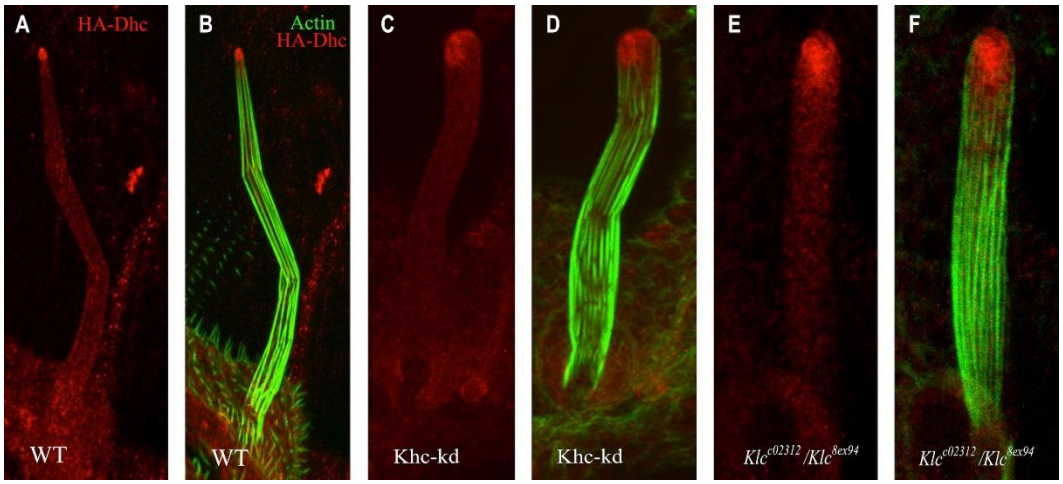

Figure S1: Dhc distribution is affected in *Khc-kd* and *Klc* mutants bristle. Confocal projections of bristles from wild type (A-B), *Khc-RNAi; HA-Dhc64C; neur-Gal4* (C-D) and Klc^{c02312}/Klc^{8ex94} (E-F) pupae stained with anti-HA tagged (A-F) antibodies. Similarly to WT, Dhc64C accumulate at the tip of the bristle in *Khc* and *Klc* mutants, however shows more diffused pattern.

Movie 1. Tracking bristle elongation. Time-lapse confocal projections of an elongating posterior scutellar bristle expressing GFP-EB1 from wild type, pUAS Khc-RNAi or sca-Gal4; pUAS GFP-EB1; klc^{c02312}/ klc^{8ex94} flies.

Movie 2. Tracking of mitochondria in elongating bristles. Tracking of a mitochondrial reporter (*sca*-Gal4:mito-GFP) in wild type, *Khc-kd*, klc^{c02312}/ klc^{8ex94} and $Dhc64C^{8-10}/Dhc64C^{4-19}$ flies. Since we found that in *Dhc64C* mutants mitochondria movement was much slower than wild type, instead of using the imaging conditions (~1 frame every 3 s) suitable for the wild type, *Khc-kd* and *Klc* genotypes, one frame was taken every 10 s to visualize mitochondrial movement in the *Dhc64C* mutant.

Movie 3. Tracking EB1 movement. Tracking of the reporter of MT plus-end dynamics GFP-EB1 (*neur-Gal4; pUAS GFP-EB1*) in an elongating wild type bristle tip, *pUAS Khc-RNAi* and *sca*-Gal4*; pUAS GFP-EB1*; klc^{c02312}/ klc^{8ex94} using time-lapse confocal microscopy. Images were analyzed by time-lapse confocal microscopy using a laser-scanning confocal (Olympus FV1000 Laser scanning confocal microscope). Frames were taken every 3 s in the Kalman mode, 70 frames overall.