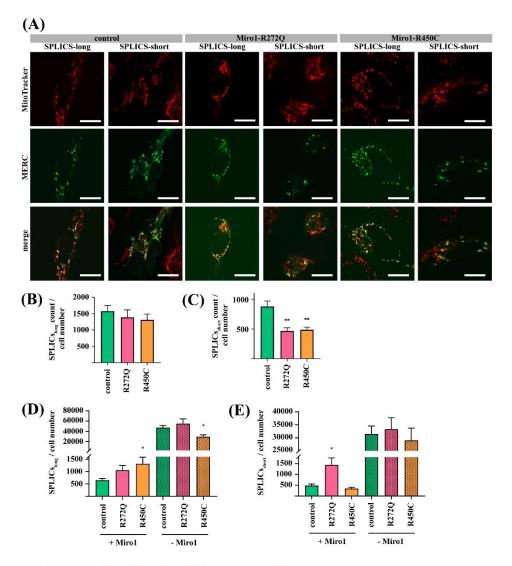


Supplementary data 1: Reduced localization of mutant Miro1-R272Q and Miro1-R450C to MERCs

(A) Immortalized fibroblasts were transfected with mito-GFP. 24 hours after transfection cells were fixed and labeled with antibodies against Miro1 and the ER marker Calnexin. Images were obtained using a 63x objective; scale bars indicate 20 µm. Co-localization events were analyzed using MatLab. (B) Quantification of MERCs without Miro1 and (C) MERCs with Miro1 per cell. (D) Quantification of co-localization events of Miro1 with MERCs, mitochondria or the ER per cell. All data indicated as mean ± SEM. Significance calculated with Kruskal-Wallis test (n=3). *p<0.05; **p<0.001; ****p<0.0001; ****p<0.0001.



Supplementary data 2: Miro1-R272Q and Miro1-R450C cause alterations of MERC types
(A) Immortalized fibroblasts were transfected with the SPLICS-long, or with the SPLICS-short construct and incubated for 12 hours. Then, cells were stained with MitoTracker deep red for live cell imaging, using a 63x objective. Scale bars indicate 20 µm. (B) Quantification of SPLICS-long signal and (C) SPLICS-short signal per cell. Fibroblasts were transfected with (D) SPLICS-long or (E) SPLICS-short constructs and afterwards fixed and stained with a Miro1-antibody for imaging, using a 63x objective. Afterwards, Miro1-positive and Miro1-negative SPLICS signals were quantified. All data indicated as mean ± SEM. Significance was assessed using a Kruskal-Wallis test (n=3). * p<0.05; ** p<0.001; *** p<0.0001.