SUPPLEMENTARY INFORMATION

Epidermal loss of RORa enhances skin inflammation in MC903-induced mouse model of atopic dermatitis

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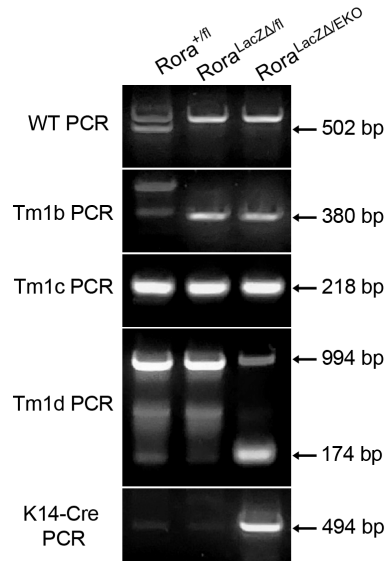
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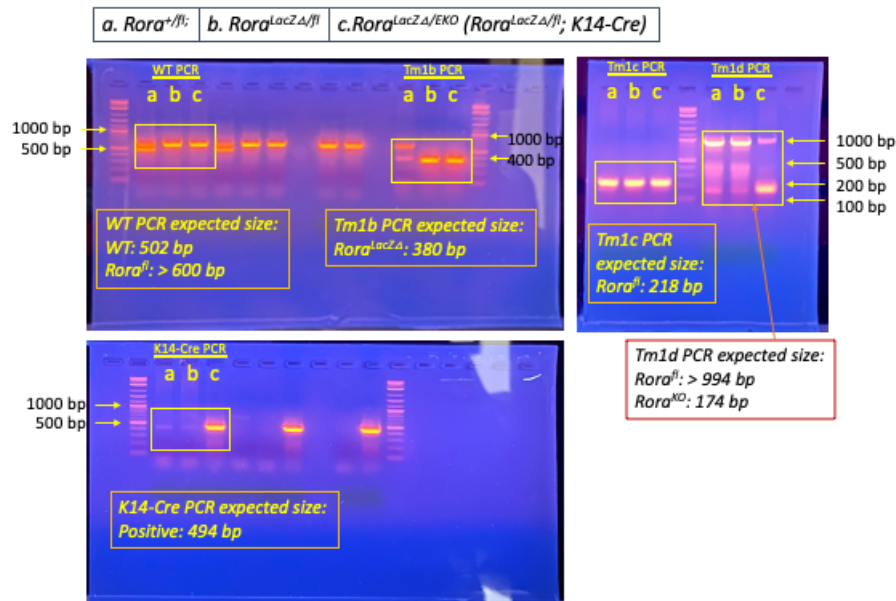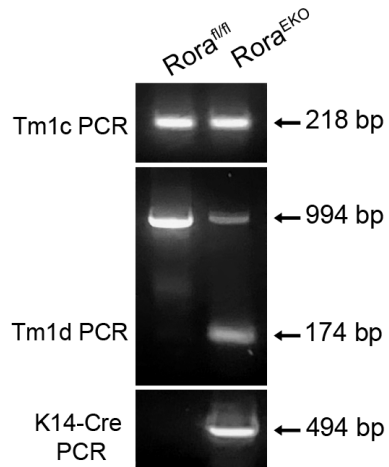
Supplementary Figure S1

A.   Figure 1C

B.

Figure S1. Validation of epidermal *Rora* depletion in *Rora*$^{LacZΔ/EKO}$ mice using short-range end-point PCR assays. (**A**) Genotyping results are shown in **Figure 1C** in the main text. (**B**) Original DNA gel images for the images are shown in (**A**). The PCR products were separated by 2% agarose gels and stained with ethidium bromide.

