

## Supplemental experimental procedure

*Colony survival assay.* The assay was performed as previously described (1). Various amounts of adefovir dipivoxil (0, 0.05, 0.1, 0.15 and 0.2  $\mu$ M) were mixed with Dulbecco's modified Eagle's medium-F12 (Gibco; Thermo Fisher Scientific, Inc., Waltham, MA, USA) supplemented with 15% fetal bovine serum (Wisent, Inc., St. Bruno, QC, Canada), 1.5% chicken serum (Wisent, Inc.), 1.5% (w/v) methylcellulose, 200 mM L-glutamine (Gibco; Thermo Fisher Scientific, Inc.) and 50  $\mu$ M  $\beta$ -mercaptoethanol (Gibco; Thermo Fisher Scientific, Inc.), on a slowly rotating shaker overnight at 4°C. Cells were then seeded into 6-well plates containing 3 ml methylcellulose medium per well, treated for 14 days and visible colonies were then counted. The results were plotted in Fig. S2.

## Reference

1. Hu X, Wu X, Liu H, Cheng Z, Zhao Z, Xiang C, Feng X, Takeda S and Qing Y: Genistein-induced DNA damage is repaired by nonhomologous end joining and homologous recombination in TK6 cells. *J Cell Physiol* 234: 2683-2692, 2019.

Figure S1. Quantitative distribution of  $\gamma$ -H2AX foci in *WT* DT40 and TK6 cells. (A) *WT* DT40 cells were treated with 0.1  $\mu$ M ADV and 0.1  $\mu$ M CPT for 6 h. (B) *WT* TK6 cells were treated with 1  $\mu$ M ADV and 20 nM CPT for 6 h. The x-axis represents the number of  $\gamma$ -H2AX foci/cells, and the y-axis displays the percentage number of cells. \* $P$ <0.05 vs. control. *WT*, wild-type; ADV, adefovir dipivoxil; CPT, camptothecin;  $\gamma$ -H2AX,  $\gamma$ -H2A histone family member X.

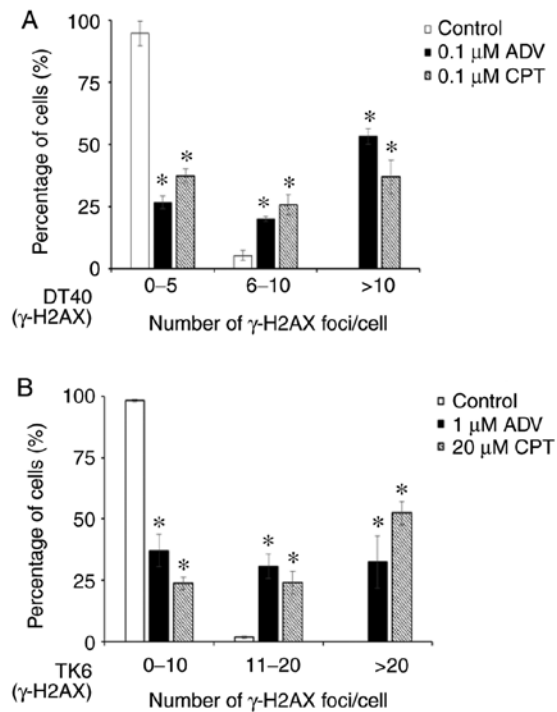


Figure S2. Proliferation ability of ADV-treated DT40 cells assessed using clonogenic assays. The x-axis represents the concentration of ADV on a linear scale and the y-axis represents the survival fraction on a logarithmic scale. Two-way analysis of variance was used to test for differences in the linear dose-response curves between *WT* and *Brca1*<sup>-/-</sup> DT40 cells. \*P<0.05, as indicated. ADV, adefovir dipivoxil; *WT*, wild-type.

