

Kim et al., <http://www.jcb.org/cgi/content/full/jcb.200911126/DC1>

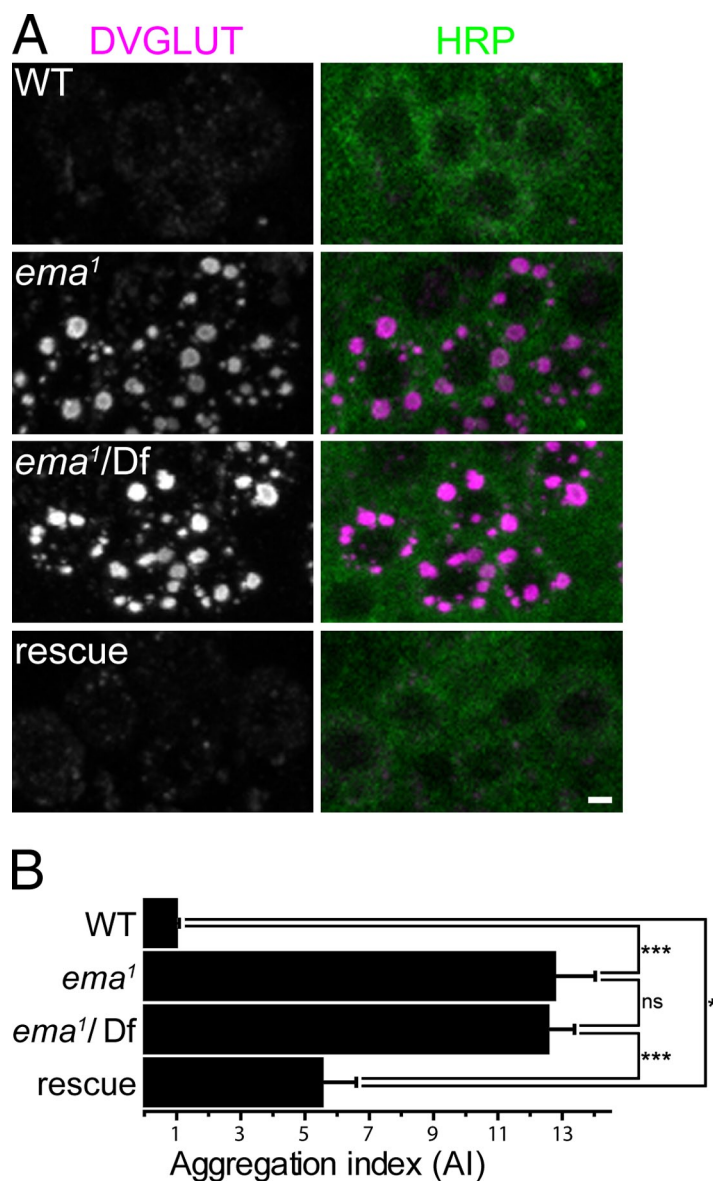


Figure S1. **Defective protein trafficking in the *ema* mutant.** (A) Confocal images of cell bodies of motor neurons in the third instar larval ventral nerve cord stained with antibodies to DVGLUT (magenta) and HRP (green) reveals accumulation of DVGLUT in the *ema* mutants. Bar, 2 μ m. (B) Aggregation index (AI) of DVGLUT in motoneuron cell bodies is shown for the genotypes in A. AI of a motor neuron = total DVGLUT density \times average size of DVGLUT aggregates in that neuron. $n > 30$ for all genotypes. Data represent normalized mean \pm SEM. ANOVA analysis. *, $P < 0.05$; ***, $P < 0.001$; ns, not significant.

