

555 Supplemental Figure Legends

556 **Figure S1. Experimental design of cutaneous VV inoculation using *ft/ft***
557 **mice.** Back skin of mice were shaved and inoculated with 10^7 pfu VV/mouse by means
558 of skin scarification. Mice were sacrificed after 7 days of VV inoculation and examined
559 for clinical responses, viral load, serum levels of VV antibodies and cytokine production,
560 as previously described³⁰.

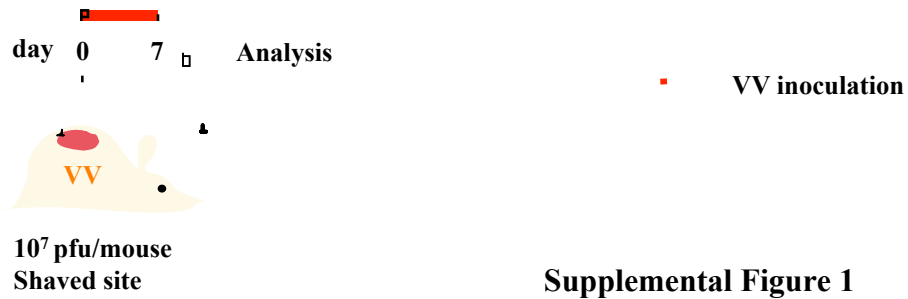
561 **Figure S2. VV specific systemic immune responses in *ft/ft* mice**
562 **cutaneously inoculated with VV. A.** VV specific cytokine production by splenocytes
563 after stimulation with VV infected A20 cells. **B.** Serum levels of VV specific IgG2a
564 antibodies. The line in the box indicates median and the whiskers represent from the
565 minimum to maximum (n = 5 per group). **P < .01 and ***P < .001. ns, not significant.

566 **Figure S3. EV features in *ft/ft* mice are not influenced by the *ma* mutation.**
567 **A-C.** Primary and satellite lesions in *ft/ft* mice homozygous for the *ma* mutation (*ft/ft*) or
568 without the *ma* mutation (*ft/ft.ma^{wt/wt}*) and WT controls inoculated with VV in shaved
569 back skin. Gross appearance (A), area of primary lesions (B), and number of satellite
570 lesions (C). Dashed circles indicate primary lesions. Arrows indicate satellite lesions. **D.**
571 Viral load. **E-G.** H&E stained skin sections (200X magnification) (E), epidermal
572 thickness (F), number of neutrophils (G), cytokine mRNA expression as fold induction
573 relative to VV inoculated WT skin (H). Scale bars: 100 μ m. The line in the box indicates
574 median and the whiskers represent from the minimum to maximum (n = 5 per group). *P
575 < .05, **P < .01 and ***P < .001. ns, not significant.

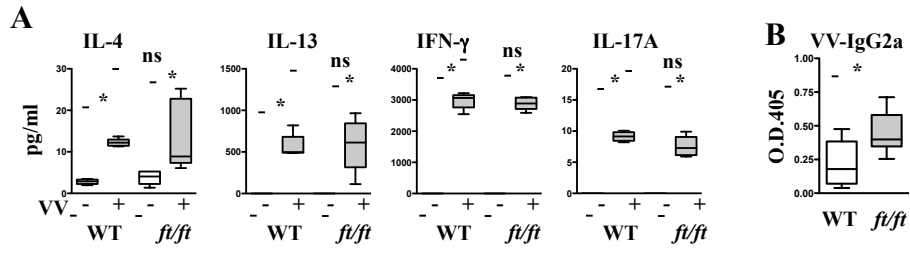
576 **Figure S4. Histology and cytokine expression of skin topically sensitized**
577 **with OVA in *ft/ft* mice. A.** H&E stained skin sections. **B.** Epidermal thickness. **C.**

578 Numbers of eosinophils. **D.** Cytokine mRNA expression expressed as fold induction
579 relative to saline exposed WT skin. Scale bars: 100 μm . **E.** Experimental plan of VV
580 inoculation in topically sensitized skin. Mice were shaved and topically sensitized with
581 OVA or saline for three one week-long cycles with 2 week rest intervals (total of 7
582 weeks)¹⁸ followed by inoculation of 10^7 pfu/mouse by means of skin scarification. Mice
583 were sacrificed after 7 days of VV inoculation and examined for clinical responses, viral
584 load, serum levels of VV antibodies and cytokine production, as previously described³⁰.
585 The line in the box indicates median and the whiskers represent from the minimum to
586 maximum (n = 5 per group). *P < .05, **P < .01 and ***P < .001. ns, not significant. SAL,
587 saline.

