**Supplementary File 1**

**Supplementary File 1a**

|  |  |  |
| --- | --- | --- |
|  | **Escape** | **Release** |
|  | **10oC** | **20oC** | **10oC** | **20oC** |
|  | $$Q\_{10}=1$$ | $Q\_{10}=2 $**for** $g\_{H,}g\_{Syn}$ | $$Q\_{10}=2$$ | $$Q\_{10}=1$$ | $Q\_{10}=2 $ **for** $g\_{H,}g\_{Syn}$ | $$Q\_{10}=2$$ | $$Q\_{10}=1$$ | $Q\_{10}=2 $ **for** $g\_{H,}g\_{Syn}$ | $$Q\_{10}=2$$ | $$Q\_{10}=1$$ | $Q\_{10}=2 $ **for** $g\_{H,}g\_{Syn}$ | $$Q\_{10}=2$$ |
| **Cycle freq, Hz** | $$0.23\pm 0.07$$ | $$0.20\pm 0.09$$ | $$0.20\pm 0.07$$ | $$0.23\pm 0.08$$ | $$0.20\pm 0.09$$ | $$0.46\pm 0.19$$ | $$0.19\pm 0.05$$ | $$0.23\pm 0.09$$ | $$0.26\pm 0.11$$ | $$0.28\pm 0.09$$ | $$0.14\pm 0.06$$ | $$0.30\pm 0.11$$ |
| **Spike freq, Hz** | $$7.9\pm 2.9$$ | $$6.6\pm 2.1$$ | $$6.7\pm 1.1$$ | $$10.1\pm 4.8$$ | $$13.7\pm 4.3$$ | $$19.4\pm 2.0$$ | $$7.7\pm 4.1$$ | $$5.9\pm 2.8$$ | $$7.9\pm 1.8$$ | $$9.1\pm 4.6$$ | $$10.4\pm 3.7$$ | $$15.7\pm 3.1$$ |
| **Amplitude, mV** | $$22.7\pm 6.3$$ | $$21.6\pm 1.0$$ | $$21.8\pm 2.4$$ | $$21.5\pm 6.2$$ | $$27.5\pm 4.4$$ | $$23.8\pm 4.4$$ | $$27.9\pm 4.8$$ | $$20.0\pm 7.3$$ | $$19.6\pm 5.3$$ | $$20.6\pm 4.3$$ | $$32.7\pm 10.3$$ | $$30.3\pm 10.3$$ |
| **# spikes/burst** | $$9\pm 5$$ | $$7\pm 1$$ | $$7\pm 2$$ | $$13\pm 8$$ | $$18\pm 5$$ | $$9\pm 4$$ | $$18\pm 13$$ | $$12\pm 9$$ | $$14\pm 6$$ | $$15\pm 11$$ | $$36\pm 23$$ | $$25\pm 7$$ |
| **Duty cycle, %** | $$25.8\pm 9.9$$ | $$20.1\pm 5.2$$ | $$17.4\pm 0.4$$ | $$26.7\pm 10.2$$ | $$24.6\pm 5.5$$ | $$17.0\pm 1.6$$ | $$42.0\pm 4.6$$ | $$36.2\pm 10.6$$ | $$41.7\pm 4.4$$ | $$40.0\pm 5.3$$ | $$39.5\pm 6.2$$ | $$44.8\pm 2.9$$ |
| **ERQ** | $$-0.09\pm 0.03$$ | $$-0.07\pm 0.03$$ | $$-0.08\pm 0.05$$ | $$-0.07\pm 0.04$$ | $$-0.09\pm 0.03$$ | $$-0.10\pm 0.04$$ | $$0.13\pm 0.06$$ | $$0.16\pm 0.07$$ | $$0.14\pm 0.07$$ | $$0.14\pm 0.05$$ | $$0.15\pm 0.08$$ | $$0.14\pm 0.08$$ |

**Supplementary File 1b**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Paired-samples Wilcoxon signed rank test for cycle frequency at 10oC vs 20oC**

|  |  |  |  |
| --- | --- | --- | --- |
| **Mechanism** | $$Q\_{10}$$ | **N** | **p-value** |
| **Escape** | $$1$$ | 11 | .100 |
| $$2 for g\_{H,}g\_{Syn}$$ | 4 | .144 |
| $$2$$ | 3 | .109 |
| **Release** | $$1$$ | 6 | **.028** |
| $$2 for g\_{H,}g\_{Syn}$$ | 5 | **.043** |
| $$2$$ | 4 | .144 |

 | **Paired-samples Wilcoxon signed rank test for spike frequency at 10oC vs 20oC**

