**Supplementary Table 2**

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| **Postnatal Maturation of Active Properties in Fast and Slow Motoneurons**  |
| **Parameter** | **Week 1 (P1-4)1** | **Week 2 (P7-12)2** | **Week 3 (P14-20)3** | **2W ANOVA****F, p** |
| **Subthreshold Membrane Potential Acceleration on Recruitment Ramp** |
| Acceleration onset voltage (mV) | Del | -49.1±3.8(-53.9, -39.8) 2,3(33) | -51.8±2.5(-57.2, -45.5) 1(82) | -51.4±4.4(-59.1, -35.9) 1(53) | 1.9, 0.224.9,1.4e-106.1, 0.003 |
| Imm | -48.0±4.4(-56.5, -38.2) 2,3(24) | -52.0±3.4(-57.3,-44.2) 1,3(40) | -55.6±3.1(-57.8, -47.0) 1,2(28) |
| P value | 0.7 | 0.8 | **0.003** |
| Acceleration Amplitude (dV)Spike TH – Acceleration onset (mV) | Del | 11.0±3.7(4.4,21.3)(33) | 12.9±2.3(7.0,18.5)(82) | 12.1±3.4(6.1,24.9)(53) | 4.1, 0.040.9, 0.42.2, 0.1 |
| Imm | 11.6±4.2(3.8,20.6)(24) | 11.0±4.1(3.8,22.2)(40) | 10.5±3.4(3.4,17.6)(28) |
| P value | 0.98 | 0.1 | 0.5 |
| Passive Rheobase (pA) | Del | 497±280(168,1267) 2,3(33) | 1017±492(268,2560) 1,3(82) | 1498±1100(272,4154) 1,2(53) | 66.7, 1.7e-137.1, 0.00115.8, 3.4e-7 |
| Imm | 433±218(115,985)(24) | 411±392(57,1518)(40) | 250±164(60,672)(40) |
| P value | 0.9 | **6.8e-7** | **1.0e-15** |
| Actual Rheobase (pA) | Del | 349±214(118,1010) 2,3(33) | 550±254(149,1619) 1,3(82) | 816±631(127,2929) 1,2(53) | 45.4, 1.1e-103.4, 0.0412.1, 9.6e-6 |
| Imm | 327±178(101,757)(24) | 235±225(23,891)(40) | 173±176(23,797)(28) |
| P value | 0.8 | **1.0e-4** | **2.3e-12** |
| ePICPassive-Actual Rheobase (pA) | Del | 150±107(-18,439) 2,3(33) | 500±348(101,1855) 1,3(82) | 727±579(137,3072) 1,2(53) | 44.4, 1.8e-910.9, 3.0e-510.2, 5.6e-5 |
| Imm | 116±105(-32,389)(24) | 174±216(5.0,1110)(40) | 112±110(23,519)(28) |
| P value | 0.99 | **4.9e-5** | **6.4e-14** |
| **Recruitment-derecruitment Hysteresis and Persistent Inward Current** |
| Delta I Hysteresis (pA) | Del | -112±165(-510,123) 2,3(16) | -280±129(-601, -10) 1,3(56) | -339±181(-976, -71)(53) | 85.9, <1.0e-155.8, 0.0046.1, 0.003 |
| Imm | 7.7±110(-178,184)(9) | -20±51(-147,37)(21) | 9.2±99.3(309, -224)(28) |
| P value | 0.2 | **7.1e-10** | **1.0e-16** |
| PIC onset (mV) | Del |  | -50.2±4.1(-59.7, -39.9)(25) | -49.0±4.6(-59.0, -42.5)(14) | 57.6, 2.2e-100.3, 0.60.2, 0.7 |
| Imm |  | -58.3±4.4(-67.0, -51.5)(14) | -58.2±4.9(-64.1, -49.1)(13) |
| P value |  | **5.0e-6** | **6.0e-6** |
| PIC peak (mV) | Del |  | -32.8±5.0 (-45.7, -22.7)(25) | -30.2±6.3(-37.6, -19.4)(14) | 38.6, 5.1e-80.85, 0.41.3, 0.3 |
| Imm |  | -39.6±5.4(-53.3, -32.0)(14) | -39.9±4.7(-53.1, -34.3)(13) |
| P value |  | **0.0032** | **0.0005** |
| PIC amplitude (pA) | Del |  | 386±236(60, 1055)(24) | 502±205(175,950)(14) | 17.9, 7.8e-55.8, 0.020.02, 0.9 |
| Imm |  | 164±121 (52,366)(14) | 271±80(49,680)(13) |
| P value |  | **0.007** | **0.03** |
| PIC density (pA/pF) | Del |  | 0.87±0.45(0.17,1.95) 3(25) | 1.45±0.98(0.39,3.8) 2(14) | 5.3, 0.0213.8, 4.4e-40.3, 0.6 |
| Imm |  | 0.60±0.35 (0.1, 1.3)3(14) | 1.08±0.47(0.23,1.9) 2(13) |
| P value |  | 0.3 | 0.2 |
| **Sag and Ih** |
| eSag Conductance (nS) | Del | 3.6±3.5(-5.5,12.9) 3(33) | 6.5±13.1(-41.6,43.2)3(82) | 31.9±35.9(-25.2,129.1) 1,2(53) | 7.5, 0.0077.3, 8.3e-45.2, 0.006 |
| Imm | 4.3±5.3(-2.2,25.2)(24) | 6.0±15.8(-28.7,49.0)(40) | 7.2±6.7(-2.6,28.7)(28) |
| P value | 0.99 | 0.99 | **8.9e-7** |
| Ih amplitude (-70 mV) (pA) | Del |  | -25±42(4.2, -113) 3(15) | -119±103(-7.3, -275) 2(19) | 14.4, 3.0e-45.3, 0.0213.4, 5.3e-4 |
| Imm |  | -23±93(50.6, -116)(12) | -1.9±14.4(23.1, -26.2)(19) |
| P value |  | 0.98 | **2.0e-5** |
| Ih Density (-70 mV) (pA/pF) | Del |  | -0.05±0.1(0.2, -0.2) 3(15) | -0.53±0.85(-0.01, -3.0) 2(19) | 3.6, 0.062.5, 0.16.0, 0.02 |
| Imm |  | -0.12±0.1(0.15, -0.4)(12) | -0.015±0.07(0.1, -0.1)(19) |
| P value |  | 0.99 | **0.01** |
| Ih amplitude (-110 mV) (pA) | Del |  | -776±535(-67, -1472) 3(15) | -1176±557(-131, -2749) 2(18) | 29.5, 1.1e-61.3, 0.36.1, 0.02 |
| Imm |  | -449±330(-51, -902)(12) | -302±196(-94, -640)(19) |
| P value |  | 0.1 | **3.0e-7** |
| Ih Density (-110 mV) (pA/pF) | Del |  | -1.8±1.4(-0.25, -5.5) 3(15) | -4.6±5.8(-0.5, -21.4) 2(18) | 4.9, 0.032.0, 0.24.0, 0.05 |
| Imm |  | -1.6±1.0(-0.4, -3.4)(12) | -1.2±0.76(-0.17, -2.6)(19) |
| P value |  | 0.99 | **0.015** |
| Ih tau (-110 mV) (s) | Del |  | 0.37±0.11(0.3,0.7) 3(15) | 0.22±0.07(0.1,0.3) 2(19) | 50.1, 4.1e931.2, 1.0e-650.1, 4.1e-9 |
| Imm |  | 0.51±0.09(0.4,0.7) 3(12) | 0.41±0.05(0.3,0.5) 2(19) |
| P value |  | **0.005** | **1.5e-9** |