**Supplemetary File 6**

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|  | **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 |