



Supplemental Figure 1. STIM1-535 does not affect ER structure and functions like full-length STIM1. Images show the distribution of mCherry-STIM1-535 (Ch-STIM1-535) and GFP-Orai1 in oocytes before and after store depletion with TPEN (5mM) for 10min. Top panels show an oocyte with the stores full (Ooc). Note in the orthogonal view that Orai1 localizes to the cell membrane and STIM1-535 in the ER. The plane at which the images were taken along the z-stack is indicated by the black bar. As shown in a deep plane view, the distribution of STIM1-535 matches that of the typical reticular ER structure. Orai1 that localizes to recycling endosomes is also detected intracellularly. Bottom panels show imaged from an oocyte with Ca^{2+} stores depleted. This results in co-clustering of STIM1-535 and Orai1 in the same focal plane at the plasma membrane as shown in the merged image and orthogonal view (Ooc+TPEN). Scale bar is 2 μm .

Methods for construction mCherry-STIM1-535:

To construct pSGEM-mCherry-STIM1-535, mCherry-STIM1-535 fragment was amplified by PCR using the following primers: forward 5'-CAATTGGCGGCCGCATGGATGTATGCGTCCGTCTTG-3'; reverse 5'-GAAGCTTCTCGAGCTAGGGGGCCACACGCTGGCGGTCACACTCATG-3'. The resulting PCR fragment that was inserted into NotI/XhoI of pSGEM.