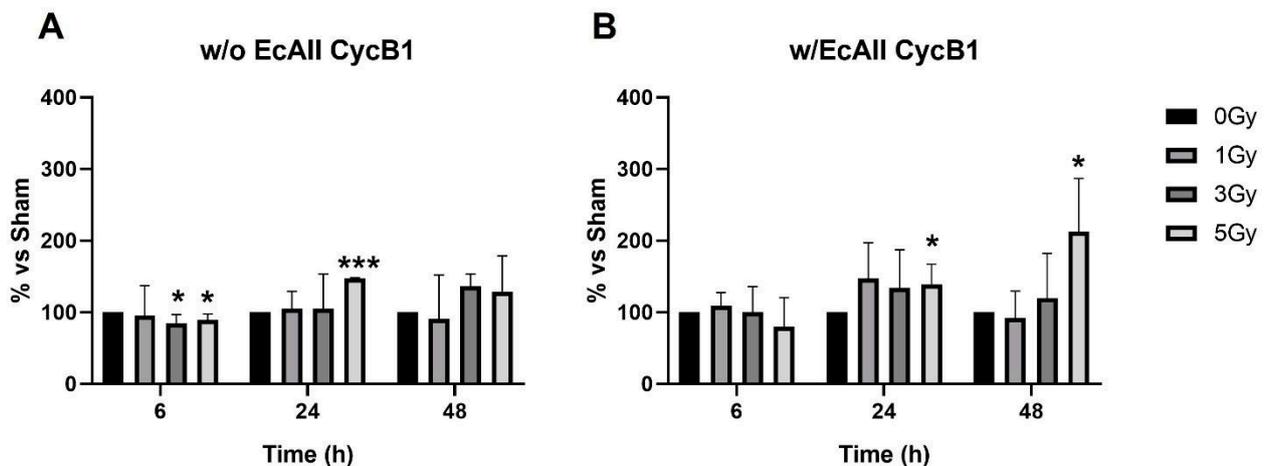
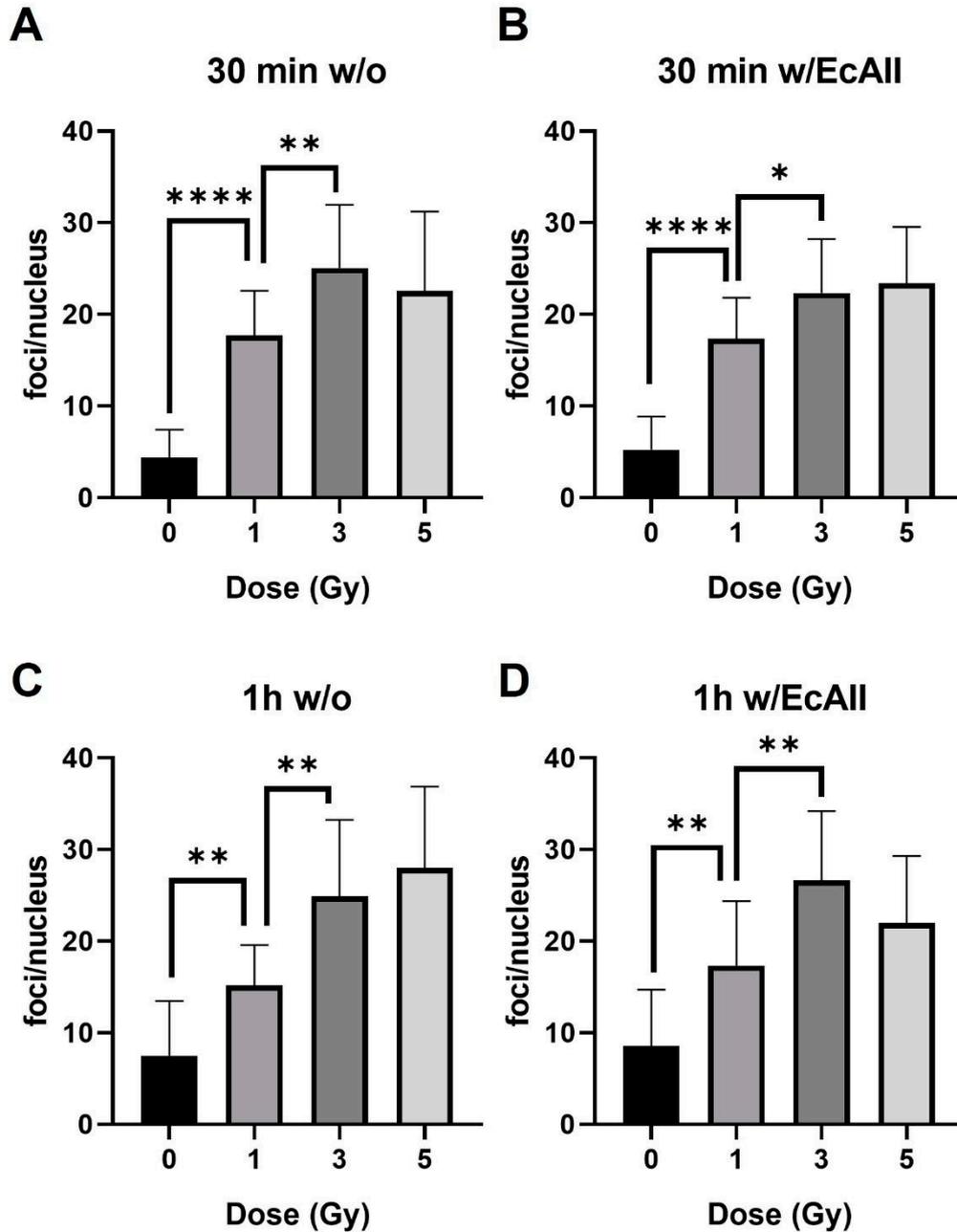


