Figure S1. NAC decreases ROS levels in cancer cells. (A) Intracellular ROS were identified using C-H_2DCF staining. Scale bar, 100 μm. (B) Ratio of C-H2DCF-positive cells. The proportion of DCF-positive cells was calculated as the mean ± SEM from three fields of view/section. P-values were calculated using one-way ANOVA, followed by post hoc Tukey's test. **P<0.01. NAC, N-acetyl-L-cysteine; ROS, reactive oxygen species; C-H2DCF, 2',7'-dichlorodihydrofluorescein diacetate; 5 Gy-Exo, exosomes derived from 5 Gy-irradiated cells; 0 Gy-Exo, exosomes derived from non-irradiated cells.

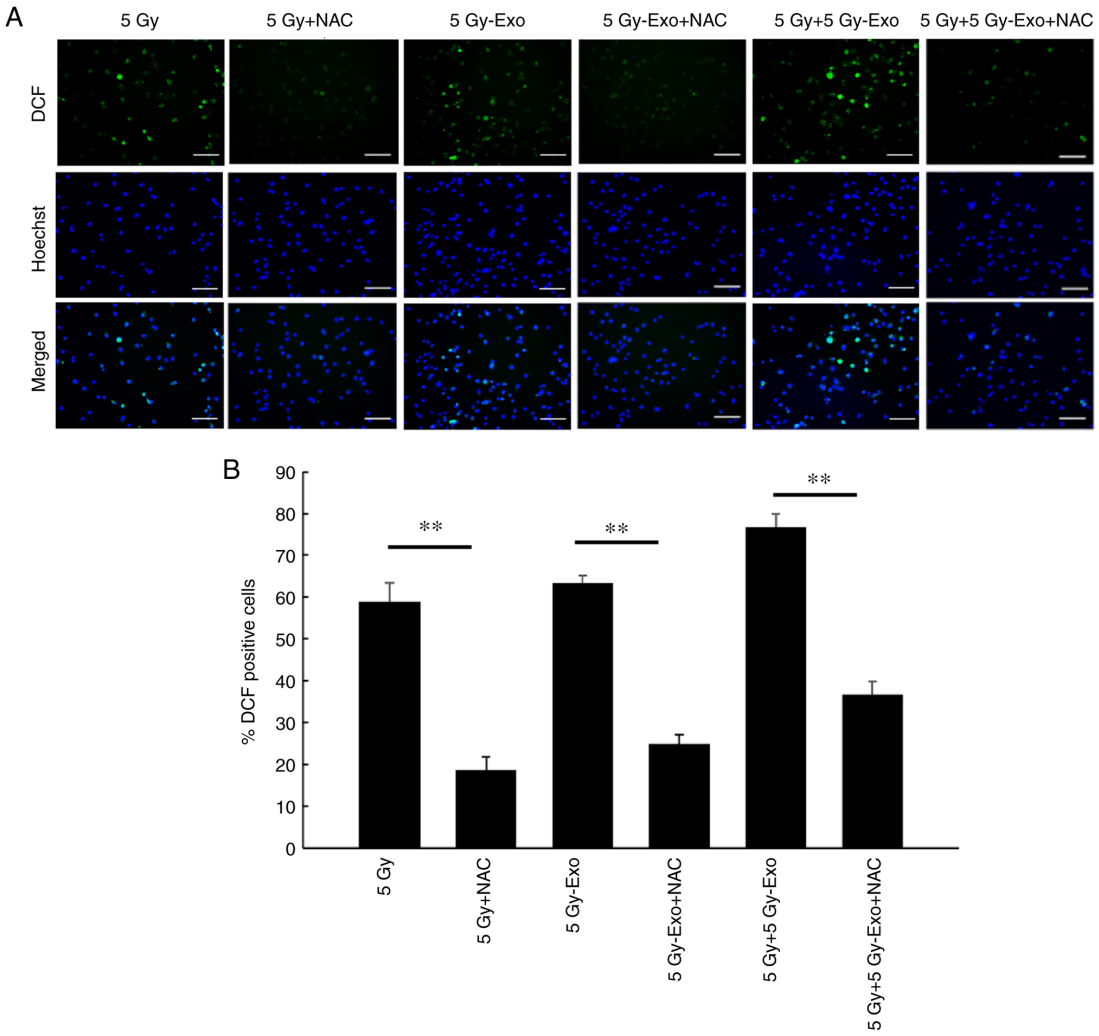

Figure S2. Intracellular levels of reactive oxygen species and DNA damage increase in a dose-dependent manner. (A) Ratio of C-H2DCF-positive cells. (B) Number of phosphorylated histone 2AX foci/cell. These values were calculated as the mean ± SEM from three