**Fig. S1.** Skin morphology and proliferation in KO and hypothyroid mice. Upper panels: representative H&E staining of back skin from wild-type mice (Wt), knockout mice lacking TRα1 and TRβ (KO), and mice treated with anti-thyroidal drugs for 4 months (hypothyroid mice, hT). Lower panels: BrdU incorporation in the same groups. Quantification skin thickness and interfollicular BrdU incorporation in the different experimental groups is shown in Fig.2B.
Fig. S2 Differentiation is not altered in the skin of TR-deficient mice. A) Expression of keratin 10 (K10), a marker for early keratinocyte differentiation, and keratin 5 (K5) was analyzed by double immunofluorescence in skins of wild-type and TR KO mice. Slides were counterstained with dapi and the merged images are shown. B) Expression of loricrin, a marker for terminal keratinocyte differentiation, is also normal in TR KO mice. Loricrin localizes to the most external epidermal layer. Slides were counterstained with dapi and a dashed line illustrates the limit between epidermis and dermis.
Fig. S3 Reduced skin proliferation is not accompanied by apoptosis in TR KO mice. Immunofluorescence performed with an antibody recognizing cleaved caspase 3 (green) did not show specific staining in the epidermis of either wild type mice or mice lacking TRs. Only non-specific autofluorescent hair shafts are observed in both groups. Nuclei were stained with dapi (blue).
**Fig.S4.** Increased AP-1 complexes in TR KO mice. EMSA assays with a consensus AP-1 oligonucleotide and whole cell extracts from back skin of wild-type mice (Wt) and mice in which TRα1 and TRβ have genetically inactivated (KO). Animals were treated topically with TPA and sacrificed at the indicated time periods.
Fig. S5. Expression of the cyclin-dependent kinase inhibitors is increased in the skin of mice lacking TRs. Immunodetection of p21 and p27 in back skin of wild-type and KO mice treated with TPA for 7 days.
Fig. S6. Composition of NF-κB complexes in skin. EMSA assay with a consensus NF-κB oligonucleotide and nuclear extracts from wild-type (Wt) and TR knockout (KO) mice. When indicated, a control IgG or antibodies against p50 and p65 were present in the binding reaction. The black and white arrows indicate the mobility of the supershifted complexes containing p50 and p65, respectively.