



**Figure 3- figure supplement 7.**

**Inactivation of p53 by using CRISPR-Cas9 decreases cell survival of p53 exon-6 truncation expressing cells.**

A. The chart represents the number of viable cells compared to Renila control (Ren g.208) upon CRISPR-Cas9 mediated gene editing either with p53 g.13 and g.140 or Rpa3 g.44 as positive control. Each bar is the average of 9 replicates (p-value, \* $<0.05$ , \*\* $<0.005$ , \*\*\* $<0.0005$  and \*\*\*\* $<0.00005$  unpaired t-test). The sequence for each gRNA used in this study, is indicated in Supplementary File 5.

B. Western blot analysis of A549 cell line using a p53 N-terminal specific (DO1) antibody and an antibody against RasGAP as loading control to validate the inactivation of p53.

C. Validation of p53 gene editing in the *in-vivo* mouse model. Mice were injected sub-cutaneously with A549 cells, treated with Shield-1 after 9 days and sacrificed at day 16. Sections of tumors transduced either with Renila sgRNA or p53 sgRNA were stained with a p53 N-terminal specific (DO1) antibody. Representative pictures are shown.