|  |  |  |  |
| --- | --- | --- | --- |
| **Mechanism** | $$Q\_{10}$$ | **N** | **p-value** |
| **Escape** | $$1$$ | 21 | **<.001** |
| $$2 for g\_{H,}g\_{Syn}$$ | 8 | **.012** |
| $$2$$ | 6 | **.028** |
| **Release** | $$1$$ | 12 | **.003** |
| $$2 for g\_{H,}g\_{Syn}$$ | 10 | **.005** |
| $$2$$ | 8 | **.012** |

 |
| **Paired-samples Wilcoxon signed rank test for # spikes/burst at 10oC vs 20oC**

|  |  |  |  |
| --- | --- | --- | --- |
| **Mechanism** | $$Q\_{10}$$ | **N** | **p-value** |
| **Escape** | $$1$$ | 21 | **<.001** |
| $$2 for g\_{H,}g\_{Syn}$$ | 8 | **0.018** |
| $$2$$ | 6 | .246 |
| **Release** | $$1$$ | 12 | **.041** |
| $$2 for g\_{H,}g\_{Syn}$$ | 10 | **.005** |
| $$2$$ | 8 | **.018** |

 | **Paired-samples Wilcoxon signed rank test for amplitude at 10oC vs 20oC**

|  |  |  |  |
| --- | --- | --- | --- |
| **Mechanism** | $$Q\_{10}$$ | **N** | **p-value** |
| **Escape** | $$1$$ | 21 | **.011** |
| $$2 for g\_{H,}g\_{Syn}$$ | 8 | **.012** |
| $$2$$ | 6 | .075 |
| **Release** | $$1$$ | 12 | **.002** |
| $$2 for g\_{H,}g\_{Syn}$$ | 10 | **.005** |
| $$2$$ | 8 | **.012** |

 |
| **Paired-samples Wilcoxon signed rank test for duty cycle at 10oC vs 20oC**

|  |  |  |  |
| --- | --- | --- | --- |
| **Mechanism** | $$Q\_{10}$$ | **N** | **p-value** |
| **Escape** | $$1$$ | 21 | .590 |
| $$2 for g\_{H,}g\_{Syn}$$ | 8 | .123 |
| $$2$$ | 6 | .753 |
| **Release** | $$1$$ | 12 | .388 |
| $$2 for g\_{H,}g\_{Syn}$$ | 10 | .646 |
| $$2$$ | 8 | **.036** |

 | **Paired-samples Wilcoxon signed rank test for ERQ at 10oC vs 20oC**

|  |  |  |  |
| --- | --- | --- | --- |
| **Mechanism** | $$Q\_{10}$$ | **N** | **p-value** |
| **Escape** | $$1$$ | 21 | **.009** |
| $$2 for g\_{H,}g\_{Syn}$$ | 8 | **.017** |
| $$2$$ | 6 | .173 |
| **Release** | $$1$$ | 12 | .136 |
| $$2 for g\_{H,}g\_{Syn}$$ | 10 | .286 |
| $$2$$ | 8 | .575 |

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**Supplementary File 1c** **Supplementary File 1d**   **Supplementary File 1e**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |
| --- |
| **Measure: change in cycle frequency from 10oC to 20oC; Test: One-way ANOVA; F-statistic: F(5,59)=21.790, p<0.001; Post-hoc: Tuckey** |
|  |  | **Escape** | **Release** |
|  | $$Q\_{10}$$ | $$1 all$$ | $2 for $$g\_{s,}g\_{Syn}$ | $$2 all$$ | $$1 all$$ | $2 for $$g\_{s,}g\_{Syn}$ | $$2 all$$ |
| **Escape** | $$1 all$$ |  | .999 | **<.001** | **.014** | **.053** | .540 |
| $2 $ **for** $g\_{H,}g\_{Syn}$ |  |  | **<.001** | .147 | .101 | .864 |
| $$2 all$$ |  |  |  | **<.001** | **<.001** | **<.001** |
| **Release** | $$1 all$$ |  |  |  |  | **<.001** | .781 |
| $2 $ **for** $g\_{H,}g\_{Syn}$ |  |  |  |  |  | **.006** |
| $$2 all$$ |  |  |  |  |  |  |

**Supplementary File 1f**  |

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| --- |
| **Measure: change in spike frequency from 10oC to 20oC; Test: One-way ANOVA; F-statistic: F(5,59)=9.897, p<0.001; Post-hoc: Tuckey** |
|  |  | **Escape** | **Release** |
|  | $$Q\_{10}$$ | $$1 all$$ | $2 for $$g\_{s,}g\_{Syn}$ | $$2 all$$ | $$1 all$$ | $2 for $$g\_{s,}g\_{Syn}$ | $$2 all$$ |
| **Escape** | $$1 all$$ |  | **.023** | **<.001** | .981 | .580 | **.006** |
| $2 $ **for** $g\_{H,}g\_{Syn}$ |  |  | .276 | **.011** | .660 | .999 |
| $$2 all$$ |  |  |  | **<.001** | **.007** | .483 |
| **Release** | $$1 all$$ |  |  |  |  | .324 | **.003** |
| $2 $ **for** $g\_{H,}g\_{Syn}$ |  |  |  |  |  | .397 |
| $$2 all$$ |  |  |  |  |  |  |

