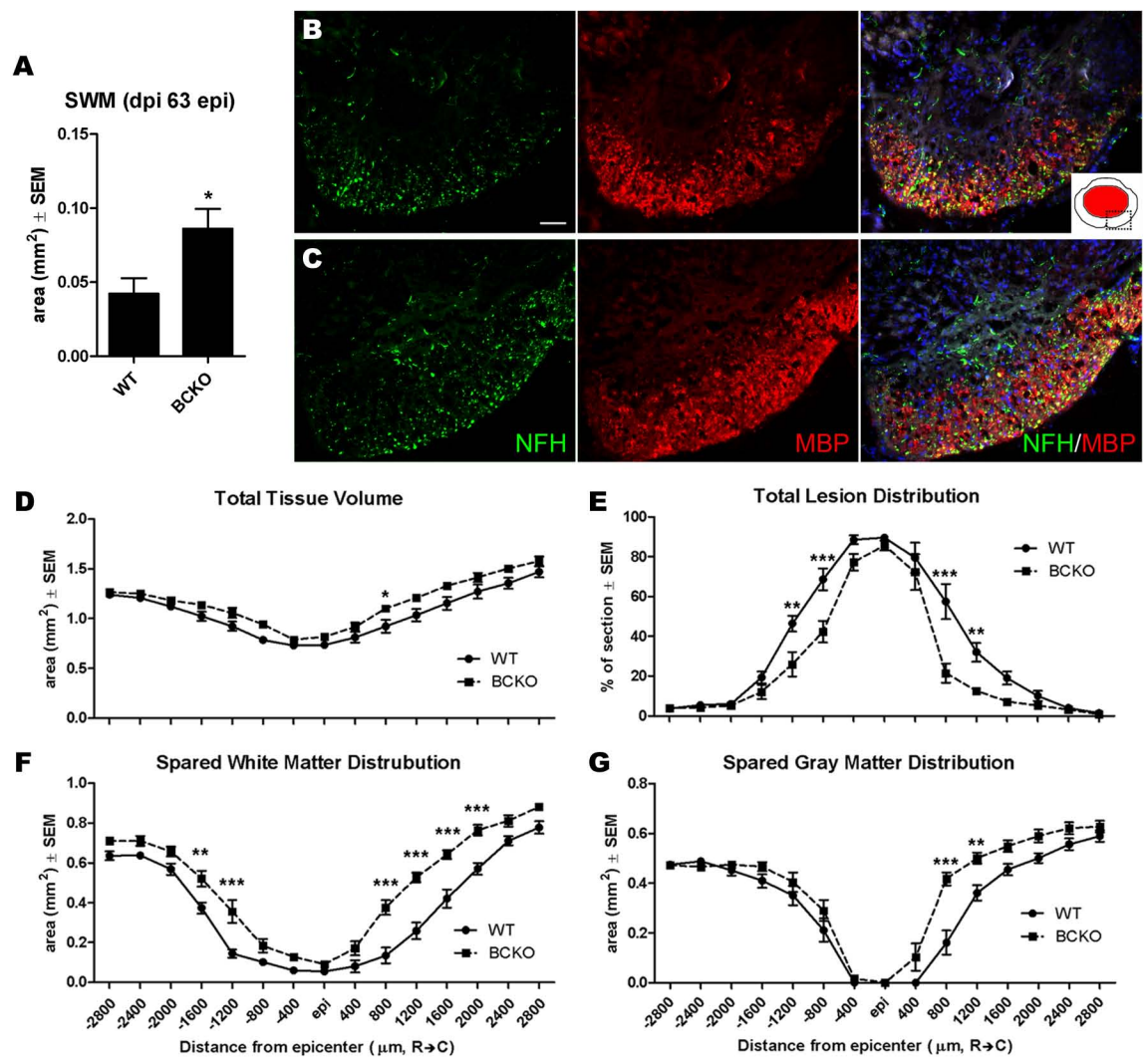
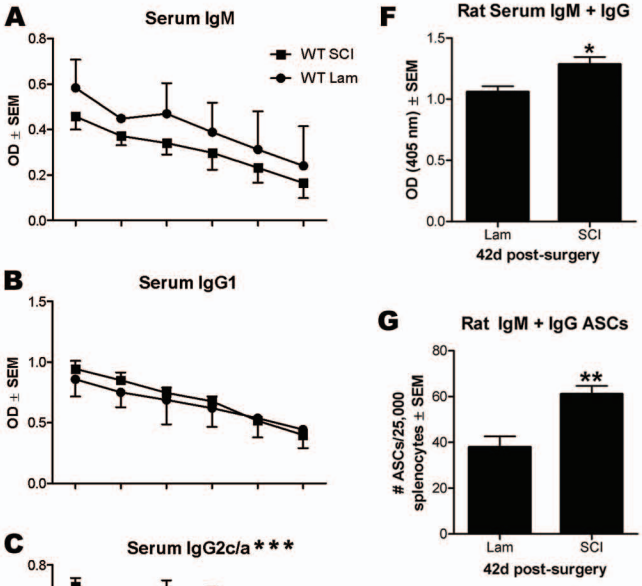
