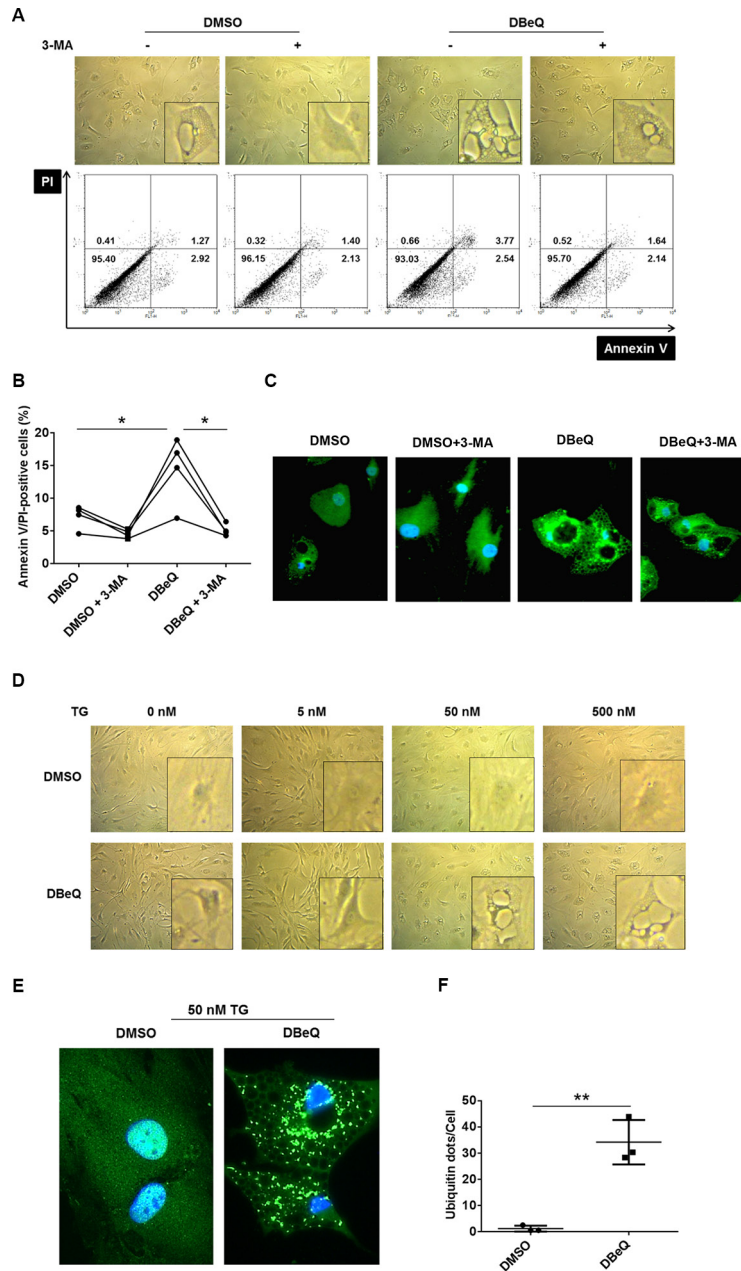


## AAA-ATPase p97 suppresses apoptotic and autophagy-associated cell death in rheumatoid arthritis synovial fibroblasts

### Supplementary Materials



**Supplementary Figure S1: Effects of p97 inhibition on cell death and formation of polyubiquitinated protein aggregates and vacuoles in RASFs under conditions of endoplasmic reticulum stress.** Cells were treated with 5  $\mu$ M DBeQ or DMSO and then treated for 72 hours with 5  $\mu$ M thapsigargin (TG) in presence or absence of 5 mM 3-methyladenine (3-MA). Dead cells were evaluated microscopically (Original magnification  $\times 100$ ) and by flow cytometry using annexin V/propidium iodide (PI) staining. Numbers in each compartment are the percentage of cells (A, B). Cells were treated as above, fixed and stained with anti-ubiquitin antibodies (green) and DAPI (blue). Original magnification  $\times 200$  (C). Cells were treated for 72 hours with 5 to 500 nM TG in presence or absence of 5  $\mu$ M DBeQ. Vacuoles were evaluated microscopically. Original magnification  $\times 100$  (D). Cells were treated as above, fixed and stained with anti-ubiquitin antibodies (green) and DAPI (blue). Original magnification  $\times 400$  (E). Ubiquitin-positive dots per cell were calculated with a software (F). \* =  $p < 0.05$ ; \*\* =  $p < 0.01$ .