelanocortin	165-189	*LEFKR*	(ELEGERPLGLEQVLESDAEKDDGPY)	*RVEHF*	2787.31	Hy	0.52	0.10	4	ND			
ProSAAS	Big LEN 1-15	*LRVKR*	(LENPSPQAPARRLLP)	*P**	1657.93	Hy, T	0.78	0.10	6	0.92	0.02	2	NS
ProSAAS	Big SAAS 1-24	*signal peptide*	ARPVKEPRSLSAASAPLVETSTPL	*RLRRA*	2476.37	Hy	0.76	0.07	4	0.85	0.23	3	NS
ProSAAS	GAV	*LRLRR*	AVPRGEAAGAVQELARALAHLLEAER QE	*RARAE*	2954.58	A, Hi, Hy, PC, S, T	0.61	0.12	19	0.95	0.13	10	**
Protachykinin A	Neurokinin A	*ISHKR*	HKTDSFVGLM-amide	*GKRAL*	1132.55	A, Hi, Hy, S, T	0.41	0.18	14	1.04	0.19	9	**
Protachykinin A	Substance P	*QRIAR*	RPKPQQFFGLM-amide	*GKRDA*	1346.74	A, Hi, Hy, S, T	0.62	0.18	18	0.98	0.13	11	**
Protachykinin A	C-terminal flanking peptide	*LMGKR*	ALNSVAYERSAMQNYE	*RRRK**	1844.84	Hy, S, T	0.54	0.15	8	1.08	0.23	7	**
Secretogranin II	569-610	*KVSKR*	IPVGSLKNEDTPNRQYLDEDMLLKVLE YLNQEQAEQGREHLA	*KRAME*	4895.44[a]	Hy	0.54	0.05	4	1.07	0.17	6	**
VGF	489-507	*RKRKK*	NAPPEPVPPPRAAPAPTHV	*RSPQP*	1914.01	A, Hi, Hy, PC, S, T	0.54	0.18	16	1.04	0.32	10	**
VGF	285-310	*PKVRR*	(LEGSFLGGSEAGERLLQQGLAQVEA-amide)	*GRRQA*	2557.32	Hy, S, T	0.58	0.14	8	1.04	0.14	4	**
VGF	588-617	*AQARR*	(AQEEADAEERRLQEQEELENYIEHVL LHRP)	*	3672.78	Hi, PC, S, T	0.36	0.10	8	1.07	0.18	6	**

Abbreviations are as described in Table S-2. Note that SAAS and GAV are names, not abbreviations. **SD**: standard deviation; **WT:WT Avg**: average ratio of peptide in replicates of different groups of wildtype mice. **p-value**: *, $p<0.05$; ** $p<0.01$ between the average ratios of PC2:WT and WT:WT, calculated using Student's t-test. NS, not significant. a) average theoretical mass (all other values are monoisotopic mass)

Supplemental Table S-4. Neuropeptides and other secretory pathway peptides detected in wild type mouse brain and PC2 KO mouse brain at generally similar levels.

