

Fig. S1. Quantification of the number of Lhx2/9⁺ cells in control and caBmpr1b electroperated spinal cords. Electroperation of fGFP ($n=69$ sections from three embryos) or caBmpr1b-IRES-fGFP+ ($n=68$ sections from four embryos) does not affect the number of Lhx2/9⁺ neurons generated. Equivalent numbers of Lhx2/9⁺ neurons are present on the electroperated and non-electroperated sides of HH stage 18 spinal cords (fGFP: probability of similarity, $P>0.29$; caBmpr1b: probability of similarity, $P>0.16$). Error bars represent s.e.m.

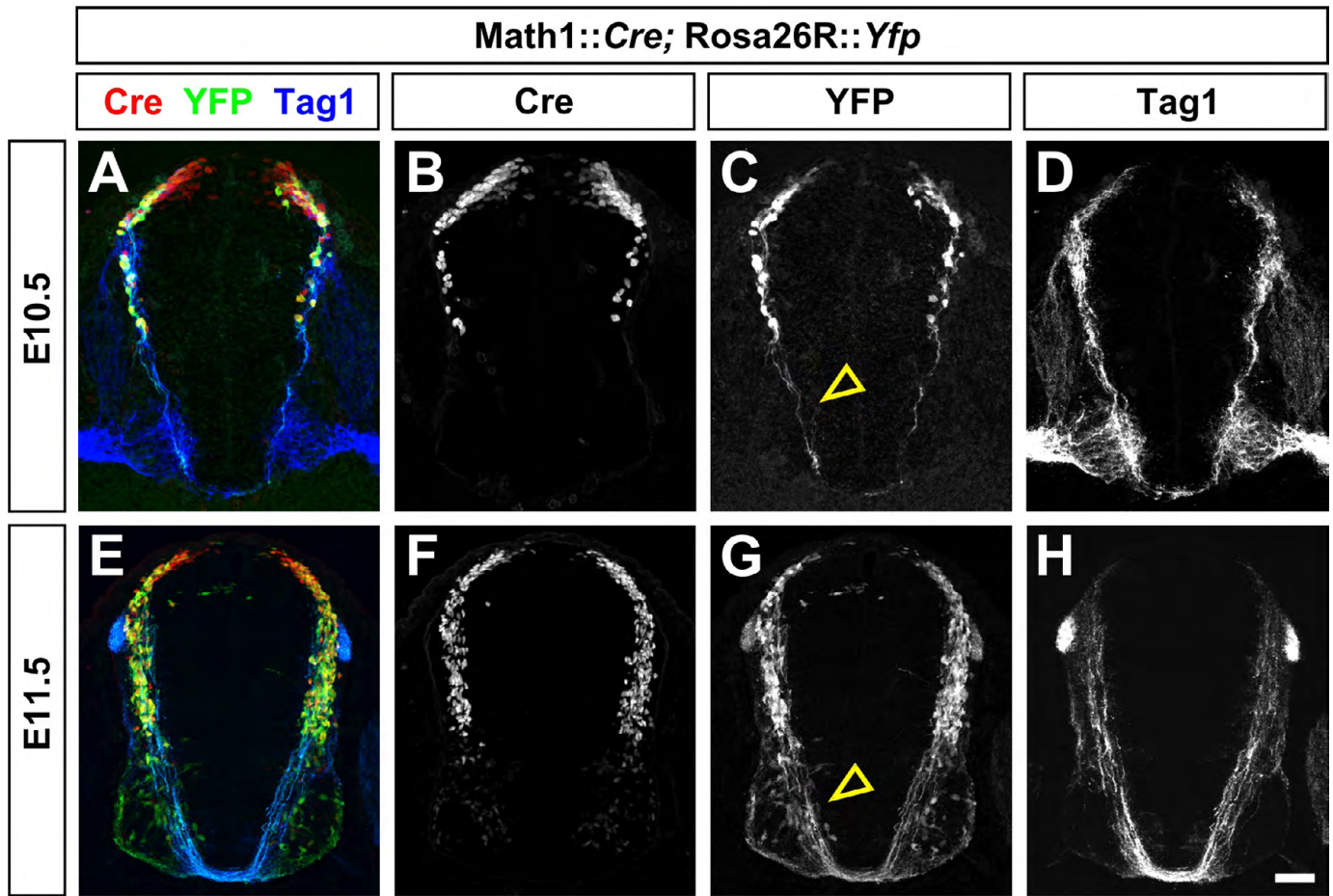


Fig. S2. The Math1 enhancer drives YFP expression in commissural neurons. (A-H) The Math1::Cre line can drive the expression of YFP in Tag1⁺ commissural axons (arrowheads, C,G) when crossed to the Cre reporter strain, Rosa26R(lox-stoplox)::Yfp. Transverse spinal sections, taken from E10.5 (A-D) and E11.5 (E-H) Math1::Cre; Rosa26R::Yfp embryos, were labeled with antibodies against Cre (red, A,B,E,F), GFP (green, A,E,C,G) and Tag1 (blue, A,E,D,H). Scale bars: 45 μ m in A-D; 55 μ m in E-H.

