

Supplementary Text.

**Table S1.** Area coverage percentage for MBP and NeuN in the hippocampus

		MBP CA1	MBP SCWM	NeuN CA1	NeuN SCWM
Male	GA68	13.39 ± 0.61	39.68 ± 0.84	14.71 ± 0.60	20.03 ± 1.06
	Term Neo	13.06 ± 0.57	34.27 ± 0.80	16.62 ± 0.22	21.93 ± 0.77
P-values		0.7004	0.0005	0.0187	0.1635
Female	GA68	13.16 ± 0.62	38.99 ± 0.59	14.56 ± 0.34	18.96 ± 0.98
	Term Neo	12.97 ± 0.63	34.73 ± 1.09	16.76 ± 0.49	22.02 ± 0.50
P-values		0.8374	0.0043	0.0032	0.0165

**Table S2.** Relative mRNA expression of neurodevelopmentally-related genes in hippocampus

Gene ID	Male GA68	Male Term 24hr	P-value	Female GA68	Female Term 24hr	P-value
<i>ABAT</i>	1.006 ± 0.048	0.981 ± 0.022	0.6223	0.925 ± 0.023	0.987 ± 0.039	0.2477
<i>AIF1</i>	0.670 ± 0.038	0.713 ± 0.022	0.3235	0.731 ± 0.047	0.728 ± 0.029	0.9525
<i>BDNF</i>	0.742 ± 0.067	0.823 ± 0.032	0.2609	0.701 ± 0.056	0.800 ± 0.037	0.1585
<i>CALB1</i>	1.051 ± 0.040	0.892 ± 0.022	0.0031	1.064 ± 0.048	0.933 ± 0.059	0.1353
<i>CAPN1</i>	0.456 ± 0.012	0.911 ± 0.068	0.0002	0.407 ± 0.042	0.730 ± 0.030	<0.0001
<i>CAPN2</i>	0.300 ± 0.015	0.845 ± 0.068	<0.0001	0.255 ± 0.018	0.724 ± 0.069	0.0004
<i>CAPNS1</i>	1.197 ± 0.052	1.120 ± 0.057	0.3481	0.956 ± 0.041	1.076 ± 0.027	0.0276
<i>CAST</i>	1.201 ± 0.045	1.265 ± 0.099	0.6093	1.357 ± 0.056	1.275 ± 0.039	0.2403
<i>CKAP5</i>	0.986 ± 0.060	0.924 ± 0.063	0.5151	0.978 ± 0.068	0.875 ± 0.028	0.1488
<i>CSPG4</i>	0.121 ± 0.017	0.727 ± 0.178	0.0114	0.145 ± 0.030	0.630 ± 0.110	0.0039
<i>DLG4</i>	0.681 ±	0.989 ±	0.0004	0.708 ±	0.934 ±	0.0092

	0.029	0.050		0.032	0.054	
<i>DNMT1</i>	0.738 ± 0.040	1.040 ± 0.082	0.0114	0.702 ± 0.041	0.872 ± 0.046	0.0249
<i>DNMT3A</i>	0.340 ± 0.039	0.590 ± 0.143	0.1291	0.328 ± 0.036	0.376 ± 0.033	0.3570
<i>ENO2</i>	1.097 ± 0.043	1.058 ± 0.027	0.4355	0.976 ± 0.036	1.040 ± 0.022	0.1395
<i>FYN</i>	1.192 ± 0.093	1.011 ± 0.048	0.0858	1.082 ± 0.074	1.009 ± 0.039	0.3624
<i>GABRA1</i>	1.262 ± 0.126	1.098 ± 0.051	0.2067	1.043 ± 0.097	1.054 ± 0.062	0.9252
<i>GABRA2</i>	1.231 ± 0.108	1.059 ± 0.018	0.1746	1.150 ± 0.056	0.940 ± 0.037	0.0089
<i>GABRA3</i>	1.405 ± 0.305	0.844 ± 0.078	0.1276	1.276 ± 0.327	0.907 ± 0.112	0.2503
<i>GABRA4</i>	1.412 ± 0.158	1.089 ± 0.056	0.0993	1.255 ± 0.087	1.107 ± 0.083	0.2574
<i>GABRA5</i>	1.212 ± 0.059	1.070 ± 0.040	0.0605	1.174 ± 0.060	0.975 ± 0.044	0.0204
<i>GABRD</i>	0.817 ± 0.046	0.907 ± 0.030	0.1154	0.724 ± 0.031	0.864 ± 0.040	0.0283
<i>GABRG2</i>	1.364 ± 0.069	0.984 ± 0.074	0.0034	1.195 ± 0.061	1.106 ± 0.059	0.3316
<i>GAD1 (67)</i>	0.758 ± 0.031	0.952 ± 0.024	0.0003	0.769 ± 0.070	0.872 ± 0.044	0.2207
<i>GAD2</i>	0.819 ± 0.050	0.928 ± 0.031	0.0759	0.762 ± 0.046	0.874 ± 0.019	0.0312
<i>GLS1</i>	1.273 ± 0.102	0.940 ± 0.037	0.0205	1.135 ± 0.065	0.915 ± 0.050	0.0212
<i>GRIA1</i>	0.907 ± 0.059	0.941 ± 0.035	0.6067	0.914 ± 0.083	0.880 ± 0.050	0.7138
<i>GRIA2</i>	0.605 ± 0.037	1.021 ± 0.029	<0.0001	0.603 ± 0.035	0.947 ± 0.033	<0.0001
<i>GRIA3</i>	0.879 ± 0.052	0.853 ± 0.030	0.6573	0.775 ± 0.055	0.771 ± 0.041	0.9523
<i>GRIA4</i>	1.313 ± 0.162	0.906 ± 0.054	0.0540	1.208 ± 0.153	1.005 ± 0.081	0.2324

