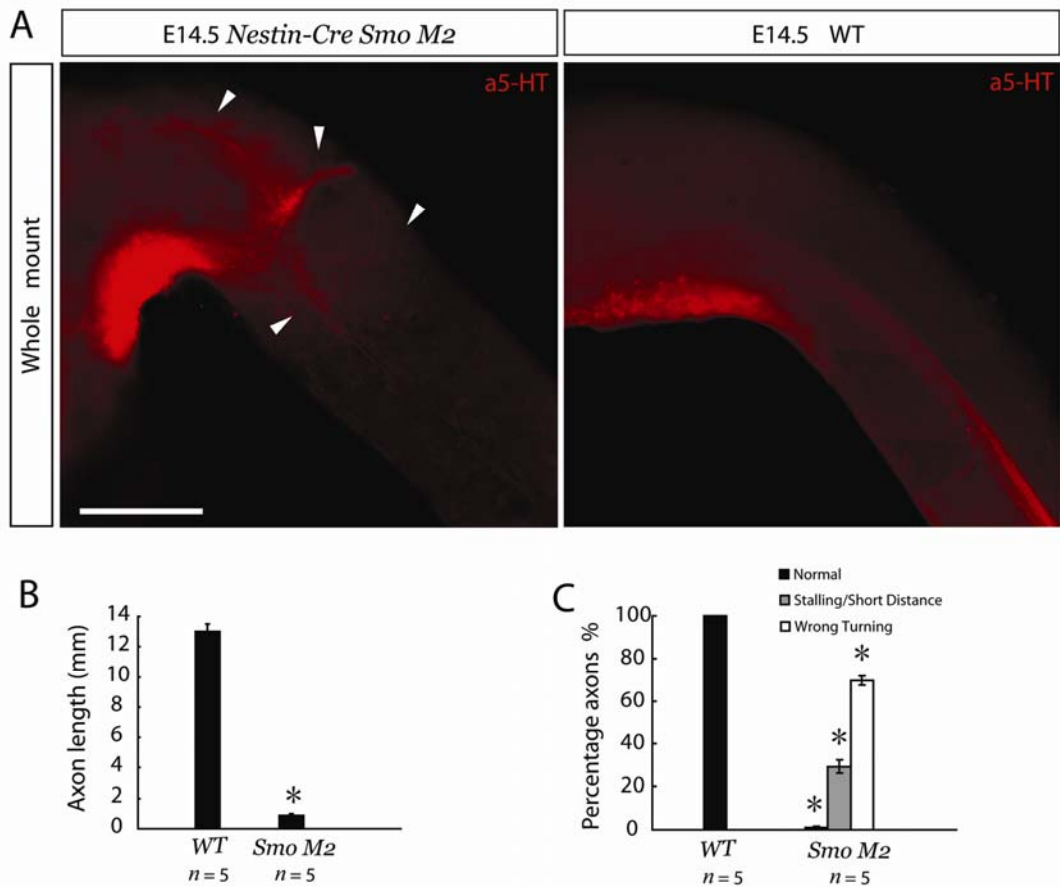


## Supplementary information, Figure S13



**Figure S13** Abnormal RST axon pathfinding detected in *Nestin-Cre; SmoM2* mice.

(A) In E14.5 *Nestin-Cre; SmoM2* mice, the projection of serotonergic RST axons was stalled in the upper cervical spinal cord. Most of the *Smo M2*-expressing RST axons were misguided with clear backward loops and anterior deflection to the brainstem (white arrowheads). Scale bar: 500  $\mu$ m. (B, C) Quantification of serotonergic RST pathfinding behavior in *Nestin-Cre; SmoM2* and WT mice. B shows the different projection distances of serotonergic RST axons in *Nestin-Cre; SmoM2* and WT mice. Data are presented as the mean  $\pm$  S.E.M. (mm). WT: 13.001  $\pm$  0.488; *Nestin-Cre; SmoM2*: 0.881  $\pm$  0.101. C shows the percentage of axons with normal and misguided behavior in *Nestin-Cre; SmoM2* and WT mice. Data are presented as the mean  $\pm$

S.E.M. (%). WT:  $100 \pm 0$  % normal; *Nestin-Cre*; *SmoM2* mice:  $1.00 \pm 0.05$ % (normal projection);  $29.33 \pm 3.11$ % (stalled or projected over a short distance);  $69.67 \pm 2.36$ % (anterior deflection). Error bars were derived from sets of experiments, and *n* indicates the total number of embryos quantified. Asterisks indicate values that differ significantly from the values of the control groups ( $P < 0.05$ ).