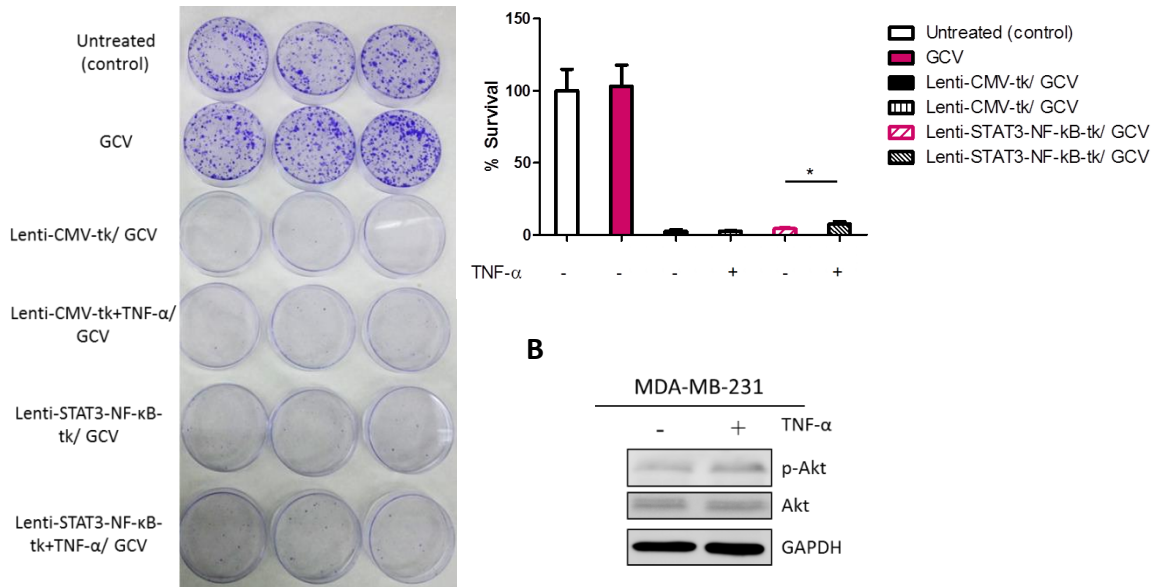
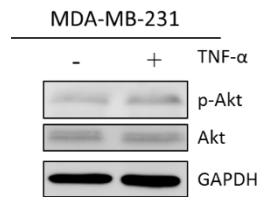


## Supplementary Figures

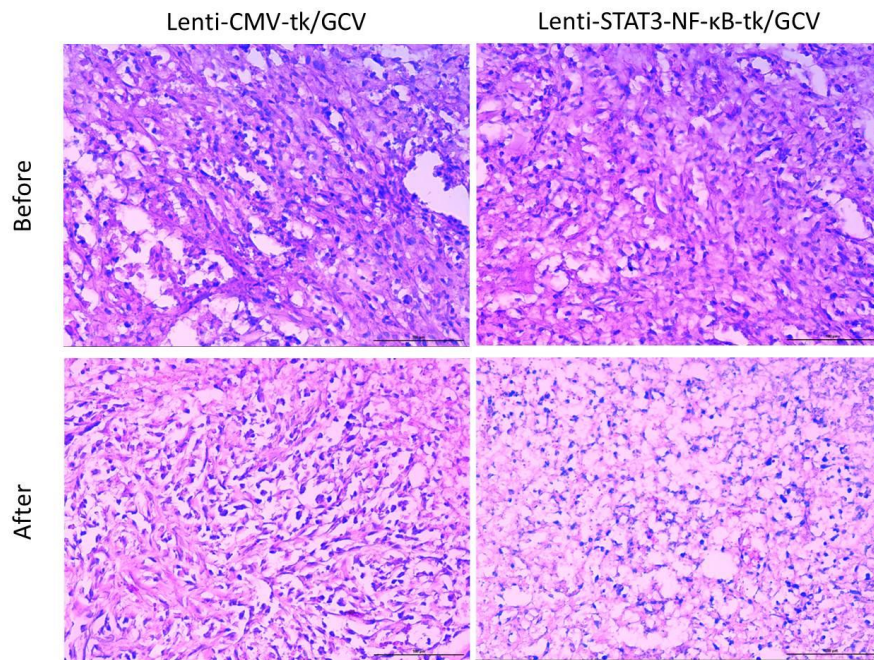
**A**



**B**



**Figure S1.** TNF- $\alpha$  induction did not enhance the GCV-mediated cell killing effect in Lenti-STAT3-NF- $\kappa$ B-tk transduced cells due to Akt activation. (A) Clonogenic assay for the MDA-MB-231 cells infected with Lenti-CMV-tk or Lenti-STAT3-NF- $\kappa$ B-tk are shown. The pictures of 6 cm<sup>2</sup> dishes (3 replicates) with produced MDA-MB-231 colonies (left). Quantification of the percent survival of the MDA-MB-231 cells as presented by a bar chart (right). The data is shown as mean $\pm$ SD (n=3)(\*t-test, p<0.01). (B) MDA-MB-231 cells were treated with TNF- $\alpha$  (10 ng/mL) for 3 h. Cells were lysed and immunoblotted with phosphorylated Akt (#05-1003; Millipore), Akt (#05-591, Millipore) and GAPDH.



**Figure S2.** Microscopic images of H&E stained tumor after Lenti-CMV-tk/GCV and Lenti-STAT3-NF-κB-tk/GCV gene therapy. On day 7, tumors were removed and processed for histological analysis at the end of therapy. Bottom panel shows the view of tumor tissue portions of mice after Lenti-CMV-tk+GCV or Lenti-STAT3-NF-κB-tk+GCV/gene therapy. Scale bar, 100 μm.