<i>GRIN1</i>	0.417 ± 0.024	0.741 ± 0.096	0.0113	0.366 ± 0.019	0.528 ± 0.048	0.0211
<i>GRIN2A</i>	0.934 ± 0.045	0.955 ± 0.067	0.8181	0.895 ± 0.103	0.897 ± 0.048	0.9852
<i>GRIN2B</i>	1.237 ± 0.102	1.146 ± 0.098	0.5405	1.281 ± 0.142	1.076 ± 0.092	0.2309
<i>GRIN2C</i>	0.650 ± 0.027	1.217 ± 0.093	0.0003	0.594 ± 0.068	1.103 ± 0.089	0.0018
<i>GRIN2D</i>	1.016 ± 0.061	1.025 ± 0.059	0.9234	1.119 ± 0.100	0.992 ± 0.039	0.2099
<i>GRIN3A</i>	0.657 ± 0.059	1.008 ± 0.083	0.0074	0.580 ± 0.035	0.882 ± 0.077	0.0112
<i>GRM1</i>	0.372 ± 0.020	0.711 ± 0.080	0.0034	0.330 ± 0.018	0.522 ± 0.055	0.0121
<i>GRM2</i>	0.473 ± 0.121	0.709 ± 0.072	0.1013	0.446 ± 0.087	0.678 ± 0.063	0.0507
<i>GRM3</i>	0.777 ± 0.044	0.948 ± 0.079	0.1126	0.794 ± 0.037	0.739 ± 0.018	0.1729
<i>GRM4</i>	0.258 ± 0.049	0.614 ± 0.184	0.0980	0.220 ± 0.046	0.424 ± 0.041	0.0084
<i>GRM5</i>	1.104 ± 0.060	0.984 ± 0.062	0.2025	1.072 ± 0.061	0.974 ± 0.043	0.2029
<i>GRM7</i>	1.377 ± 0.058	1.081 ± 0.051	0.0024	1.243 ± 0.071	1.133 ± 0.030	0.1423
<i>GRM8</i>	1.283 ± 0.193	1.026 ± 0.048	0.2478	1.245 ± 0.134	1.084 ± 0.039	0.3062
<i>HNRNPA2B1</i>	1.051 ± 0.022	0.857 ± 0.031	0.0005	1.185 ± 0.013	0.935 ± 0.032	<0.0001
<i>IL1B</i>	1.552 ± 0.189	0.944 ± 0.085	0.0075	1.631 ± 0.074	0.870 ± 0.043	0.0001
<i>INA</i>	0.627 ± 0.032	0.897 ± 0.053	0.0017	0.511 ± 0.052	0.797 ± 0.080	0.0216
<i>KIF1B</i>	1.090 ± 0.059	0.939 ± 0.068	0.1345	1.062 ± 0.062	0.883 ± 0.043	0.0338
<i>MBP</i>	0.575 ± 0.061	0.846 ± 0.069	0.0154	0.547 ± 0.018	0.739 ± 0.081	0.0545

