

Figure S1. SA- $\beta$ -GAL analysis of HUVECs exposed to 4 Gy irradiation. The FITC fluorescence intensity of HUVECs stained with SPiDER- $\beta$ Gal working solution was detected using a CytoFLEX flow cytometer. SA- $\beta$ -GAL, senescence-associated  $\beta$ -galactosidase.

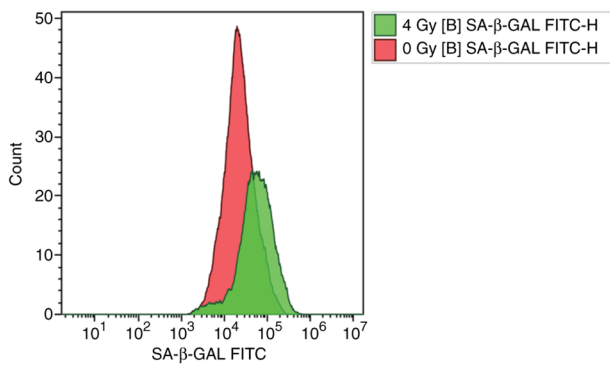


Figure S2. Cell cycle analysis of HUVECs exposed to 4 Gy irradiation. PI-stained HUVECs were detected using the CytoFLEX flow cytometer, and the Kaluza 2.2 software was used to calculate the percentage of cells in the G<sub>1</sub>, S and G<sub>2</sub>/M phases.

