

### **Description of Additional Supplementary Files**

File Name: Supplementary Movie 1

Description: polTIRF microscopy time lapse video of a representative cell from the pooled data in Fig. 3 with classified tracks overlaid. Left panel: clathrin-Tq2, Middle panel: dynamin-GFP, and Right panel: P/S. Track color, Green: Class 1, Red: Class 2, and Blue: Class 3. Clathrin and dynamin exposure time: 100ms, P/S exposure time: 125ms. Acquisition frame rate: 0.44 Hz (7.5 min); Frame rate, 15 fps.

File Name: Supplementary Movie 2

Description: polTIRF microscopy time lapse video of the representative kymograph in Fig. 3a, with the tracked position overlaid with green line. Left panel: clathrin-Tq2, Middle panel: dynamin-GFP, and Right panel: P/S. Imaging conditions and playback are the same as Supplementary Movie 1.