

Fig. S1. Variability in $\beta$-catenin recombination in $\boldsymbol{c} \beta$ cat mutants. Immunostaining for $\beta$-catenin in (A) control, (B) Class A or (C) Class C embryos shows complete, absent or partial staining (arrows), respectively, in the canal pouch epithelium at E12.0 (tamoxifen administration at E10.0).


Fig. S2. Resorption defects in Class A $c \beta c a t$ mutants are not attributable to impairments in cellular proliferation or apoptosis. $(\mathbf{A}, \mathbf{B})$ BrdU-positive cells were counted in four different regions of the vertical canal pouch in control and $c \beta c a t$ mutants within a fixed-sized box adjacent to the lateral and medial sides of the anterior (shown) and posterior fusion plate. (C) The average number of BrdU-positive cells per section was not significantly different between control and $c \beta c a t$ embryos when recombination was induced at E10.0 and tissue was collected at E12.0. (D,E) Activated caspase 3 staining was evaluated at the same time point in the anterior and posterior (shown) fusion plate (bracket) of control and $c \beta$ cat embryos. (F) The average number of cells per section undergoing apoptosis was slightly elevated in the anterior, but not posterior, fusion plate region of $c \beta c a t$ mutants compared with controls ( ${ }^{*} P=0.095$ ). Error bars represent the s.e.m. A or Ant., anterior; L or Lat., lateral; M or Med., medial; P or Post., posterior; F.P., fusion plate.


Fig. S3. The onset of Ntn1 expression occurs correctly in $\boldsymbol{c} \beta \boldsymbol{c} \boldsymbol{c} \boldsymbol{t}$ mutants. (A,B) The initiation of Ntn1 expression is not delayed in $c \beta$ cat compared with control embryos at E11.5 (tamoxifen administered at E10.5). (C) Dlx5 expression in the vertical canal pouch rims of control embryos at E12.0.

