

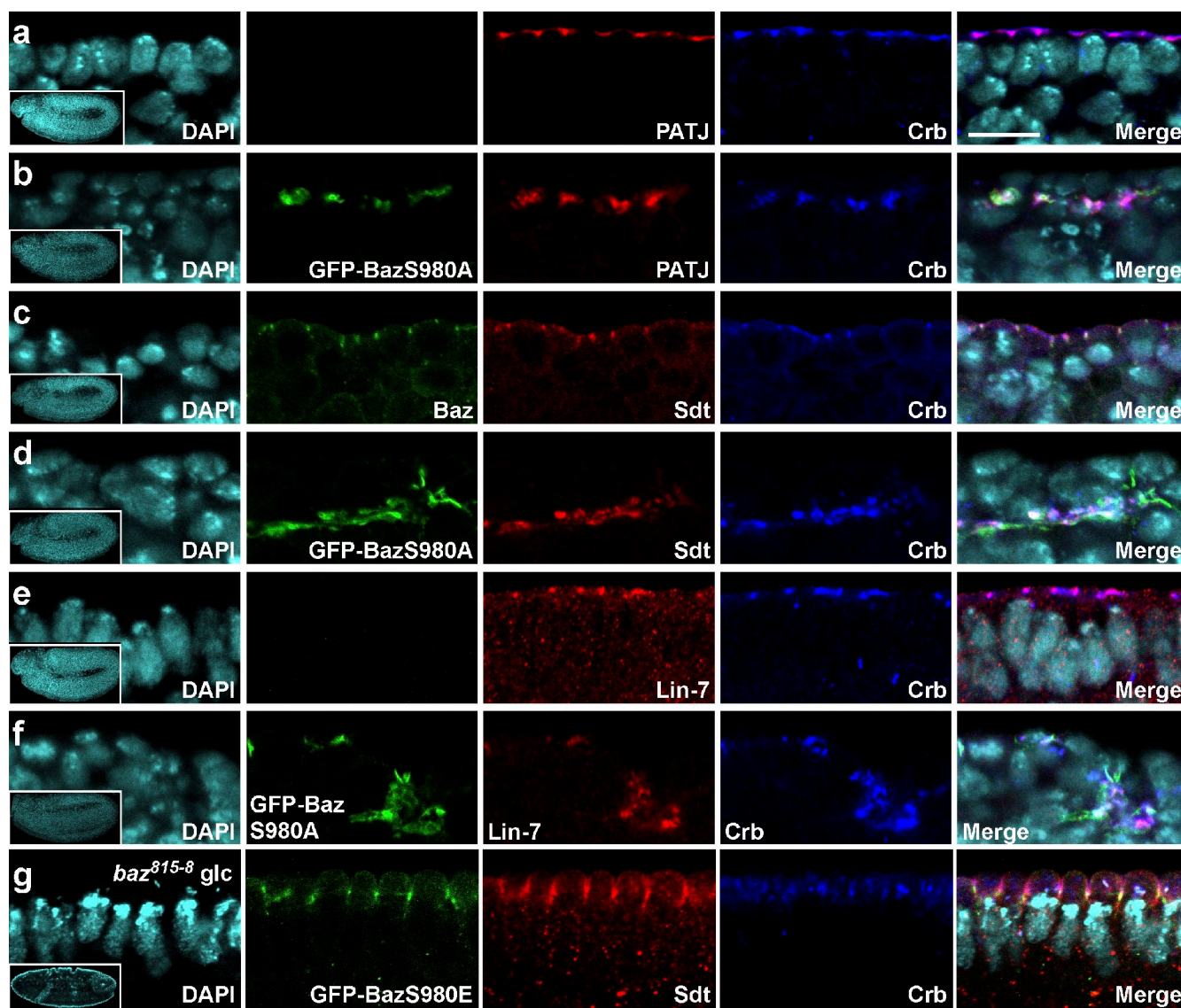
Krahn et al., <http://www.jcb.org/cgi/content/full/jcb.201006029/DC1>

Figure S1. **PATJ, Sdt, and Lin-7 form aggregates upon overexpression of GFP-BazS980A.** This figure is related to Fig. 1. (a) PATJ and Crb colocalize at the apical membrane in the epidermis of a wild-type embryo. (b) PATJ and Crb mislocalize in aggregates upon overexpression of GFP-BazS980A. (c) Sdt and Crb colocalize in spots slightly apical to Baz in the epidermis of a wild-type embryo. (d) Sdt and Crb mislocalize in aggregates upon overexpression of GFP-BazS980A. (e) Lin-7 and Crb colocalize at the apical membrane in the epidermis of a wild-type embryo. (f) Lin-7 and Crb mislocalize in aggregates upon overexpression of GFP-BazS980A. (g) Expression of GFP-BazS980E rescues polarity defects and membrane localization of Sdt and Crb in an embryo derived from a *baz<sup>815-8</sup>* germline clone (glc). Embryos in a–f are at stage 9, and the embryo in g is at stage 7 (see insets). Apical is up. Bar, 10  $\mu$ m.

