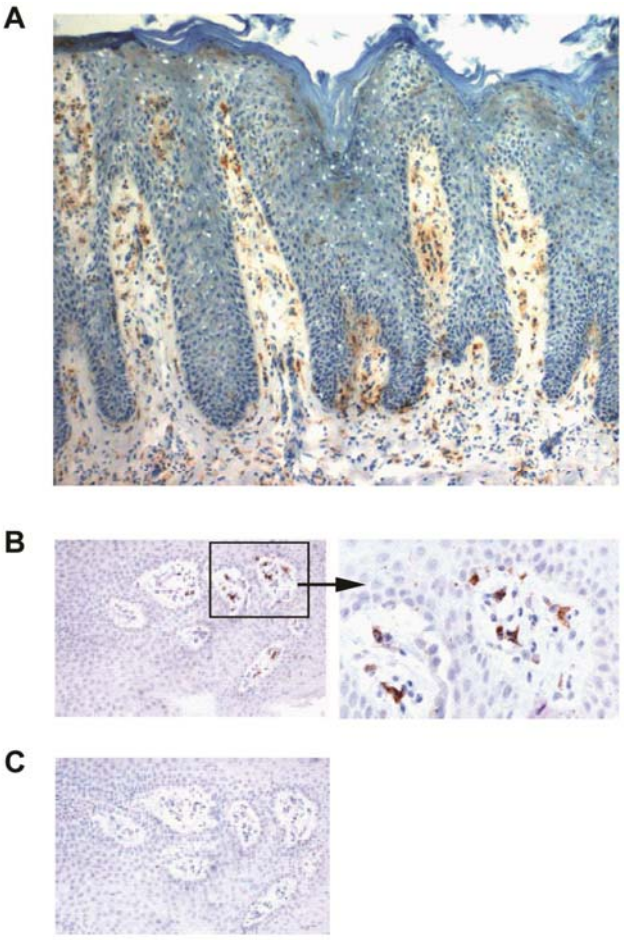
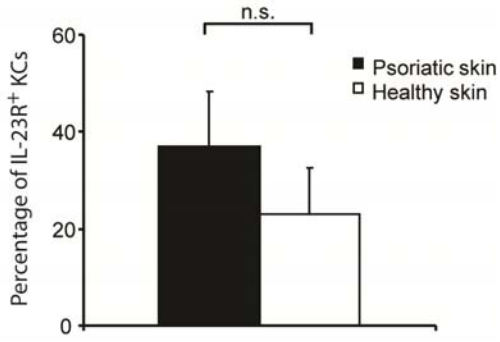
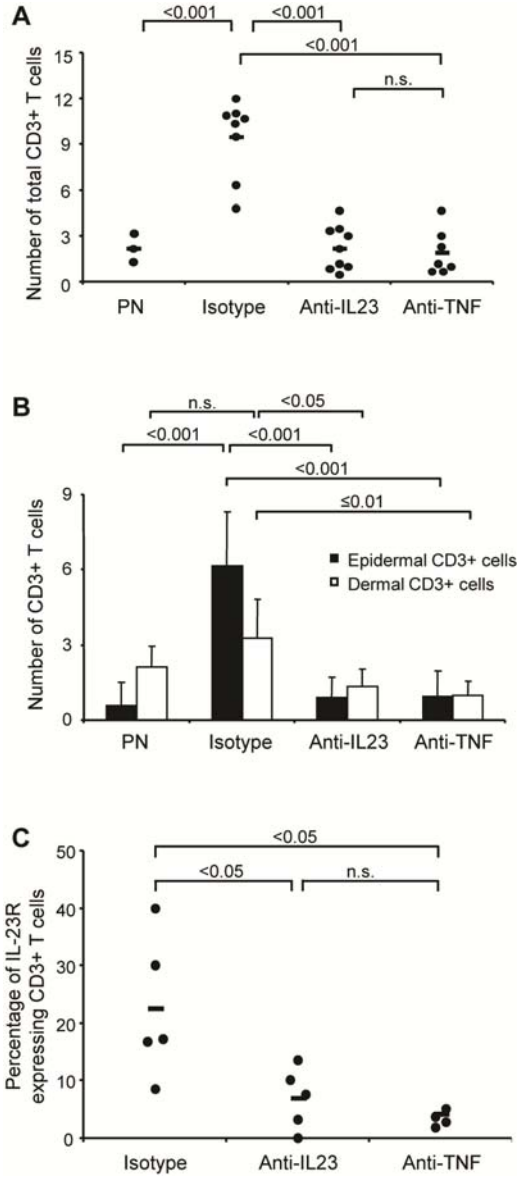


Supplemental Figure 1. IL-23 protein expression in psoriasis.
Expression of IL-23 protein is demonstrated by immunohistochemical staining in the dermal compartment of psoriatic sections (**A**) where it is found predominantly on cells with dendritic shape (**B, left and right panel, higher magnification indicated by an arrow**). Isotype control staining is negative (**C**).

