

Supplementary figures

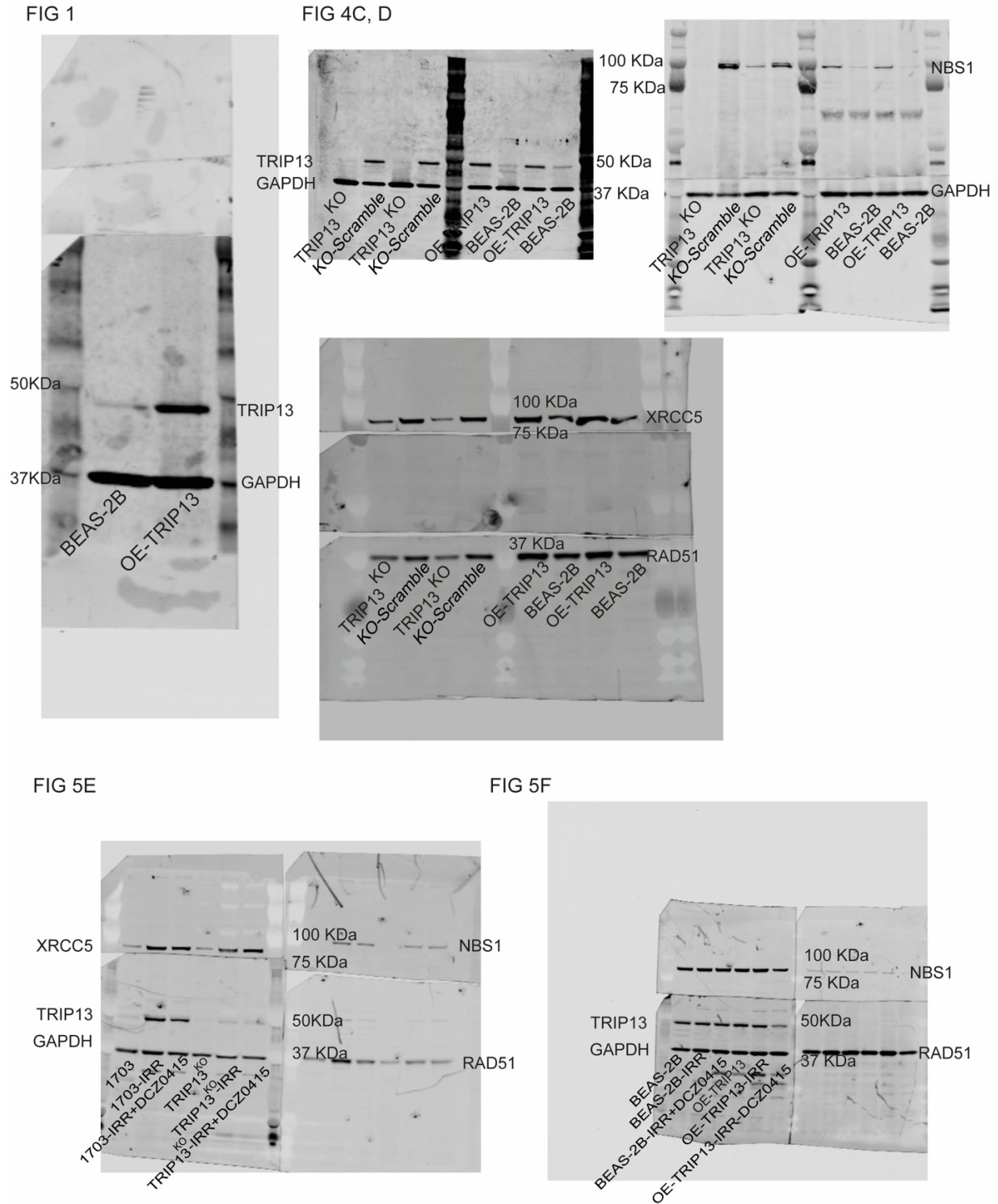
