**Supplemetary File 6**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Cav1.3L - Activation 15 mM Ca2+** | | | | | | | | | | **Cav1.3L - Inactivation 15 mM Ca2+** | | | | | | | | | |
| **β-subunit** | **V0.5**  **[mV]** | | **k**  **[mV]** | **Vrev**  **[mV]** | | **act**  **thresh**  **[mV]** | **current**  **density**  **[pA/pF]** | | **n** | | **V0.5, inact**  **[mV]** | | | **kinact**  **[mV]** | | | | **plateau**  **[%]** | | **n** |
| β2a | 4.3  ±1.8 | | 9.9  ±0.3 | 71.2  ±2.0 | | -34.5  ±0.9 | -7.8  ±0.6 | | 14 | | -18.3  ±3.2 | | | 10.0  ±1.0 | | | 36.2  ±5.8 | | | 5 |
| C3S/C4Sβ2a | 0.2  ±1.2 | | 9.2\*  ±0.2 | 71.3  ±1.1 | | -34.9§§  ±0.9 | -10.9  ±1.6 | | 15 | | -24.4  ±1.2 | | | 6.1\*\*\*  ±0.4 | | | 21.6\*  ±1.9 | | | 11 |
| β3 | 3.1  ±1.9 | | 8.9\*  ±0.4 | 71.1  ±2.7 | | -30.6\*  ±0.8 | -10.2  ±1.4 | | 9 | | -20.3  ±0.9 | | | 7.0\*  ±0.5 | | | 28.5  ±5.4 | | | 5 |
| **Cav1.3L - 5 s Inactivation 15 mM Ca2+** | | | | | | | | | | | | | | | | | | | | |
| **β-subunit** | | **r50 [%]** | | | **r100 [%]** | | | **r250 [%]** | | **r500 [%]** | | | **r1000 [%]** | | | **r5000 [%]** | | | **n** | |
| β2a | | 86.8  ±2.7 | | | 81.2  ±3.0 | | | 71.5  ±3.5 | | 63.3  ±4.1 | | 54.6  ±4.2 | | | 36.0  ±3.7 | | | | 10 | |
| C3S/C4Sβ2a | | 74.5\*  ±3.0 | | | 62.7\*\*\*  ±2.6 | | | 47.1\*\*\*  ±3.2 | | 33.0\*\*\*  ±2.6 | | 23.3\*\*\*  ±2.6 | | | 12.6\*\*\*  ±1.7 | | | | 14 | |
| β3 | | 81.5  ±3.4 | | | 70.3  ±3.7 | | | 50.6\*\*  ±4.1 | | 34.6\*\*\*  ±3.9 | | 25.2\*\*\*  ±4.2 | | | 13.7\*\*\*  ±3.0 | | | | 7 | |