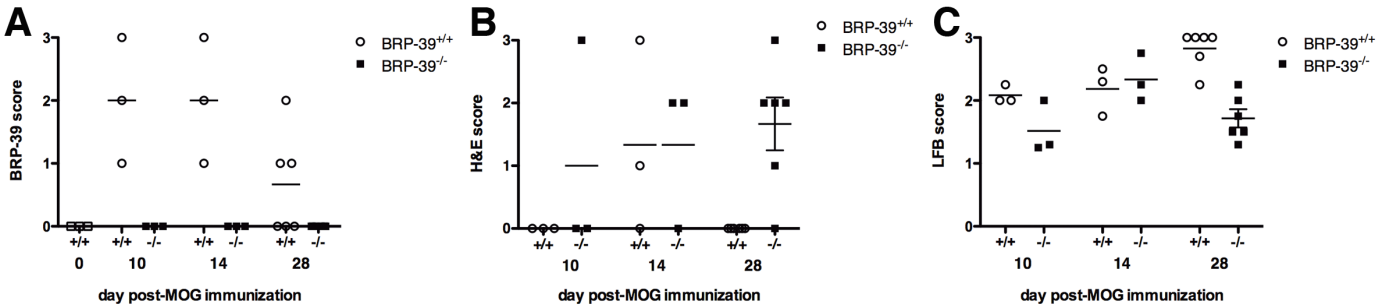
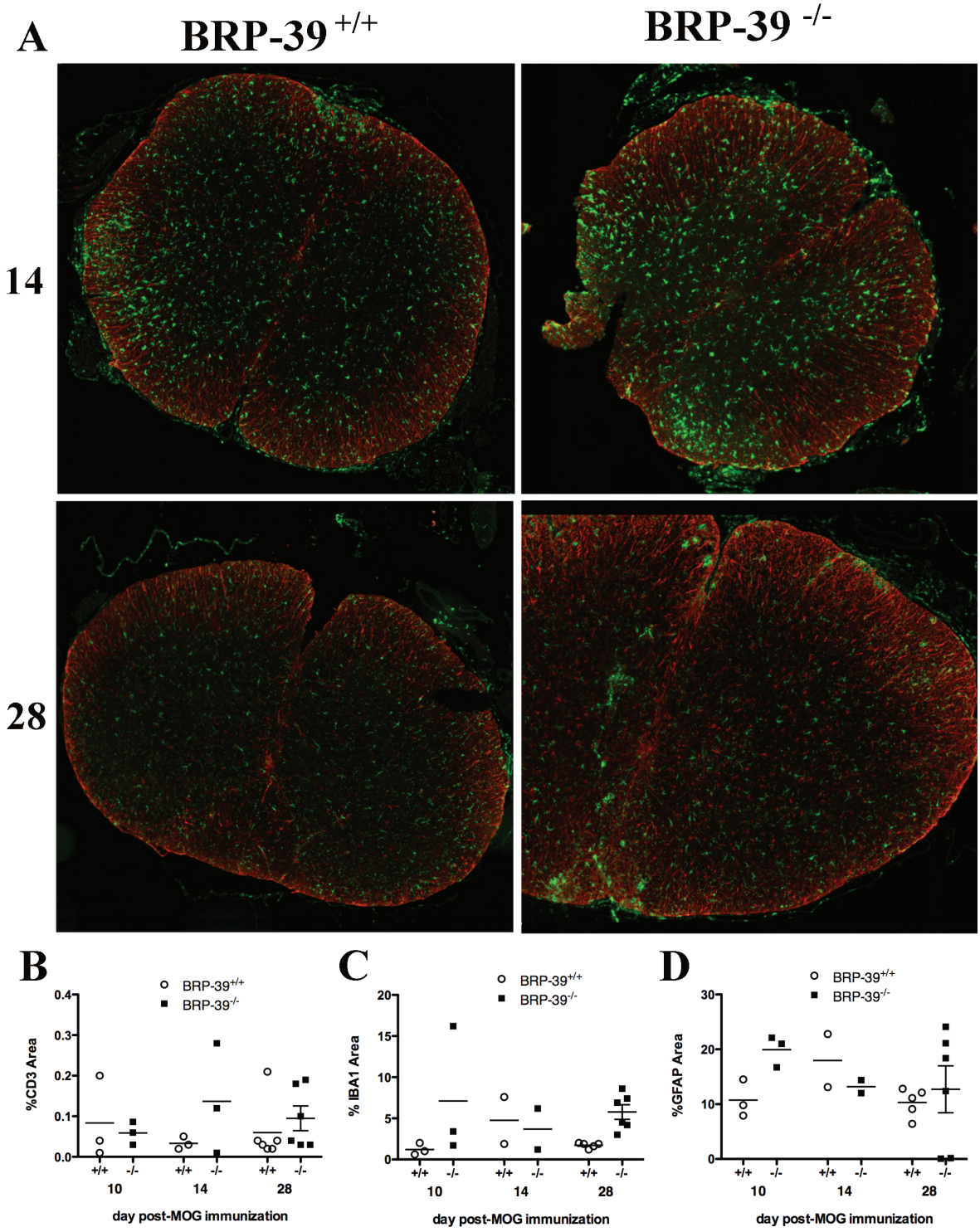
Supplemental Figure 1