Supplementary Figure S2
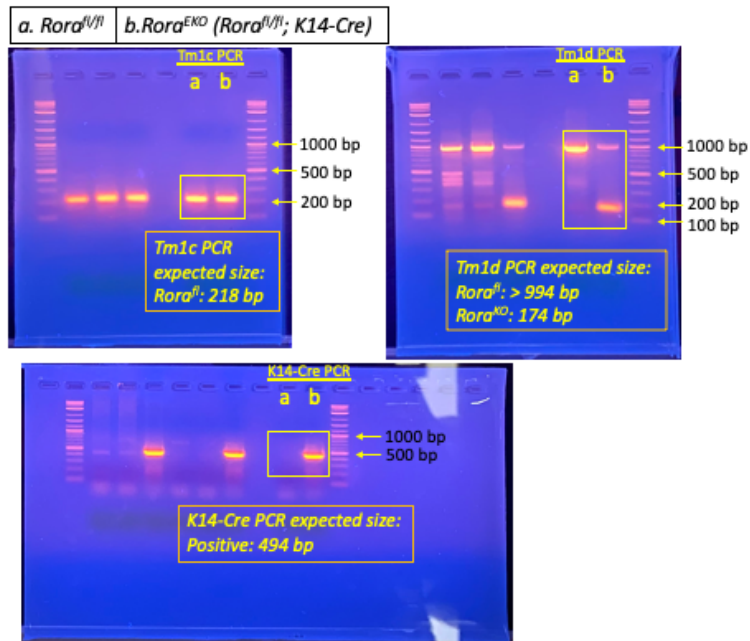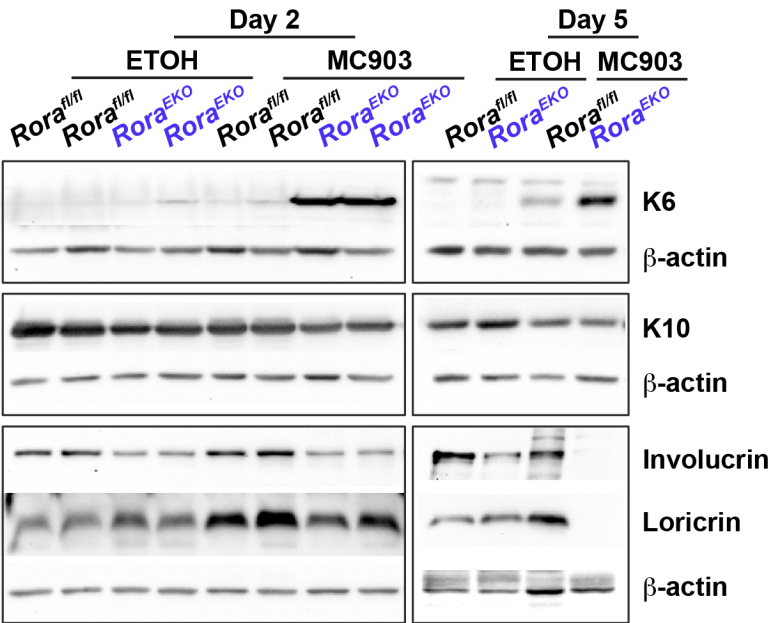
A. **Figure 2A**

B.