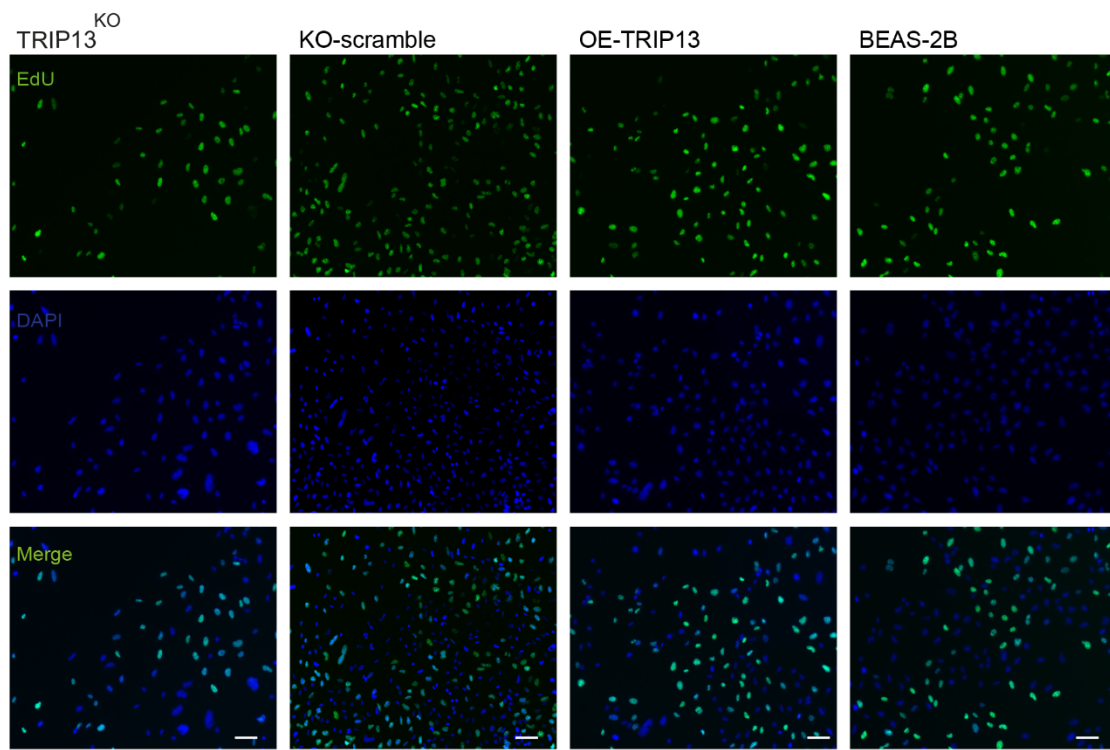