fields of view/section. P-values were calculated using one-way ANOVA, followed by post hoc Tukey's test. *P<0.05, **P<0.01. C-H2DCF, 2',7'-dichlorodihydrofluorescein diacetate; 5 Gy-Exo, exosomes derived from 5 Gy-irradiated cells; 0 Gy-Exo, exosomes derived from non-irradiated cells.

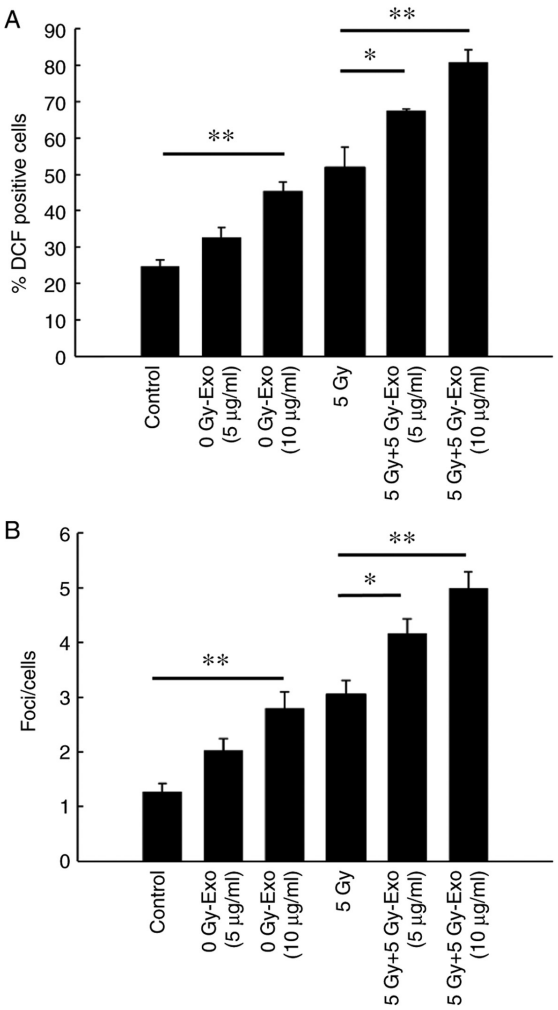

Figure S3. NAC decreases DNA damage in cancer cells. (A) Representative images of cells with DNA damage identified using γ-H2AX foci (green) and counterstaining with DAPI (blue). Scale bar, 20 μm. (B) Number of γ-H2AX foci/cell was calculated as mean ± SEM from three fields of view/section. P-values were calculated using one-way ANOVA, followed by post hoc Tukey's test. **P<0.01. NAC, N-acetyl-L-cysteine; γ-H2AX, phosphorylated histone 2AX; 5 Gy-Exo, exosomes derived from 5 Gy-irradiated cells; 0 Gy-Exo, exosomes derived from non-irradiated cells.