Precursor	Peptide Name	N-term Flanking	Peptide Sequence	C-term Flanking	Theor. Mass	Region	PC2:WT Avg	SD	n
Cerebellin 1 precursor protein	Cerebellin 2-15	*ISVRS*	GSAKVAFSAIRSTN	*HEPSE*	1407.75	A, Hi, Hy, PC, S, T	1.03	0.28	17
Cerebellin 1 precursor protein	Cerebellin 1-15	*GISVR*	SGSAKVAFSAIRSTN	*HEPSE*	1494.78	A, Hi, Hy, PC, S, T	0.93	0.27	17
Cerebellin 1 precursor protein	Cerebellin 2-16	*ISVRS*	GSAKVAFSAIRSTNH	*EPSEM*	1544.81	A, Hi, Hy, PC, S, T	1.01	0.27	17
Cerebellin 1 precursor protein	Cerebellin	*GISVR*	SGSAKVAFSAIRSTNH	*EPSEM*	1631.84	A, Hi, Hy, PC, S, T	0.94	0.26	19
Cerebellin 2	89-102	*ISVRS*	GSAKVAFSATRSTN	*HEPSE*	1395.71	PC, T	1.08	0.18	4
Cerebellin 2	88-102	*GISVR*	(SGSAKVAFSATRSTN)	*HEPSE*	1482.74	A, Hi, PC, T	0.93	0.10	7
Cerebellin 2	89-103	*ISVRS*	(GSAKVAFSATRSTNH)	*EPSEM*	1532.77	PC, T	0.99	0.12	4
Cerebellin 2	88-103	*GISVR*	(SGSAKVAFSATRSTNH)	*EPSEM*	1619.80	Hi, PC, S, T	0.95	0.18	7
Cerebellin 4	66-77	*VRAAN*	SKVAFSAVRSTN	*HEPSE*	1265.67	A, Hi, PC, S, T	0.91	0.16	15
Cerebellin 4	64-77	*ISVRA*	ANSKVAFSAVRSTN	*HEPSE*	1450.75	A, Hi, PC, T	0.94	0.15	10
Cerebellin 4	63-77	*GISVR*	AANSKVAFSAVRSTN	*HEPSE*	1521.79	Hi, PC, T	1.13	0.16	6
Chromogranin B	357-374	*SRSYR*	GLQYRGRGSEEDRAPRPR	*SEESQ*	2099.07	A, Hi, PC, T	1.01	0.20	12
Chromogranin B	357-374 + phosphate	*SRSYR*	GLQYRGRG-phosphoS-EEDRAPRPR	*SEESQ*	2179.07	A, Hi, Hy, PC, S, T	1.05	0.19	17
Chromogranin B	64-83	*QVLKK*	(SGKEVKGEEKGENQNSKFEV)	*RLLRD*	2222.08	Hi, PC, S, T	1.01	0.08	7
Chromogranin B	309-330	*GHPLS*	(EERRPSPKESKEADVATVRLGE)	*KRSHH*	2482.28	Hi, PC	1.10	0.12	3
Procholecystokinin	52-62	*VLRTD*	(GEPRARLGALL)	*ARYIQ*	1151.68	Hi, PC, S, T	0.92	0.19	11
Procholecystokinin	46-58 amide	*RRQLR*	(AVLRTDGEPRARL-amide)	*GALLA*	1451.82	A, Hi, PC, S, T	0.99	0.17	12
Procholecystokinin	46-60	*RRQLR*	AVLRTDGEPRARLGA	*LLARY*	1580.88	A, Hi, PC, S, T	1.05	0.24	11
Procholecystokinin	46-61	*RRQLR*	AVLRTDGEPRARLGAL	*LARYI*	1693.97	A, Hi, PC, S, T	0.98	0.27	14
Procholecystokinin	46-62	*RRQLR*	AVLRTDGEPRARLGALL	*ARYIQ*	1807.04	A, Hi, Hy, PC, S, T	0.98	0.25	16
Prodynorphin	β-neoendorphin	*KQAKR*	YGGFLRKYP	*KRSSE*	1099.58	Hy, T	0.83	0.06	5
Progastrin Releasing Peptide	24-41	*Sig pep*	(APVSTGAGGGTVLAKMYP)	*RGSHW*	1675.86	Hy	1.04	0.14	2
Prohormone Convertase 1	90-108	*HITKR*	LSDDDRVTWAEQQYEKERS	*KRSVQ*	2354.07	Hi, Hy	0.99	0.21	4
Propeptidyl-amidating-monooxygenase	Cleaved pro peptide	*Sig pep*	FRSPLSVF	*KRFKE*	951.53	A, Hi, Hy, PC, S, T	0.83	0.20	15
ProSAAS	Little SAAS 5-18	*RSLSA*	ASAPLVETSTPLRL	*RRAVP*	1453.81	A, Hy, T	0.80	0.13	7
ProSAAS	Little SAAS 1-16	*VKEPR*	SLSAASAPLVETSTPL	*RLRRA*	1542.81	A, Hi, Hy, PC, S, T	0.95	0.22	17
ProSAAS	PEN-20	*RRLRR*	SVDQDLGPEVPPENVLGALL	*RVKRL*	2061.06	Hy	0.87		1
ProSAAS	PEN	*RRLRR*	SVDQDLGPEVPPENVLGALLRV	*KRLEN*	2316.23	A, Hy	0.86	0.11	6
ProSAAS	GAV 5-28	*RAVPR*	GEAAGAVQELARALAHLLEAERQE	*RARAE*	2531.31	A, Hi, Hy, S, T	0.85	0.18	13
ProSAAS	62-91	*LRLRR*	(AVPRGEAAGAVQELARALAHLLEAERQERA)	*RAEAQ*	3181.71	S, T	1.08	0.17	5
Protachykinin B	Neurokinin B	*LPQKR*	DMHDFFVGLM-amide	*GKRNS*	1209.52	Hy, PC, S, T	0.84	0.16	9
Prothyrotropin Releasing Hormone	160-169	*HPGRR*	SFPWMESDVT	*KRQHP*	1197.50	Hy	0.84	0.15	4
Prothyrotropin Releasing Hormone	57-74	*RFLRK*	DLQRVRGDLGAALDSWIT	*KRQHP*	1985.03	Hy	1.02	0.15	4

