

Supplemental Figures and Legends

Supplemental Figure 1.

(A) Representative images of STIM1-10A and WT mice. (B) PCR confirmation of immortalized WT and STIM1-10A MEF cell lines. Genomic DNA from WT and STIM1-10A MEFs was subjected to PCR with SV primers to detect the SV40 gene (1), or GAPDH primers as a control (2). (C) The MTT proliferation assay of the WT and 10A MEF cell lines at 8, 12 and 24 hrs (n = 4 independent experiments, mean \pm SEM; ns, not significant, paired t test). (D) SOCE slope measured during the first 50 sec after Ca^{2+} re-addition. Mean \pm SEM, n=4-8 dishes from 3 different experiments, not significant, unpaired t test. (E) Ca^{2+} store content assessed as peak thapsigargin mediated Ca^{2+} release from store and area under the curve (AUC) from control WT and 10A MEFs. Mean \pm SEM, n=4-8 dishes from 3 different experiments, not significant, unpaired t test. (F) Summary data of immunoprecipitation by STIM1 antibody. Relative EB1 pull down levels (EB1/STIM1) were normalized to the levels in WT (n=3; Mean \pm SEM, not significant, Wilcoxon test).

Supplemental Figure 2.

(A) Representative confocal images of interphase and naturally occurring mitotic MEFs. STIM1 (green) was stained using anti-STIM1 N-terminal antibodies and the ER marker SERCA2 (red) were detected using anti-SERCA2 antibodies. Cells were also stained with DAPI (blue) to identify cells in mitosis. (B) Bone marrow cells isolated from WT and STIM1-10A mice were stimulated and differentiated into bone marrow derived macrophages (BMDM). STIM1 (green) was detected using anti-STIM1 N-terminal antibodies. Mitotic stage was determined by DAPI staining (blue). Images represent two independent experiments (2 mice/group). Scale bars 10 μm . (C) Quantitative analysis of focal adhesions (FA). A representative confocal image (1) stained with anti-p-Paxillin (green) and phalloidin (red). The phalloidin staining allows us to define the individual cell footprint outline (2) and anti-p-Paxillin staining focal adhesions (3); the FA image was thresholded into a binary image and analyzed using imageJ software (4).

Supplemental Figure 3.

Uncropped Western blots for Figures 1B (A), 1G (B) and 5B (C).

