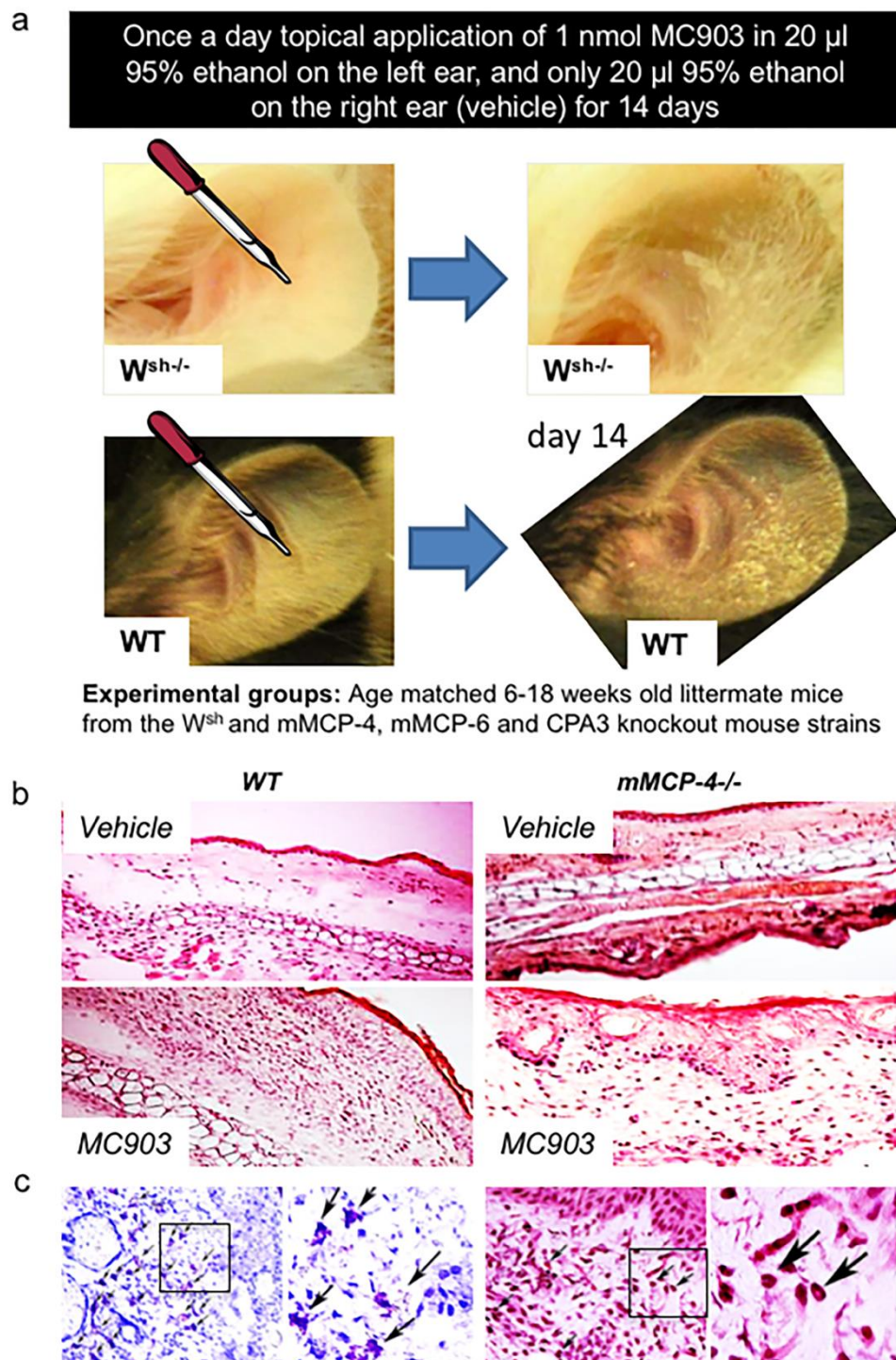
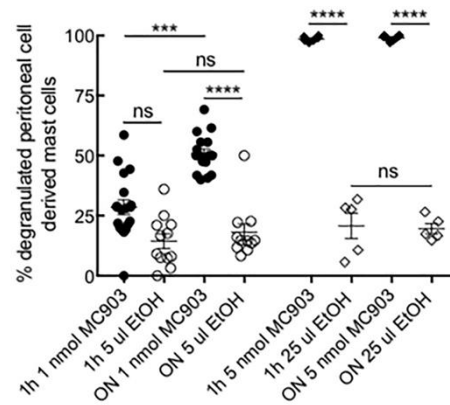


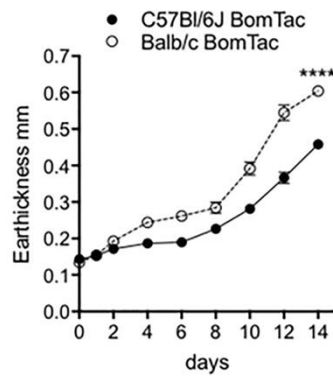
Supplementary data and figures.



**Supplementary Figure 1. MC903 treatment induce clinical symptoms and granulocyte and mast cell infiltration in the ear tissue.** a) The experimental model with 1nmol MC903 in 20 $\mu$ l of ethanol. b) H&E staining of ear tissue sections in WT (left panel) and mMCP4<sup>-/-</sup> (right panel) with vehicle or MC903 application for 14 days shows similar inflammation in both genotypes. c) Left panels with inset (inset framed in the micrograph) shows TB-stained mast cell infiltration. Right panel (H&E) with inset (inset framed in the micrograph) shows granulocyte infiltration. Representative photographs are shown.



**Supplementary Figure 2. MC903 induce activation and degranulation of peritoneal cell derived mast cells (PCMCs).** Both 1nmol and 5 nmol MC903 induced degranulation of peritoneal derived mast cells when stimulated for 1hr or overnight (ON) in in vitro cell cultures. Stimulation with ethanol alone used as a control (vehicle) had little effect. PCMCs were derived from 4 individual WT mice and PCMCs were challenged in quadruplicates with the 1 nmol MC903 concentration and in triplicates for the vehicle (5  $\mu$ l EtOH), or in duplicates for the 5 nmol MC903 concentration. \*\*\*  $P < 0.001$ , \*\*\*\*  $P < 0.0001$ , ns, not significant.



**Supplementary Figure 3. Genetic background of the mice impact on ear thickness in MC903-induced atopic dermatitis.** 12-18 weeks old Balb/c Taconic (BomTac) mice (n=6) shows a significantly increased ear thickness compared to C57BL/6J Taconic (n=6) mice following topical application of MC903 for 14 days. A statistically significant increase in ear thickness in the Balb/c mice was observed from day 4 and onward. \*\*\*\*  $P < 0.0001$ .