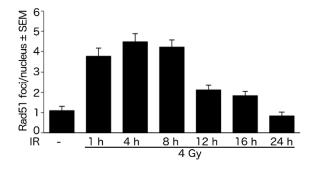


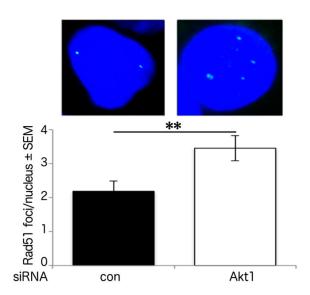


## Supplementary Materials: Akt1 Stimulates Homologous Recombination Repair of DNA Double-Strand Breaks in a Rad51-Dependent Manner

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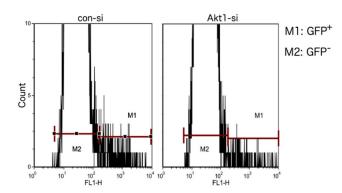


**Figure. S1.** Time-course of Rad51 foci formation after irradiation. Rad51 foci number was determined at the indicated time-points after irradiation with 4 Gy. (A549; N = 2, at least 163 counted nuclei/condition).

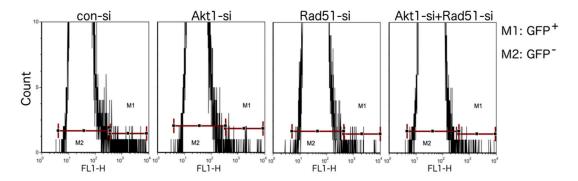


**Figure S2.** Effect of Akt1 on Rad51 foci formation in MCF-7 cells. Cells were transfected with AKT1-or con-siRNA. Rad51 foci number was determined 12 h after irradiation. Akt1-KD significantly increased the amount of Rad51 foci/nucleus (N = 2, at least 226 counted nuclei/condition; \*\* p < 0.01, student's t-test).

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**Figure S3.** HR-reporter assay after Akt1-KD. Exemplary plot of GFP-expressing A549 cells following transfection with Akt1- or con-siRNA.



**Figure S4.** Effect of Akt1-KD and Rad51-KD on HR repair. HR-reporter assay was performed in A549 cells after single or concurrent knockdown of Akt1 and Rad51. Exemplary plots of GFP expression are shown.