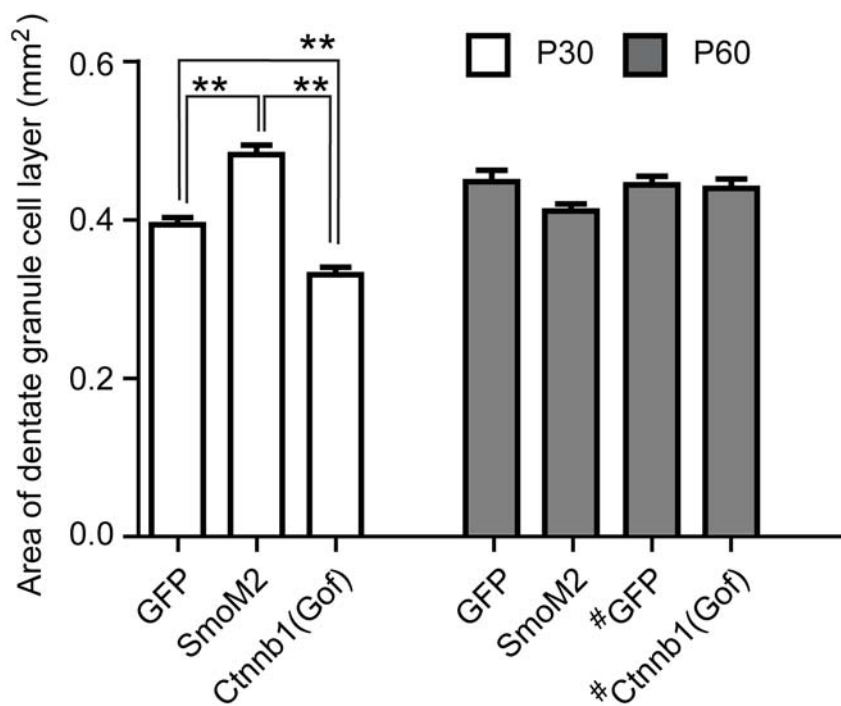


Supp. Fig. 1



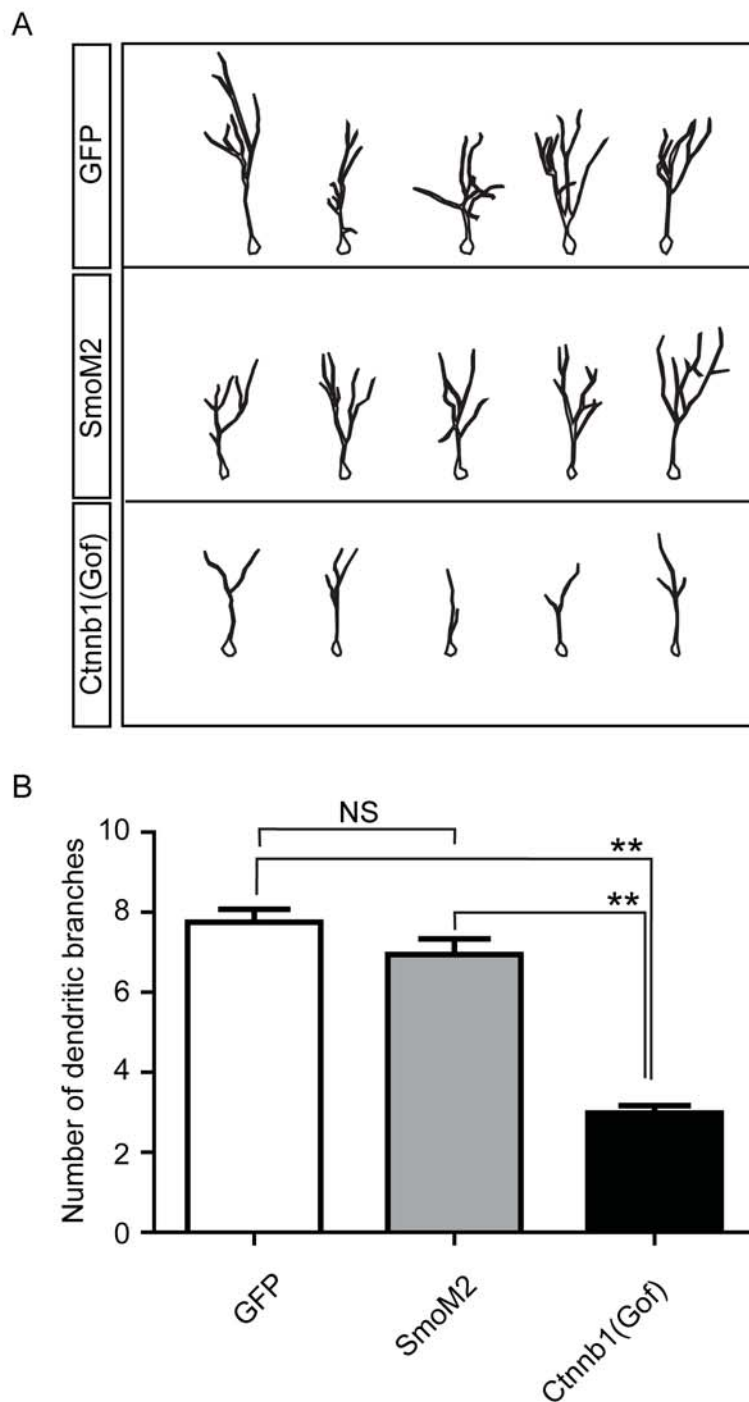
Supplementary Figure 1. Areas of the dentate granule cell layer were determined using ImageJ software by outlining Prox1 positive regions followed by measuring the area inside the line.

