

Supplementary Figure 1. Expression and deletion of p38 α in mucosal DCs. (A) Expression of Foxp3 and proportion of Foxp3⁺ Treg cells among CD4⁺ T cells in the spleen, MLN and Peyer's patches (PP) of WT and p38 $\alpha^{\Delta DC}$ mice. (B) Sorting strategy of CD103⁺ and CD103⁻ MLN DCs. (C) RNA analysis of p38 α , p38 β , p38 γ and p38 δ in CD103⁺ MLN DCs. (D) Analysis of MLN DC subsets in WT and p38 $\alpha^{\Delta DC}$ mice. (E) Analysis of MLN DC maturation markers in WT and p38 $\alpha^{\Delta DC}$ mice. Data are representative of 2-3 independent experiments (n=3-4 mice per group). Error bars indicate S.E.M.

S-Fig. 2



Supplementary Figure 2. Effects of p38 α deletion on mucosal DCmediated T cell responses. (A) Expression of Foxp3 in CFSElabeled T cells activated by WT or p38 α -deficient CD103⁺ MLN DCs for 5 days. (B) Analysis of viability (7-AAD⁻) in T cells activated with WT or p38 α -deficient CD103⁺ MLN DCs for 5 days. (C) Naïve T cells from Foxp3^{YFP-Cre} mice were activated with WT CD103⁺ DCs for 4 days, and then sorted YFP⁺ cells were re-stimulated with WT or p38 α -deficient CD103⁺ DCs in the second-round culture for 4 days, before analysis of Foxp3-YFP expression. Data are representative of 2 independent experiments (n=3 mice per group).

S-Fig. 3



Supplementary Figure 3. Effect of $p38\alpha$ deletion on lamina propria (LP) CD103⁺CD11b⁺ and CD103⁺CD11b⁻ DC functions.

(A) Analysis of intestinal LP DC subsets in WT and $p38\alpha^{\Delta DC}$ mice. (B) Expression of Foxp3 in OT-II T cells activated by WT or $p38\alpha$ -deficient CD103⁺CD11b⁺ or CD103⁺CD11b⁻ LP DCs, in the presence of OVA (0.05 µg/ml), for 5 days. Data are representative of 2 independent experiments (n=3 mice per group).