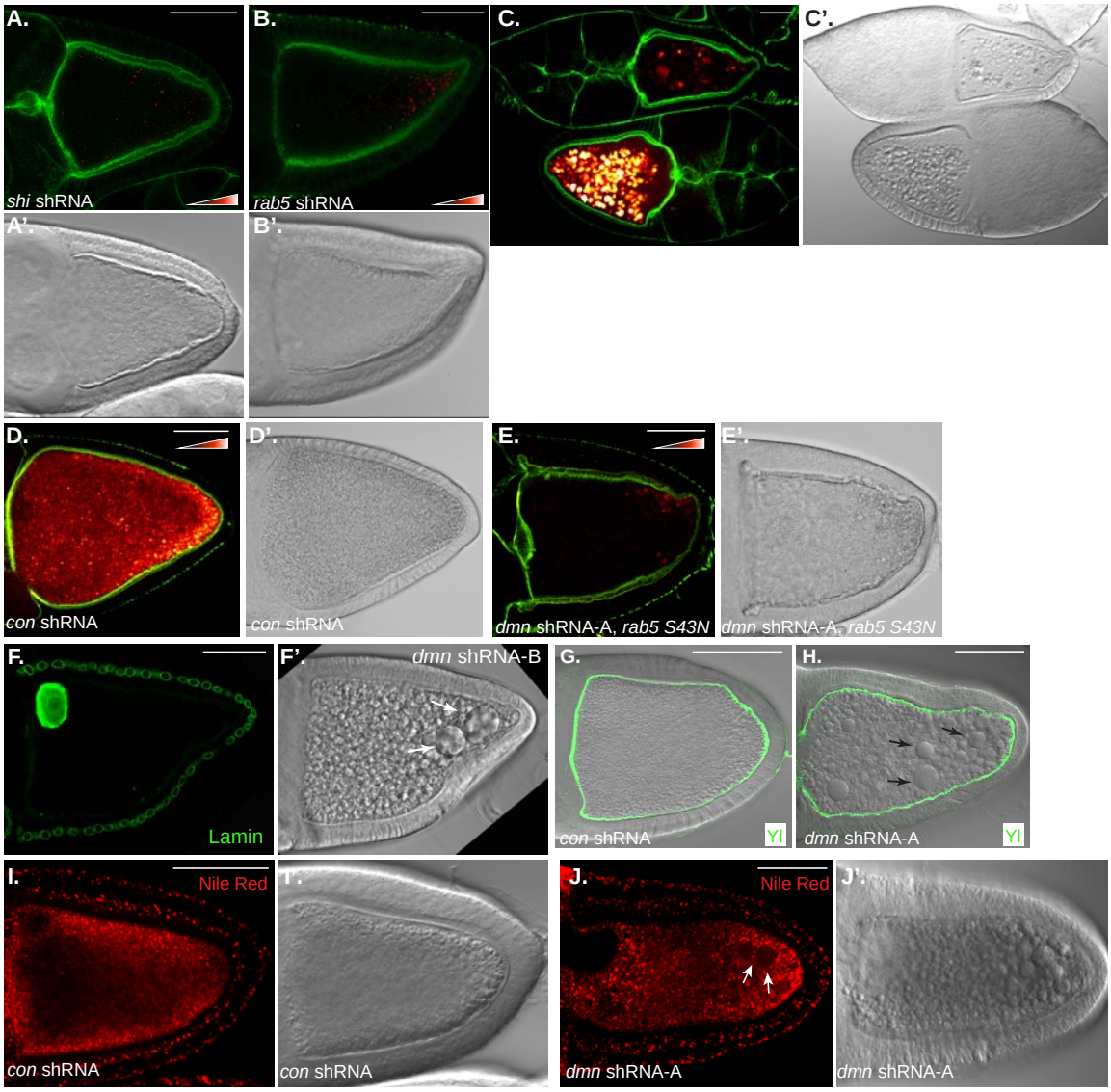

Figure S2 Phenotypes associated with shRNA-mediated depletion.

A-B. Egg chambers expressing an shRNA against *shibire* (A) or *rab5* (B) were fixed and stained to reveal the actin cytoskeleton (green). Auto-fluorescent yolk particles are displayed using a color-coded range indicator. DIC images are shown in A' and B'.

C. Egg chambers from a strain expressing *rab5* Q88L is shown. The egg chambers were fixed and stained to reveal F-actin (green). Yolk auto-fluorescent is displayed using a color-coded range indicator. A DIC image of these egg chambers is shown in C'.

D-E. Egg chamber expressing a control shRNA (D) or co-expressing *dmn* shRNA-A and *rab5S43N* (E) were fixed and stained to reveal the actin cytoskeleton (green). Auto-fluorescent yolk particles are displayed using a color-coded range indicator. DIC images are shown in D' and E'.

F. Egg chambers expressing *dmn shRNA-B* (F) were fixed and stained using an antibody against Lamin DmO (green). The DIC images is shown in F'.

G-H. Egg chambers expressing a control shRNA (G), or *dmn* shRNA-A (H) were fixed and processed for immunofluorescence using an antibody against Yl (green). The immunofluorescence signal was superimposed on the DIC image of the same egg chamber. Arrows indicate enlarged endosomes present in the Dmn depleted oocytes.

I-J. Egg chambers expressing a control shRNA (I) or *dmn* shRNA-A (J) were dissected and processed for Nile Red staining (red). DIC images are shown in I' and J'. The arrows indicate enlarged vesicles that are negative for Nile Red staining.

The scale bar on these images represents 50 microns.