Figure S1

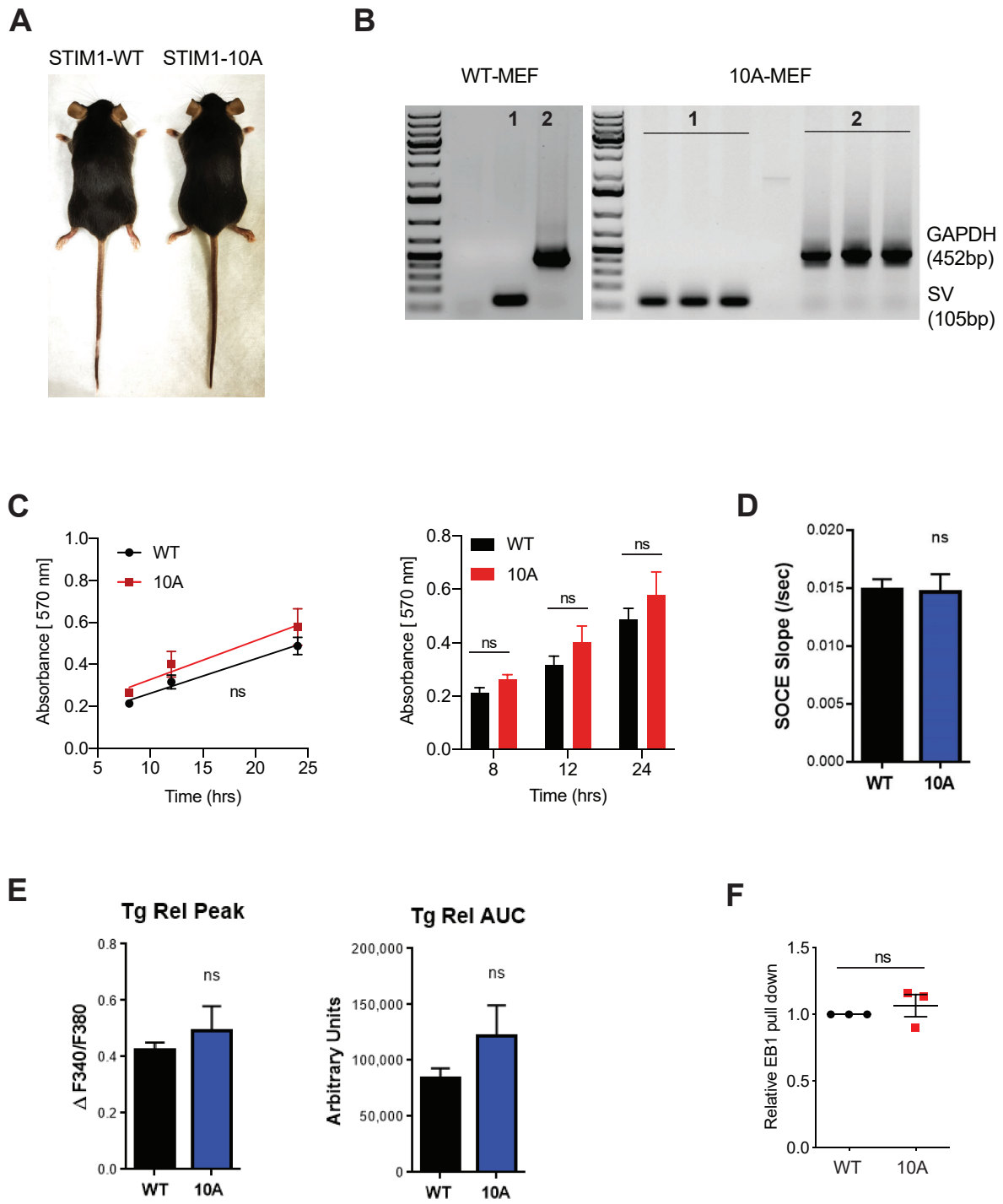
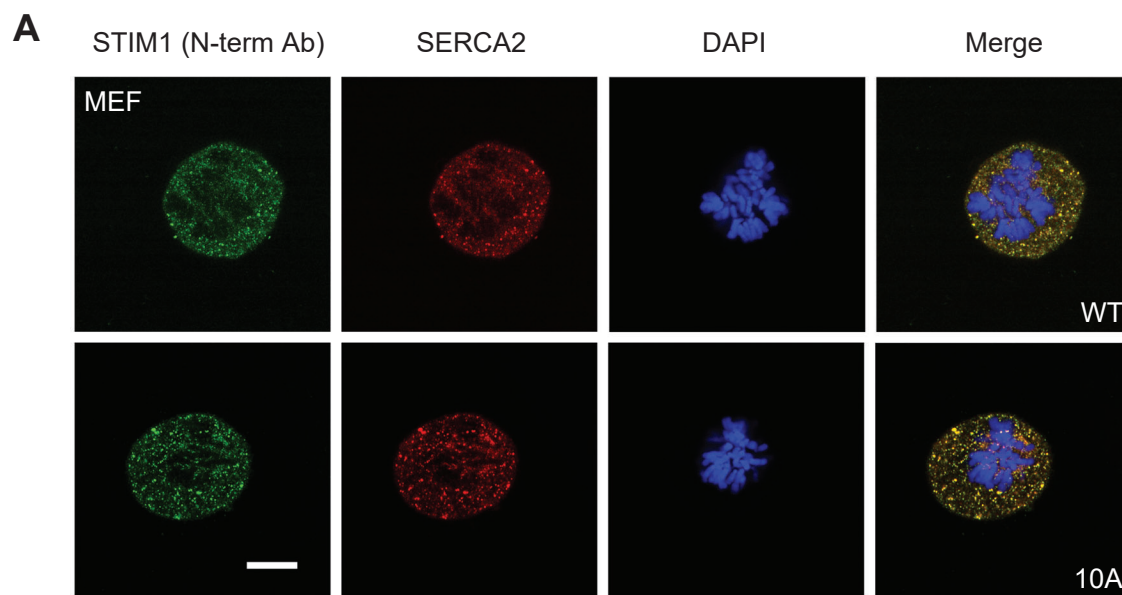
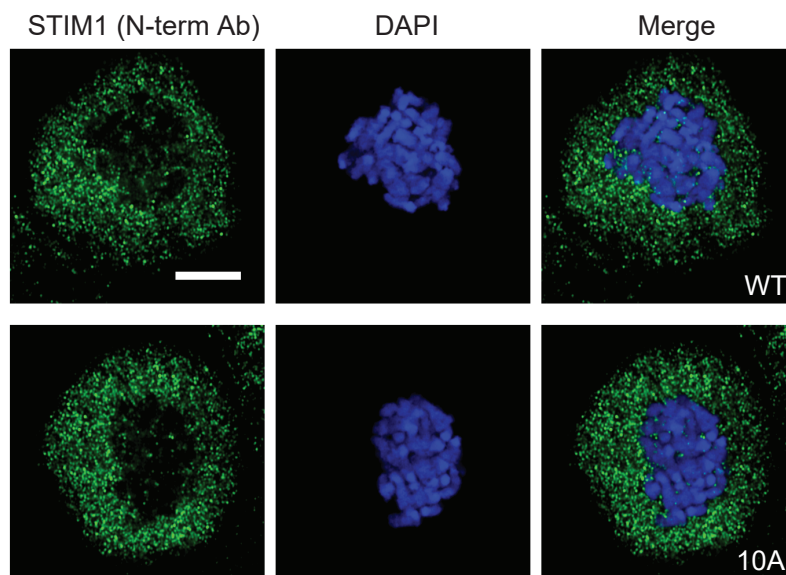


