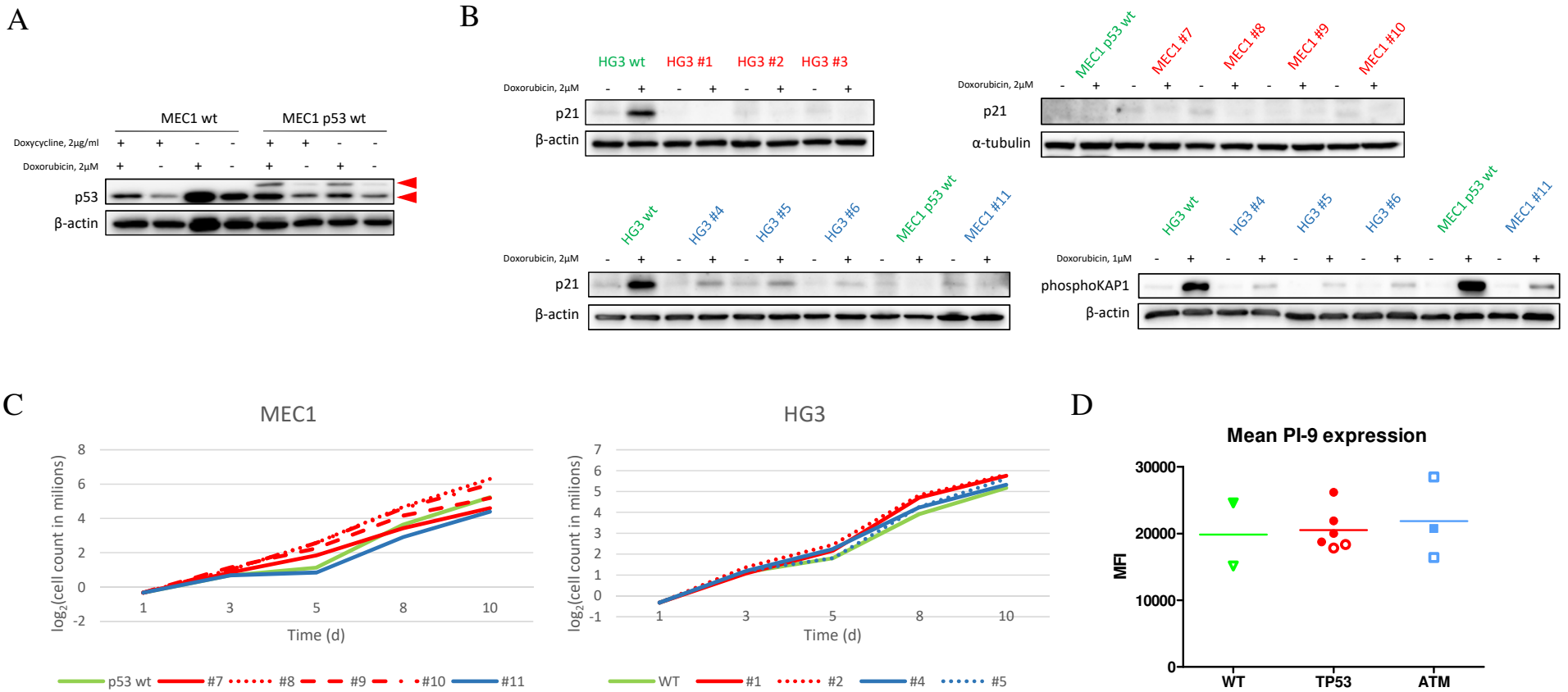

Supplementary Figure S3. A) WT p53 was introduced into MEC1 cells under inducible promotor. To induce p53 expression, 2 µg/ml of doxycycline was used for 24h. Afterwards, DNA damage was induced with 24h treatment with 2 µM doxorubicin. Introduced WT p53 can be appreciated above the truncated form of MEC1 p53 (highlighted with red arrows). Since we were not using a doxycycline-free serum in these experiments, the p53 expression is leaky. **B)** Targeted genes in the generated knockout cell lines are truly impaired as shown by lack of activation of their downstream effector genes upon induction od DNA damage (24h treatment with 2 µM doxorubicin). In case of *TP53*-knockout cells lines, no activation of p21 is observed, and *ATM*-knockout cell lines additionally failed to phosphorylate KAP1. **C)** Cell proliferation does not differ among the generated knockout clones. Cell proliferation of generated knockout clones was monitored during 10 days of *in vitro* culture. On day 1, $8x10^5$ cells were seeded at concentration $4x10^5$ cells/ml. Every 2-3 days, cells were counted and the media volume was adjusted to the starting concentration of $4x10^5$ cells/ml. **D)** Comparison of PI-9 expression between generated knockout cell lines. Mean fluorescence intensity (MFI) is displayed. HG3 and cell lines derived from it are depicted in off-color shapes.