



**Supplementary Figure 2.** ROCKII<sup>-/-</sup> mice display normal corticospinal tract (CST) morphology. Photomicrographs of anterograde tracing of the CST with biotin dextran amine in sagittal spinal cord sections of ROCKII<sup>+/+</sup> (A), ROCKII<sup>+/-</sup> (C), and ROCKII<sup>-/-</sup> (E) mice reveal no gross differences in CST morphology and location. High magnification photomicrographs of transverse spinal cord sections displaying unilateral cortical BDA labeling of the main CST in the dorsal columns shows no aberrant midline crossing or sprouting of CST axons to the contralateral gray matter (ROCKII<sup>+/+</sup>, B, ROCKII<sup>+/-</sup>, D, ROCKII<sup>-/-</sup>, F) Dashed line in B denotes midline. Scale bar A, 200 $\mu$ m, B, 100 $\mu$ m. One of four mice of each genotype with a similar pattern is shown.