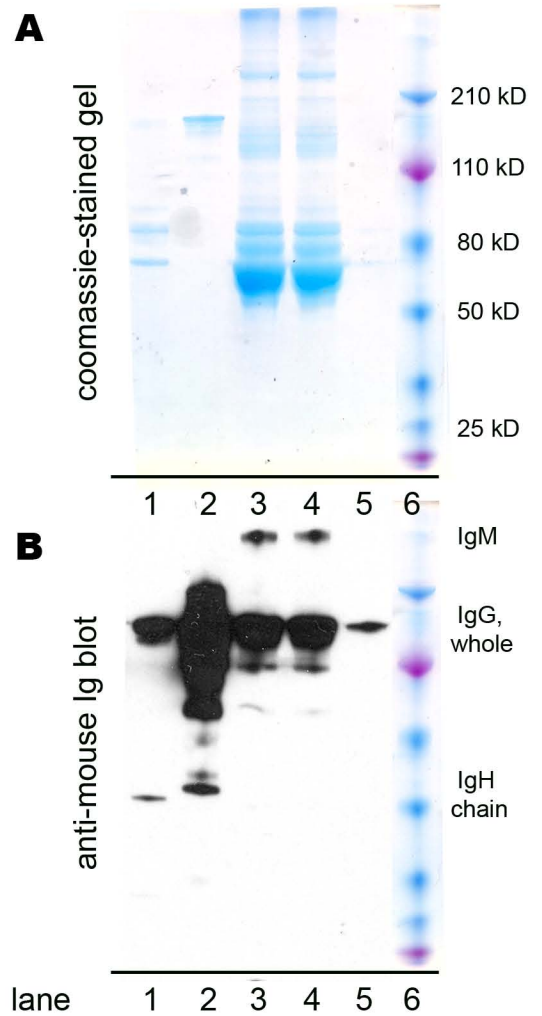