Supplemental figure 1. Histology scores.
(A) Analysis of BRP-39 expression by ISH shows increased BRP-39 transcription in BRP-39$^{+/+}$ spinal cords at 10 and 14 dpi. By 28 dpi, half of the wild type mice show diminished BRP-39 transcription, while half show no BRP-39 transcription. Unmanipulated wild type mice (0 dpi) and BRP-39$^{-/-}$ mice did not show hybridization with the BRP-39 riboprobe. Spinal cord sections from each time point were hybridized with a BRP-39 riboprobe and scored using the following criteria: 0 = no definitive signal; 1 = occasional focus; 2 = moderate signal in fields containing lesions; 3 = abundant signal in fields containing lesions. (B) Assessment of inflammatory cell infiltrate by H&E shows that inflammation is resolved in BRP-39$^{+/+}$ spinal cords by 28 dpi but is still present in BRP-39$^{-/-}$ spinal cords. Spinal cord sections from each time point were stained with H&E and scored using the following: 0 = no inflammatory infiltrate; 1 = mild inflammatory infiltrate; 2 = moderate inflammatory infiltrate; 3 = severe inflammatory infiltrate. (C) Scoring of Luxol Fast Blue (LFB) stains illustrates demyelination in both wild type and BRP-39$^{-/-}$ spinal cords at 10 and 14 dpi. By 28 dpi, most wild type spinal cords exhibit normal myelination while BRP-39$^{-/-}$ spinal cords show continued absence of myelin. Spinal cord sections from each time point were stained with LFB and scored using the following criteria: 0 = severe absence of myelin; 1 =moderate absence of myelin; 2 = mild absence of myelin; 3 = normal myelination.

Supplemental Figure 2



Supplemental figure 2. Whole slide tissue image (WSI) analysis for CD3, GFAP and IBA-1.

Whole slide tissue image (WSI) analysis for CD3, GFAP and IBA-1 staining was performed as described in the Materials and Methods. Representative whole section images double-labeled for Iba-1 (green) and GFAP (red) at 14 (top row) and 28 (bottom row) dpi in BRP-39$^{+/+}$ (left column) and BRP-39$^{-/-}$ (right column) mice (A). Quantitation of peroxidase-based IHC for CD3 (B) or fluorescent-based staining for Iba-1 (C) or GFAP (D). While only three mice were available for study at 10 and 14 dpi, quantitative WSI confirms the subjective impression of increased gliosis and inflammation in BRP-39$^{-/-}$ mice.