Figure S1. Uncropped full length western blots

A



B

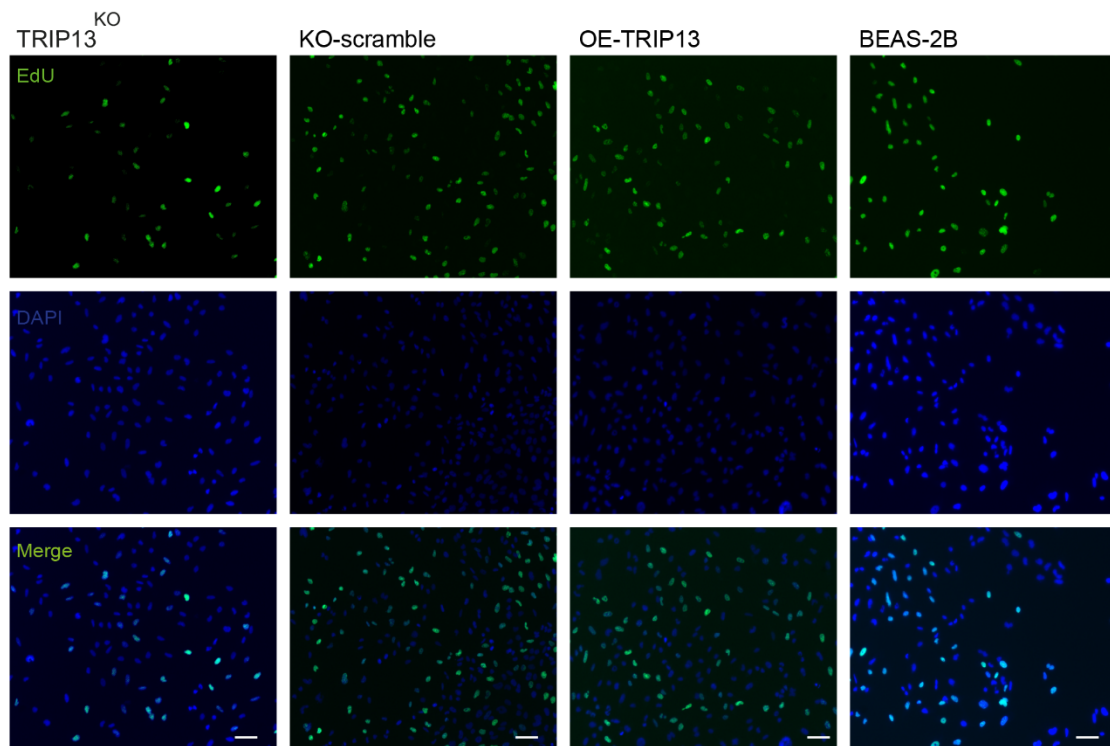


Figure S2. TRIP13 promotes cell proliferation. (A) Representative images of KO-Scramble, TRIP13^{KO}; BEAS-2B (dCas9) and OE-TRIP13 cells that incorporated 5-ethynyl-2'-deoxyuridine (EdU) before 2Gy of irradiation; counterstained with DAPI. **(B)** Representative images of KO-Scramble, TRIP13^{KO}; BEAS-2B (dCas9) and OE-TRIP13 cells that incorporated 5-ethynyl-2'-deoxyuridine (EdU) after 2Gy of irradiation; counterstained with DAPI, scale bar=75 μ m.