Prothyrotropin Releasing Hormone	178-200	*HPQRR*	FIDPELQRSWEETEGEEGGLMPE	*KRQHP*	2677.19	Hy	0.97	0.09	4
Prothyrotropin Releasing Hormone	25-50	*Sig pep*	LLEAAQEEGAVTPDLPGLEKVQVRPE	*RRFLR*	2787.48	A, Hy, S, T	0.95	0.19	11
Provasopressin	151-165	*LLLRL*	VQLAGTRESVDSAKP	*RVY**	1556.82	Hy	0.93		1
Provasopressin	154-end	*LRLVQ*	(AGTRESVDSAKPRVY)	*	1634.84	Hy, T	0.83	0.11	3
Provasopressin	151-end	*LLLRL*	VQLAGTRESVDSAKPRVY	*	1975.05	A, Hy, S, T	0.95	0.25	11
Secretogranin II	300-316	*EENRR*	ESKDQLSEDASKVITYL	*RRLVN*	1924.96	A, Hi, Hy, PC, S, T	1.09	0.18	17
Secretogranin III	23-36	*Sig pep*	FPKPEGSQDKSLHN	*RELSA*	1582.77	A, Hi, Hy, PC, S, T	0.94	0.19	18

Abbreviations are defined in Supplemental Tables S-2 and S-3. Sig pep, signal peptide.

Supplemental Table S-5. Neuropeptides and other secretory pathway peptides detected in wild type mouse brain and which increased and/or were variable in PC2 KO mouse brain.

Precursor	Peptide Name	N-term Flanking	Peptide Sequence	C-term Flanking	Theor. Mass	Region	PC2:WT Avg	SD	n	p-value
Procholecystokinin	65-94	*ALLAR*	(YIQQVRKAPSGRMSVLKNLQSLDPSHRISD)	*RDYMG*	3422.82	PC	1.45	0.19	3	
Chromogranin B	357-373	*SRSYR*	(GLQTRGRGSEEDRAPRP)	*RSEES*	1942.97	A, Hi, Hy, S, T	1.10	0.15	8	
						PC	1.40	0.13	3	*
Chromogranin B	357-373 + phosphate	*SRSYR*	(GLQTRGRG-phosphoS-EEDRAPRP)	*RSEES*	2022.97	Hy, S	1.07	0.15	6	
						A, Hi, PC	1.42	0.21	7	**
Procholecystokinin	43-55	*EAPRR*	(QLRAVLRTDGEPR)	*ARLGA*	1509.84	PC, T	0.65	0.05	3	
						A, Hi, S	0.99	0.17	7	*
Proneuropeptide Y	C-terminal region	*RYGKR*	SSPETLISDLLMKESTENAPRTRLEDPSMW	*	3432.65	PC	0.44	0.05	2	
						A, Hi, Hy, S, T	0.95	0.22	14	**
Proneurotensin	Neurotensin	*YILKR*	pyroE-LYENKPRRPYIL	*KRGSY*	1671.91	Hy, S, T	0.73	0.11	8	
						A	1.18	0.12	3	**
Pronociceptin	Nociceptin	*QLQKR*	FGGFTGARKSARKLANQ	*KRFSE*	1807.98	Hi, PC	<0.10		4	
						A, T	0.26	0.06	4	
ProSAAS	Big LEN	*LRVKR*	LENPSPQAPARRLLPP	*	1754.98	S, T	0.70	0.12	6	
						A, Hi, Hy, PC	0.83	0.12	11	NS
ProSAAS	Little SAAS	*VKEPR*	SLSAASAPLVETSTPLRL	*RRAVP*	1812.01	Hi, S, T	0.74	0.17	6	
						A, Hy, PC	0.83	0.14	13	NS
ProSAAS	Big SAAS	*Sig pep*	ARPVKEPRSLSAASAPLVETSTPLRL	*RRAVP*	2745.55	Hy, S, T	0.58	0.10	7	
						A, Hi, PC	0.94	0.20	8	**

