Supplementary Figure Legends

Figure S1. PI3K inhibitors induce apoptosis in WT and *Akt1*$^{-/-}$ FDM cells. Multiple independent pools of WT and *Akt1*$^{-/-}$ FDM cells were treated with the indicated doses of the PI3K inhibitors **(a)** GDC-0941 **(b)** Bez235 or **(c)** LY29004 in the presence or absence of IL-3 at the indicated concentrations. Viability was determined by propidium iodide exclusion using flow cytometry. Data show mean and standard error of 3 independent experiments using 2 pools of WT and *Akt1*$^{-/-}$ FDM cells.

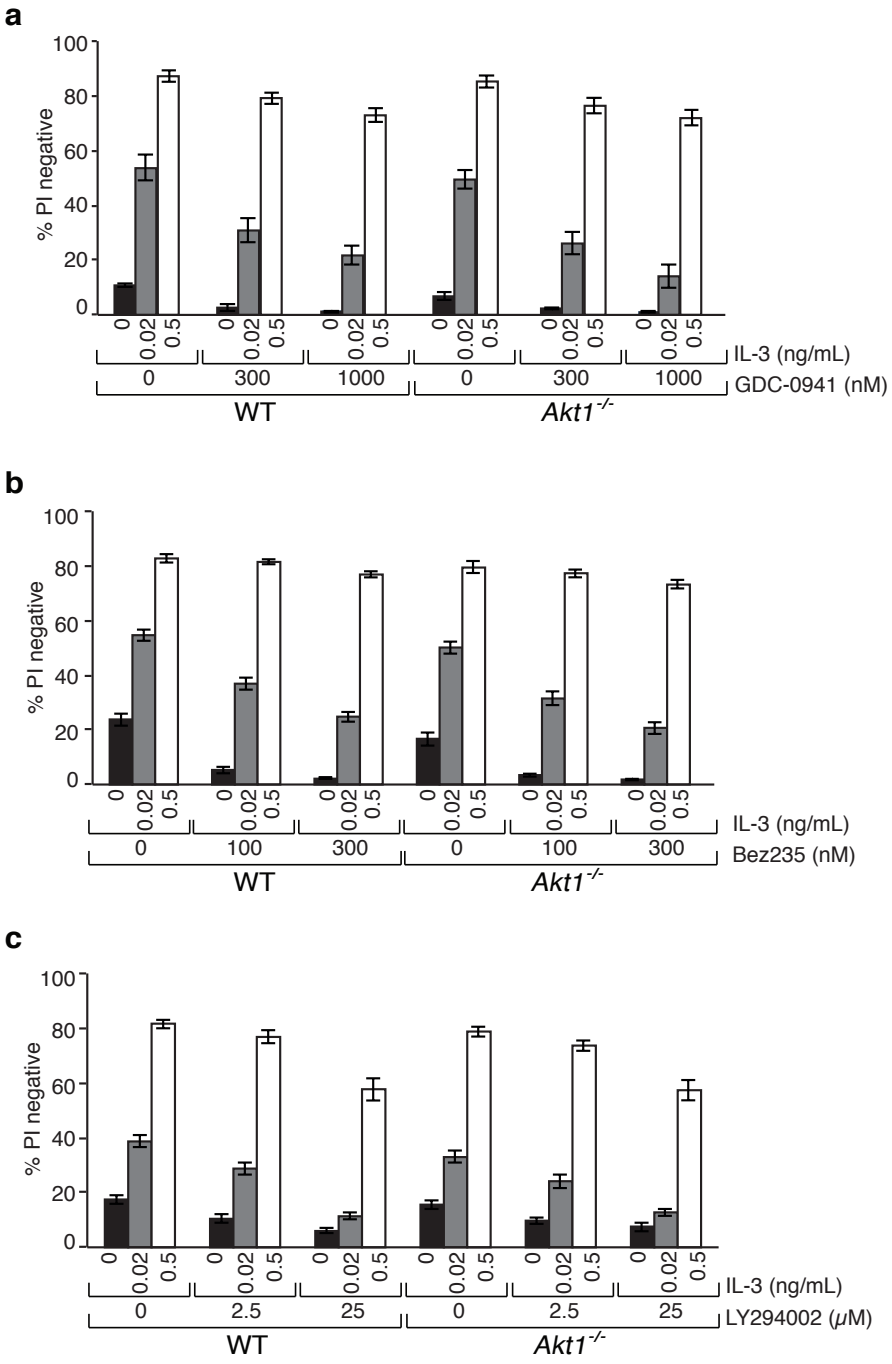
Figure S2. Enforced expression of constitutively active Akt1 only minimally enhances the viability of *Puma* deficient cells in the absence of IL-3. (a) Multiple independent FDM cell lines of the indicated genotypes expressing iAkt1 or ieGFP were cultured in the presence or absence of 4-OHT for 24 h before being starved of IL-3 over a 5-day time-course. Cell viability was determined by PI exclusion using flow cytometry. These data are the same as that shown in Figure 3 but include cells cultured without 4-OHT **(b)** The same cells shown in (a) were removed from liquid culture and plated in medium containing soft agar and IL-3 (0.5 ng/mL). The numbers of colonies were counted after 10 days and expressed relative to the numbers of colonies from time 0 days. These data are the same as that shown in Figure 3 but include cells cultured without 4-OHT. Data from (a) and (b) represent means and standard errors of at least 4 clones of each genotype, from at least 3 independent experiments.