Figure S2. Validation of epidermal *Rora* depletion in *Rora^{EKO}* mice using short-range end-point PCR assays. (**A**) Genotyping results are shown in **Figure 2A** in the main text. (**B**) Original DNA gel images for the images are shown in (**A**). The PCR products were separated by 2% agarose gels and stained with ethidium bromide.
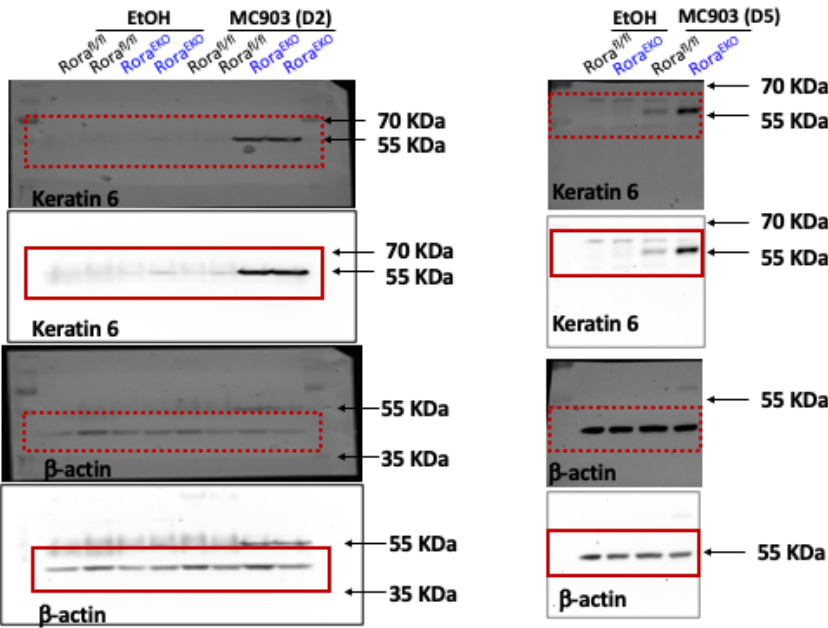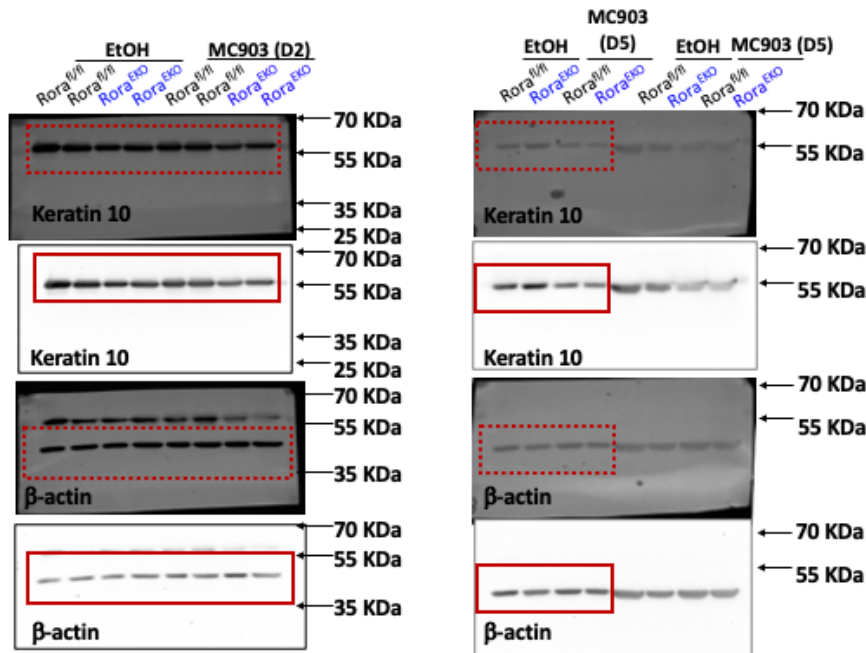
Supplementary Figure S3

A.   Figure 6C
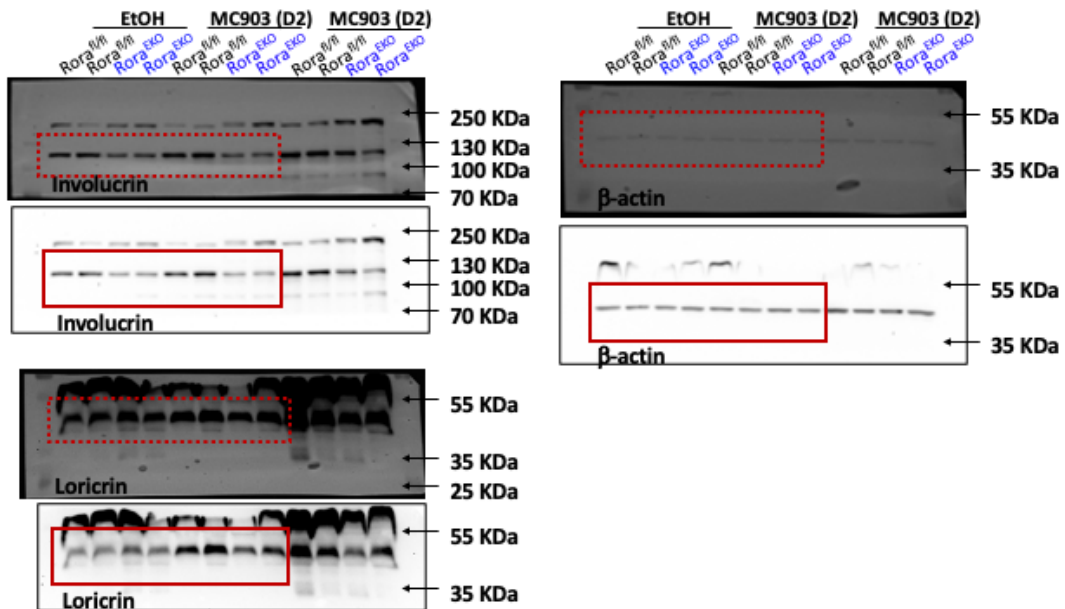

B.

