



Supplementary Data

Supplementary Figure 1. Knockdown of MAPK4 is correlated with reduced AKT phosphorylation, decreased proliferation, and increased apoptosis in the H157 xenograft tumors. **A**, qPCR for confirmation of knockdown of MAPK4 in the H157-ishMAPK4 xenografts (black) compared with the H157-iNT xenografts (grey) from n=6 mice after 1-week of 2mg/ml Dox treatment. Box and whisker plots indicate average value with the whisker extending from Min to Max. **B**, Representative pictures, original magnification $\times 100$, of the H&E and IHC staining for p-AKT S473, Ki67, and CD31 on the above H157-iNT and H157-ishMAPK4 tumors. **C**, Quantification of p-AKT S473, Ki67, and CD31 IHC staining performed on the H157-iNT and H157-ishMAPK4 tumors. Data represent mean \pm SEM. Significance was determined using the unpaired Student's t test (2-tailed) on quantification from 6 tumors. Six fields of view were scored for a random section from each tumor. NS: None significant. **D**, Representative pictures, original magnification $\times 100$, of the TUNEL staining on the above H157-iNT and H157-ishMAPK4 tumors. **E**, Quantification of TUNEL staining performed on the H157-iNT and H157-ishMAPK4 tumors. Data represent mean \pm SEM. Significance was determined using the unpaired Student's t test (2-tailed) on quantification from 6 tumors. Six fields of view were scored for a random section from each tumor.