



Figure 1 - figure supplement 2. Seipin knockdown does not affect ER morphology or stress. **(A)** Cells were transfected with an ER marker cherry-sec61 (*Drosophila* S2) or ss-BFP-KDEL (SUM159 and human fibroblasts) and imaged as Z stacks. Bars, 5 μ m. Images from three independent experiments, containing ~45 cells for each genotype, from each cell type, were scrambled and blind scored by four independent observers. No difference in ER morphology between control and seipin-depleted cells was reported. $X^2=0.9999$. **(B)** Seipin depletion does not induce ER stress. WT or seipin-knockout SUM159 cells and fibroblasts from healthy controls or seipin loss-of-function patients were treated with or without Thapsigargin (1 μ M, 6 h) and examined for ER stress. Xbp-1 splicing was determined by qPCR (top), and protein levels of ER stress markers, BiP and Ire1, were determined by western blotting. Representative results are shown. **(C)** Seipin depletion does not aggravate ER stress under fatty acid-loaded conditions. Wildtype or seipin knockout SUM159 cells were treated with oleic acid (0.5 mM), palmitate (0.1 mM), or thapsigargin (1 μ M) for the indicated times and examined for ER stress by qPCR (top), and BiP and CHOP protein levels (bottom).