

Kisspeptin-ir (Fractional Area) in ARC

| | M-CON | M-GEN | F-CON | F-GEN | ANOVA 1 WAY | |
|--------------|------------|------------|------------|------------|-------------|--------|
| | (MEAN±SEM) | (MEAN±SEM) | (MEAN±SEM) | (MEAN±SEM) | F | P |
| PND12 | 1.4±0.008 | 7.0±0.02 | 5.4±0.42 | 1.8±0.44 | 53.247 | <0.001 |
| PND22 | 1.9±0.179 | 2.4±0.32 | 12.0±0.89 | 8.7±0.42 | 64.367 | <0.001 |
| PND30 | 6.1±0.40 | 4.5±0.36 | 21.1±0.43 | 25.9±0.46 | 664.655 | <0.001 |
| PND60 | 9.2±1.33 | 8.9±0.31 | 25.2±1.53 | 12.9±0.51 | 58.391 | <0.001 |

Kisspeptin positive cells in RP3V

| | M-CON | M-GEN | F-CON | F-GEN | ANOVA 1 WAY | |
|--------------|------------|------------|------------|------------|-------------|--------|
| | (MEAN±SEM) | (MEAN±SEM) | (MEAN±SEM) | (MEAN±SEM) | F | p |
| PND12 | 1.8±0.12 | 2.3±0.20 | 2.6±0.19 | 4±0.29 | 19.146 | <0.001 |
| PND22 | 2±0.20 | 3.5±0.18 | 7.5±0.46 | 10.5±0.69 | 73.769 | <0.001 |
| PND30 | 1.67±0.10 | 2.8±0.23 | 12.9±1.57 | 20.2±1.29 | 79.593 | <0.001 |
| PND60 | 1.6±0.30 | 2.2±0.42 | 31.7±2.23 | 19.6±0.93 | 149.712 | <0.001 |

Kisspeptin-ir fibers (FA) in PVN

| | M-CON | M-GEN | F-CON | F-GEN | ANOVA 1 WAY | |
|--------------|------------|------------|------------|------------|-------------|--------|
| | (MEAN±SEM) | (MEAN±SEM) | (MEAN±SEM) | (MEAN±SEM) | F | p |
| PND12 | 1.4±0.17 | 1.6±0.27 | 0.9±0.29 | 1.1±0.21 | 3.468 | 0.059 |
| PND22 | 1.3±0.15 | 1.2±0.19 | 3.2±0.18 | 3.8±0.28 | 40.045 | <0.001 |
| PND30 | 1.1±0.14 | 1.1±0.23 | 3.7±0.19 | 6.7±0.31 | 134.996 | <0.001 |
| PND60 | 0.9±0.13 | 1.2±0.20 | 6.6±0.38 | 3.5±0.49 | 73.344 | <0.001 |

Kisspeptin-ir fibres (FA) within subdivisions of PVN

| | | M-CON | M-GEN | F-CON | F-GEN | ANOVA 1 WAY | |
|--------------|----|------------|------------|------------|------------|-------------|--------|
| | | (MEAN±SEM) | (MEAN±SEM) | (MEAN±SEM) | (MEAN±SEM) | F | p |
| PND12 | DL | 1.2±0.27 | 1.1±0.20 | 0.4±0.12 | 0.3±0.09 | 6.31 | 0.011 |
| | DM | 1.4±0.13 | 1.6±0.20 | 0.9±0.26 | 1.2±0.16 | 1.78 | 0.214 |
| | VL | 1.1±0.21 | 1.1±0.12 | 0.7±0.16 | 0.5±0.10 | 3.731 | 0.049 |
| | VM | 1.6±0.10 | 2.1±0.15 | 1.3±0.47 | 1.5±0.09 | 1.411 | 0.296 |
| PND22 | DL | 0.8±0.16 | 0.9±0.21 | 1.6±0.20 | 1.9±0.25 | 7.132 | 0.003 |
| | DM | 0.9±0.14 | 0.9±0.12 | 3.2±0.08 | 3.2±0.27 | 51.358 | <0.001 |
| | VL | 1.0±0.13 | 1.1±0.26 | 1.7±0.25 | 2.1±0.26 | 4.737 | 0.014 |
| | VM | 2.1±0.26 | 1.7±0.21 | 4.7±0.33 | 6.0±0.50 | 33.322 | <0.001 |
| PND30 | DL | 0.5±0.13 | 0.5±0.18 | 1.4±0.14 | 2.6±0.17 | 39.361 | <0.001 |
| | DM | 0.8±0.23 | 0.7±0.09 | 4.0±0.12 | 6.6±0.43 | 117.27 | <0.001 |
| | VL | 0.4±0.07 | 0.7±0.23 | 1.8±0.33 | 2.5±0.71 | 5.385 | 0.014 |
| | VM | 1.7±0.12 | 1.9±0.42 | 5.7±0.46 | 10.9±0.36 | 142.079 | <0.001 |
| PND60 | DL | 0.3±0.09 | 0.4±0.08 | 1.2±0.32 | 0.5±0.11 | 9.864 | 0.007 |
| | DM | 0.6±0.07 | 1.1±0.24 | 5.2±0.71 | 4.1±0.43 | 92.729 | <0.001 |
| | VL | 0.4±0.16 | 0.7±0.07 | 1.6±0.17 | 1.1±0.15 | 31.008 | <0.001 |
| | VM | 1.9±0.34 | 2.0±0.37 | 12.5±0.76 | 6.0±1.03 | 135.474 | <0.001 |

Table S3: Kisspeptin system: quantitative data. Quantitative data for kisspeptin-ir (FA) in ARC, for number of the kisspeptin cells in RP3V, and FA within PVN [divided in DorsoLateral (DL), DorsoMedial (DM), VentroLateral (VL), and VentroMedial (VM)], are reported in the corresponding columns (Mean±SEM) for different groups and different age of CD1 mice. The results of the one-way ANOVA (F and p values) are reported at the right.