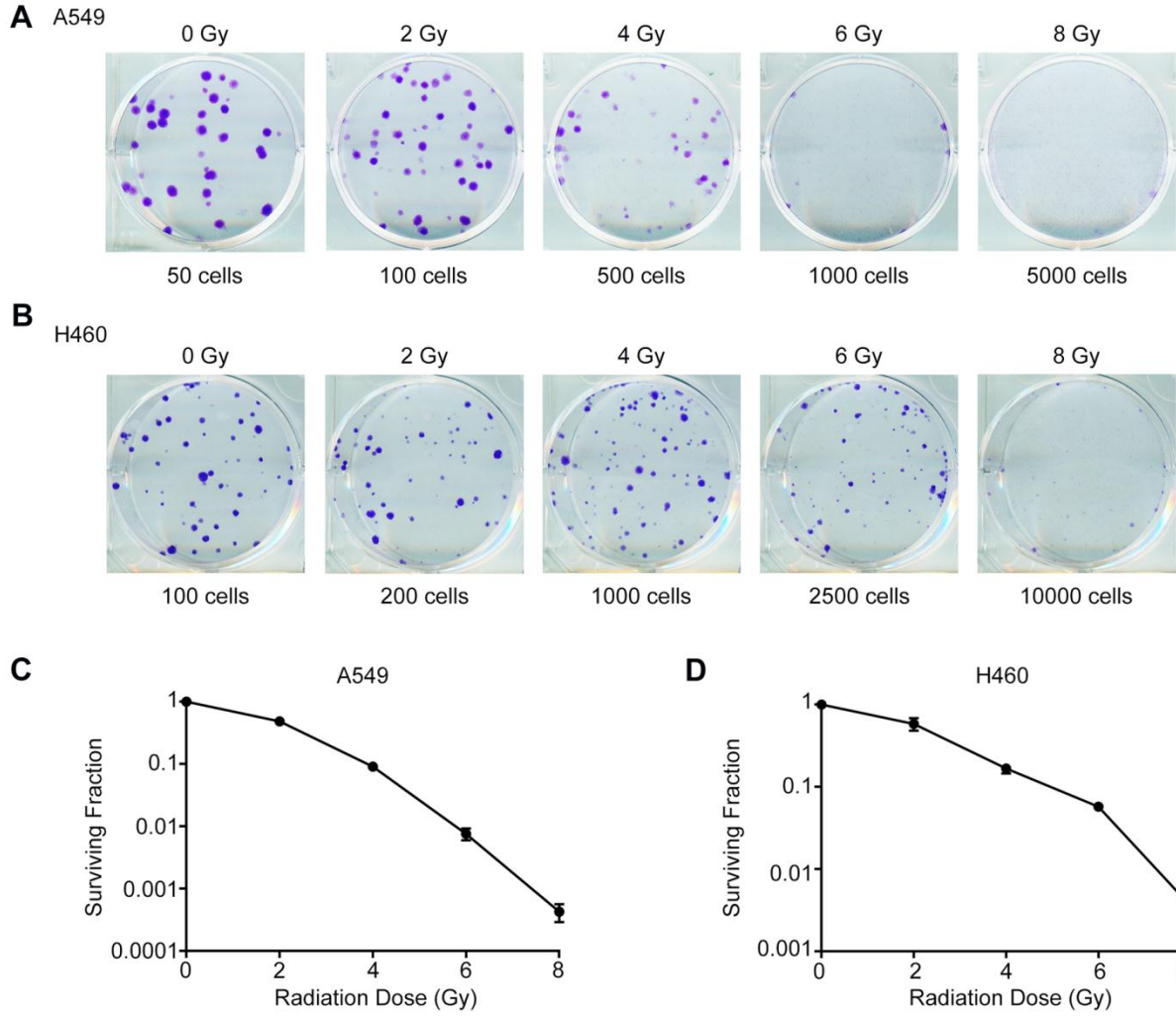
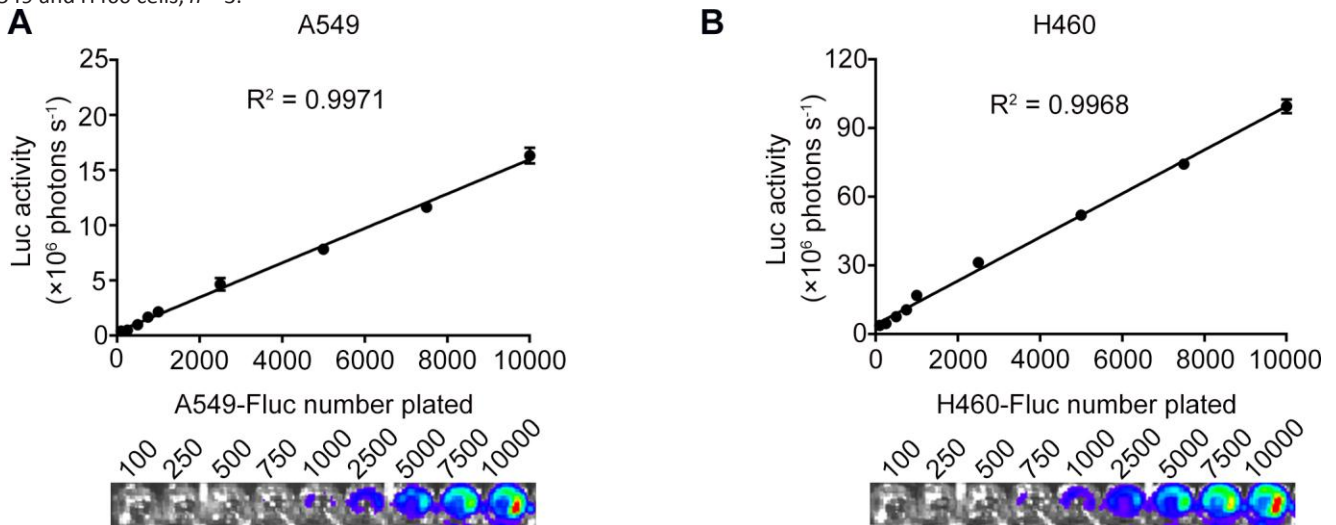