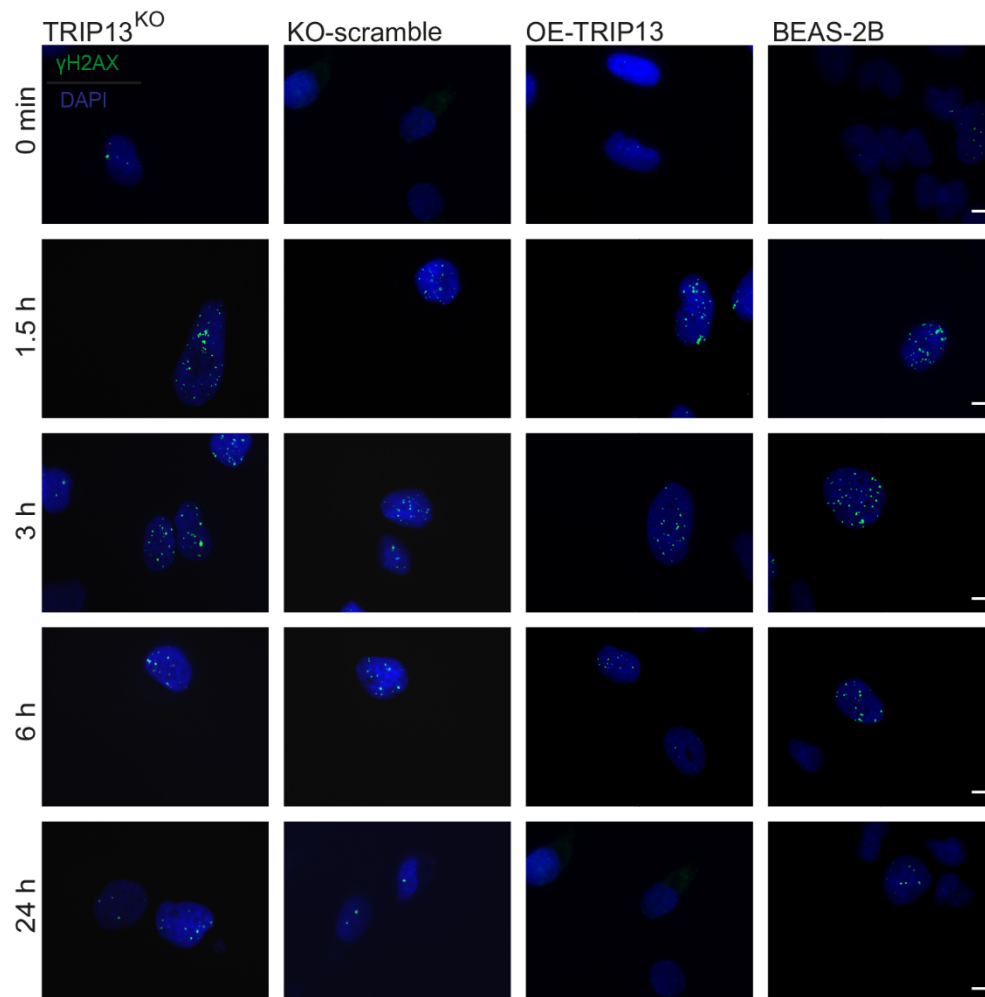
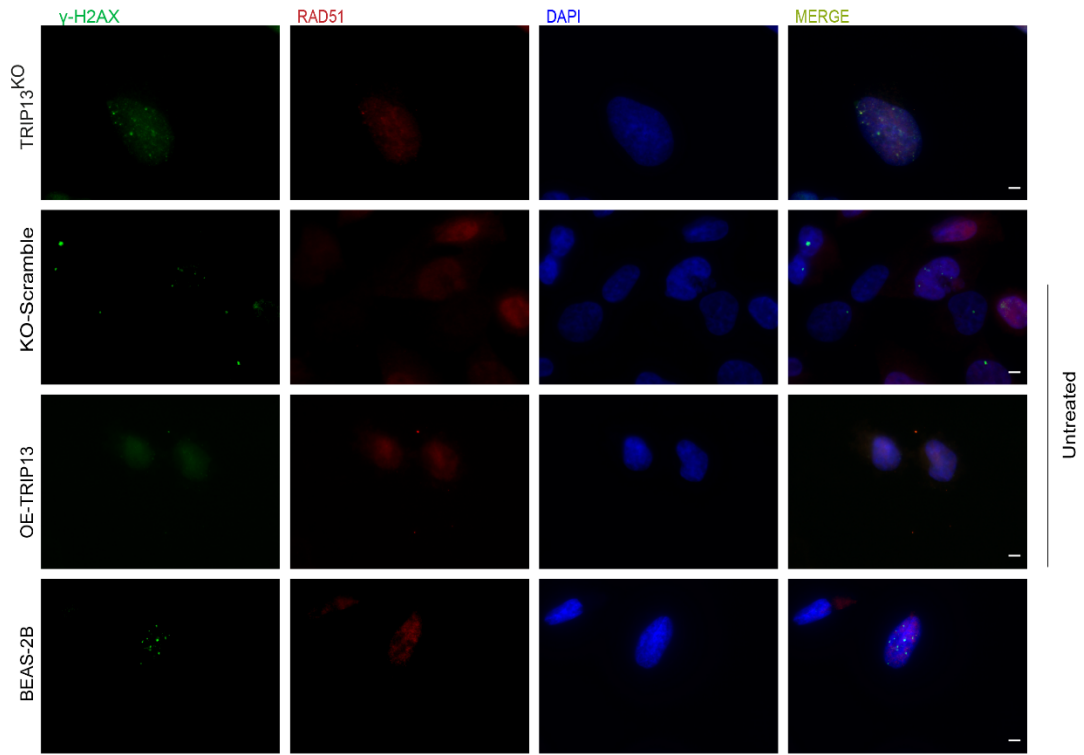


Figure S3. TRIP13 promotes DNA double strands break repair. γ -H2AX (green) and DAPI (blue) staining of KO-scramble, TRIP13^{KO}; BEAS-2B (dCas9) and OE-TRIP13, at several time points after 2 Gy of irradiation, scale bar=8 μ m.