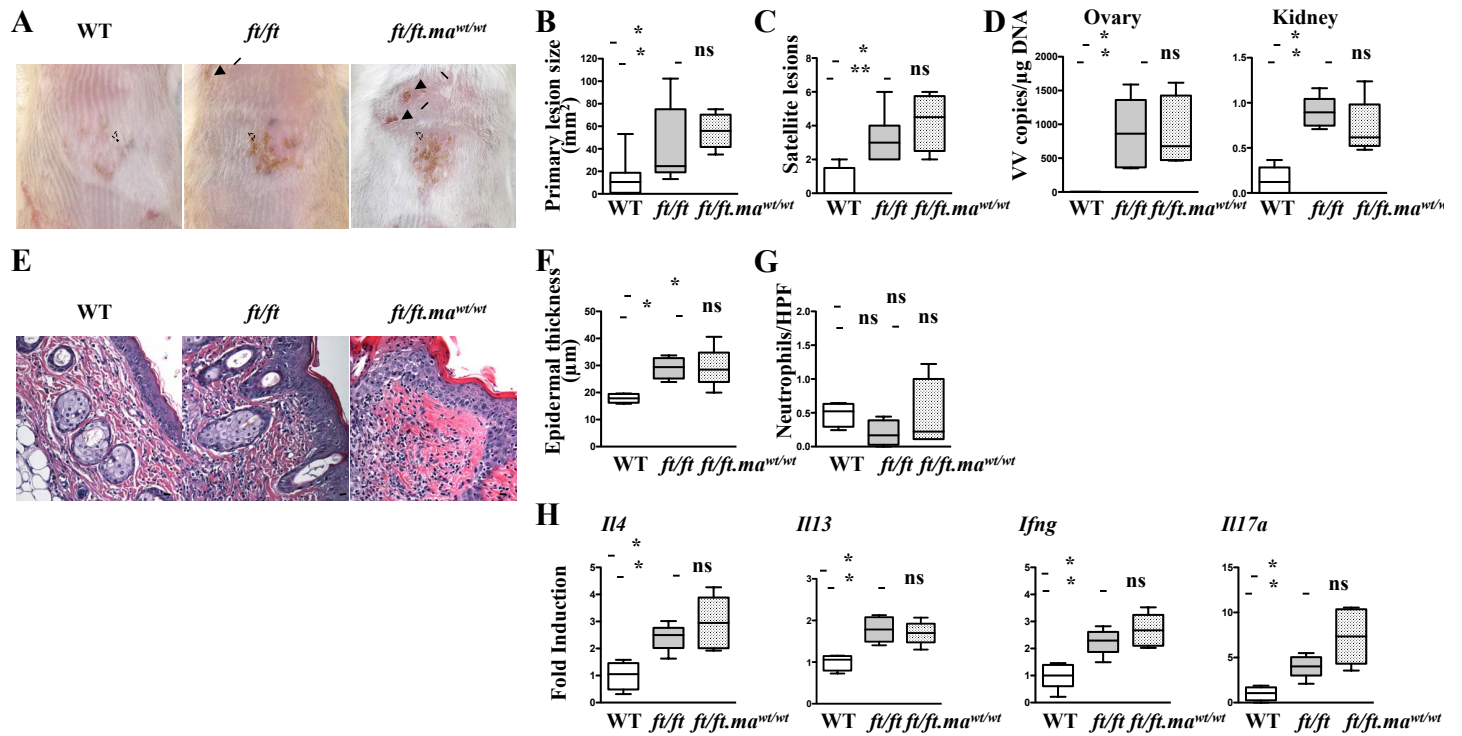
588 **Figure S5. VV specific IgG2a antibody response to cutaneous VV**
589 **inoculation.** **A.** VV specific IgG2a levels in *ft/ft* mice and WT controls topically
590 sensitized with OVA or saline. **B, C.** VV specific IgG2a levels in *ft/ft* and *ft/ftxll17a^{-/-}* mice
591 inoculated in unsensitized skin (B) or in skin topically sensitized with OVA or saline (C).
592 The line in the box indicates median and the whiskers represent from the minimum to
593 maximum (n = 5 per group). **P < .01 and ***P < .001. ns, not significant. SAL, saline.