Supplemental Figure 1. (A-C) Quantitative and qualitative analysis of spared white matter at the epicenter (epi) at 63dpi. Immunofluorescent double-labeling of representative images from WT (B) and BCKO (C) mice showing axons (NFH staining) and myelin (MBP staining) in the epicenter (dashed box in cartoon shows region where images were sampled); * = $p<0.05$, t-test. (D-G) Rostral-caudal distribution of total tissue (D), total lesion (E), and spared white and gray matter (F+G, respectively). Data in D-G were analyzed by 2-way ANOVA with Bonferroni's post-test. * = $p<0.05$, ** = $p<0.01$, *** = $p<0.001$.

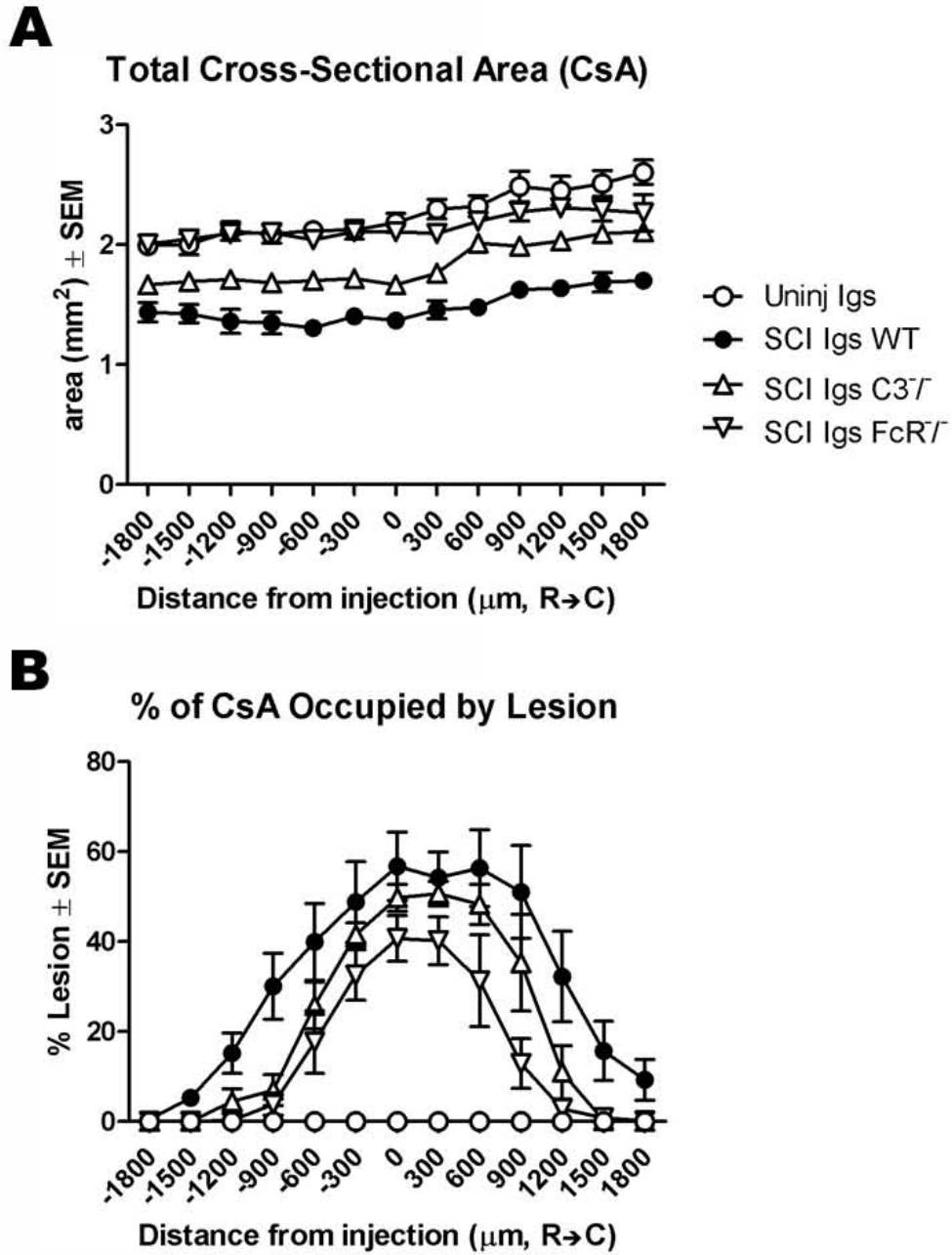


Supplemental Figure 2. (A-E) Isotype-specific ELISA reveals differential production of different antibody isotypes at 63 dpi in C57BL/6 WT mice. Serum from BCKO mice produce OD values that are equivalent to blank wells (not shown). Sera dilutions are provided on x-axis in (E); * = $p<0.05$, *** = $p<0.001$, 2-way ANOVA comparing effect of surgery (Sham versus SCI, n=8/group). (F,G) ELISA data comparing total Ig levels in rat serum 42 days post-injury or sham injury [laminectomy (Lam) only]; * = $p<0.05$, ** = $p<0.01$ vs. Lam, (t-test; n = 6 Lam, n = 10 SCI).



1. 50x conc. post-melon gel serum
2. commercial mouse IgG1
3. original serum
4. buffer-exchanged original serum
5. post-melon gel serum (purified Ig)
6. MWM

Supplemental Figure 3. Characterization of antibodies purified from sera of SCI mice. Identical volumes were loaded into each lane prior to SDS-PAGE and western blotting. (A) Shows coomassie-staining of total proteins in the gel prior to transfer. (B) Shows anti-mouse IgM + IgG staining of the membrane post-transfer. Note the dramatic decrease in non-Ig contaminant proteins in lane 5 compared to lanes 3&4.



Supplemental Figure 4. Rostral-caudal distribution of total tissue (cross-sectional areas) (A) and fraction of section occupied by lesion (B) in WT, C3-/- or FcγR-/- mice receiving microinjections of purified control (Uninj) or SCI antibodies; * = $p<0.05$, ** = $p<0.01$, *** = $p<0.001$ via 2-way ANOVA with Bonferroni's post-test.