**SUPPLEMENTARY MATERIALS AND METHODS**

**siRNA transfection**
Transfection of keratinocytes with a confluence of 60–70% was performed as described previously (20). The transfection was performed with human IκBζ siRNA (Dharmacon, Lafayette, CO, USA, L-013497-00-0005) and with siGenome control pool non-targeting siRNA (Dharmacon, Lafayette, CO, USA, D-001206-13-05) as a negative control. The formed transfection reagent complexes were added to the cultured cells at a final concentration of 20 nM. The cells were stimulated with TNFα (10 ng/ml) and IL-17A (100 ng/ml) 24 h after transfection.

**RNA isolation**
Punch biopsies were obtained from lesional and non-lesional plaque-type psoriatic skin as described previously (S1). The biopsies were transferred to 1 ml cold RNAlater-ICE (Life Technologies, Carlsbad, CA, USA) and stored at −80°C until 24 h before RNA purification when they were transferred to −20°C. The biopsies were removed from RNAlater-ICE and added 175 µl SV RNA lysis buffer (SV Total RNA Isolation System; Promega, Madison, WI, USA) and homogenized. For isolation of RNA from cultured human keratinocytes, cells were washed with PBS and 150 µL SV RNA lysis buffer were added each well in a 6-well plate. The remainder of the purification was performed according to the manufacturer’s instructions (Promega) and the RNA was stored at −80°C for further use.

**Quantitative PCR**
Reverse transcription was performed using TaqMan® Reverse Transcription Reagents (Applied Biosystems, Foster City, CA, USA). For qPCR, the mastermix used was Platinum® qPCR Super-mix-UDG (Invitrogen by Life Technologies). Primers/probes from Thermo Fisher Scientific against human (assay ID: Hs00205367, Hs00758166, Hs00219742, Hs01104220, respectively) or murine (assay ID: Mm00463327, Mm01333586, respectively) IL36A, IL36B, IL36G, IL36RN were used. As reference genes human RPLP0 (assay ID: Hs99999902) or murine Actb (assay ID: Mm02619580) were used. A standard curve for each gene was made from a 4-fold serial dilution.

**Western blotting**
The protein extracts from cultured human keratinocytes were isolated and western blotting analysis performed as described previously (S2). Equal amounts of protein were separated by SDS-PAGE and blotted onto a nitrocellulose membrane. The membrane was incubated with primary antibody: anti-IL-36α; anti-IL-36β; anti-IL-36γ; anti-IL-36Ra (cat. number 1078, 1099, 2320, 1275, R&D Systems, Abingdon, UK); anti-IκB-ζ (cat. number 9244, Cell Signaling Technology, Danvers, MA, USA) or anti-β-actin (cat. number A1978, Sigma-Aldrich, St Louis, MO, USA). The following secondary antibodies were used: Rabbit anti-goat (cat. number P0449, DAKO, Glostrup, Denmark); goat anti-rabbit (cat. number P0448, DAKO); goat anti-rabbit (cat. number 7074, Cell Signaling Technology); horse anti-mouse (cat. number 7076S, Cell Signaling Technology). The proteins were then visualized with Clarity™ Western ECL substrate (BIO-RAD, Herlev, Denmark) by LI-COR C-digital according to manufacturer’s instructions.

**Transfection and determination of promoter activity**
Human keratinocytes were cultured in 24-well plates and transfected at 60–70% confluence. Cells were transfected with 0.5 µg of the indicated IL36G plasmid and 0.025 µg of the internal control Renilla luciferase expression plasmid (pRL-SV40, Promega, Madison, WI, USA) using Fugene 6 transfection reagent (Promega) according to the manufacturer’s protocol. The cells were stimulated with TNFα (10 ng/ml) and/or IL-17A (100 ng/ml) 48 h after transfection. After 24 h of stimulation the luciferase assay was performed by using the dual luciferase assay system (Promega, Madison, WI, USA) on a fluoroskan Ascent F1 (BIE & Berntsen, Rødovre, Denmark). The relative promoter activity was calculated as the ratio between firefly luciferase activity by the IL36G promoter and Renilla luciferase activity in each sample.

**REFERENCES**