Figure S2



B Bone Marrow Derived Macrophages (BMDM)



C

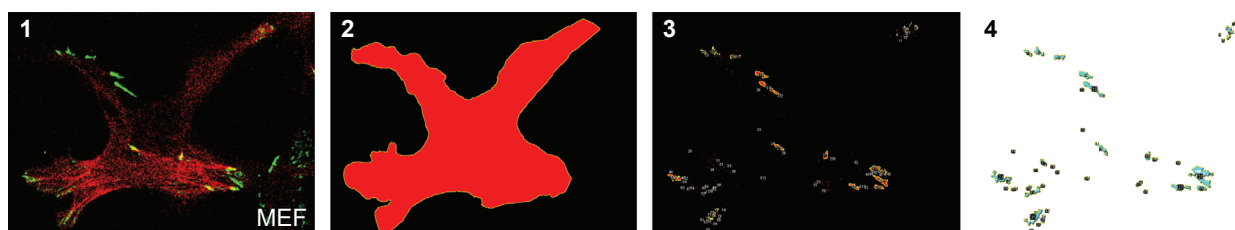
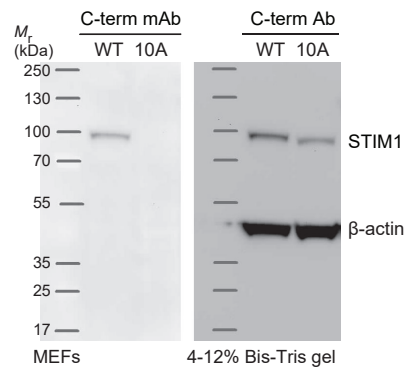
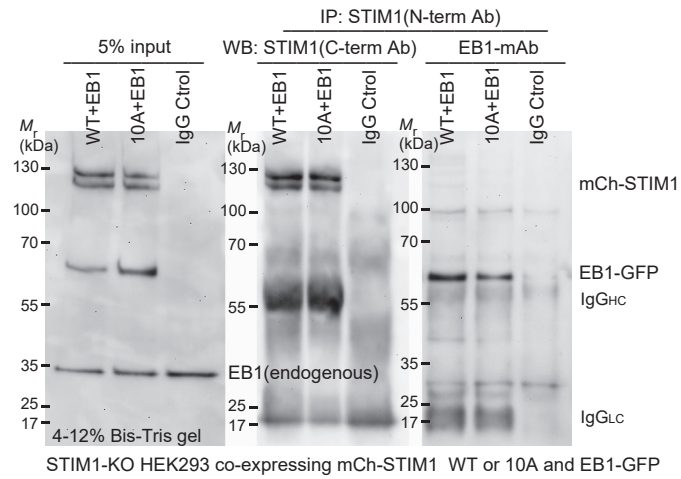


Figure S3

A



B



C