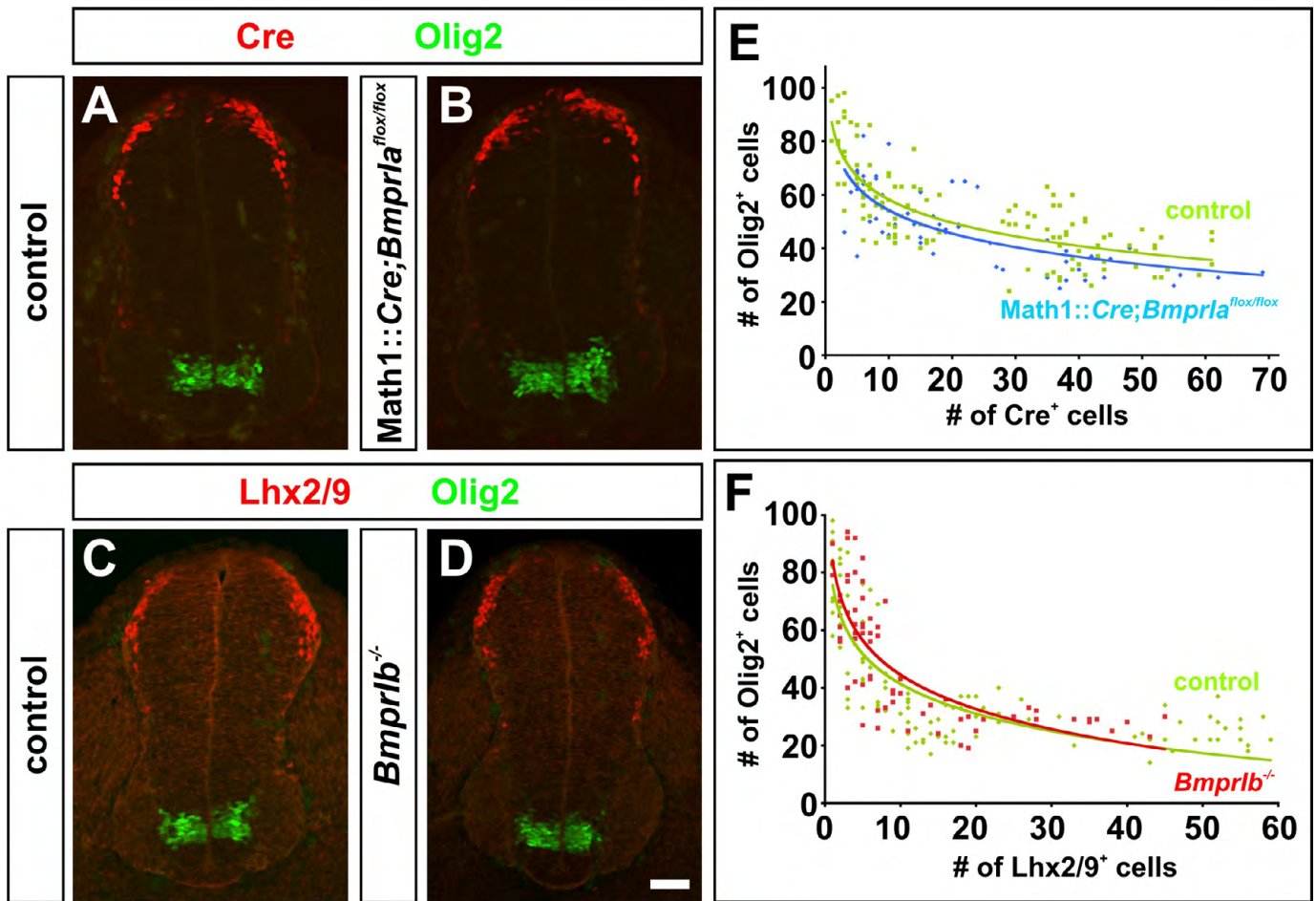


Fig. S3. The loss of *Bmpr1a* or *Bmpr1b* has no effect on the fate of commissural neurons. (A-D) There was no observable difference in the number of Lhx2/9⁺ cells in the presence or absence of either *Bmpr1a* or *Bmpr1b*. Transverse sections were taken from brachial or thoracic levels of the spinal cord from E10.5 *Math1::Cre; Bmpr1a^{+/+}* (control, A), *Math1::Cre; Bmpr1a^{flox/flox}* (B), *Bmpr1b^{+/+}* (control, C) and *Bmpr1b^{-/-}* (D) embryos and labeled with antibodies against Cre (red, A,B), Lhx2/9 (red, C,D) and Olig2 (green). (E,F) The numbers of Cre⁺ (E) or Lhx2/9⁺ (F) cells were plotted as a function of Olig2⁺ cell number to normalize the extent of development between embryos. A logarithmic regression analysis reveals no difference between the distribution of Cre⁺/Olig2⁺ cells in sections from *Math1::Cre; Bmpr1a^{flox/flox}* ($n=59$ sections from three embryos) and control ($n=29$ sections from two embryos) littermates or Lhx2/9⁺/Olig2⁺ cells in sections from *Bmpr1b^{-/-}* ($n=59$ sections from four embryos) and *Bmpr1b^{+/+}/Bmpr1b^{-/-}* ($n=40$ sections from four embryos) littermates. Scale bar: 25 μm.