

Supplemental Figure 2, Medina et al.

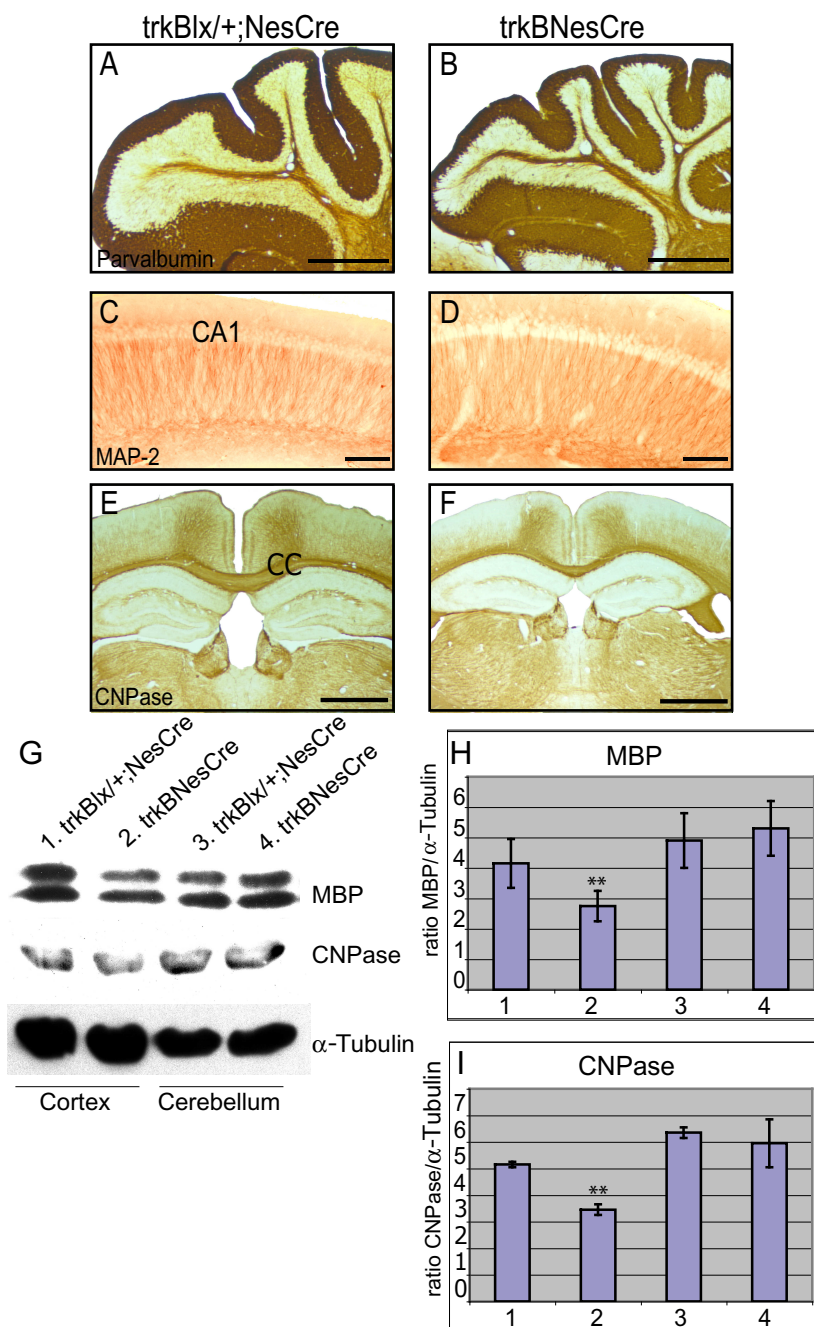


Figure Legend

Supplemental Figure 2. Further histological analysis of the *trkB^{NesCre}* brains

(A-F). Sagittal sections from the cerebellum of control and mutant mice (A, and B respectively) stained with anti-parvalbumin antibodies. Note similar parvalbumin staining in *trkB^{NesCre}* and control mice. (C-D) MAP-2 immunostaining of the hippocampal CA1 region reveals normal dendritic differentiation in control (C) and *trkB^{NesCre}* mutant mice (D). (E-F) CNPase immunostaining of coronal brain sections from control (E) and *trkB^{NesCre}* mice (F) showing a dramatic reduction of CNPase staining in the mutant mice (F). Also note the reduction in size of the corpus callosum (CC) in the *trkB^{NesCre}* brain (F) compared to controls (E). (G) Expression analysis of myelin proteins in *trkB^{NesCre}* mice. Cell lysates from cortex and cerebellum of control and *trkB^{NesCre}* mice at P60-90 were either immunoblotted with anti-MBP (G, upper panel), or anti-CNPase antibodies (G, mid panel). To control for differences in protein loading, blots were stripped and reprobed with anti- α Tubulin antibodies (G, lower panel). (H) Densitometric analyses of MBP protein levels in either the cortex (lanes 1-2) or cerebellum (lanes 3-4) of control and *trkB^{NesCre}* mice revealed a significant reduction in the expression levels of MBP protein in the cortex of *trkB^{NesCre}* mice (H, lane 2), **, $p=0.004$. By contrast MBP expression in the cerebellum of control and *trkB^{NesCre}* mice were comparable (H, lanes 3 and 4), $p=0.4$. (I) Similar analysis for CNPase protein levels in either the cortex (lanes 1-2) or cerebellum (lanes 3-4) of control and *trkB^{NesCre}* mice showed a significant reduction in the expression of CNPase protein in the cortex of *trkB^{NesCre}* mice (I, lane 2), **, $p=0.01$. Conversely, CNPase protein levels in the cerebellum of control and *trkB^{NesCre}* mice were similar (I, lanes 3 and 4), $p=0.6$. Statistical analysis was performed with Student's t test. Scale bars: (A-B), 0.5mm; (C-D), 100 μ m; (E-F), 1mm.