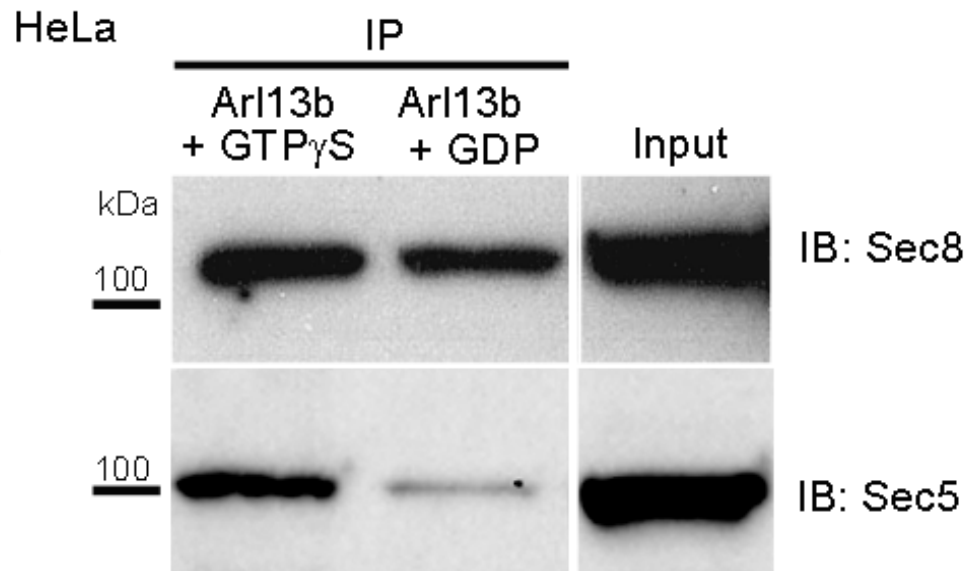


Supplemental Materials

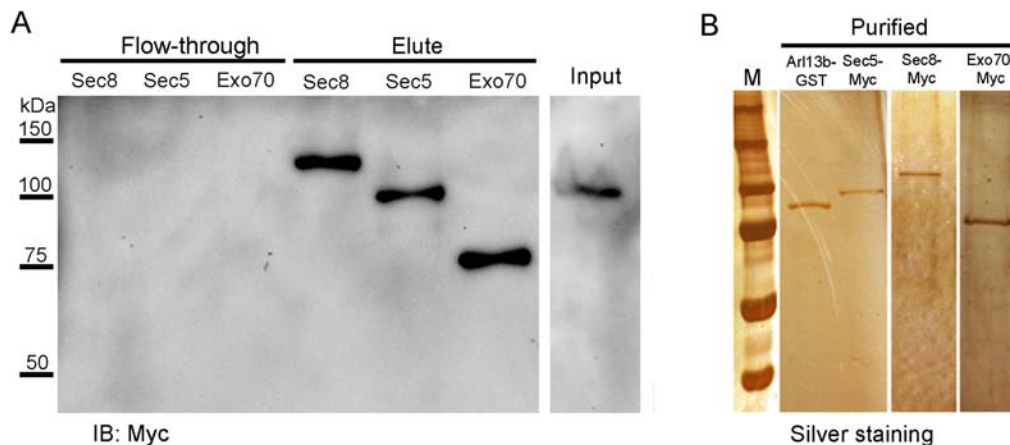
Molecular Biology of the Cell

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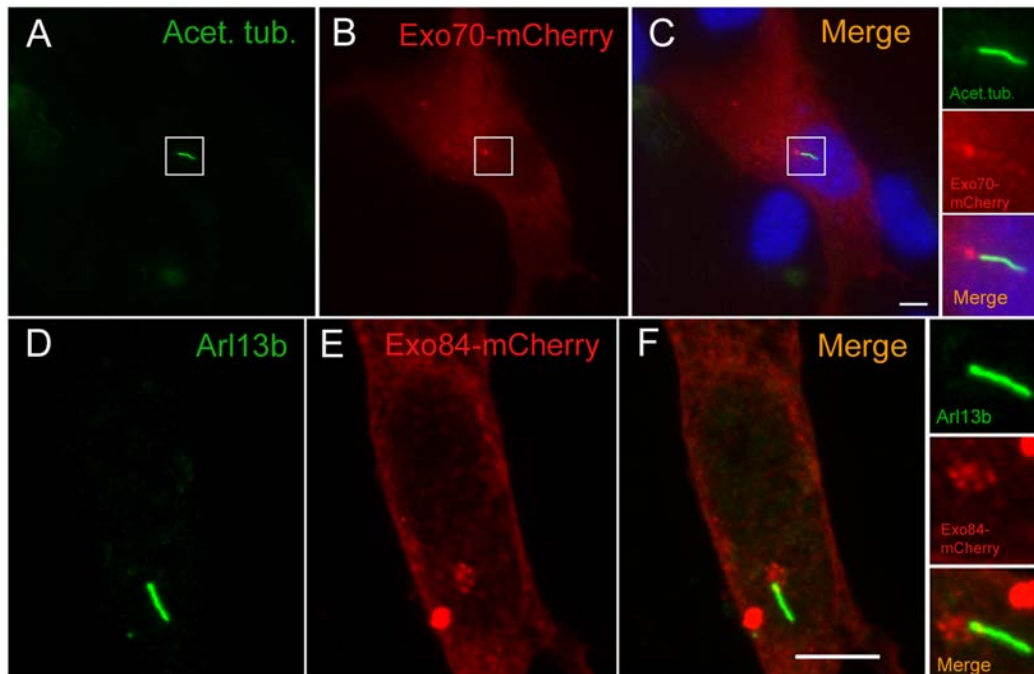
SUPPLEMENTARY FIGURES



