**Supplementary Table 1. PCR primers for the genes studied**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Gene | External Primers | Ampli-con size | Internal Primers | Ampli-con size |
| 1 | *Neurotensin (Nts)* | F: AGGCCCTACATTCTCAAGAGR: CATTGTTCTGCTTTGGGTTA | Bp:398 | F: GGGGTTCCTACTACTACTGAR: CATCACATCCAATAAAGCAC | Bp:149 |
| 2 | *Slc32a1 (VGAT)* | F:GTCACGACAAACCCAAAGATCACR**:GTTGTTCCCTCATCATCTTCGCC** | Bp:137 |  |  |
| 3 | *Adcyap1**(PACAP)* | F: CCTACCGCAAAGTCTTGGACR:TTGACAGCCATTTGTTTTCG | Bp:181 |  |  |
| 4 | *Slc17a6**(Vglut2)* | F:CTGGATGGTCGTCAGTATTTTATG R:ATGAGAGTAGCCAACAACCAGAAG  | Bp:503 | F:GCAGGAGCTGGACTTTTTATTTAC R:TAGTTGTTGAGAGAATTTGCTTGC | Bp:186 |

**Supplementary Table 2. P-values for Tukey’s test comparisons among groups (Fig 2B)**

|  |  |
| --- | --- |
| Pair | P-value |
| x1-x2 | 0.0001476 |
| x1-x3 | 0.0003445 |
| x1-x4 | 0.0005521 |
| x1-x5 | 0.007513 |
| x1-x6 | 0.01494 |
| x2-x3 | 1.676e-8 |
| x2-x4 | 1.751e-7 |
| x2-x5 | 1.178e-8 |
| x2-x6 | 1.447e-7 |
| x3-x4 | 0.006143 |
| x3-x5 | 0.0007085 |
| x3-x6 | 0.002418 |
| x4-x5 | 0.0003605 |
| x4-x6 | 0.000312 |
| x5-x6 | 0.2656 |

**Supplementary Table 3. P values of the** **Tukey’s test comparisons among groups (Fig 5B)**

|  |  |
| --- | --- |
| Columns | P-value |
| x1-x2 | 7.1x10-5 |
| x1-x3 | 0.7237 |
| x2-x3 | 7.82x10-6 |

**Supplementary Table 4. P values of the Tukey’s test comparisons among groups (Fig 7F)**

|  |  |
| --- | --- |
| Pair | P-value |
| x1-x2 | 0.044 |
| x1-x3 | 0.4212 |
| x1-x4 | 0.0201 |
| x2-x3 | 0.543 |
| x2-x4 | 0.978 |
| x3-x4 | 0.3303 |

**Supplementary Table** **5. P values of the Tukey’s test comparisons among groups (Fig 7G)**

|  |  |
| --- | --- |
| Pair | P-value |
| x1-x2 | 0.0001877 |
| x1-x3 | 0.05677 |
| x1-x4 | 0.001055 |
| x2-x3 | 0.04938 |
| x2-x4 | 0.8145 |
| x3-x4 | 0.2338 |

**Supplementary Table 6. P values of the Tukey’s test comparisons among groups (Fig 7H)**

|  |  |
| --- | --- |
| Pair | P-value |
| x1-x2 | 0.003388 |
| x1-x3 | 0.01139 |
| x1-x4 | 0.04768 |
| x2-x3 | 0.9318 |
| x2-x4 | 0.5657 |
| x3-x4 | 0.8872 |

**Supplementary Table 7.** **P values of the Tukey’s test comparisons among groups (Fig 7I)**

|  |  |
| --- | --- |
| Pair | P-value |
| x1-x2 | 0.001157 |
| x1-x3 | 0.00516 |
| x1-x4 | 0.2825 |
| x2-x3 | 0.8803 |
| x2-x4 | 0.04888 |
| x3-x4 | 0.1844 |