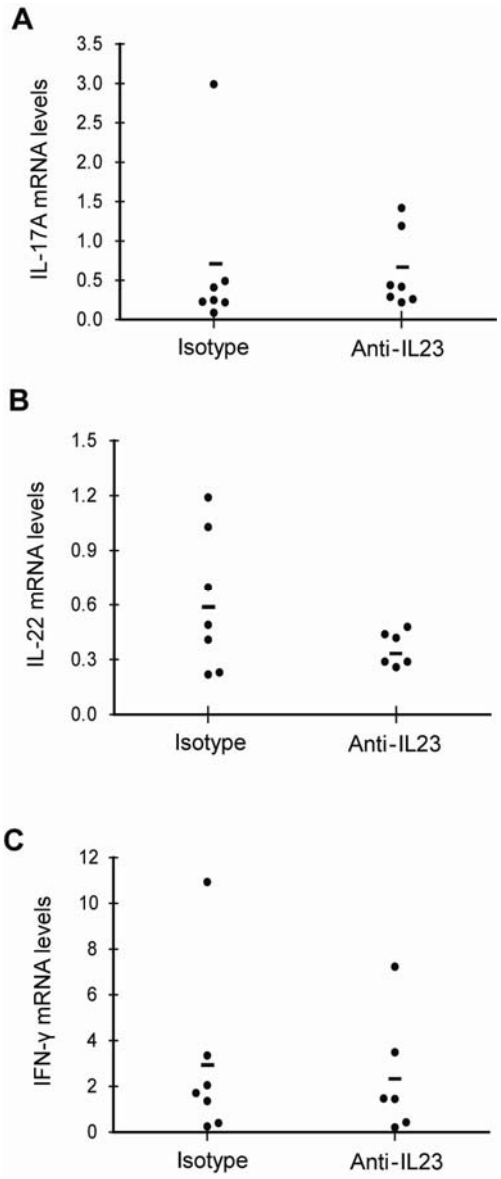


Supplemental Figure 2. IL-23R expression in keratinocyte cell suspensions.
Keratinocytes (KCs) were isolated by enzymatic separation of dermis and epidermis followed by trypsin disaggregation of the epidermis. Percentage of IL-23R+ KCs isolated from the skin of psoriatic patients (mean=37 +/-11.2, n=3) showed a pattern of expression without a significant difference to that observed in the epidermal cell suspensions of healthy individuals (mean= 23 +/-9.47, n=3).



Supplemental Figure 3. Blockade of IL-23 reduces number of psoriatic CD3+ T cells and IL-23R expressing T cells in skin grafts.

Human CD3+ T cell counts in skin grafts before transplantation (PN) and 35 days after transplantation and treatment with either anti-human IL-23, isotype-matched control, or anti-TNF (infliximab) antibody as determined by immunofluorescence staining (**A, B**). There was a statistically significant reduction of total CD3+ T cells in skin grafts of mice treated with anti-human IL-23 as compared to isotype control treated mice. The efficacy of the treatment with anti-human IL-23 was comparable to anti-TNF therapy (**A**). Quantifications of CD3+ T cells present in the epidermal and the dermal compartment showed a significant reduction of CD3+ T cells in both the epidermis and dermis in mice treated with anti-human IL-23 as compared to the mice treated with isotype control antibody (**B**). Percentages of IL-23R+ cells within total CD3+ T cells present in skin grafts were quantified by double-immunofluorescence staining. Anti-human IL-23 treatment resulted in a significant reduction of IL-23R+ T cells versus isotype control treated mice, comparable to the reduction obtained with anti-TNF treatment. Dots in panel A represent independently grafted mice samples. Data depicted in B represent three independent experiments with PN skin from three different patients. In panel C, one experiment with PN skin from one patient is shown.



Supplemental Figure 4. Effect of blockade of IL-23 on mRNA expression of pro-inflammatory cytokines in skin grafts.

IL-17A, IL-22, and IFN-γ mRNA expression levels were evaluated by quantitative real time PCR in skin grafts 35 days after transplantation and treatment with either anti-human IL-23 or isotype-matched control. Treatment with anti-human IL-23 had no effect on IL-17A (**A**) and IFN-γ (**C**) but slightly impaired IL-22 (**B**) mRNA expression as compared to isotype control antibody treated mice. Dots represent independently grafted mice samples. Data depicted represent two independent experiments with PN skin from two different patients.