

Figure S2. A. Western blot analysis showed efficient silencing of NAC1 using lentiviral shRNAs in SKOV3, HeLa and MCF7 cancer cell lines. GAPDH was used to indicate protein loading. Rightmost panel for MCF7 cells include profilin-1 levels after shNAC1 treatment to demonstrate that knockdown of NAC1 does not regulate profilin-1 levels. **B.** Quantification of the multi-nucleated cells after NAC1-silencing revealed a significant proportion of multi-nucleated cells. Images of randomly selected field of view were used for quantification of cells for each condition. Average number of cells counted for each treatment was approximately 130. Error bars denote the standard deviation between each image. **C.** Immunofluorescence staining demonstrated the multi-nucleation phenotype presented by NAC1-silenced cells. Cells were counterstained with DAPI for the nuclei. Scale bar, 100 μΜ. **D.** Proliferation assay to determine the effects of NAC1-silencing. **E.** Western blot analysis of NAC1 and profilin-1 expression levels in TOV21G, SKOV3, HeLa and MCF7 cancer cell lines. GAPDH was used to indicate protein loading.

Hours