

### **Fig. S1 Microarray Probe Sequences for Proteases and Pro-Neuropeptide Gene Expression Studies**

Probes for microarray analyses of the human protease and pro-neuropeptide genes investigated in this study are listed. The majority of the protease and pro-neuropeptide genes were analyzed by two different probes.

#### **Proteases**

##### **CTSV** Gene ID 1504 Chromosome 9

PROBE ID	Probe name	Sequences (5'-3')
(1) 1057831	A_23_P146456	GAAGGACTTAAGGACAGCATGTCTGGGGAAATTTTATCTTGAAACTGACCAAACGCTTAT
(2) 1057832	CUST_7879_PI416261804	GGTTGGCTACGGCTTTGAAGGAGCAAATTCGAATAACAGCAAGTATTGGCTCGTCAAAAA

##### **CTSL** Gene ID 1503 Chromosome 9

PROBE ID	Probe name	Sequences (5'-3')
(1) 1030114	A_23_P94533 9	AAGACATGGATCATGGTGTGCTGGTGGTTGGCTACGGATTTGAAAGCACAGAATCAGATA
(2) 1030115	CUST_15547_PI416261804	ACTGTGGGGCCCATTCTGTTGCTATTGATGCAGGTCATGAGTCCTTCCTGTTCTATAAA

##### **PCSK1** Gene ID 5090 Chromosome 5

PROBE ID	Probe name	Sequences (5'-3')
(1) 1053306	A_23_P213508	CACAGAGACGACCGGCTGCTTCAAGCTCTGGTGGACATTCTGAATGAGGAAAATTTAAAT
(2) 1053305	A_24_P174793	GAGTTTAACATGTGTGGTCTTGGTATTCTTAAGGGAAGTCCACATTATACATTTGATGT

##### **PCSK2** Gene ID 5094 Chromosome 20

PROBE ID	Probe name	Sequences (5'-3')
(1) 1053300	A_23_P79968 20	TGTCTCGCTAGTGATGTTTTTATGATATCCCTGATCCTAACTGAAGAGACAGTTATTTAT
(2) 1053301	CUST_13562_PI416261804	AGAAGTTTCTGCTGCCGCAACAACAATATCTGTGGAGTTGGAGTAGCATACAACCTCAA

##### **RNPEP** Gene ID 6019 Chromosome 1

PROBE ID	Probe name	Sequences (5'-3')
(1) 1052146	A_23_P97770 1	ACCAGGAAGATTTCTGGAAAGTGAAGGAGTTCTGCATAACCAGGGGAAGCAGAAGTATA
(2) 1052147	A_24_P68649	GCAACAGGAGAGAAGCTTTTTGGACCTTATGTTTGGGGAAGGTATGACTTGCTCTTCATG

##### **CTSH** Gene ID 1501 Chromosome 15

PROBE ID	Probe name	Sequences (5'-3')
(1) 1023745	A_23_P14774	ACCAGCCATGTGCCTTAGTGTCTTCTTAACAGACTCAAACCACATGGACCACGAATATT
(2) 1023746	CUST_10722_PI416261804	AAGTTCCAACCTGGAAAGGCCATCGGCTTTGTCAAGGATGTAGCCAACATCACAATCTAT

##### **CPE** Gene ID 1354 Chromosome 4

PROBE ID	Probe name	Sequences (5'-3')
(1) 1057996	A_23_P259442	TCTTGTGCTGACTAACTATAAGCATGATCTTGTTAATGCATTTTTGATGGGAAGAAAAGG
(2) 1057997	A_32_P34372	ACTCCGAGCTGTATCTGTTAACCTTTTCAATAGCATTATTATGTGACATTGTCACCAAT

## Pro-Neuropeptides

### **PENK** Gene ID 5179 Chromosome 8

PROBE ID	Probe name
(1) 1018602	A_23_P417918
1053200	CUST_11041_PI416261804
1013153	CUST_11043_PI416261804
(2) 1010876	CUST_15_PI416558187

#### Sequences (5'-3'):

```
TTTGCTAGCCAAAAGGTATGGGGGCTTCATGAAAAGGTATGGAGGCTTCATGAAGAAAAT  
TCTCTCCTCGCAGTCCATGGCGCGGTTCTGACACTTTGCACTTGGCTGCTGTTGCTCGG  
TTCCAATTGGCCTGCTCCATCCGAACAGCGTCAACTCCATGGCGCGGTTCTGACACTTT  
TTCATTGTCTGGATAACTATAACAACCTGAAAACCTGTCATTTTCAGGTTCTGTGCTCTTTTT
```

### **NPY** Gene ID 4821 Chromosome 7

PROBE ID	Probe name
(1) 1053652	A_23_P256470
(2) 1053653	CUST_16166_PI416261804

#### Sequences (5'-3'):

```
TTGAAGACCCTGCAATGTGGTGTATGGGAAATGAGACTTGCTCTCTGGCCTTTTCCTATTT  
AGAGACACTGATTTTCAGACCTCTTGATGAGAGAAAGCACAGAAAATGTTCCCAGAACTCG
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