STARD3 VAP-A

A

MENTAL domain

STARD3NL

Flag

STARD3NL 1-208

Flag

B

VAP-A LAMP1

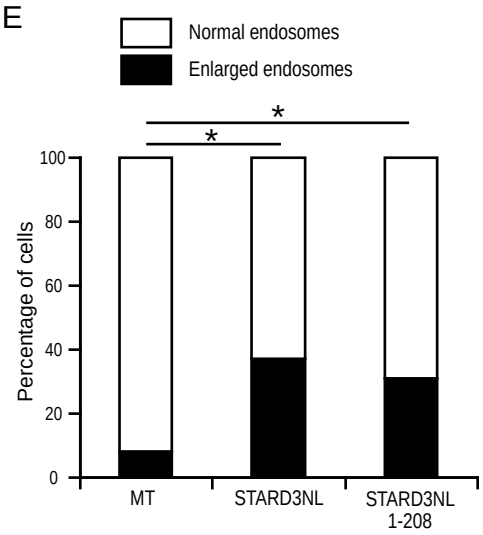
C

VAP-A STARD3NL LAMP1

D

VAP-A STARD3NL LAMP1
1-208

E



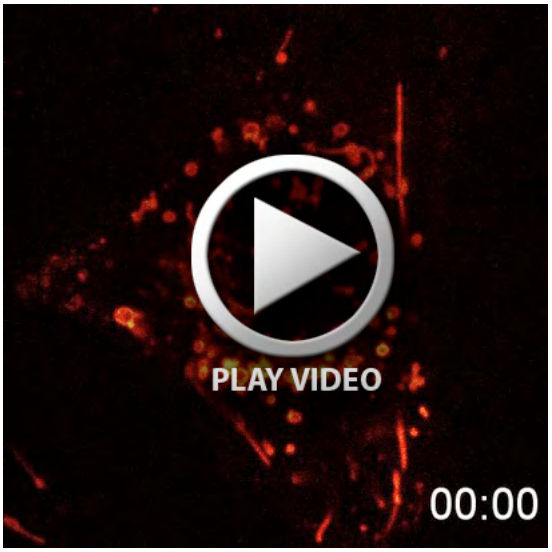
Recruitment of VAP-A and VAP-B to STARD3/STARD3NL induced LE-ER MCS

PuX

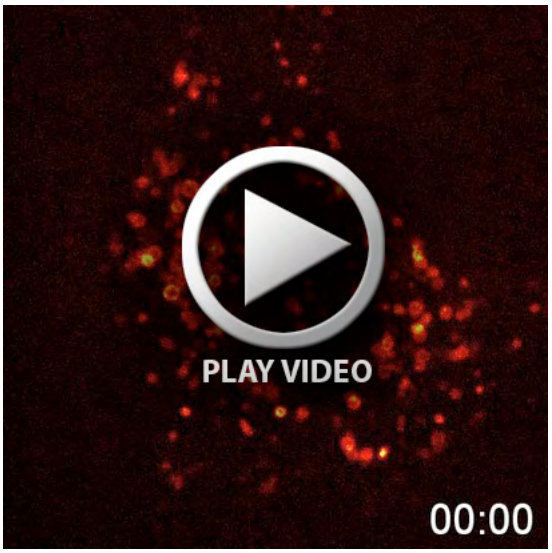
Movie 1. STARD3-Cherry recruits VAP-A-GFP to LE-ER MCS. HeLa cells were transfected with STARD3-Cherry (magenta) and VAP-A-GFP (green). Merge images are shown on the right. Time-lapse images were acquired using 2 stacks of images with 0.2 μm spacing over 78 seconds.

Movie 2. STARD3-Cherry does not recruit VAP-A-KD/MD-GFP to LE-ER MCS. HeLa cells were transfected with STARD3-Cherry (magenta) and VAP-A-KD/MD GFP (green). Merge images are shown on the right. Time-lapse images were acquired using 2 stacks of images with 0.2 μm spacing over 78 seconds.

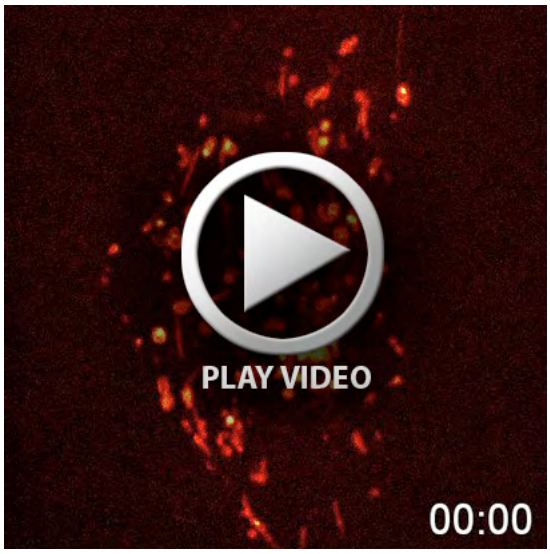
Movie 3. Electron tomography of LE-ER MCS. 2D tomograph obtained from a 200-nm-thick section of Hela/STARD3NL cells showing an endosome (magenta) wrapped by the ER (green) and its corresponding 3D model.



Movie 4. Time-lapse microscopy of LAMP1-GFP in a Hela cell. Hela cells were transfected with LAMP1-GFP (red hot lookup table). Time-lapse images were acquired using 3 stacks of images with 0.2 μm spacing over 130 seconds.



Movie 5. Time-lapse microscopy of STARD3NL-GFP in a Hela/shCtrl cell. Hela/shCtrl cells were transfected with STARD3NL-GFP (red hot lookup table). Time-lapse images were acquired using 3 stacks of images with 0.2 μm spacing over 130 seconds.



Movie 6. Time-lapse microscopy of STARD3NL-GFP in a Hela/shVAP-A shVAP-B cell. Hela/shVAP-A shVAP-B cells were transfected with STARD3NL-GFP (red hot lookup table). Time-lapse images were acquired using 3 stacks of images with 0.2 µm spacing over 130 seconds.

Movie 7. 3D modeling of PLA dots. In situ Proximity Ligation Assay (PLA: green) performed on endogenous STARD3NL and VAP-A in a HeLa cell. The nucleus was counterstained with Hoechst (blue). Images were acquired with a spinning disc confocal microscope; images spacing was 0.2 µm. 3D model was built with Imaris software; on this model cytoplasmic PLA dots are in green and PLA dots within the nucleus volume are in red.