Supplemental Figures

Supplemental Figure 1. *Staining of neutrophils in lesional psoriatic skin.*

Neutrophils were stained in paraffin sections of skin from patients with psoriasis with an antibody against myeloperoxidase. Sections stained with control IgG are displayed in the upper right corner.

Supplemental Figure 2. *Expression of cathelicidin and IL-8 in NHEK after stimulation with IFN-γ, TNF-α and 1,25D3.*

Primary keratinocytes were treated with or without 1,25D3 **(**10^{-8} M**),** IFN-γ (10 ng/ml), TNF-α (20 ng/ml) or their combinations. Cells were harvested 24 h after stimulation and cathelicidin and IL-8 transcript abundance was analyzed by qPCR. Data are means ± SD of a single experiment performed in triplicate and are representative of 3 independent experiments.

Supplemental Figure 3. *Mechanism of IL-17A increased cathelicidin in NHEK.*

To investigate the mechanism of IL-17A increased cathelicidin, CYP27B1 expression, the concentration of 1,25D3 in cell culture supernatants and histone H4 acetylation were analyzed in NHEK after stimulation with IL-17A (10 ng/ml) and/or 1,25D3 (10^{-8} M). Cells were harvested 24 h after stimulation and analyzed for CYP27B1 mRNA by qPCR (***A***; left panel) or 1,25D3 levels by ELISA (***A***; right panel). **(*B*)** Western blot analysis of histone H4 acetylation. Cells treated with the histone-deacetylase inhibitor butyrate (2 mM) served as positive controls. **(*C*)** A 1500 bp fragment of the 5' UTR of the human cathelicidin gene CAMP was cloned into a luciferase reporter plasmid as previously described (12) and transfected into HaCaT keratinocytes. Cells were stimulated with 1,25D3 (10^{-10} M or 10^{-8} M) and/or IL-17A (10 ng/ml) and luciferase activity was assayed. Values represent the ratio between pGL-3–1500 and pGL-3–basic (empty vector) activities in each sample. **(*D*)** NHEK were grown in medium containing low (0.06 mM) or high calcium (1.7 mM). Transcript abundance of the vitamin D receptor (VDR) and the IL-17A receptor (IL-17RA) were analyzed by qPCR. Data are means ± SD of a single experiment performed in triplicate and are representative of 3 independent experiments.