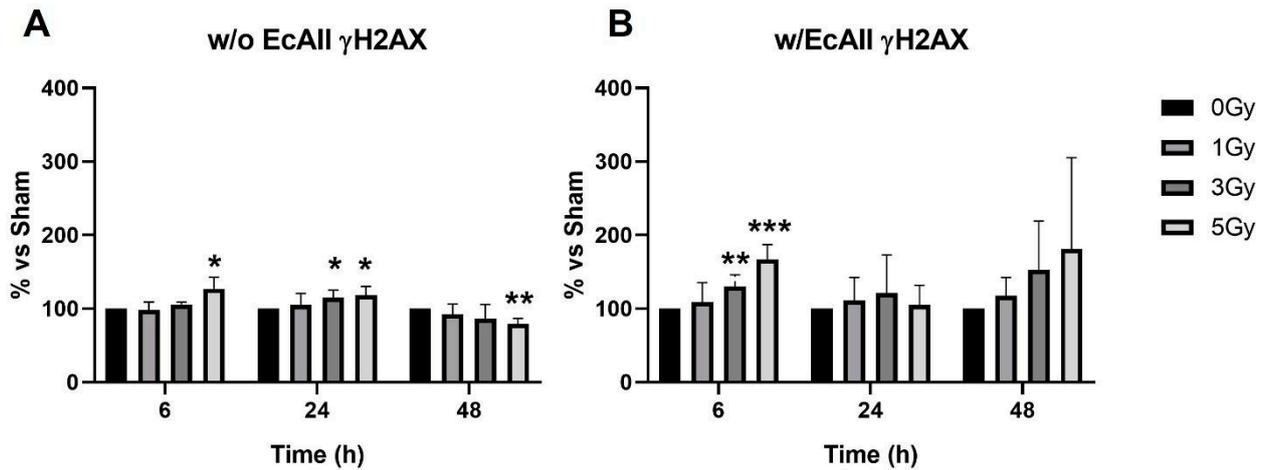
**Figure S1. G2/M transition phase protein analysis: Chk2 data normalized for the internal control.** The densitometric analysis was performed evaluating the p-Chk2/total Chk2 ratio, with respect to the unirradiated samples of each time point in absence of EcAII treatment (A) and with the administration of 1U/ml EcAII (B). Data reported are mean  $\pm$  SD, obtained from at least 3 independent experiments. Statistical significance (Student's t-test) is calculated comparing the w/o and w/EcAII conditions for each dose and time point and reported as follows: \* $p < 0.05$ , \*\*\* $p < 0.001$ .



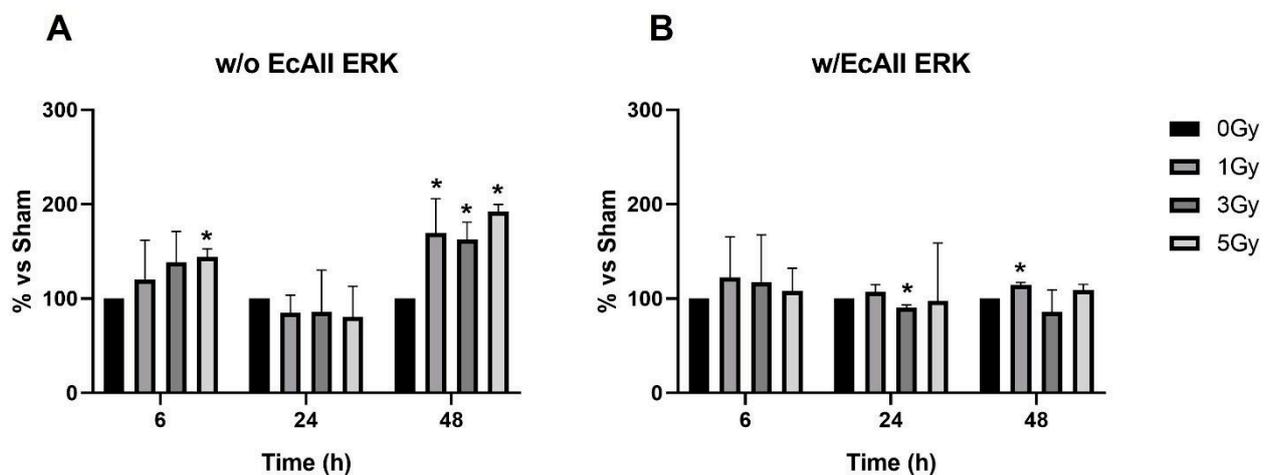
**Figure S2. G2/M transition phase protein analysis: CycB1 data normalized for the internal control.** The densitometric analysis was performed evaluating the CycB1 /GAPDH ratio, with respect to the unirradiated samples of each time point in absence of EcAII treatment (A) and with the administration of 1U/ml EcAII (B). Data reported are mean  $\pm$  SD, obtained from at least 3 independent experiments. Statistical significance (Student's t-test) is calculated comparing the w/o and w/EcAII conditions for each dose and time point and reported as follows: \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .



