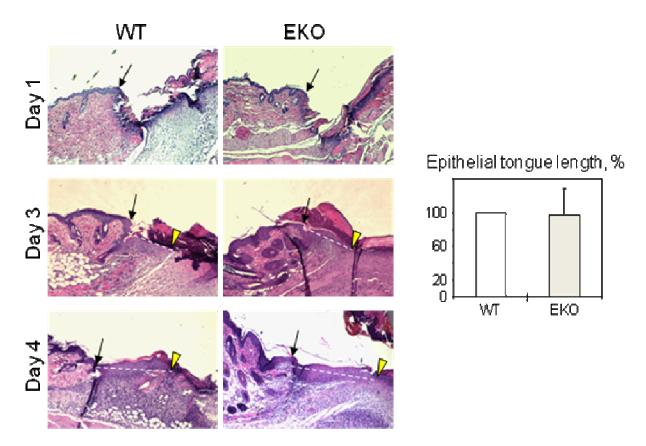
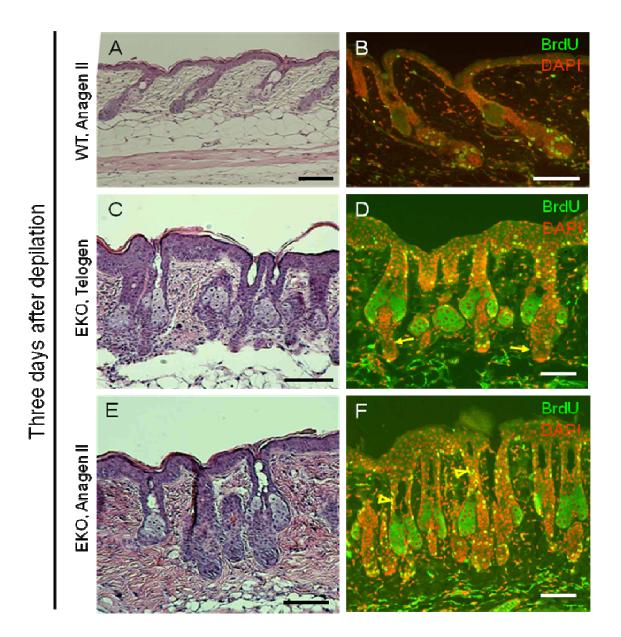
## **Supplemental Data**



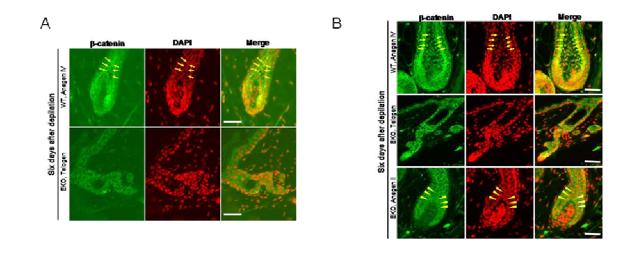
## Figure S1

Epidermal wound healing *in vivo* and keratinocyte migration *in vitro* are not changed in the absence of N-WASP. Left panel: Hematoxylin and Eosin staining of the representative sections through the wounds harvested from the WT and N-WASP EKO mice 1st, 3rd and 4th days after wounding. Black arrows designate the incision point, yellow arrowheads point at the tip of the neoepithelium extending into the wound. Right panel: quantification of wound re-epithelization. The distance between the incision point and the tip of the neoepithelial sheet (dash lines) was measured as neoepithelium length. N-WASP EKO values are presented as the percent of the WT. The graph summarizes results obtained from 17 WT and 17 sex matched eight week old littermate EKO mice. Bars represent mean values. Error bars represent standard deviation.



## Figure S2

Progressive hair follicle cycling defect in the absence of N-WASP. (A-F) Partial hair follicle cycle block in eight-week-old mice. Hair follicles were induced by wax depilation in WT (A, B) and N-WASP EKO (C-F) female mice. Tissue was collected at the day three post-depilation, to observe follicles in anagen II. All animals were injected with BrdU prior tissue collection, as described in Experimental Procedures. Paraffin sections were stained by Hematoxylin and Eosin (A, C, E) or indirectly immunostained with antibodies against BrdU, all nuclei were counterstained with DAPI (B, D, F). Arrows, N-WASP EKO follicles lacking cell proliferation. Open arrowheads, hyperproliferation in upper N-WASP EKO follicles. Bars, 100mm.



## Figure S3

A defect in nuclear localization of b-catenin in N-WASP deficient hair follicle cells. Skin samples were taken from eight (A) and eighteen (B) weeks old WT (upper panels) and N-WASP EKO (middle and lower panels) littermate mice six days after depilation to observe follicles in anagen IV. Paraffin sections were stained with the antibody against  $\beta$ -catenin (green). Nuclei were decorated with DAPI (red). Arrows indicate b-catenin-positive nuclei in pre-cortical keratinocytes in the WT hair follicles. Arrowheads indicate the absence of nuclear  $\beta$ -catenin staining.