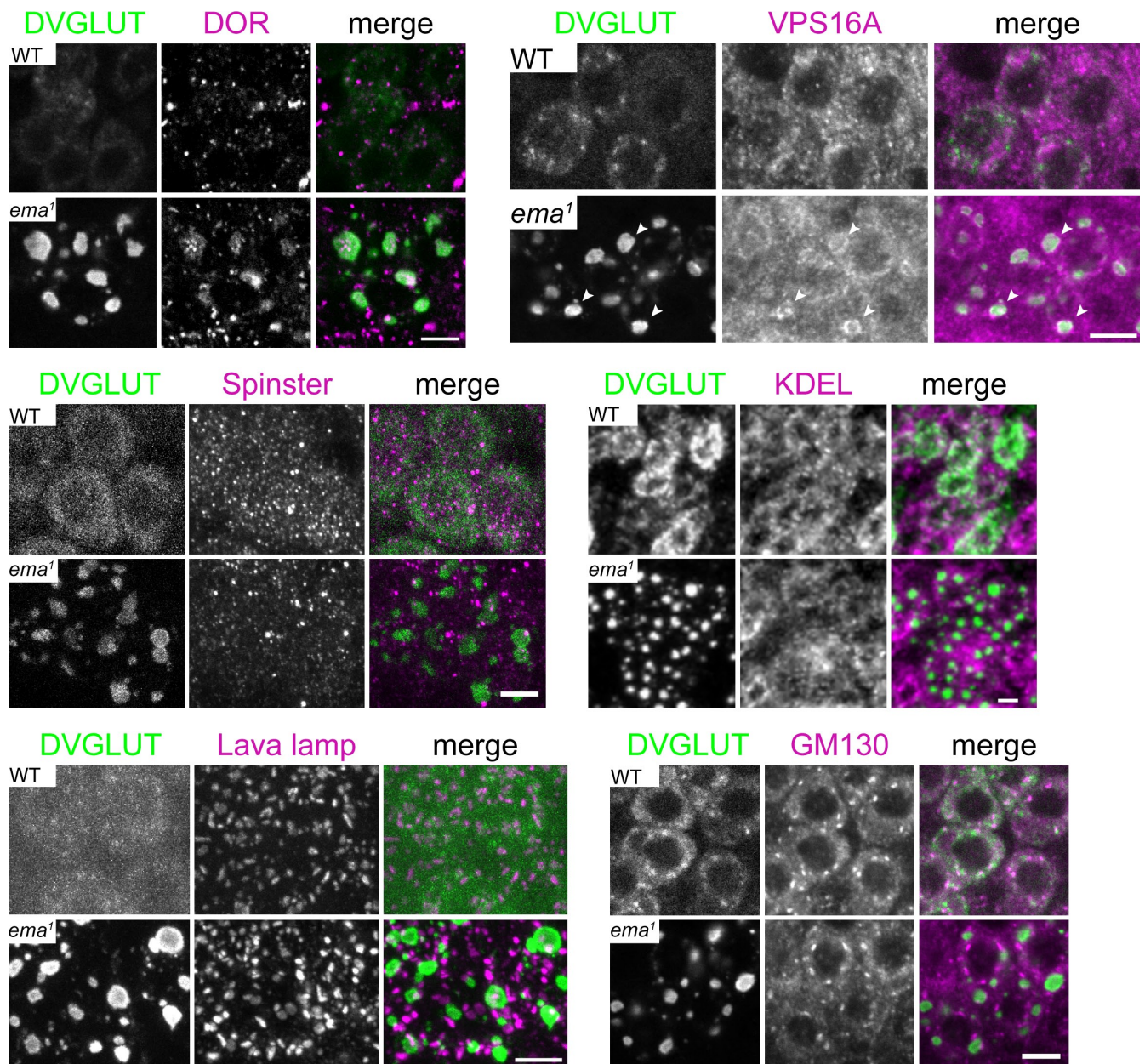


Figure S2. **DVGLUT aggregates associate with the endosomal proteins DOR and Vps16A in the *ema* mutant.** Confocal images of motoneuron cell bodies from wild-type (WT) and *ema* mutants stained for DVGLUT (green) and either the class C Vps–HOPS complex endosomal proteins DOR (*deep orange*) and Vps16A, the late endosomal protein Spinster, the ER protein KDEL receptor, or the Golgi proteins lava lamp and GM130 (each in magenta). In *ema*, DVGLUT aggregates associate with DOR and Vps16A (arrowheads), but not with the other tested proteins. Note that all the DVGLUT and Vps16A images in wild type were acquired at a higher gain setting. Bar, 5 μ m.

