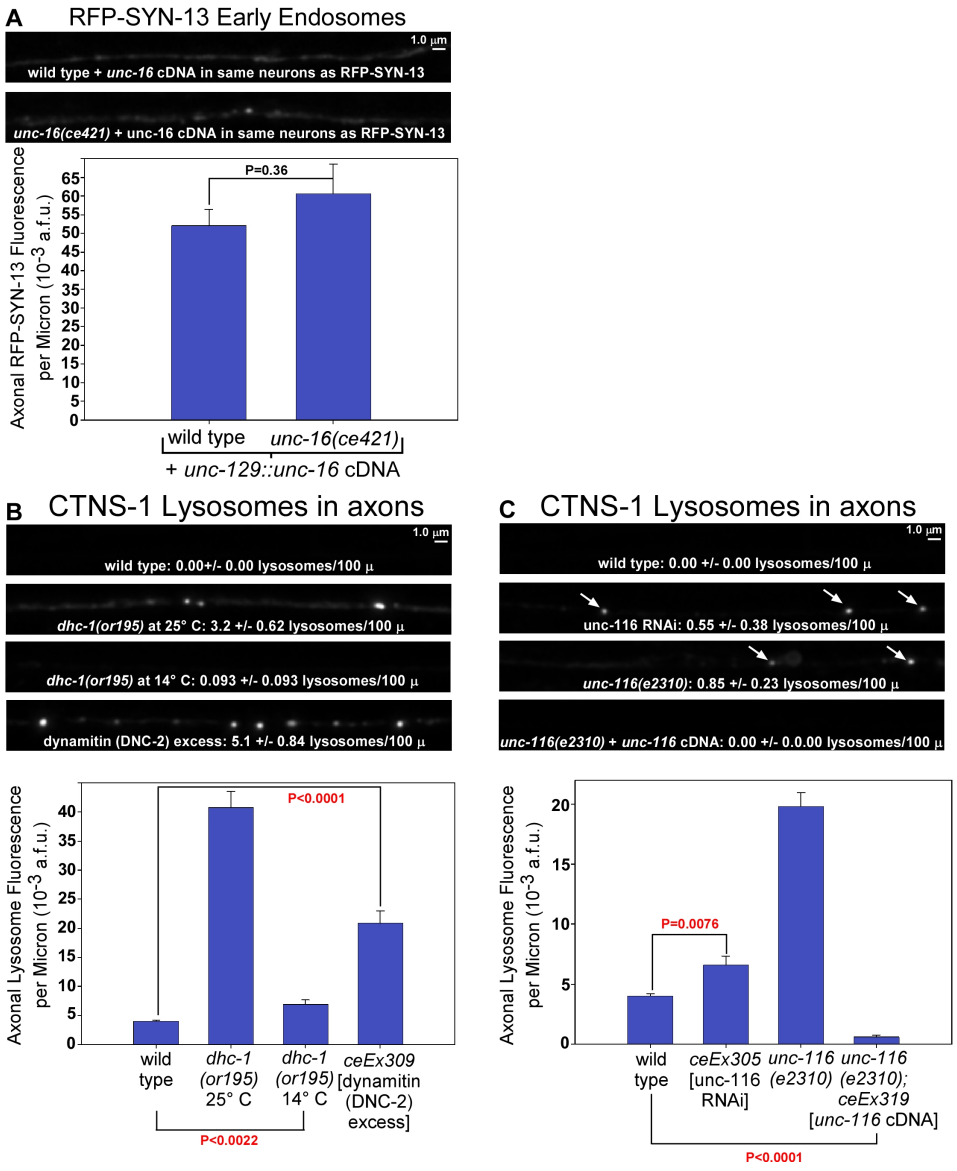

Figure S3 Impairing the function of UNC-16, DHC-1, or UNC-116 causes cell autonomous axonal organelle accumulation.

(A) Cell autonomous rescue of axonal early endosome accumulation in an *unc-16* null mutant. Representative images and quantification of RFP-SYN-13 early endosome fluorescence in a defined dorsal axon region of the indicated genotypes. Strains carry the genomically integrated transgene *ceIs77*. Identically-scaled representative images precede a graph showing the means and standard errors of the integrated fluorescence per micron of nerve cord length from images acquired from 14 animals each.

(B) – (C) Each set of panels consists of a group of identically-scaled representative images followed by a graph showing the mean integrated fluorescence per micron of nerve cord length from images acquired from 9 (*unc-116(e2310); ceEx319*) or 14 (all others) animals each. Error bars are standard errors of the mean. All strains carry the genomically integrated transgene *ceIs56* (to visualize lysosomes) in addition to the other indicated mutations or transgenes. Arrows in some panels indicate lysosomal puncta (also visible but not indicated in other images). The text data on each image states the mean number of lysosomes/ 100 mm +/- standard errors of the mean, counted by defining a threshold level (see Methods).

(B) Reducing the function of DHC-1 causes cell autonomous axonal organelle accumulation. The *ceEx309* transgene overexpresses DNC-2 (dynamitin), which transgenically reduces the function of native DNC-1 (see main text for references).

(C) Reducing the function of UNC-116 causes cell autonomous axonal organelle accumulation. The *ceEx305* transgene expresses sense and antisense *unc-116* RNAs from the same promoter used for the lysosomal marker. The *ceEx319* transgene expresses the wild type *unc-116* cDNA from the same promoter used for the lysosomal marker.