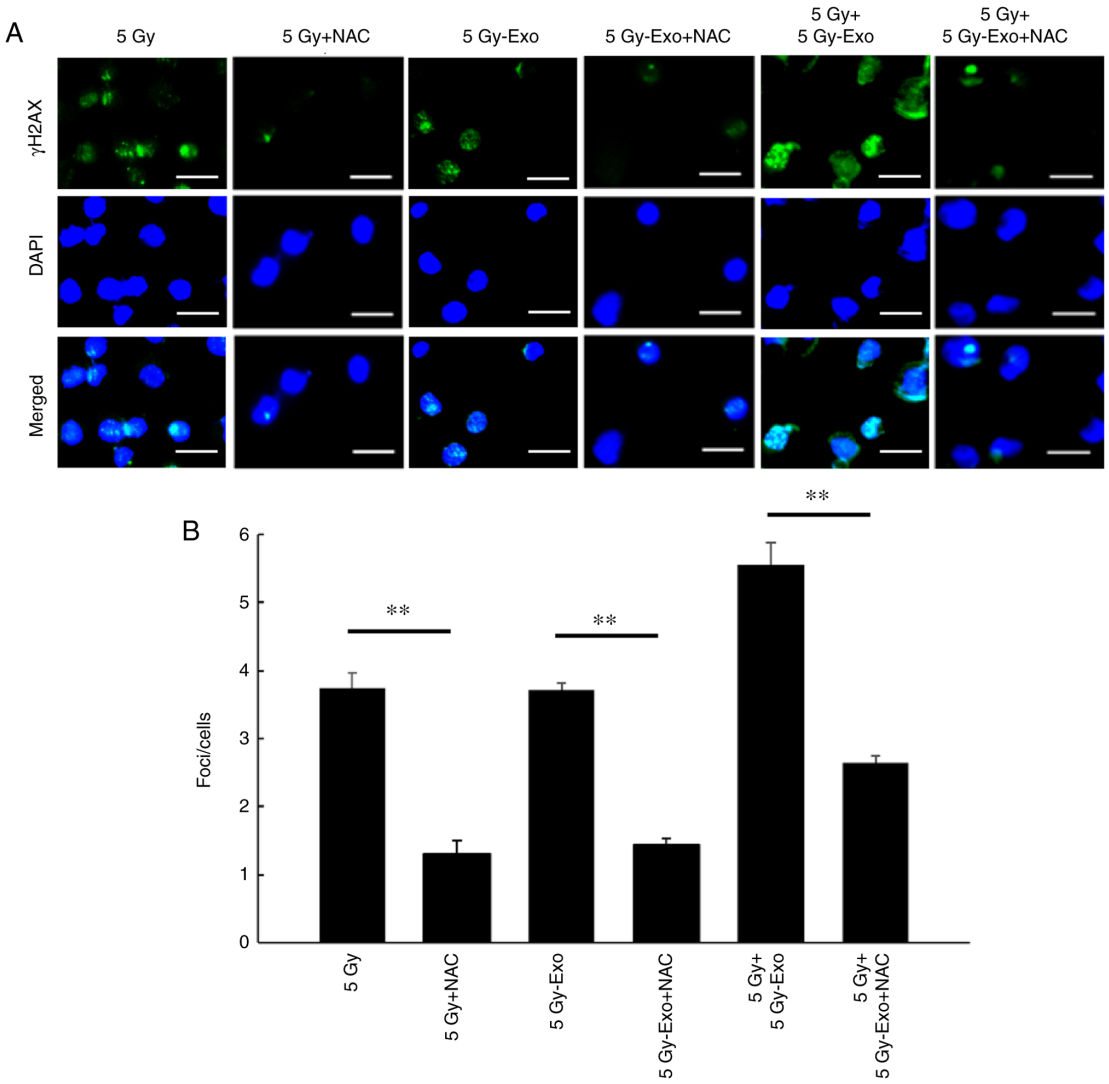

Table SI. Raw data of the colony forming assay. Surviving fraction was calculated in each group.

Group	Surviving fraction		
	Trial 1	Trial 2	Trial 3
Control	1.000	1.000	1.000
5 Gy	0.135	0.141	0.104
5 Gy + 5 Gy-Exo			
5 μg/ml	0.078	0.098	0.094
10 μg/ml	0.044	0.063	0.075

5 Gy-Exo, exosomes derived from 5 Gy-irradiated cells.

Video S1. Evaluation of 0 Gy-Exo using NanoSight. Laser light scattering was used to visualize 0 Gy-Exo and Brownian motion was analyzed using video capture.

Video S2. Evaluation of 5 Gy-Exo using NanoSight. Laser light scattering was used to visualize 5 Gy-Exo and Brownian motion was analyzed using video capture.