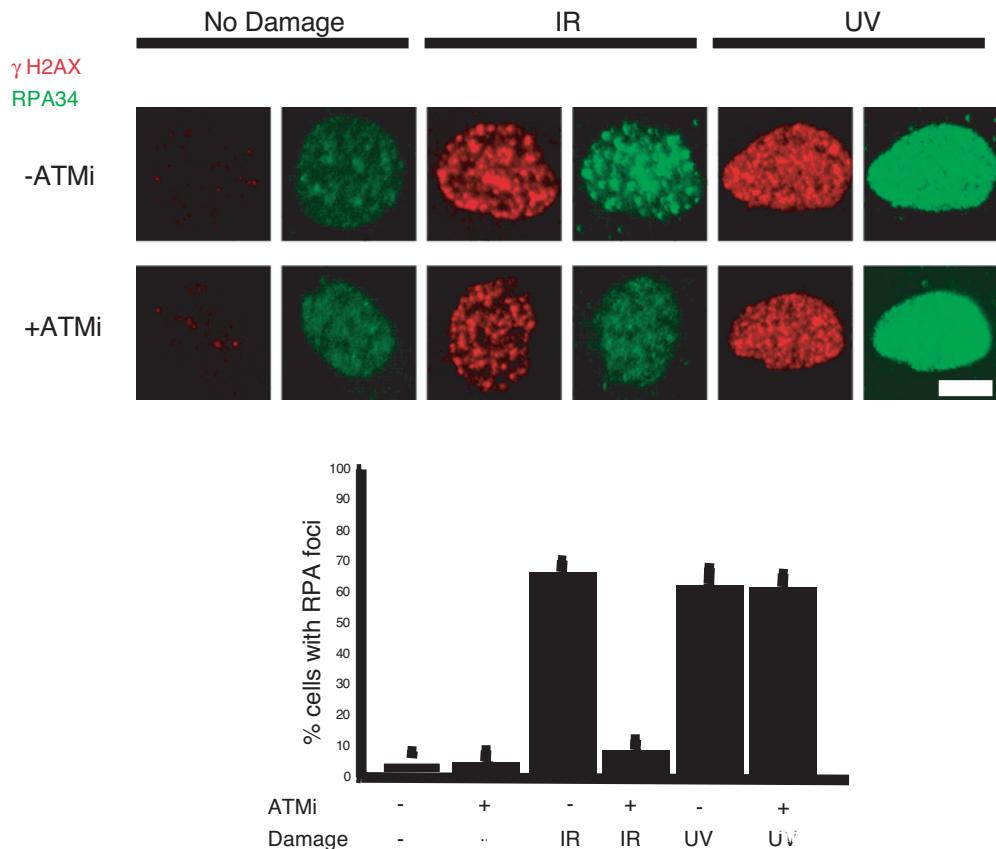


**Figure s1.** **a.** U2OS cells were transfected with siRNA oligos as indicated and 48 hours later, cells were treated with IR (10 Gy) or UV (10 J/m<sup>2</sup>) and 1 hour later extracts were made and immunoblotted as indicated. **b.** U2OS cells were transfected with siRNA oligos specific to TOPBP1, Claspin or Luciferase as control and 48 hours later cells were treated with UV or IR as above and 1 hour later extracts were prepared and immunoblotted