Abbreviations are defined in Tables S2-S4. Note that LEN is a name, not an abbreviation. P-value indicates the statistical significance between the average PC2:WT ratio between the brain regions in the two different rows. * $p<0.05$, ** $p<0.01$ using Student's t-test. NS, not significant

Supplemental Table S-6. Peptides identified in both PC2 KO study and *Cpe*$^{fat/fat}$ mouse study (data used for Figure 3).

Precursor	Peptide Name	N-term Flanking	Peptide Sequence	C-term Flanking	Theor. Mass	PC2:WT	Fat:WT
ProSAAS	PEN-20	RRLRR	SVDQDLGPEVPPENVLGALL	RVKRL	2061.06	0.87	0.08
CART	33-50	RRQLR	APGAMLQIEALQEVLKKL	KSKRI	1951.12	<0.13	0.10
Chromogranin B	600-613	LDLKR	QYDGVAELDQLLHY	RKKAD	1662.79	<0.10	0.10
Chromogranin B	438-453	REEKR	LLDEGHYPVRESPIDT	AKRYP	1839.90	<0.10	0.10
Chromogranin B	64-86	QVLKK	SGKEVKGEEKGENQNSKFEVRLL	RDPAD	2604.35	<0.10	0.10
Procholecystokinin	56-63	DGEPR	ARLGALLA	RYIQQ	783.50	<0.10	0.10
Procholecystokinin	72-93	APRRK	(APSGRMSVLKNLQSLDPSHRIS)	DRDYM	2392.26	<0.10	0.10
Prodynorphin	Dynorphin A10-17	LRRIR	PKLKWDNQ	KRYGG	1027.55	<0.10	0.10
Prodynorphin	Dynorphin A17	DLYKR	(YGGFLRRIRPKLKWDNQ)	KRYGG	2146.19	<0.10	0.10
Proenkephalin	Leu-Enkephalin	DYQKR	YGGFL	KRFAE	555.27	<0.10	0.10
Proopiomelanocortin	Des-acetyl-MSH	REGKR	SYSMEHFRWGKPV-amide	GKKRR	1621.77	<0.10	0.10
Proopiomelanocortin	Alpha-MSH	REGKR	Ac-SYSMEHFRWGKPV-amide	GKKRR	1663.79	<0.10	0.10
Proopiomelanocortin	Alpha-MSH (oxidized)	REGKR	Ac-SYS-Mox-EHFRWGKPV-amide	GKKRR	1679.80	<0.10	0.10
VGF	487-507	EKRKR	KKNAPPEPVPPPRAAPAPTHV	RSPQP	2170.20	<0.10	0.10
VGF	180-209	SNAKR	(QQETAAAETETRTHTLTRVNLESPGPERVW)	RASWG	3406.69	<0.10	0.10
Procholecystokinin	71-94	EAPRR	KAPSGRMSVLKNLQSLDPSHRISD	RDYMG	2635.39	0.42	0.10
Proopiomelanocortin	J-peptide	AAQRR	AEEEAVWGDGSPEPSPRE-amide	GKRSY	1939.86	0.42	0.10
Proneuropeptide Y	Neuropeptide Y	signal peptide	(YPSKPDNPGEDAPAEDMARYYSALRHYINLITRQRY-amide)	GKRSS	*4271.73*	0.43	0.10
ProSAAS	Big SAAS 1-24	signal peptide	ARPVKEPRSLSAASAPLVETSTPL	RLRRA	2476.37	0.76	0.10
ProSAAS	GAV 5-28	RAVPR	GEAAGAVQELARALAHLLEAERQE	RARAE	2531.31	0.85	0.10
Provasopressin	151-165	LLLRL	VQLAGTRESVDSAKP	RVY*	1556.82	0.93	0.10
Prothyrotropin Releasing Hormone	25-50	signal peptide	LLEAAQEEGAVTPDLPGLEKVQVRPE	RRFLR	2787.48	0.95	0.10
ProSAAS	Little SAAS 1-16	VKEPR	SLSAASAPLVETSTPL	RLRRA	1542.81	0.95	0.10
Secretogranin II	300-316	EENRR	ESKDQLSEDASKVITYL	RRLVN	1924.96	1.09	0.10
Procholecystokinin	65-94	ALLAR	(YIQQVRKAPSGRMSVLKNLQSLDPSHRISD)	RDYMG	3422.82	1.45	0.10
Pronociceptin/orphanin FQ	Nociceptin	QLQKR	FGGFTGARKSARKLANQ	KRFSE	1807.98	0.18	0.10
Prodynorphin	Dynorphin A8	DLYKR	YGGFLRRI	RPKLK	980.56	<0.10	0.11
Proenkephalin	218-228	GFMRR	VGRPEWWMDYQ	KRYGG	1465.65	<0.10	0.11
Chromogranin B	438-446	REEKR	LLDEGHYPV	RESPI	1041.52	0.56	0.11
Proneurotensin	Neurotensin	YILKR	pyroE-LYENKPRRPYIL	KRGSY	1671.91	0.85	0.11