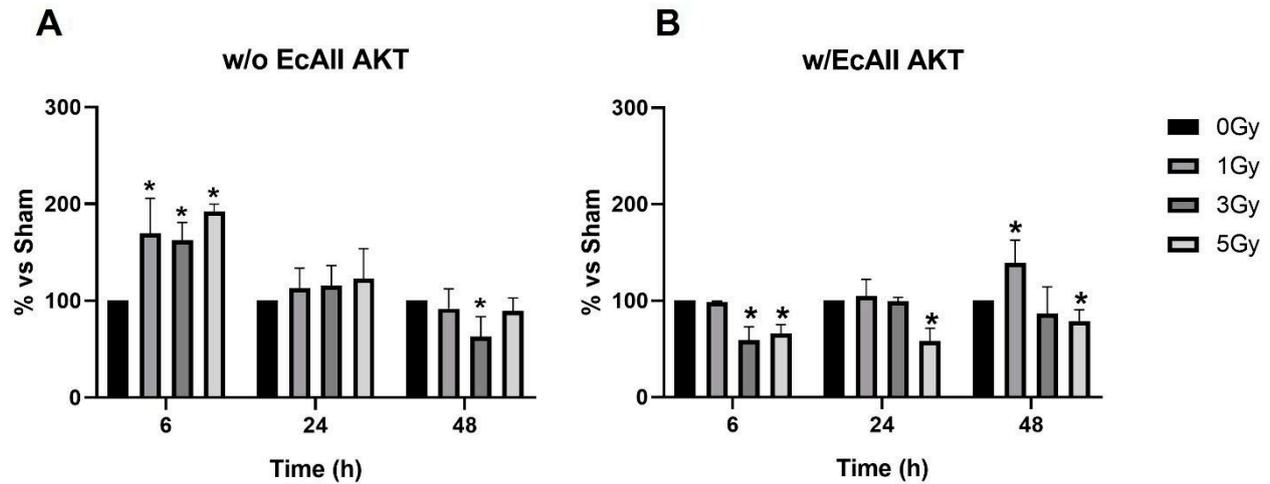
**Figure S3. Count of  $\gamma$ H2AX foci per nucleus.** The foci scoring was analysed in absence of EcAll treatment at 30 min (A) and 1h (C) after X-ray exposure or with EcAll treatment at 30 min (B) and 1h (D) after X-ray exposure. Data reported are mean  $\pm$  SD, obtained from at least 3 independent experiments. Statistical significance (Student's t-test) is calculated comparing the w/o and w/EcAll conditions for each dose and time point and reported as follows: \* $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*\* $p < 0.001$ .



**Figure S4. DNA damage marker analysis:  $\gamma$ H2AX data normalized for the internal control.** The densitometric analysis was performed evaluating the  $\gamma$ H2AX/total H2AX ratio, with respect to the unirradiated samples of each time point in absence of EcAII treatment (A) and with the administration of 1U/ml EcAII (B). Data reported are mean  $\pm$  SD, obtained from at least 3 independent experiments. Statistical significance (Student's t-test) is calculated comparing the w/o and w/EcAII conditions for each dose and time point and reported as follows: \*p < 0.05, \*\* p < 0.01, \*\*\*p < 0.001.



**Figure S5. Metabolic response evaluation: ERK data normalized for the internal control.** The densitometric analysis was performed evaluating the p-ERK/total ERK ratio, with respect to the unirradiated samples of each time point in absence of EcAII treatment (A) and with the administration of 1U/ml EcAII (B). Data reported are mean  $\pm$  SD, obtained from at least 3 independent experiments. Statistical significance (Student's t-test) is calculated comparing the w/o and w/EcAII conditions for each dose and time point and reported as follows: \*p < 0.05.



**Figure S6. Metabolic response evaluation: Akt data normalized for the internal control.** The densitometric analysis was performed evaluating the p-AKT/total AKT ratio, with respect to the unirradiated samples of each time point in absence of EcAII treatment (A) and with the administration of 1U/ml EcAII (B). Data reported are mean  $\pm$  SD, obtained from at least 3 independent experiments. Statistical significance (Student's t-test) is calculated comparing the w/o and w/EcAII conditions for each dose and time point and reported as follows: \* $p < 0.05$ .