

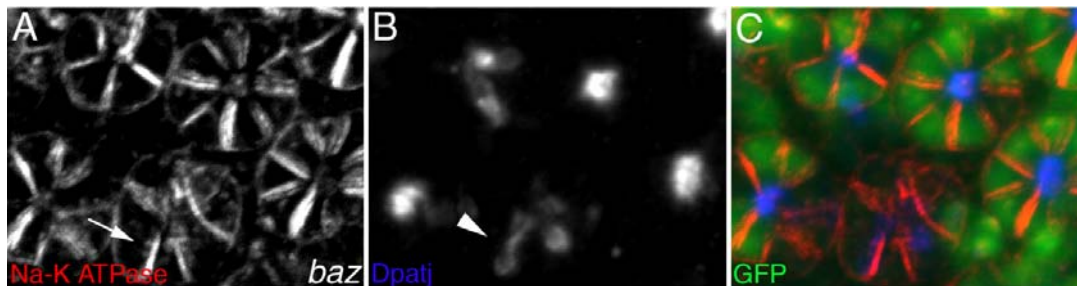
Supplementary Figure

Antagonistic functions of Par-1 kinase and protein phosphatase 2A are required for localization of Bazooka and photoreceptor morphogenesis in *Drosophila*

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Supplementary Fig. 1. Effects of *baz* mutation on basolateral membrane.

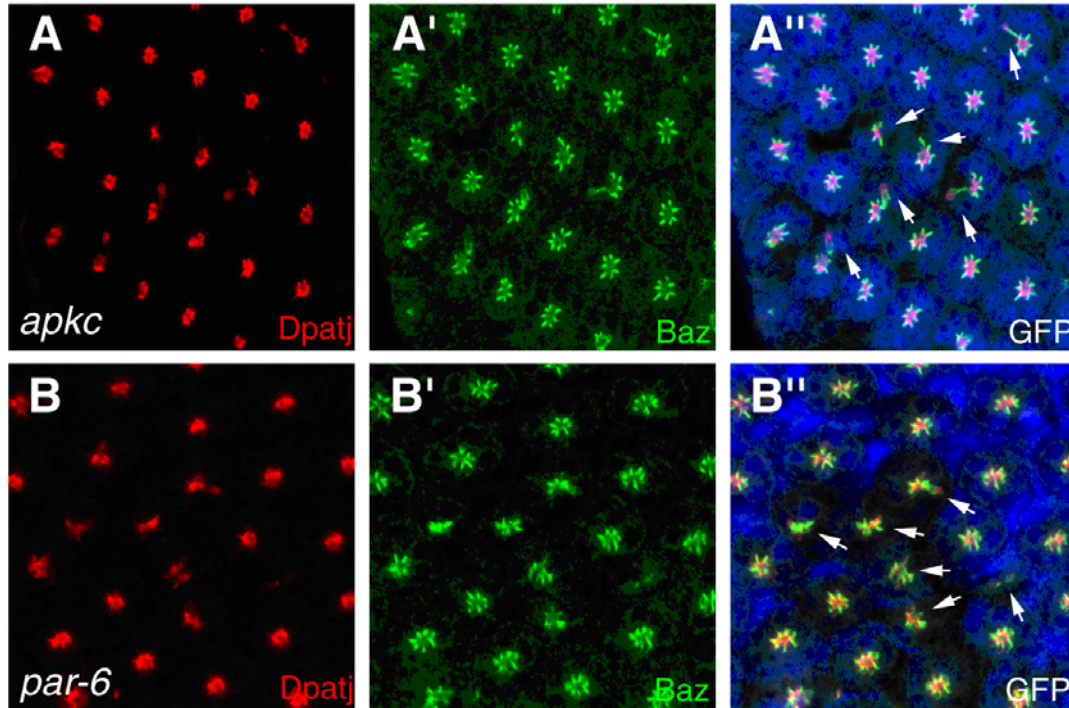
Pupal retina (60h pd) containing *baz* LOF mutant clones stained for Dpatj and Na⁺/K⁺ ATPase. Basolateral membrane marked by Na⁺/K⁺ ATPase staining is relatively intact (A, arrows) in *baz* mutant clone (no GFP) whereas Dpatj is severely mislocalized (B, arrowheads). (C) Overlap of (A) and (B).



Supplementary Fig. 2. Effects of *par-6* and *apkc* mutations in photoreceptors

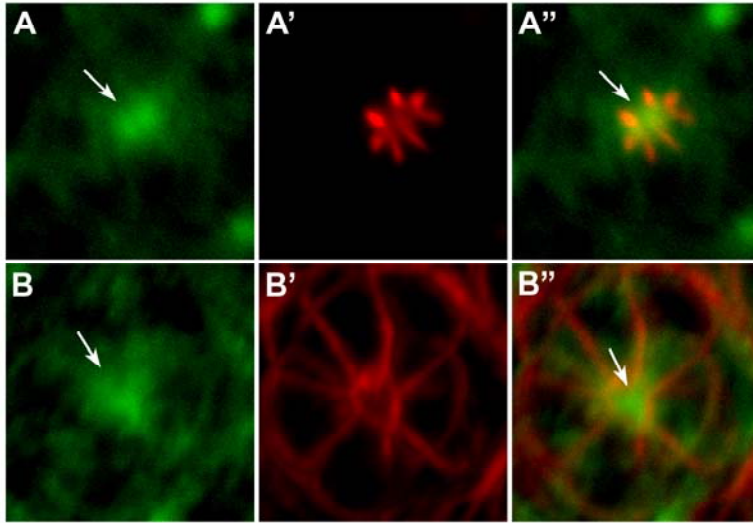
The panels (A) and (B) present larger eye field of Figure 1D and 1E, respectively, to show more clones. Although the clone sizes of *par-6* and *apkc* were very small, a number of clones with consistent phenotypes were generated. Loss of aPKC or Par-6 did not affect the membrane targeting of Baz although Baz was mislocalized to the basolateral region. Dpatj and Baz were mislocalized in *apkc* (A) or *par-6* (B) mutant

cells marked by the absence of GFP (A'' and B''; blue). Mutant clones are marked by arrows.



Supplementary Fig. 3. Expression pattern of Par-1 in pupal eye.

Par-1 expression in a photoreceptor cluster at 40 h pd. (A and B) Par-1 (green) shows weak and diffused expression along the basolateral membrane between photoreceptor cells. (A' and B') Localization of Arm at AJs (A') and basolateral membrane of α -Spec (B'). Note that α -Spec is also detected in the apical membrane. (A'' and B'') Combined images of A-A' (A'') and B-B' (B''). Par-1 levels are elevated in the apical region (arrows).



Supplementary Fig. 4. Abnormal Arm localization in *par-1* mutant ommatidium

A mosaic ommatidium with *par-1*⁺ (GFP⁺) and *par-1*⁻ (GFP⁻) photoreceptor cells. 40h pd pupal eye stained for Arm (red) and Dlg (blue). 3-dimensional reconstruction shows a longitudinal view of approximately 75° tilted ommatidium. The bracket area in (C) contains wild-type photoreceptors. Arrows indicate mislocalized and shortened Arm staining of *par-1* mutant cells.