Proopiomelanocortin	CLIP	VGKKR	RPVKVYPNVAENESAEAFPLEF	KRELE	2505.26	<0.10	0.12
Proneurotensin	Neuromedin N	EVIKR	KIPYIL	KRQLY	745.47	0.56	0.12
ProSAAS	GAV	LRLRR	AVPRGEAAGAVQELARALAHLLEAERQE	RARAE	2954.58	0.61	0.12
Progastrin Releasing Peptide	43-52 amide	KMYPR	(GSHWAVGHLM-amide)	GKKST	1092.51	<0.10	0.13
Proopiomelanocortin	CLIP + phosphate	VGKKR	RPVKVYPNVAENE-phosphoS-AEAFPLEF	KRELE	2585.23	<0.10	0.13
VGF	489-507	RKRKK	NAPPEPVPPPRAAPAPTHV	RSPQP	1914.01	0.54	0.13
Proenkephalin	197-208	RSLKR	SPQLEDEAKELQ	KRYGG	1385.67	0.74	0.13
Chromogranin B	313-330	SEERR	PSPKESKEADVATVRLGE	KRSHH	1911.99	<0.10	0.14
Proenkephalin	Octapeptide	MSSKR	YGGFMRSL	KRSPQ	929.45	<0.10	0.14
Proenkephalin	238-261 + phosphate	GFLKR	FAESLP-phosphoS-DEEGENYSKEVPEIE	KRYGG	2577.06	0.57	0.14
Chromogranin A	358-371	WEDKR	WSRMDQLAKELTAE	KRLEG	1676.82	<0.10	0.15
Chromogranin B	438-454	REEKR	LLDEGHYPVRESPIDTA	KRYPQ	1910.93	<0.10	0.15
Procholecystokinin	72-94	APRRK	APSGRMSVLKNLQSLDPSHRISD	RDYMG	2507.29	<0.10	0.15
Procholecystokinin	46-69	RRQLR	(AVLRTDGEPRARLGALLARYIQQV)	RKAPS	2665.51	<0.10	0.15
Promelanin Concentrating Hormone	Neuropeptide EI	EQEKR	EIGDEENSAKFPI-amide	GRRDF	1446.68	<0.10	0.15
Protachykinin A	72-95	LMGKR	DADSSVEKQVALLKALYGHGQISH	KRHKT	2565.32	<0.10	0.15
Provasoactive Intestinal Peptide	111-122	LIGKR	ISSSISEDPVPI	KRHSD	1242.63	<0.10	0.15
Chromogranin B	588-597	GYEKR	SFARAPQLDL	KRQYD	1116.59	0.33	0.15
CART	33-52	RRQLR	APGAMLQIEALQEVLKKLKS	KRIPI	2166.25	<0.10	0.16
Chromogranin A	392-402	SFRTR	AYGFRDPGPQL	RRGWR	1219.60	<0.10	0.17
Prodynorphin	Dynorphin B13	DNQKR	(YGGFLRRQFKVVT)	RSQEN	1569.88	<0.10	0.17
Proenkephalin	Metorphamide	ELQKR	YGGFMRRV-amide	GRPEW	983.50	<0.10	0.17
Procholecystokinin	46-63	RRQLR	AVLRTDGEPRARLGALLA	RYIQQ	1878.08	0.79	0.17
Prohormone Convertase 2	94-104	ERDPR	IKMALQQEGFD	RKKRG	1278.64	<0.10	0.19
Protachykinin A	Substance P	QRIAR	RPKPQQFFGLM-amide	GKRAL	1346.74	0.62	0.19
Prothyrotropin Releasing Hormone	160-169	HPGRR	SFPWMESDVT	KRQHP	1197.50	0.84	0.19
Protachykinin B	Neurokinin B	LPQKR	DMHDFFVGLM-amide	GKRNS	1209.52	0.84	0.20
Secretogranin III	23-36	signal peptide	FPKPEGSQDKSLHN	RELSA	1582.77	0.94	0.20
Chromogranin A	374-390	TAEKR	LEGEDDPDRSMKLSFRT	RAYGF	1994.94	<0.10	0.21
Chromogranin B	457-466	DTAKR	YPQSKWQEQE	KNYLN	1321.59	<0.10	0.23
Proenkephalin	238-261	GFLKR	FAESLPSDEEGENYSKEVPEIE	KRYGG	2497.10	0.55	0.23
Propeptidyl-amidating-monooxygenase	Cleaved pro peptide	signal peptide	FRSPLSVF	KRFKE	951.53	0.83	0.23
Protachykinin A	Neurokinin A	ISHKR	HKTDSFVGLM-amide	GKRAL	1132.55	0.41	0.24
ProSAAS	62-91	LRLRR	(AVPRGEAAGAVQELARALAHLLEAERQERA)	RAEAQ	3181.71	1.08	0.24