Forty sections from each group (N = 6) were used to measure the area.

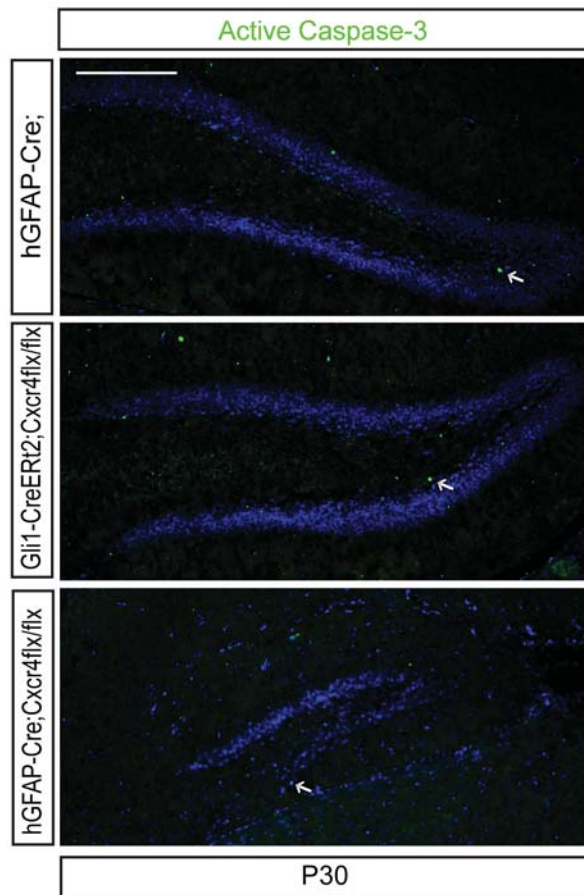
# indicates the lower dose of 1 mg / 10 g animal TM injection required for long term survival in the  $\beta$ -catenin mice.

ANOVA was used to determine significant difference followed by Tukey's post hoc analysis. \*\*,  $p < 0.005$ .

Supp. Fig. 2



Supplementary Figure 2. Inhibition of dendritic branch formation by tonic  $\beta$ -Catenin expression. A) Drawings of representative granule neurons labeled with GFP and Prox1 at P60 (TM at P15). B) Seventy five neurons were used to measure the average number of dendritic branches from GFP, SmoM2, and Ctnnb1(Gof) mice at P60. For the statistical analysis, we used ANOVA followed by Tukey's post hoc analysis. \*\*,  $p < 0.005$ .



Supplementary Figure 3: Sections from control (hGFAP-Cre;), Gli1-CreERT2;Cxcr4flx/flx (TM at P15, P16, P17), and hGFAP-Cre;Cxcr4flx/flx were stained for activated caspase-3 to visualize apoptotic cells at P30. Most of sections (10 out of 12 sections) were entirely negative for the staining and sections with signal showed only one or two positive cells (arrows) regardless of genotype. This suggests that cell death is not a major contributor to the loss of IPCs in the Cxcr4 mutant. Scale bar = 200  $\mu$ m. Twelve sections from 3 mice of each genotype were used for the assay.