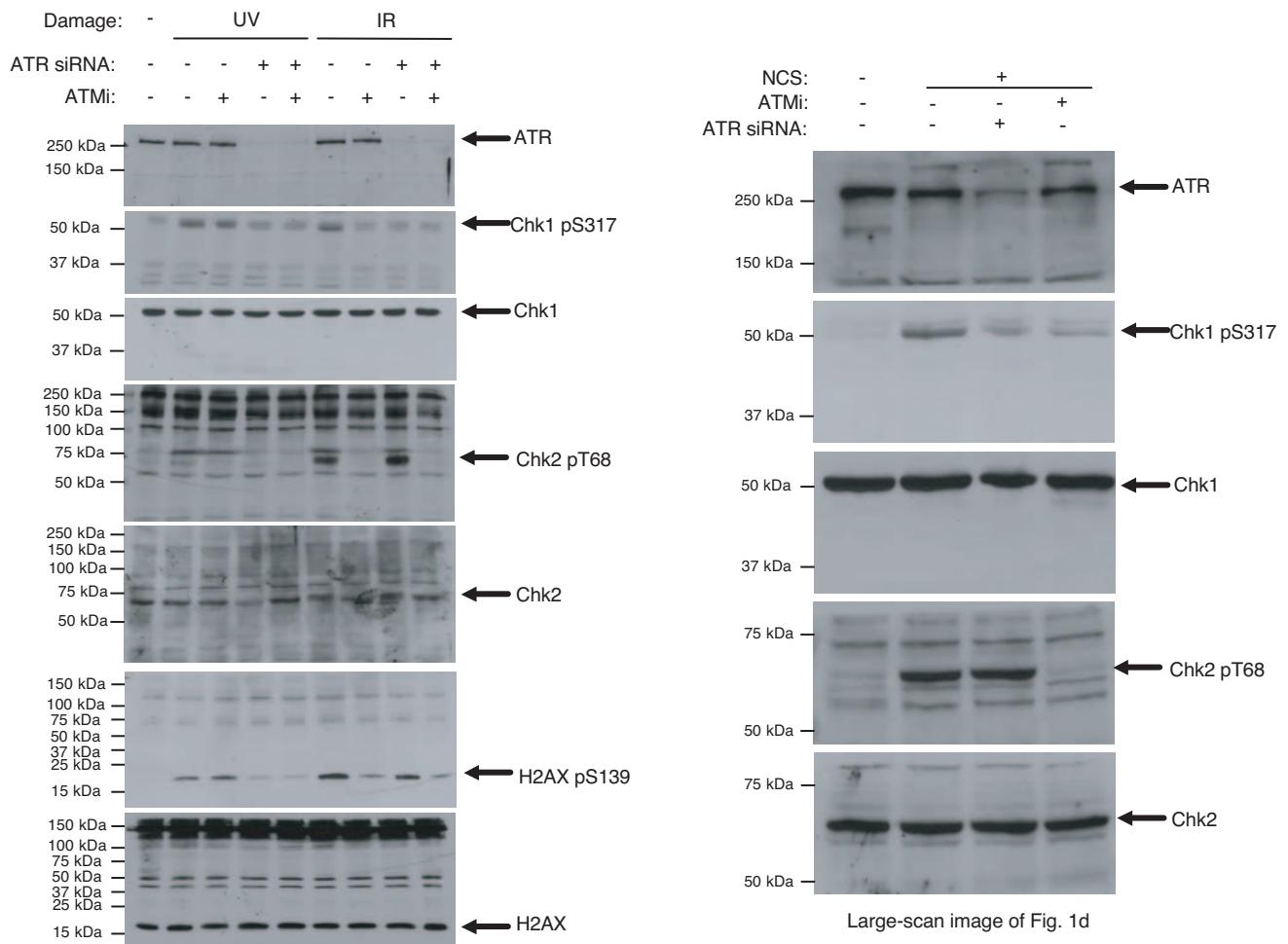
as indicated. **c.** WCEs prepared from complemented AT fibroblasts were immunoblotted as indicated. **d.** NBS-Tert cells stably transfected with an empty vector or a vector directing expression of Nbs1 phopho-deficient mutant Nbs1-3xA exhibit defective intra-S phase checkpoint as measured by RDS assay.

## SUPPLEMENTARY INFORMATION



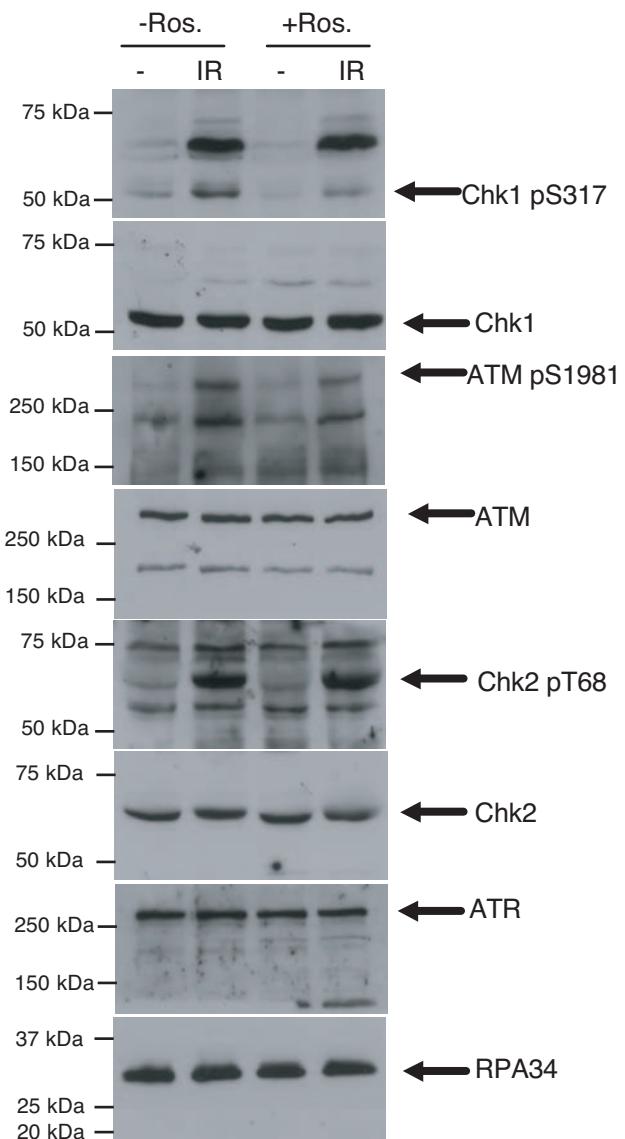
**Figure S2.** U2OS cells were pre-incubated for 1 hour with 10  $\mu$ M of KU55933, a highly specific ATM inhibitor (ATMi) or with equimolar DMSO for 1 hour and irradiated with 10 Gy of IR or 10 J/m<sup>2</sup> of UV, after 1 hour cells were fixed and immunostained as indicated (top) Scale bar= 10  $\mu$ m.

For each sample represented, at least 100 cells were counted and the percentage of cells exhibiting RPA34 foci was determined (bottom). The results are average of three independent experiments. Error bars represent standard deviation.



Entire gels of figure 1b and 1d

## SUPPLEMENTARY INFORMATION



Large-scan image of Fig. 7a

Entire gels of figure 7a