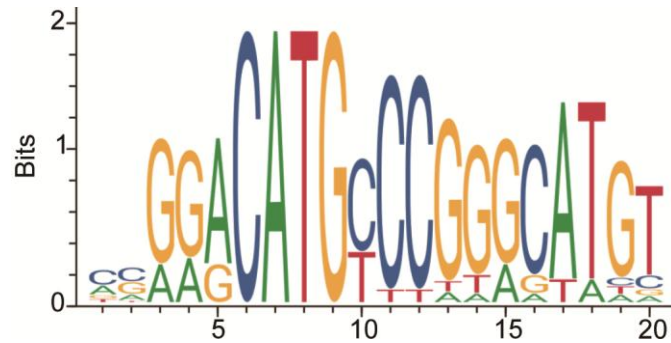
SUPPLEMENTARY FIGURES



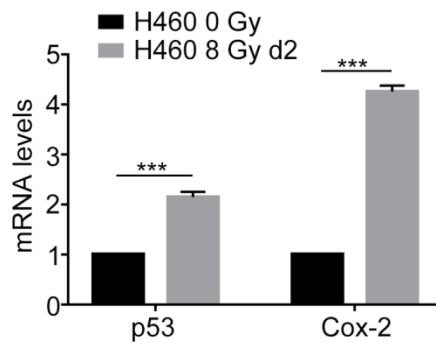
Supplementary Figure 1. Clonogenic cell survival assays in A549 and H460 cell lines after exposure to ionizing radiations. (A, B) The corresponding images of surviving colonies (>50 cells per colony) in A549 and H460 cells. (C, D) Surviving fractions of irradiated A549 and H460 cells, $n = 3$.



Supplementary Figure 2. A linear correlation was observed between the luciferase activity of A549 Fluc or H460 Fluc cells with seeded cell numbers. (A, B) Upper panel shows luciferase activities of different numbers of A549 Fluc and H460 Fluc cells. Lower panel shows the representative bioluminescence images, $n = 4$.



Supplementary Figure 3. The JASPAR database shows the potential p53 binding sites in the promoter region of *PTGS2*.



Supplementary Figure 4. The mRNA levels of p53 and Cox-2 in a xenograft mouse model after exposure to 8 Gy radiations (*) $p < 0.001$, Student's t test, $n = 3$.**