



**Figure S1.**

- A. Linearity of measured bioluminescence vs IMR90 cell number. IMR90 cells were plated in 12 well plates in different numbers. Then, cells were imaged using of the IVIS200 imaging system. Top panel, luc activity plotted against cell number ( $R^2=0.970$ ). Error bars represent standard error of the mean (SEM,  $n=3$ ). Lower panel, representative luciferase image of the plated IMR90 cells.
- B. P21 is a target of p53 in the reprogramming process. Western blot analysis of p53 and p21 protein expression in 5F (Upper panel) or 5F-p53DN (Lower panel) transduced IMR90 cells at indicated time.