Supplemental Methods

Assay for cell proliferation: Cell proliferation was measured by using the CellTiter 96 Non-Radioactive Cell Proliferation Assay kit (Promega, Madison, USA). Briefly, 500 skin fibroblast cells were seeded in each well of a 96-well plate and incubated at 37 C with 5% CO2 for 24, 48, 72, 96 and 120 hours, respectively. At each time point, after adding Dye Solution and Solubilization/Stop Solution subsequently, absorbance at 570nm was recorded by using a 96-well plate reader (TECAN). Growth curve data are representative of 3 independent assays. Error bars represent standard deviation, and statistical significance was determined by Student t test, setting p < 0.05.

Endosome visualization: Skin fibroblasts grown on sterile glass cover-slides were transfected with plasmid encoding GFP-Rab7A (Addgene) by using Lipofectamine 2000 (Invitrogen, USA). Forty-eight hours after transfection, cells were fixed for 20 min in 4% paraformaldehyde in PBS. Coverslides were mounted with UltraCruz Mounting Medium with DAPI, and slides were observed under a Leica Imaging scope.