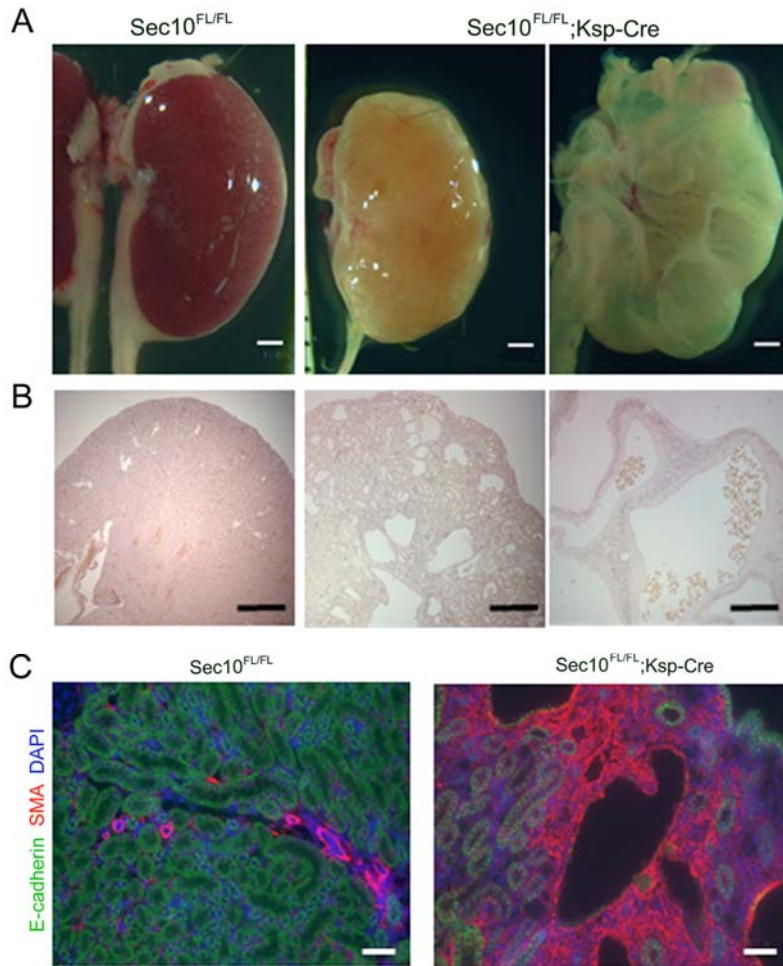
Supplementary Figure 1: Sec5 and Sec8 interact with Arl13b in non-ciliated HeLa cells. Cell lysates from HeLa were immunoprecipitated with Arl13b antibody in the presence of GTP γ S or GDP. Immunoprecipitates were analyzed by SDS-PAGE and immunoblotted with Sec5 or Sec8 antibodies.



Supplementary Figure 2: Purification of Myc-tagged exocyst subunits produced *in vitro*, by affinity chromatography. (A) Anti-Myc-coupled agarose beads were incubated with identical amounts of *in vitro*-translated proteins. Eluted products and the flow through were analyzed by SDS-PAGE followed by immunoblotting with Myc antibody. Five percent of the *in-vitro* translated material used on the affinity chromatography was run as input. (B) Silver staining of eluted products from (A) and purified Arl13b-GST, showing the purity of the samples.



Supplementary Figure 3: Exo70 and Exo84 localize to the periciliary region. (A-C) In RPE1 cells, Exo70-mCherry localizes to the base of the cilium, marked by acetylated α -tubulin (green). Inset shows a higher magnification of this region. (D-F) In NIH-3T3 cells, Exo84-mCherry localizes to the base of the cilium, marked by Arl13b (green). A higher magnification of the periciliary region is shown. Scale bar: 10 μ m (A-C) and 5 μ m (D-F).



Supplementary Figure 4: Kidney-specific *Sec10* conditional knockout results in a variable polycystic phenotype. (A) Images of *Sec10*^{FL/FL} control and *Sec10*^{FL/FL};Ksp-Cre conditional knockout adult mouse kidneys demonstrate the phenotypic spectrum of *Sec10* depletion. Scale bar: 1 mm. (B) Hematoxylin-eosin staining of *Sec10* conditional knockout kidneys reveals cystic kidney phenotypes compared to controls. Scale bar: 200 μm. (C) Alpha-Smooth muscle actin (SMA, red) and E-cadherin (green) staining of adult kidneys demonstrate a dramatically increased level of SMA expression, a marker of fibrogenesis, in *Sec10*^{FL/FL};Ksp-Cre knockout kidneys compared to controls. Scale bar: 50 μm.