

Figure S1. HORMAD1 expression in TNBC and its effects on cell proliferation and autophagy. (A) Western blot analysis in different cell lines widely used in the laboratory. HORMAD1 was only highly expressed in the MDA-MB-468 TNBC cell line. No difference was observed in the (B) cell proliferation curves and (C) cell cycle between MDA-MB-468 cells treated with si-NC and those treated with si-HORMAD1. (D) Images of the colony formation assay. No difference in monoclonal cell numbers was observed between MDA-MB-436 and MDA-MB-468 cells treated with si-NC or si-HORMAD1. (E) No difference was observed in autophagy markers among BT549 cells transfected with si-NC or si-HORMAD1#1/2. (F) Changes in autophagy markers in an EBSS-induced starvation model P62 expression was significantly decreased after 2 h of EBSS treatment; however, the expression of Beclin 1 was not altered after 4 h of EBSS treatment. * $P < 0.05$. HORMAD1, HORMA domain-containing protein 1; TNBC, triple-negative breast cancer; si-NC, small interfering RNA-negative control; si-HORMAD1, siRNA-HORMAD1; EBSS, Earle's balanced salt solution; ns, no significance.

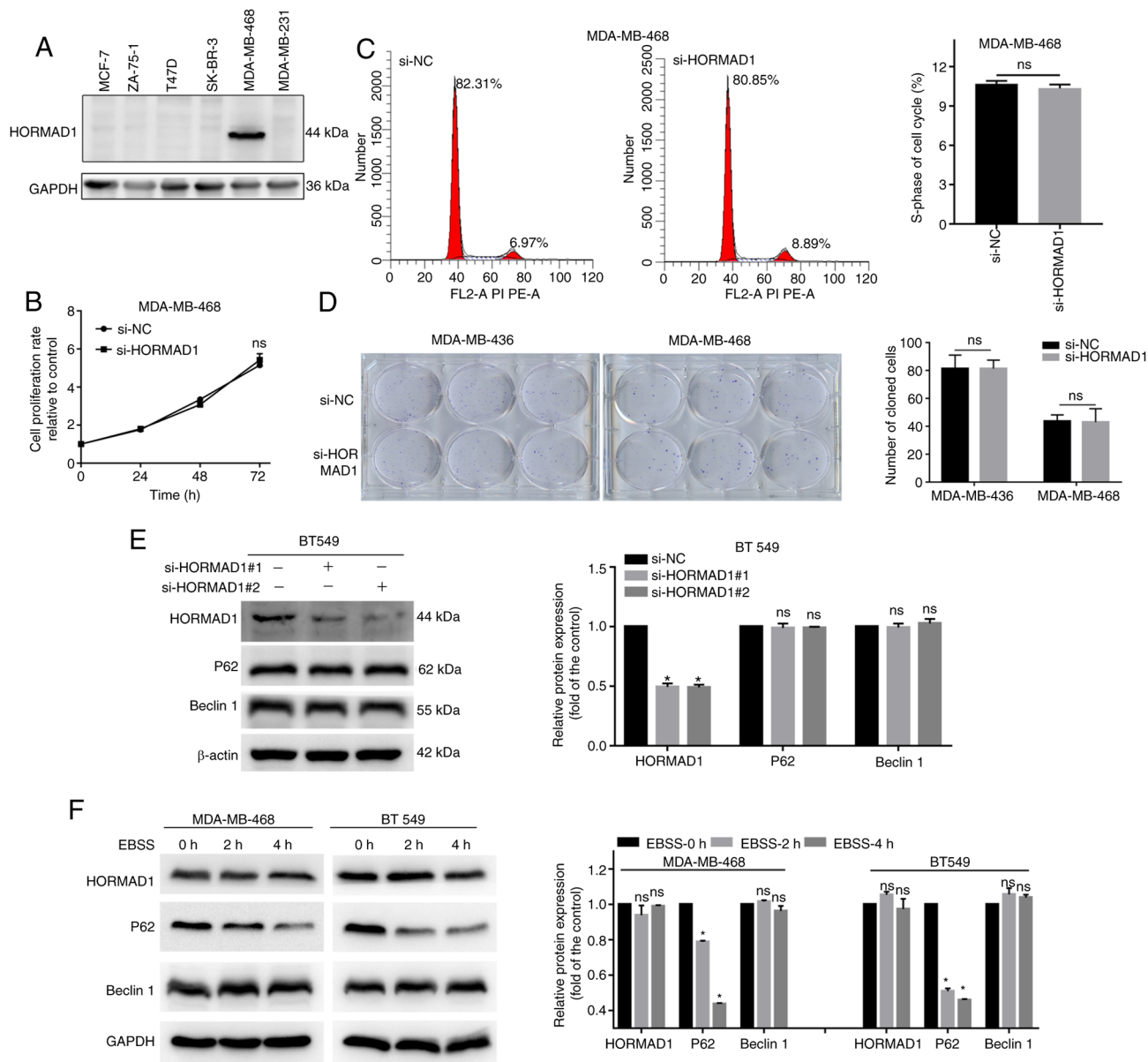


Figure S2. HORMAD1 promotes Doc resistance by enhancing DNA damage tolerance. (A) IC₅₀ curve of MDA-MB-436 cells treated with Doc for 24 h. (B) HORMAD1 knockdown in MDA-MB-468 cells reduced cell viability following treatment with different concentrations of Doc for 24 h. (C) Western blot analysis of apoptosis marker in MDA-MB-468 cells. Cleaved caspase-3 was significantly increased following exposure to Doc for 24 h in HORMAD1-knockdown group. (D) Western blot analysis of DNA marker in MDA-MB-436 cells. RAD51 expression was lower than that induced by Doc (40 nM) in the control group. (E) γ H2AX expression was significantly increased, while that of RAD51 was decreased following exposure to Doc for 24 h in MDA-MB-468 cells. GAPDH was used as an internal reference protein. * P <0.05, ** P <0.01, *** P <0.005 and **** P <0.001. HORMAD1, HORMA domain containing protein 1; Doc, docetaxel; si-NC, small interfering RNA-negative control; si-HORMAD1, siRNA-HORMAD1; ns, no significance.