Keratin 6 ; MC903 D2 & D5
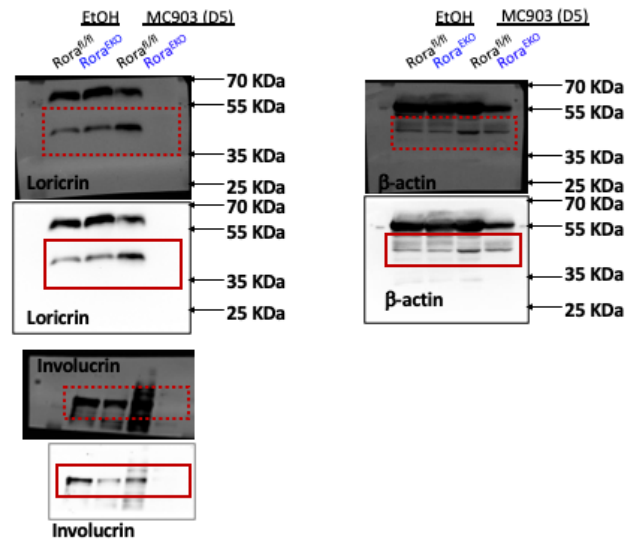
C.

Keratin 10; MC903 D2 & D5

D.

Involucrin & loricrin, MC903 (D2)

E.

F.

Figure S3. Western blot analysis of indicated proteins in ear samples collected on day 2 after EtOH- or MC903-treatment. (**A**) Western blot analysis results are shown in **Figure 6C** in the main text. (**B-E**) Original protein gel images for the images are shown in (**A**). For each band, the top image shows the membrane overlay and the lower image shows the chemiluminescence signal. (**F**) Additional gel images used for protein quantification shown in Figure 6D.

Supplementary Table S1

Supplementary Table S1: Primer sequences of mouse genes for RT-PCR and genotyping		
Genes		
Primers for RT-PCR Analysis	**Forward**	**Reverse**
Rora	CTCGCTAGAGGTGGTGTTTATT	GTCTTCACAACCTAGGGACTTG
Il1b	GGCAGGCAGTATCACTCATT	GAGGATGGGCTCTTCTTCAAA
Cxcl2	ATCCAGAGCTTGAGTGTGACGC	AAGGCAAACTTTTTGACCGCC
Cxcl10	GAATCCGGAATCTAAGACCATCAA	GTGCGTGGCTTCACTCCAGT
Krt16	GGTGGCCTCTAACAGTGATCT	TGCATACAGTATCTGCCTTTGG
Tslp	GCTACCCTGAAACTGAGAGAAA	TCTGGAGATTGCATGAAGGAATA
Sprr2a	GCCTTGTCGTCCTGTCATGT	GGCATTGCTCATAGCACACTAC
Cyp24a1	CTGCCCCATTGACAAAAGGC	CTCACCGTCGGTCATCAGC
PCR primers for genotyping	**Forward**	**Reverse**
Rora WT	GAGAAGCTGCTGATCACTACA	CTCTTGTGTATACCACCACA
Tm1b	CGGTCGCTACCATTACCAGT	ACTGATGGCGAGCTCAGACC
Tm1c	AAGGCGCATAACGATACCAC	CCGCCTACTGCGACTATAGAGA
Tm1d	AAGGCGCATAACGATACCAC	ACTGATGGCGAGCTCAGACC
K14-CRE	TTCCTCAGGAGTGTCTTCGC	GTCCATGTCCTTCCTGAAGC

Supplementary Table S2

Supplementary Table S2: Primary antibodies used for immunostaining and western blot		
Name	**Source**	**Catalog no.**
Loricrin	BioLegend (Covance), Dedham, MA	pRB-145P
F4/80-Biotin	Bio-Rad, Hercules, CA	MCA497
Keratin 10	BioLegend (Covance)	PRB-159P
Keratin 6	BioLegend (Covance)	PRB-169P
TSLP	R&D Systems, Minneapolis, MN	AF555
CD4	BioLegend (Covance)	100446
CD11c	BioLegend (Covance)	117346
β-Actin (13E5)	Cell Signaling Technology, Danvers, MA	4970S