Prodynorphin	Alpha-neoendorphin	KQAKR	YGGFLRKYPK	RSSEM	1227.68	0.32	0.25
Chromogranin B	516-535	EKRKR	LGALFNPYFDPLQWKNSDFE	KRGNP	2400.15	0.38	0.25
Prodynorphin	Beta-neoendorphin	KQAKR	YGGFLRKYP	KRSSE	1099.58	0.83	0.25
Prothyrotropin Releasing Hormone	178-200	HPQRR	FIDPELQRSWEETEGEEGGLMPE	KRQHP	2677.19	0.97	0.29
ProSAAS	Little SAAS	VKEPR	SLSAASAPLVETSTPLRL	RRAVP	1812.01	0.80	0.41
Procholecystokinin	43-55	EAPRR	(QLRAVLRTDGEPR)	ARLGA	1509.84	0.89	0.51
ProSAAS	Little SAAS 5-18	RSLSA	ASAPLVETSTPLRL	RRAVP	1453.81	0.80	0.57
7B2	167-176	KWNKK	(LLYEKMKGGQ)	RRKRR	1165.60	<0.10	0.58
ProSAAS	PEN	RRLRR	SVDQDLGPEVPPENVLGALLRV	KRLEN	2316.23	0.86	0.64
ProSAAS	Big SAAS	signal peptide	ARPVKEPRSLSAASAPLVETSTPLRL	RRAVP	2745.55	0.76	1.10

Abbreviations are defined in the other Tables. PC2:WT data is from the present study. Fat:WT data compares *Cpe*$^{fat/fat}$ and WT mice, and was published in Zhang et al. 2008.