|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Model neuron | InputResistance (MΩ) | p-valuevs 40 mM | Rheobase (pA) | p-valuevs 40 mM | AP rate at 1.5x Rheobase (Hz) | p-valuevs 40 mM |
| VIP-40 mM | 266.5 ± 28.2 |  | 78.7 ± 3.7 |  | 7.0 ± 0.7 |  |
| VIP-35 mM | 266.2 ± 28.1 | 0.193 | 79.1 ± 3.6 | 0.177 | 7.0 ± 0.7 | 0.999 |
| VIP-30 mM | 264.8 ± 28.0 | 0.012 | 80.4 ± 3.5 | 0.014 | 6.9 ± 0.7 | 0.527 |
| VIP-30 mM + SST  | 260.2 ± 27.8 | <0.001 | 86.3 ± 3.8 | <0.001 | 6.5 ± 0.8 | 0.011 |
|  |  |  |  |  |  |  |
| SST-40 mM | 210.3 ± 23.0 |  | 130.0 ± 9.1 |  | 17.3 ± 2.1 |  |
| SST-35 mM | 199.9 ± 22.1 | 0.007 | 162.5 ± 11.9 | <0.001 | 11.9 ± 2.0 | 0.025 |
| SST-30 mM | 187.1 ± 21.2 | 0.001 | 187.0 ± 12.5 | <0.001 | 7.1 ± 1.9 | 0.003 |
|  |  |  |  |  |  |  |
| PV-40 mM | 105.8 ± 7.7 |  | 258.0 ± 7.5 |  | 18.3 ± 1.3 |  |
| PV-35 mM | 105.5 ± 7.7 | 0.140 | 264.5 ± 7.9 | 0.004 | 16.8 ± 1.4 | 0.033 |
| PV-30 mM | 103.3 ± 7.5 | <0.001 | 273.0 ± 9.5 | 0.004 | 12.4 ± 2.0 | 0.004 |
| PV-35 mM + INaP | 104.6 ± 7.5 | <0.001 | 238.5 6.3 | <0.001 | 21.1 ± 1.3 | <0.001 |
| PV-30 mM + INaP | 103.4 ± 7.4 | 0.009 | 250.5 ± 6.9 | 0.002 | 20.1 ± 1.5 | 0.012 |
|  |  |  |  |  |  |  |
| Glut-40 mM | 147.1 ± 12.0 |  | 117.0 ± 10.4 |  | 2.46 ± 0.3 |  |
| Glut-30 mM | 146.4 ± 12.1 | 0.017 | 121.5 ± 10.0 | <0.001 | 2.36 ± 0.4 | 0.593 |
| Glut-30 mM + SST  | 140.4 ± 11.9 | 0.001 | 146.0 ± 9.7 | <0.001 | 1.54 ± 0.3 | 0.012 |

**Supplementary file 3. Electrophysiological parameters using compartmental model neurons.**

For an explanation of the parameters, see Methods. AP = action potential. For each subgroup, 10 model neurons were used and simulations were repeated with the EC50 (in mM) for Na+ for the KCNT1 conductance set at the indicated levels. “+ SST” refers to the activation curve parameters (V50 and slope) for the KCNT1 conductance in that neuron type being replaced with those measured in SST neurons. Values shown are means ± the standard error. The statistical test is a repeated measures ANOVA.