



## Supplemental Figure S1.

**Characterization of BDNF knockout mice.** (A) Genotyping analysis with PCR. The representative gel analysis of PCR products using both the BDNF primer set and the Advillin-CreERT2 primer set is shown in top and bottom panels, respectively. Mice homozygous for the floxed *Bdnf* band and heterozygous for the Advillin-CreERT2 band were defined as *Bdnf<sup>fl/fl</sup>; Avil-CreERT2* mice. Mice only homozygous for the floxed *Bdnf* band were defined as *Bdnf<sup>fl/fl</sup>* littermate controls. The genomic DNA from C57BL/6J wild-type mice and heterozygous floxed *Bdnf* (*Bdnf<sup>fl/+</sup>*) mice were used as controls. (B) DRG sections were labelled with large diameter DRG neuron marker neurofilament (in magenta), and small-medium diameter DRG neuron marker peripherin (in yellow). Scale bar, 50  $\mu$ m. (C) The number of DRG neurons either expressing neurofilament (NF), or peripherin (Per) in the sampled L4 DRG sections, or both NF and Per were counted respectively. (D) The proportions of neurofilament and peripherin positive neurons in L4 DRG are presented. Both total number and proportion are normal in BDNF knockout mice ( $n = 3$ ) compared to littermate controls ( $n = 3$ ). Data were analysed with Student's *t*-test and  $P > 0.05$ .