A



B

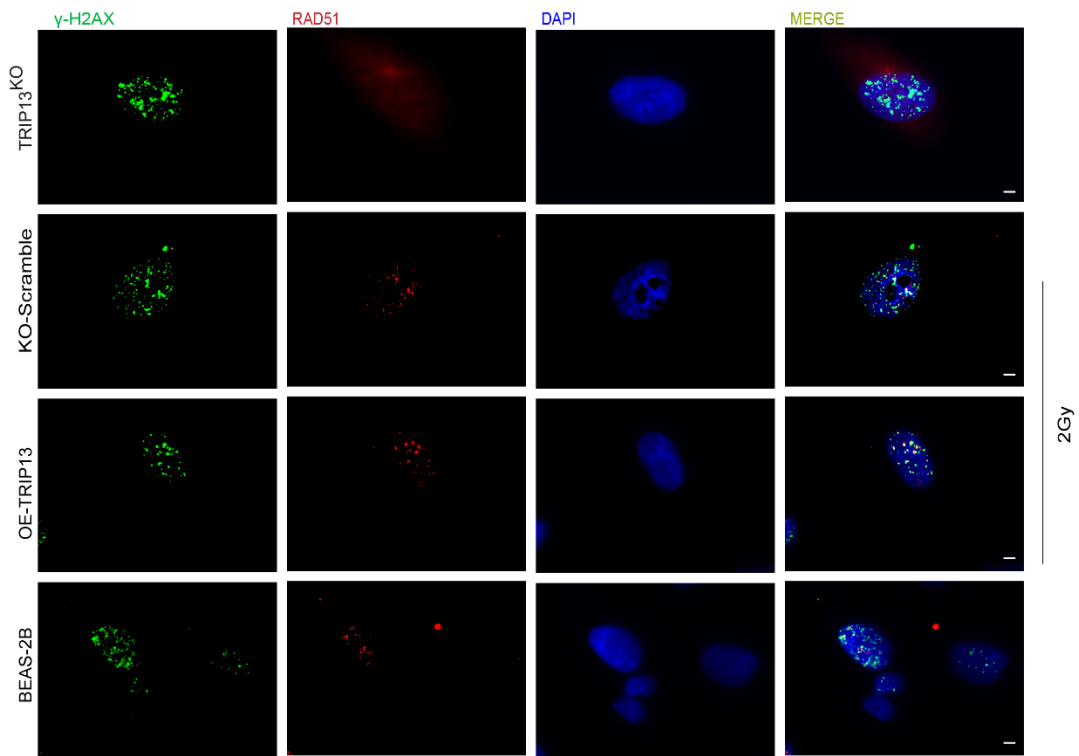


Figure S4. TRIP13 promotes DSBs repair through Homologous Recombination. (A) γ -H2AX (green) and RAD51 (red) staining of KO-scramble, TRIP13^{KO}; BEAS-2B (dCas9) and OE-TRIP13 without 2 Gy of irradiation, DAPI to visualize nuclei. **(B)** γ -H2AX (green) and RAD51 (red) staining of KO-scramble, TRIP13^{KO}; BEAS-2B (dCas9) and OE-TRIP13 with 2 Gy of irradiation, DAPI to visualize nuclei, scale bar=8 μ m.

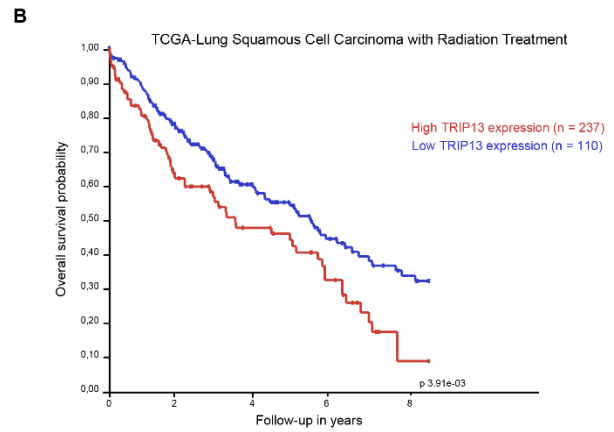
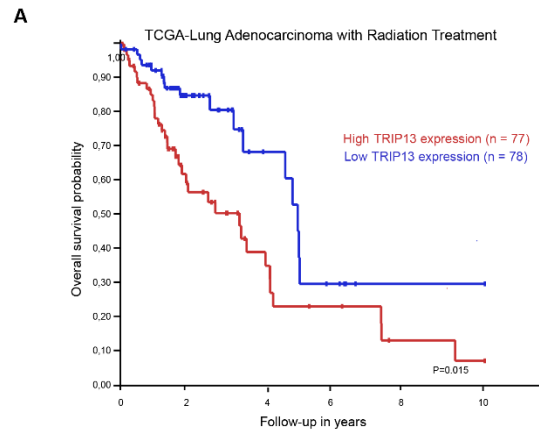


Figure S5. TRIP13 expression in NSCLC patient samples (LUAD and Lung Squamous Cell Carcinoma) following radiation treatment correlates with poor prognosis. (A) High TRIP13 expression in LUAD patient samples following radiation treatment correlates with poor prognosis. (B) High TRIP13 expression in Lung Squamous Cell Carcinoma patient samples following radiation treatment correlates with poor prognosis.