<i>MOG</i>	1.891 ± 0.209	1.878 ± 0.233	0.9676	1.846 ± 0.201	1.465 ± 0.154	0.1576
<i>NCAM1</i>	1.290 ± 0.095	1.059 ± 0.072	0.0713	1.169 ± 0.045	0.930 ± 0.027	0.0007
<i>NEFH</i>	0.990 ± 0.102	1.115 ± 0.103	0.4170	0.847 ± 0.078	0.968 ± 0.080	0.3187
<i>NEFL</i>	0.333 ± 0.015	0.743 ± 0.253	0.1489	0.288 ± 0.027	0.415 ± 0.045	0.0552
<i>NEFM</i>	0.187 ± 0.013	0.562 ± 0.187	0.0851	0.175 ± 0.011	0.271 ± 0.055	0.1340
<i>NFKB1</i>	0.448 ± 0.070	0.768 ± 0.093	0.0239	0.404 ± 0.040	0.613 ± 0.066	0.0348
<i>NR3C1</i>	1.171 ± 0.049	0.998 ± 0.067	0.0740	1.106 ± 0.064	0.975 ± 0.031	0.0703
<i>NR3C2</i>	1.177 ± 0.080	1.177 ± 0.081	0.9953	1.142 ± 0.129	1.002 ± 0.059	0.3011
<i>NTRK2</i>	1.105 ± 0.099	0.971 ± 0.053	0.2254	0.985 ± 0.071	0.900 ± 0.041	0.2925
<i>OLIG2</i>	0.536 ± 0.026	0.776 ± 0.161	0.1834	0.531 ± 0.030	0.634 ± 0.107	0.3836
<i>PCBP1</i>	0.544 ± 0.017	0.805 ± 0.109	0.0488	0.546 ± 0.027	0.705 ± 0.050	0.0321
<i>PLP1</i>	1.217 ± 0.097	1.179 ± 0.061	0.7282	1.138 ± 0.078	1.067 ± 0.078	0.5414
<i>PVALB</i>	0.620 ± 0.067	1.081 ± 0.119	0.0096	0.554 ± 0.067	1.008 ± 0.097	0.0056
<i>QKI</i>	1.096 ± 0.107	1.038 ± 0.050	0.6055	1.131 ± 0.051	1.029 ± 0.048	0.1820
<i>RBFOX3</i>	0.598 ± 0.055	0.912 ± 0.142	0.0699	0.532 ± 0.029	0.641 ± 0.026	0.0199
<i>SLC12A2</i>	1.417 ± 0.127	1.194 ± 0.073	0.1322	1.101 ± 0.024	1.301 ± 0.114	0.1327
<i>SLC12A5</i>	1.034 ± 0.059	0.974 ± 0.053	0.4685	0.892 ± 0.038	0.966 ± 0.066	0.4032
<i>SLC17A6</i>	1.008 ± 0.156	0.810 ± 0.083	0.2424	0.833 ± 0.161	0.778 ± 0.154	0.8087

<i>SLC17A7</i>	0.804 ± 0.025	0.917 ± 0.060	0.1171	0.763 ± 0.023	0.841 ± 0.026	0.0557
<i>SLC17A8</i>	0.545 ± 0.045	0.967 ± 0.093	0.0033	0.369 ± 0.048	0.745 ± 0.052	0.0005
<i>SLC1A2</i>	0.501 ± 0.024	0.872 ± 0.049	<0.0001	0.528 ± 0.018	0.775 ± 0.061	0.0058
<i>SLC1A3</i>	1.459 ± 0.109	1.041 ± 0.058	0.0034	1.223 ± 0.073	1.119 ± 0.046	0.2499
<i>SLC32A1</i>	0.134 ± 0.006	0.471 ± 0.140	0.0469	0.102 ± 0.011	0.224 ± 0.049	0.0475
<i>SLC6A1</i>	0.766 ± 0.026	0.985 ± 0.044	0.0020	0.780 ± 0.082	0.890 ± 0.030	0.1848
<i>SLC6A11</i>	0.454 ± 0.033	0.696 ± 0.070	0.0155	0.526 ± 0.046	0.530 ± 0.046	0.9560
<i>SRD5A1</i>	0.851 ± 0.106	0.795 ± 0.083	0.6795	0.632 ± 0.068	0.601 ± 0.061	0.7494
<i>SRD5A2</i>	0.660 ± 0.146	0.660 ± 0.100	0.9985	1.035 ± 0.257	0.807 ± 0.209	0.5038
<i>SST</i>	0.278 ± 0.014	0.701 ± 0.175	0.0524	0.227 ± 0.016	0.465 ± 0.054	0.0040
<i>STAR</i>	0.581 ± 0.089	0.557 ± 0.031	0.8071	0.471 ± 0.042	0.617 ± 0.071	0.1426
<i>SYP</i>	0.763 ± 0.025	0.912 ± 0.035	0.0067	0.631 ± 0.028	0.858 ± 0.052	0.0064
<i>TSPO</i>	0.129 ± 0.036	0.478 ± 0.105	0.0123	0.094 ± 0.023	0.381 ± 0.093	0.0215
<i>VEGFA</i>	1.105 ± 0.185	0.979 ± 0.094	0.5225	0.893 ± 0.098	0.854 ± 0.075	0.7550