



**S9 Fig. The inhibition of PKA counteracts the protective effects of FSK in MDA-MB-231.** MDA-MB-231 cells were analyzed upon daily treatment with FSK and 2 $\mu$ M H89. **A** PKA activation by Western blot analysis of p-(Ser/Thr) PKA substrates and pCREB S133. **B** Microscopy images of the cells were collected at 72h of culture. **C** Western blot analysis of Grp78 and CHOP was performed at 48h. **D-E** To analyze the effects of PKA inhibitor H89 on FSK-dependent induced autophagy, Western blot analysis of LC3B-I conversion in LC3B-II (D) and the staining with 50 $\mu$ M MDC were performed. Precisely, in these last analyses (48h of culture) the cells were treated with FSK 1h before the addition of 10 $\mu$ M H89 to +/-FSK samples and then were collected after additional 9h. The cells with MDC were analyzed using fluorescence microscopy at 60X magnification. Scale bar 10 $\mu$ m. **F-H** Cells were transfected with siRNA (control -siCTRL- or for PKAc $\alpha$  -siPKAc-) after the medium change (directly in LG medium) and then daily treated with DMSO or FSK for 48h. **F** The expression of PKAc $\alpha$  was detected by Western blot. PKA activity was evaluated by ELISA assay in total cellular extracts. **G** Microscopy pictures were collected and trypan blue exclusion assay was performed. **H** Western blot analysis of LC3B-I conversion in LC3B-II was performed. All data represent the average of at least three independent experiments. \* $p$ <0.05, \*\* $p$ <0.01, \*\*\* $p$ <0.001 Student's t-test.