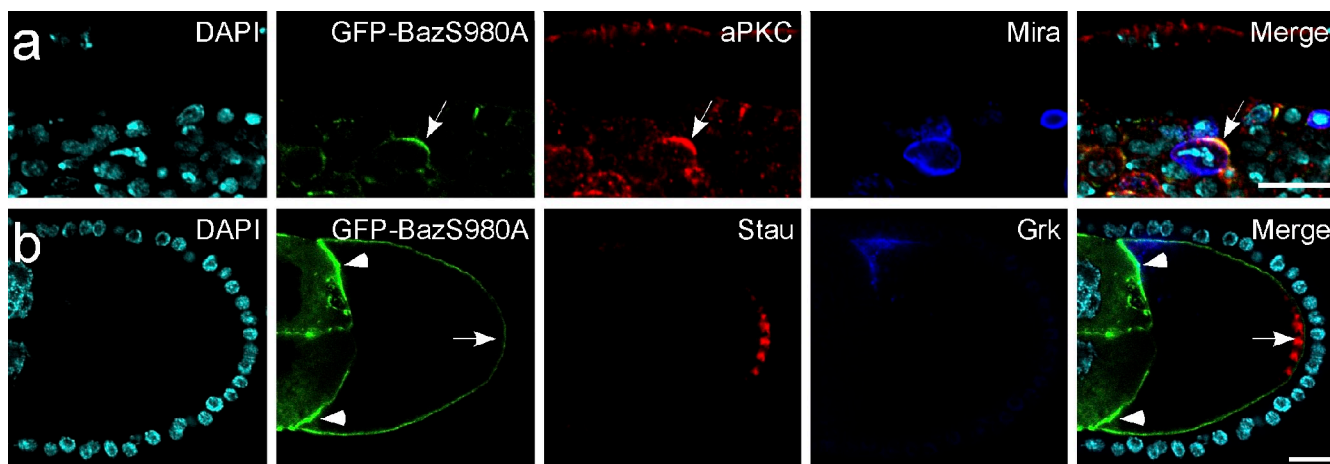


Figure S2. **Overexpression of GFP-BazS980A in neuroblasts and oocytes does not cause polarity defects.** This figure is related to Fig. 2. (a) GFP-BazS980A was overexpressed in neuroblasts using the *worniu::GAL4* driver line. GFP-BazS980A colocalizes with endogenous aPKC in the apical neuroblast cortex (arrows) like endogenous wild-type Baz. (b) When overexpressed in the female germline using the *nanos::GAL4* driver line, GFP-BazS980A forms a gradient in the oocyte with high levels at the anterior cortex (arrowheads) and low levels at the posterior cortex (arrows). The localization of Gurken (Grk) to the anterior-dorsal corner of the oocyte and of Staufen (Stau) to the posterior cortex of the oocyte is unaffected by overexpression of GFP-BazS980A. Bars, 10  $\mu$ m.

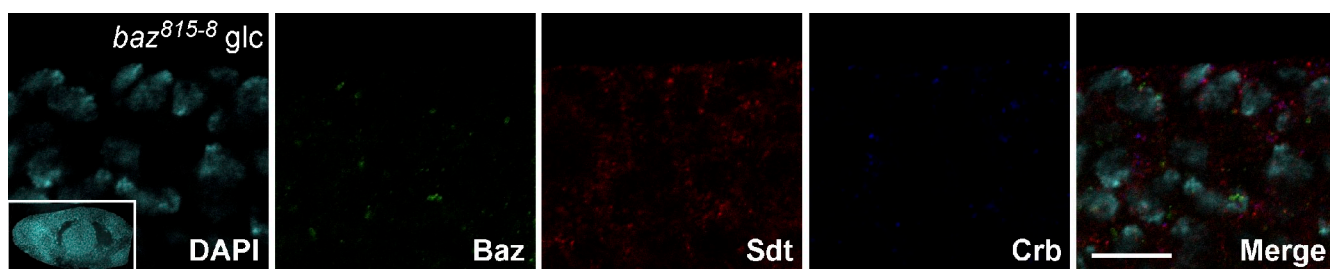
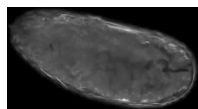
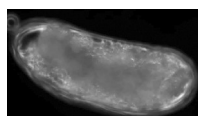


Figure S3. **Sdt and Crb do not localize to the plasma membrane in *baz* mutant embryos derived from germline clones.** This figure is related to Fig. 4. A *baz<sup>815-8</sup>* mutant embryo derived from a germline clone (glc) was stained for Baz, Sdt, and Crb. Baz is not expressed, and Sdt and Crb fail to localize to the membrane. The inset shows an overview of the embryo from which the respective high magnification images were taken. Apical is up. Bar, 10  $\mu$ m.



Video 1. **Live imaging of a *Drosophila* embryo overexpressing GFP-Baz.** This video is related to Fig. 2 and is shown at 10 frames/s. Overexpression of GFP-Baz does not affect normal embryonic development and allows hatching of viable larvae that develop into viable and fertile adult flies. The video ends shortly before hatching of the larva. Anterior is to the left.



Video 2. **Live imaging of a *Drosophila* embryo overexpressing GFP-BazS980A.** This video is related to Fig. 2 and is shown at 10 frames/s. Early development of the embryo is apparently normal, but during germ band extension, the integrity of the epidermis is gradually lost. By germ band retraction, the epidermis has fallen apart, and individual cells without contact to their neighbors can be seen moving at the surface of the embryo. Toward the end of the video, the gut bulges out of the embryo, which remains dorsally open. This video is representative of >50 videos of embryos with the same genotype that have been recorded using a conventional light microscope with an automated x-y stage. Anterior is to the left.