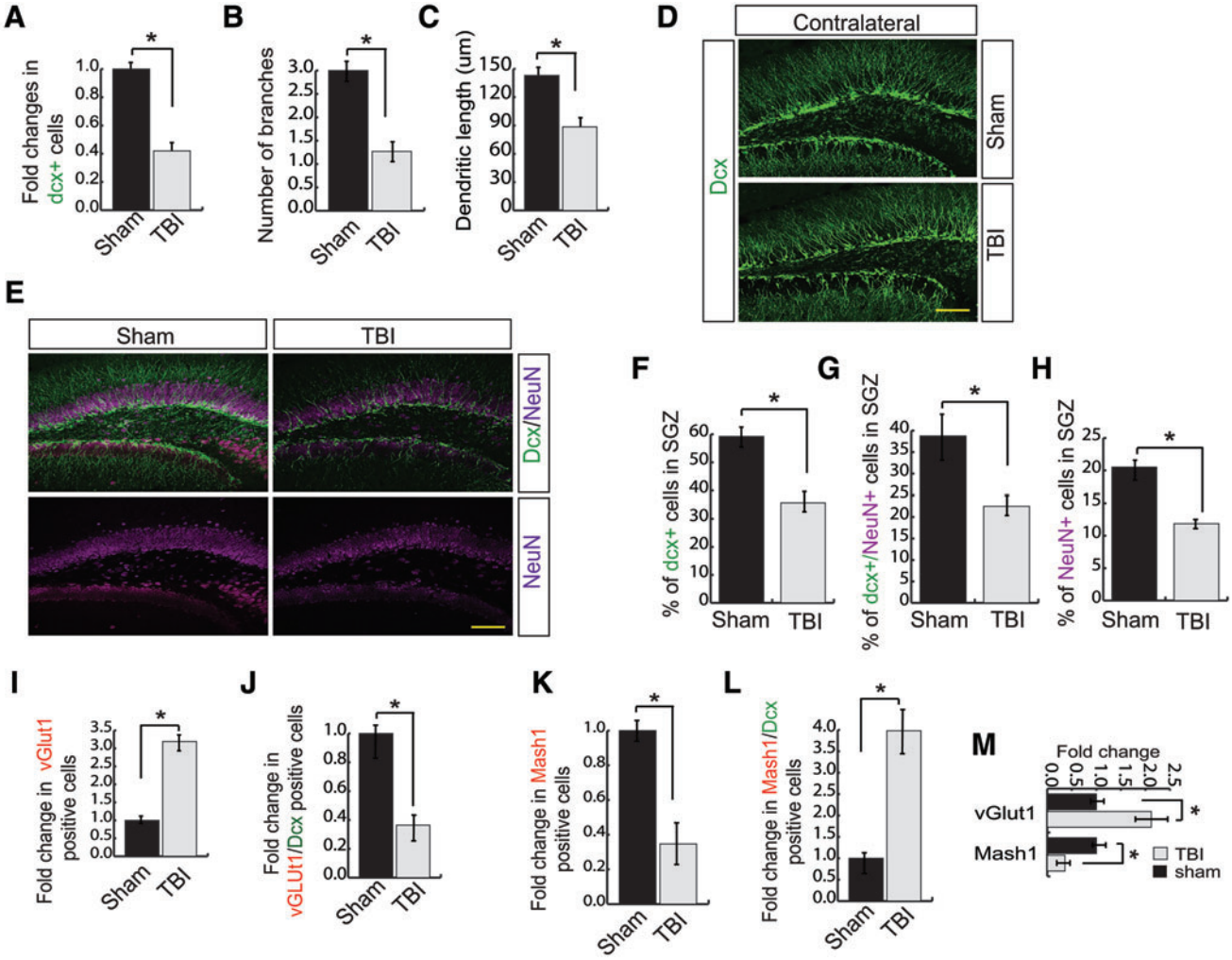
Supplementary Data



SUPPLEMENTARY FIG. S1. Quantitative analysis of neurogenesis and vGlut1- and Mash1-positive cells. **(A)** The fold changes in the intensity of green fluorescent for Dcx staining was monitored between TBI and sham mice. **(B,C)** The number of branches (B) and total dendritic length (C) was decreased in Dcx-positive cells in TBI mice compared with sham mice. **(D)** There is no significant difference in Dcx-positive cells in the contralateral cortex of TBI and sham mice. **(E–H)** Double staining with Dcx (immature neurons, green) and NeuN (mature neurons, purple) (E) showed that percentage of Dcx-positive cells (F), percentage of NeuN-positive cells within the population of Dcx-positive cells (G), and percentage of NeuN-positive cells (H) were decreased in TBI compared with Sham mice. **(I)** Quantitative analysis showed that vGlut1-positive cells were increased significantly in the DG of the hippocampus following TBI. **(J)** The ratio of vGlut1/Dcx-positive cells was decreased in TBI mice as the number of vGlut1-positive cells were increased along with a decrease in Dcx-positive cells. **(K)** The fold changes in the intensity of red fluorescent for Mash1 staining was monitored between TBI and sham mice. **(L)** The ratio of Mash1/Dcx-positive cells was increased in TBI mice as the number of Mash1-positive cells were decreased along with a decrease in Dcx-positive cells. **(M)** The fold changes in the level of vGlut1 and Mash1 was monitored in both groups. Statistical significance was measured by one-way ANOVA with a Tukey-Kramer post hoc correction, $n = 7$, * $p < 0.05$. All data are expressed as mean ± SEM. Scale bar = 20 μm. ANOVA, analysis of variance; Dcx, Doublecortin; DG, dentate gyrus; SEM, standard error of the mean; TBI, traumatic brain injury; vGlut1, vesicular glutamate transporter 1.