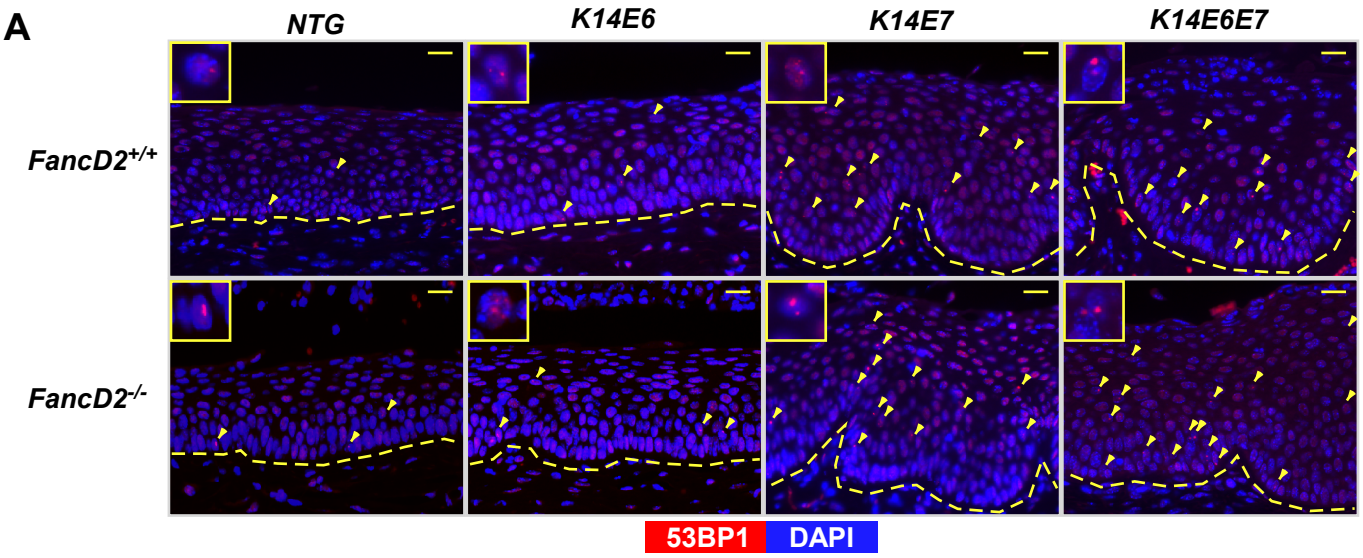
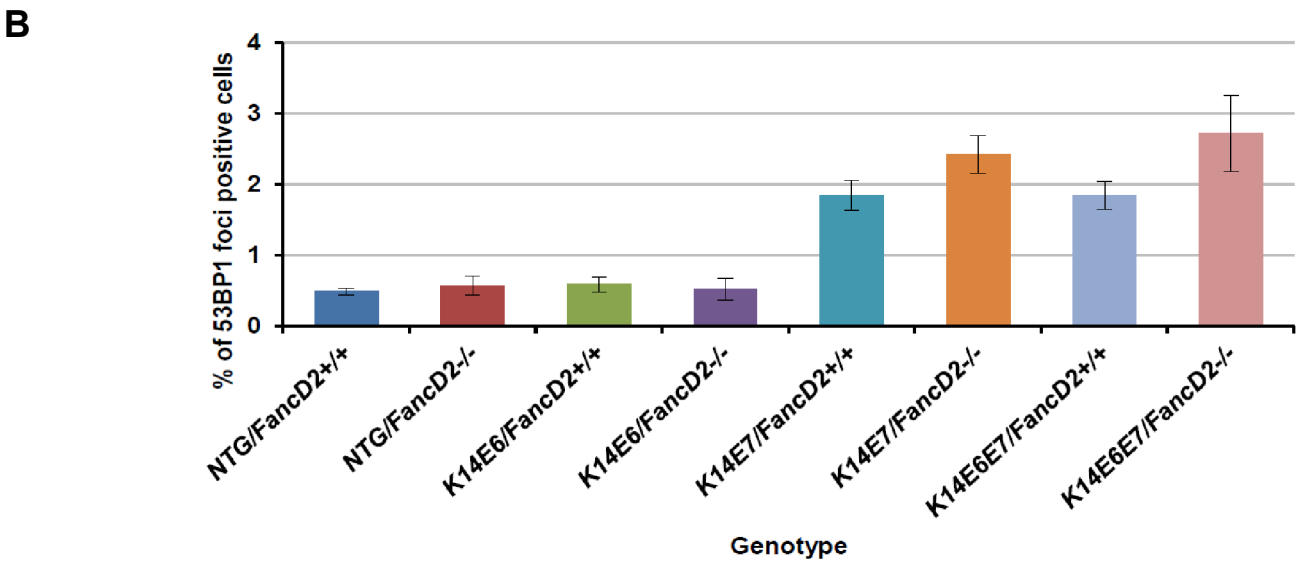
Supplementary figure 2





Supplementary figure 2. FancD2 deficiency induced E7-dependent DNA damage response via 53BP1. A, to detect DNA damage response, tissue sections from each group were stained for anti-53BP1 (Red) antibody. DAPI (Blue) is used for a nuclear counterstaining. Scale bar, 20 um. 53BP1 nuclear-foci positive cells are highlighted by yellow arrows in the images. Insets provide magnified views of cells with 53BP1 positive nuclear-foci. The white dot line indicates basal membrane. B, at least three mice from NTG, K14E6, K14E7, and K14E6E7 mice in the presence and absence of fancD2 expression were randomly selected and more than six image frames of cells at the epithelia of cervix were quantified for each mouse. The amount of 53BP1-foci positive cells over total number of cells was plotted in each case (columns); bar, Standard deviation (SD). In the epithelial layer of the cervical tissues, E7 expression and E6/E7 double expression significantly induced the number of 53BP1 nuclear-foci positive cells on fancD2-sufficient background (NTG/FancD2 or K14E6/FancD2+/+ vs. K14E7/FancD2+/+ or K14E6E7/FancD2+/+; $P<0.05$). fancD2 deficiency statistically increased proliferation in K14E7 and K14E6E7 mice (K14E7/FancD2+/+ vs. K14E7/FancD2-/- and K14E6E7/FancD2+/+ vs. K14E6E7/FancD2-/-; $P<0.05$), not in NTG and K14E6 mice. All statistical comparisons were performed using a two-sided Wilcoxon Rank sum test.