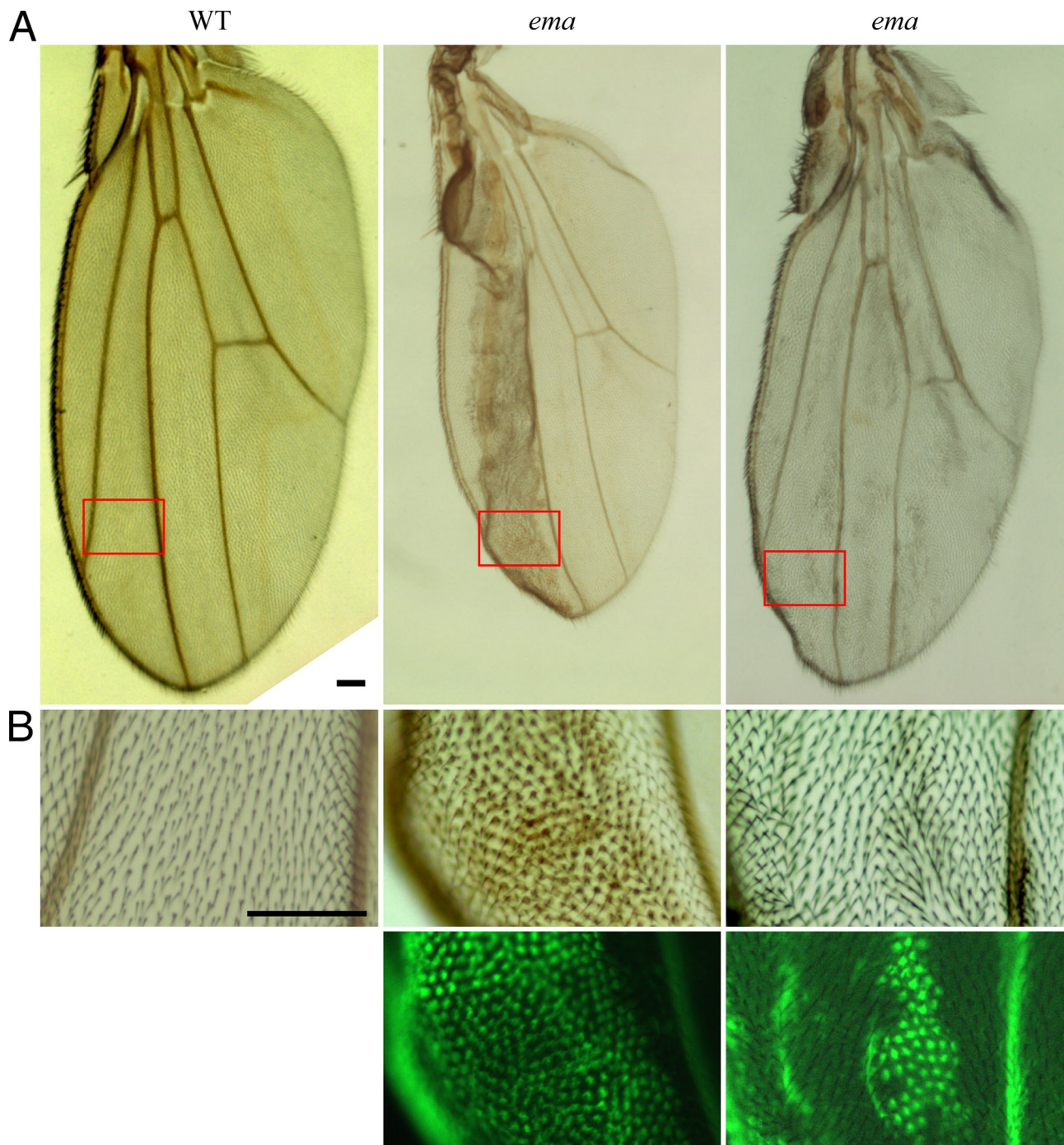


Figure S3. **MARCM analysis of *ema* in the *Drosophila* wing.** (A) Representative images of wild-type (WT) and *ema* mutant mosaic (*ema*) wings. (B) Higher magnification of insets in A. Abnormal pigmentation and bristle patterns are seen in the *ema* mutant clones, positively labeled by GFP fluorescence. WT (wild type) = Canton S. Genotype of *ema* mutant mosaic fly is *hs-flp, tub-GFP; FRT82B, ema/FRT82B, tub-Gal80*. Bars, 200 μ m.