Neutrophil extracellular trap formation is increased in psoriasis and induces human β-defensin-2 production in epidermal keratinocytes

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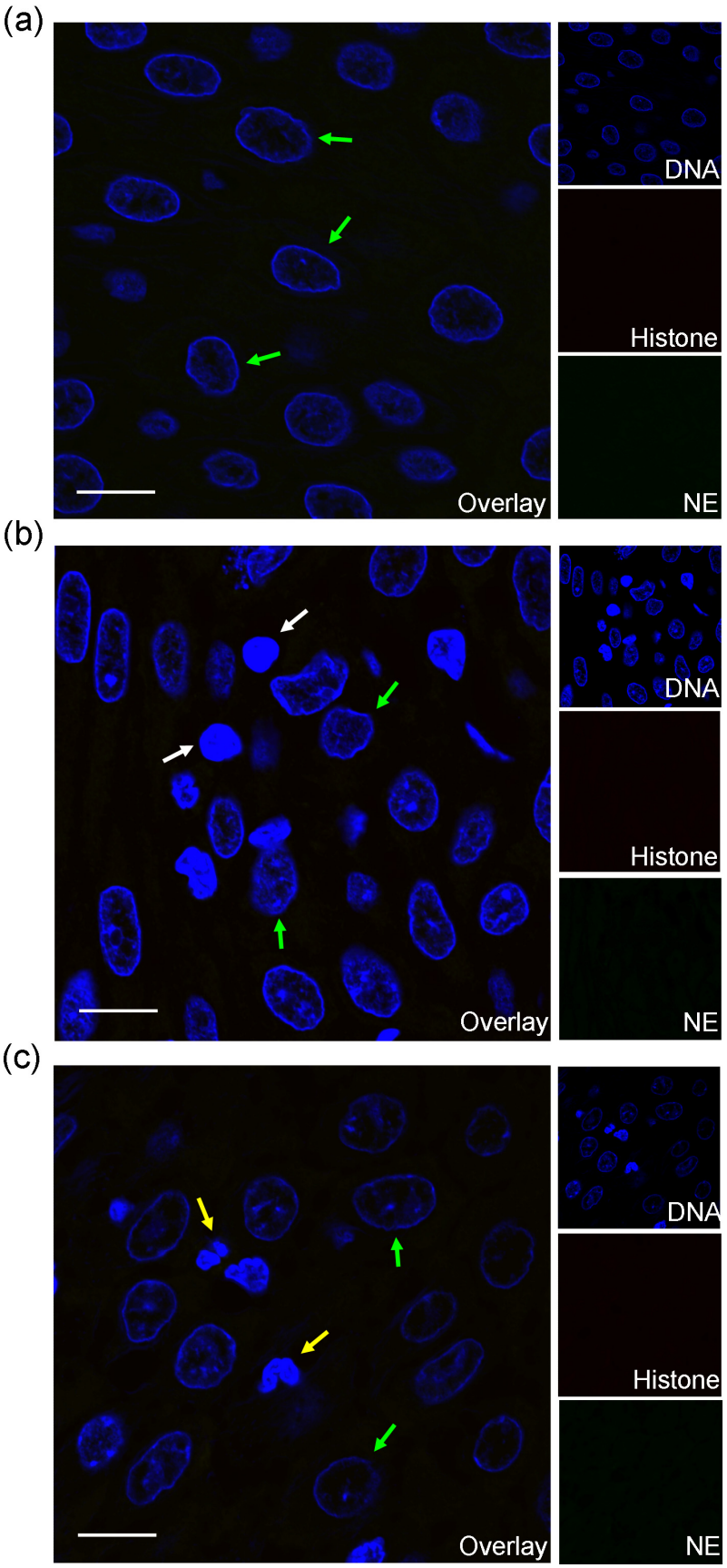
Supplementary Figure 1. (a, b, c) Confocal microscopic images of eczema skin tissue specimens. Lymphocytes (white arrows) and neutrophils (yellow arrows) were sometimes seen in the epidermis next to keratinocytes (green arrows). However, NETs were not observed (absence of strandlike DNA structures which co-localized with histones and neutrophil elastase) in eczema skin lesions. Skin specimens were stained for DNA (DAPI, blue), histones (red) and neutrophil elastase (NE, green). Scale bars = 10 μm.



Supplementary Figure 2. Netting neutrophils had no significant effect on LL37 mRNA expression in epidermal keratinocytes. Normal human keratinocytes were obtained from adult foreskin, and peripheral blood neutrophils were isolated from 7 healthy controls, 7 eczema patients and 7 psoriasis patients. Normal human keratinocytes were co-cultured for 16 hours with unstimulated control neutrophils (n = 7), control neutrophils stimulated with PMA (n = 7), unstimulated eczema neutrophils (n = 7), eczema neutrophils stimulated with PMA (n = 7), and psoriatic neutrophils (n = 7). LL37 mRNA expression from keratinocytes was determined by real-time quantitative RT-PCR. 1,25-Dihydroxyvitamin D_3 (10^{-8} M) was used as a positive control to induce LL37 expression in keratinocytes.