



Fig. S2 Aberrant IEC differentiation in $\beta 7^{-/-}$ mice.

a Representative images (left) and quantification (right) of the total crypt cell number in WT and $\beta 7^{-/-}$ mice. Scale bars, 25 μm . Data are collected from more than 100 intact crypts from WT ($n=6$) and $\beta 7^{-/-}$ ($n=6$) mice, and represented as mean \pm SEM, ns, no significant difference, t -test. **b** Relative expression of Paneth, goblet, enterocyte and stem cell marker genes in the small intestines of WT and $\beta 7^{-/-}$ mice. $n=4$ mice per group, data are represented as mean \pm SEM. ** $P < 0.01$, * $P < 0.05$, ns, no significant difference, t -test. **c** Representative images of the Confetti color lineage (additional data for Fig2 d-g) for each differentiated IEC cell type in Control ($Lgr5$ -Confetti) and $\beta 7^{-/-}$ ($Lgr5$ -Confetti; $\beta 7^{-/-}$) mice at 10 days after tamoxifen treatment (10dpt). Goblet cells (Muc2), Paneth cells (LYZ), Enterocytes (Fabp1) and enteroendocrine cells (ChgA) were traced by the differentiation markers. Yellow arrows identify cells co-expressing the Confetti color and the marker of the indicated cell types. Scale bars, 50 μm .