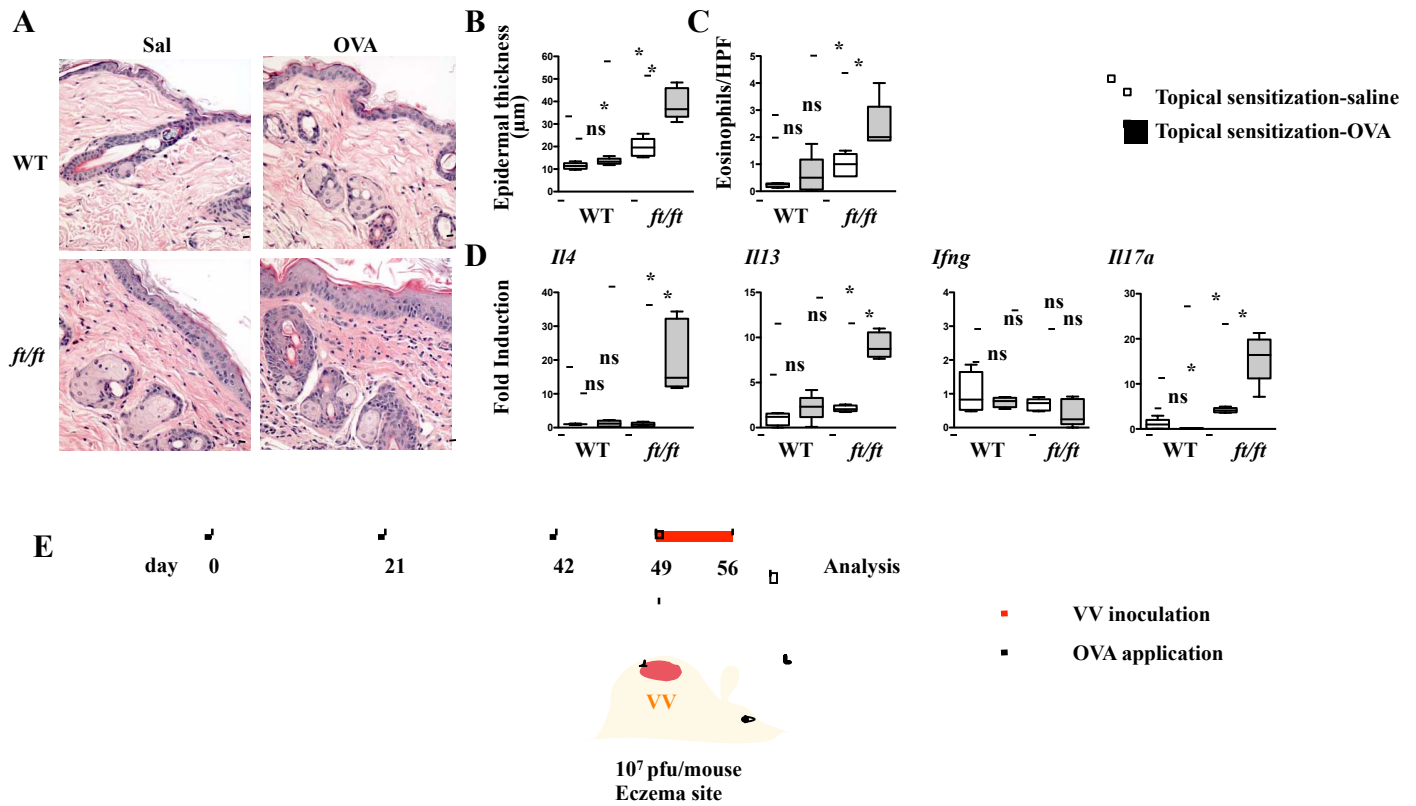
Supplemental Figure 1



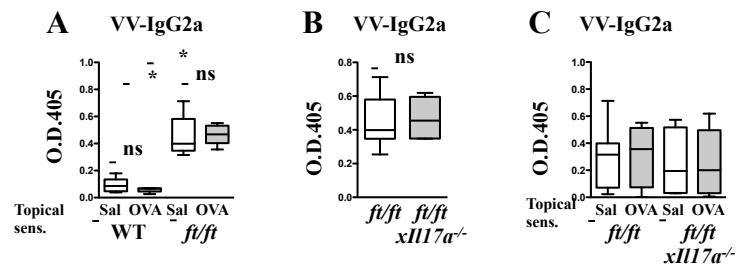
Supplemental Figure 2



Supplemental Figure 3



Supplemental Figure 4



Supplemental Figure 5