

**Electronic Supplementary Information**

Fig. S1. Absorbance of LDL-DiD. The absorption of LDL-DiD shows little change after a 2 hr incubation with trypsin at 37°C. The control is a 2 hr incubation at room temperature in the absence of trypsin.

Fig. S2. Wortmannin inhibits transport of LDL to the late endosomes. (A) Confocal microscopy image of a cell treated with wortmannin (240 nM) and incubated with LDL-DiD (red) for 1 hr. (B) Decreased colocalization of LDL-DiD with EYFP-Rab7 (green) shows that transport to Rab7-endosomes is inhibited by wortmannin. Error bars represent the standard deviation of 120 LDL-DiD particles/cell in 3 cells.

Fig. S3. Colocalization of mannose-6-phosphate receptor (MPR) with Rab7. EYFP-Rab7 (green) shows  $68 \pm 12\%$  colocalization with MPR-Cy5 (red) measured in 6 cells.

Fig. S4. Colocalization of LAMP1 with LAMP2. LAMP1-EYFP (green) shows ~100% colocalization with LAMP2-Cy5 (red) measured in 6 cells.

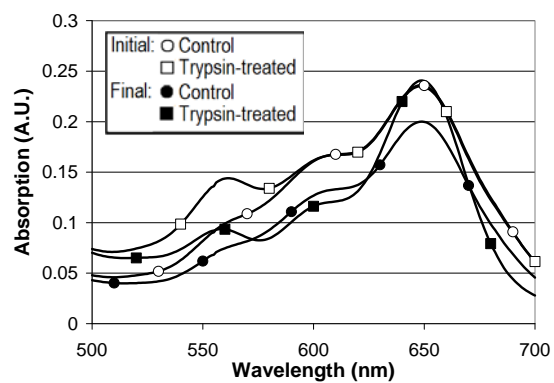


Figure S1

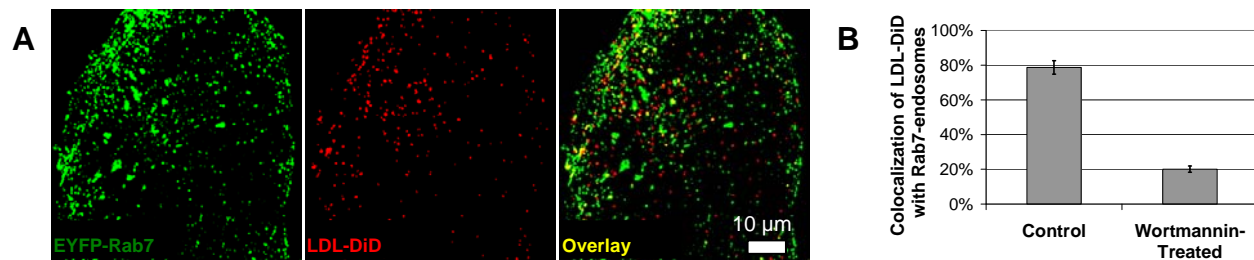


Figure S2

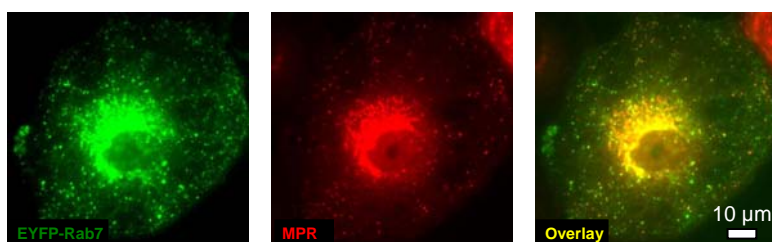


Figure S3

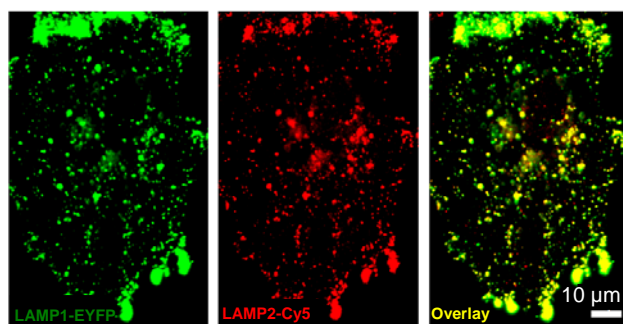


Figure S4