**Table S1.** P values from Student’s t-test for comparisons listed in column 1. ECoG frequency ranges being compared are listed in the top row. For multiple comparisons a two-way ANOVA was done. P value for ANOVA attributed to anesthetic concentration is listed in parentheses in the respective cell. The p value is listed above the ANOVA and represents the comparison for the pair listed in column 1. The median values and standard deviations corresponding to these comparisons are shown in Figures 3E-H, 4E-H and 6E-F. \* indicates p value reaches significance of p<0.0025 after a Bonferroni correction.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Delta | Theta | Alpha | Beta | Gamma |
| Ctl *vs.* KO Baseline | 0.01 | 0.01 | 0.09 | 0.05 | 0.94 |
| Ctl:ISO  BL vs. 0.6% | 0.83  (ANOVA<.0001) | 0.22  (ANOVA<.0001) | 0.032  (ANOVA<.0001) | 0.019  (ANOVA<.0001) | 0.095  (ANOVA<.0001) |
| Ctl:ISO  BL vs. 1.2% | 2.8 E-05\*  (ANOVA<.0001) | 1.3 E-05\*  (ANOVA<.0001) | 3.7 E-08\*  (ANOVA<.0001) | 4.6 E-07\*  (ANOVA<.0001) | 3.0 E-16\*  (ANOVA<.0001) |
| Ctl:ISO  BL vs. 1.8% | 7.0 E-06\*  (ANOVA<.0001) | 4.8 E-06\*  (ANOVA<.0001) | 3.2 E-09\*  (ANOVA<.0001) | 1.20 E-08\*  (ANOVA<.0001) | 1.50 E-16\*  (ANOVA<.0001) |
| KO:ISO  BL vs. 0.4% | 0.64  (ANOVA<.0001) | 0.48  (ANOVA<.0001) | 0.14  (ANOVA<.0001) | 2.59 E-05\*  (ANOVA<.0001) | 4.58 E-14\*  (ANOVA<.0001) |
| KO:ISO  BL vs. 0.6% | 0.74  (ANOVA<.0001) | 0.22  (ANOVA<.0001) | 0.01  (ANOVA<.0001) | 5.84 E-08\*  (ANOVA<.0001) | 3.82 E-15\*  (ANOVA<.0001) |
| Ctl:HAL  BL vs. 0.6% | 0.34  (ANOVA=.0015) | 0.96  (ANOVA<.0001) | 0.004  (ANOVA<.0001) | 0.46  (ANOVA<.0001) | 0.27  (ANOVA<.0001) |
| Ctl:HAL  BL vs. 1.2% | P=0.0008\*  (ANOVA=.0015) | 9.1 E-07\*  (ANOVA<.0001) | 8.1 E-06\*  (ANOVA<.0001) | 5.9 E-05\*  (ANOVA<.0001) | 2.9 E-16\*  (ANOVA<.0001) |
| Ctl:HAL  BL vs. 1.8% | 6.8 E-06\*  (ANOVA=.0015) | 4.3 E-09\*  (ANOVA<.0001) | 2.0 E-07\*  (ANOVA<.0001) | 3.3 E-06\*  (ANOVA<.0001) | 1.2 E-19\*  (ANOVA<.0001) |
| KO:HAL  BL vs. 0.4% | 0.01  (ANOVA=0.0015) | 0.09  (ANOVA<.0001) | 0.002\*  (ANOVA<.0001) | .0019\*  (ANOVA<.0001) | <.0001\*  (ANOVA<.0001) |
| KO:HAL  BL vs. 0.6% | 0.01  (ANOVA=0.0015) | 0.04  (ANOVA<.0001) | .002\*  (ANOVA=0.0001) | <.0001\*  (ANOVA<.0001) | <.0001\*  (ANOVA<.0001) |
| Ctl:Ket  0 *vs.* 100mg/kg | 0.89  (ANOVA=0.45) | 0.91  (ANOVA=0.006) | 0.054  (ANOVA=0.003) | 0.0060  (ANOVA<0.001) | 0.075  (ANOVA<0.001) |
| KO:Ket  0 *vs.* 150mg/kg | 0.19  (ANOVA=0.45) | 0.89 (ANOVA=0.006) | 0.37  (ANOVA=0.003) | <.0001  (ANOVA<0.001) | <.0001  (ANOVA<0.001) |