**Supplementary File 1g** |

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| --- |
| **Measure: change in # spikes/burst from 10oC to 20oC; Test: One-way ANOVA; F-statistic: F(5,59)=13.949, p<0.001; Post-hoc: Tuckey** |
|  |  | **Escape** | **Release** |
|  | $$Q\_{10}$$ | $$1 all$$ | $2 for $$g\_{s,}g\_{Syn}$ | $$2 all$$ | $$1 all$$ | $2 for $$g\_{s,}g\_{Syn}$ | $$2 all$$ |
| **Escape** | $$1 all$$ |  | .229 | .999 | .286 | **<.001** | .279 |
| $2 $ **for** $g\_{H,}g\_{Syn}$ |  |  | .354 | **.005** | **.020** | 1.00 |
| $$2 all$$ |  |  |  | .818 | **<.001** | .391 |
| **Release** | $$1 all$$ |  |  |  |  | **<.001** | **.007** |
| $2 $ **for** $g\_{H,}g\_{Syn}$ |  |  |  |  |  | **.015** |
| $$2 all$$ |  |  |  |  |  |  |

**Supplementary File 1h**  |
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|  |
| --- |
| **Measure: change in amplitude from 10oC to 20oC; Test: One-way ANOVA; F-statistic: F(5,59)=50.437, p<0.001; Post-hoc: Tuckey** |
|  |  | **Escape** | **Release** |
|  | $$Q\_{10}$$ | $$1 all$$ | $2 for $$g\_{s,}g\_{Syn}$ | $$2 all$$ | $$1 all$$ | $2 for $$g\_{s,}g\_{Syn}$ | $$2 all$$ |
| **Escape** | $$1 all$$ |  | **<.001** | .406 | **<.001** | **<.001** | **<.001** |
| $2 $ **for** $g\_{H,}g\_{Syn}$ |  |  | .314 | **<.001** | **.002** | .082 |
| $$2 all$$ |  |  |  | **<.001** | **<.001** | **<.001** |
| **Release** | $$1 all$$ |  |  |  |  | **<.001** | **<.001** |
| $2 $ **for** $g\_{H,}g\_{Syn}$ |  |  |  |  |  | .853 |
| $$2 all$$ |  |  |  |  |  |  |

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|  |
| --- |
| **Measure: change in duty cycle from 10oC to 20oC; Test: One-way ANOVA; F-statistic: F(5,59)= 0.964, p=0.447; Post-hoc: Tuckey** |
|  |  | **Escape** | **Release** |
|  | $$Q\_{10}$$ | $$1 all$$ | $2 for $$g\_{s,}g\_{Syn}$ | $$2 all$$ | $$1 all$$ | $2 for $$g\_{s,}g\_{Syn}$ | $$2 all$$ |
| **Escape** | $$1 all$$ |  | .821 | 1.00 | .961 | .939 | .964 |
| $2 $ **for** $g\_{H,}g\_{Syn}$ |  |  | .865 | .489 | .999 | .999 |
| $$2 all$$ |  |  |  | .999 | .948 | .964 |
| **Release** | $$1 all$$ |  |  |  |  | .647 | .729 |
| $2 $ **for** $g\_{H,}g\_{Syn}$ |  |  |  |  |  | .000 |
| $$2 all$$ |  |  |  |  |  |  |

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|  |
| --- |
| **Measure: change in ERQ from 10oC to 20oC; Test: One-way ANOVA; F-statistic: F(5,59)=4.076, p=0.003; Post-hoc: Tuckey** |
|  |  | **Escape** | **Release** |
|  | $$Q\_{10}$$ | $$1 all$$ | $2 for $$g\_{s,}g\_{Syn}$ | $$2 all$$ | $$1 all$$ | $2 for $$g\_{s,}g\_{Syn}$ | $$2 all$$ |
| **Escape** | $$1 all$$ |  | **.019** | **.033** | .970 | 1.00 | .549 |
| $2 $ **for** $g\_{H,}g\_{Syn}$ |  |  | 1.00 | .177 | **.040** | .757 |
| $$2 all$$ |  |  |  | .208 | **.054** | .747 |
| **Release** | $$1 all$$ |  |  |  |  | .963 | .942 |
| $2 $ **for** $g\_{H,}g\_{Syn}$ |  |  |  |  |  | .592 |
| $$2 all$$ |  |  |  |  |  |  |

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