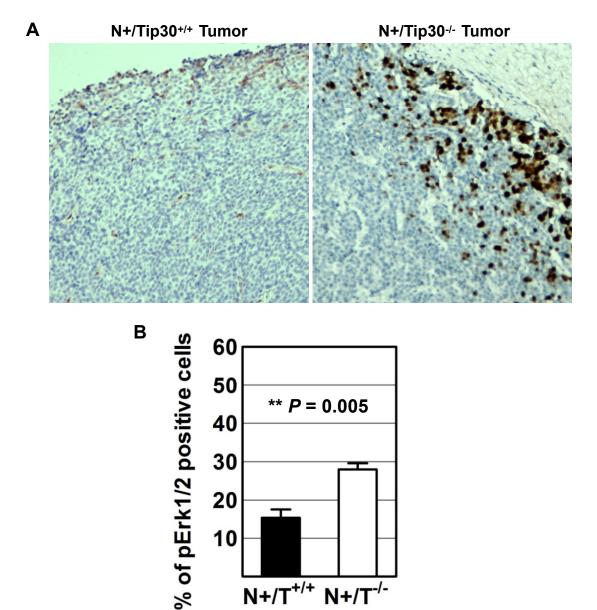


## **Legend to Supplementary Figure 1:**

Two ER+/PR- mammary tumors from  $Neu+/Tip30^{-/-}$  mice were minced and inoculated s.c. in the front flanks of ovariectomized mice supplemented with Placebo (n = 10), estrogen (E2, n = 6), progesterone (P4, n = 6) or E2 plus P4 (n = 7) pellets. Kaplan-Meier analysis of mammary-tumor free-survival was performed based on the time of tumors becoming 1 cm<sup>3</sup> in volume or tumors becoming  $\geq 0.25$  cm<sup>3</sup> by the end of three months. P = 0.009 (placebo vs. E2 + P4), log-rank test.

Figure S2



## **Legend to Supplementary Figure 2:**

(A) Representative immunohistochemical staining images show enhanced phosphorylation of ERK1/2 at Thr202/Tyr204 in mammary tumors from Neu+/Tip30-/- mice (n = 3) compared with those from Neu+/Tip30+/+ mice (n = 3).

N+/T<sup>+/+</sup> N+/T<sup>-/-</sup>

(B) Quantification of pERK1/2 positive cells. Since very few cells at the tumor core were stained positive for pERK, cells within 120 µm distance from the edge were counted. P = 0.005; t test.