Figure S3. Neither enforced expression of constitutively active Akt1 nor Akt2 enhances viability or clonogenicity of *p53* deficient FDM cells in the absence of IL-3. (a) Multiple independent FDM cell lines of the indicated genotypes expressing iAkt1 or ieGFP were cultured in the presence or absence of 4-OHT for 24 h before being starved of IL-3 over a 5-day time-course. Cell viability was determined by PI exclusion using flow cytometry. These data are the same as that shown in Figure 5 but include cells cultured without 4-OHT **(b)** The same cells shown in (a) were

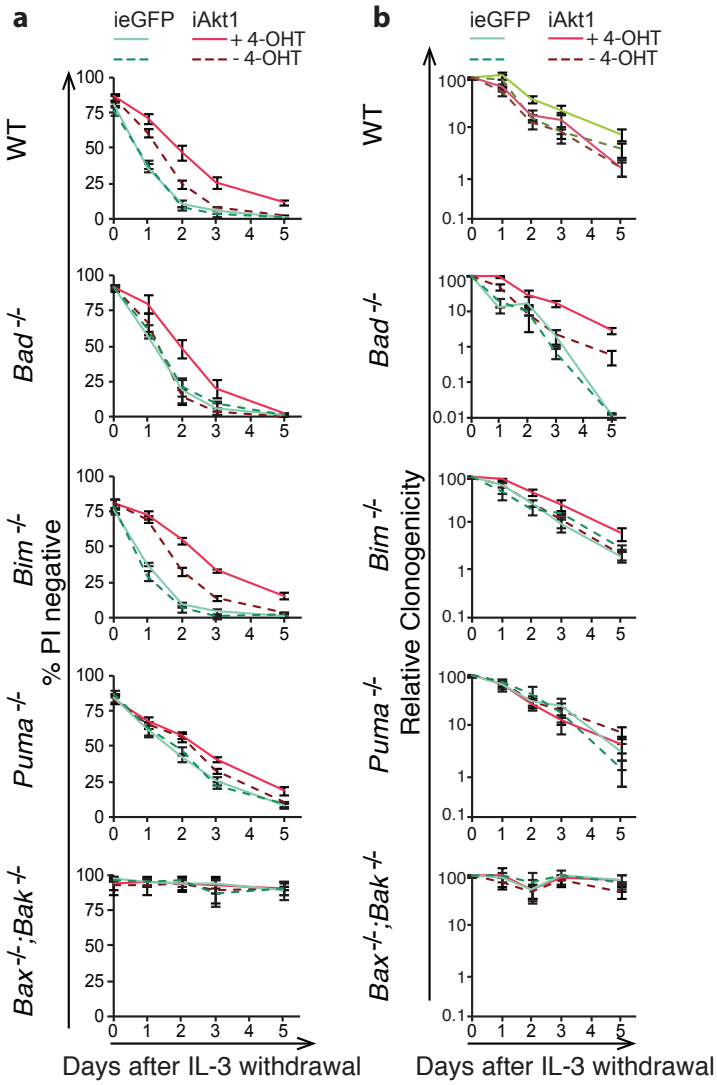
removed from liquid culture and plated in medium containing soft agar and IL-3 (0.5 ng/mL). The numbers of colonies were counted after 10 days and expressed relative to the numbers of colonies from time 0 days. These data are the same as that shown in Figure 5 but include cells cultured without 4-OHT Results from (a) and (b) represent the mean and standard errors of 3 independent experiments.

Figure S4. Enforced Akt1 expression results in a reduction of p53 reporter activity. iAkt1 WT FDM cells were transduced with a lentiviral construct encoding a p53 transcriptional response elements (from the Puma promoter) linked to GFP. p53 Transcriptional activity (GFP fluorescence intensity) was measured at the indicated times after Akt1 induction with 4-OHT. **(a)** Representative FACS dotplots are shown, and **(b)** mean GFP fluorescecne relative to uninduced cells at each time point from 3 independent experiments. Data show means and standard error.

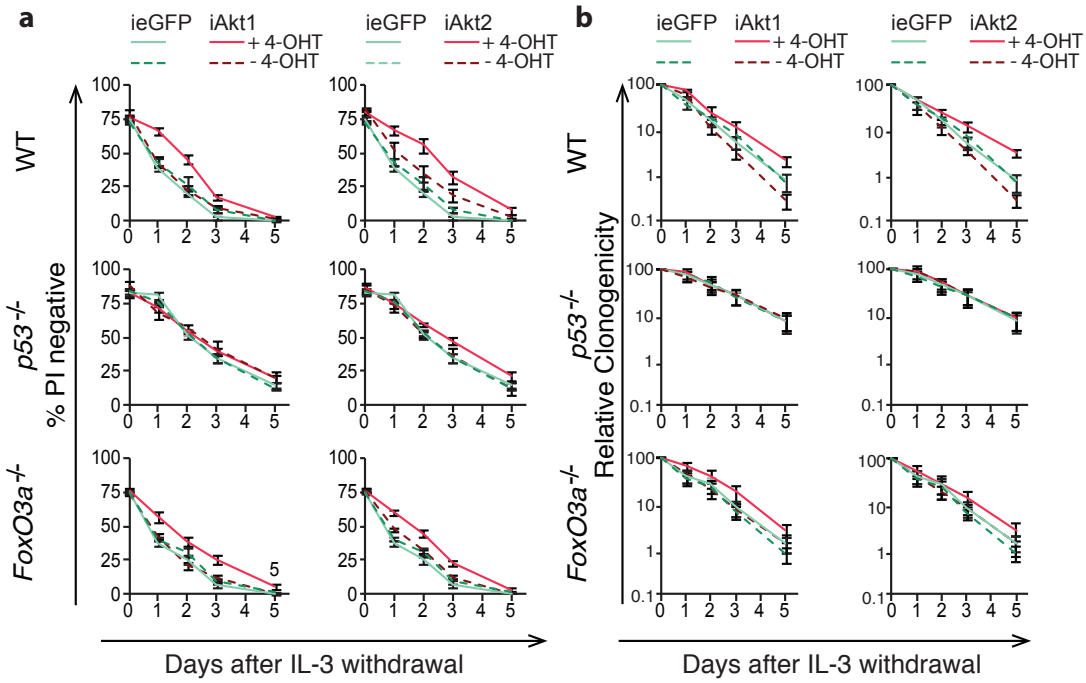
Supplementary Figure 1



Supplementary Figure 2



Supplementary Figure 3



Supplementary Figure 4