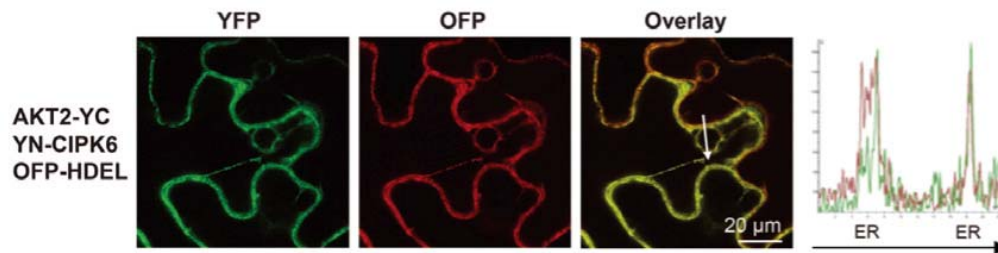
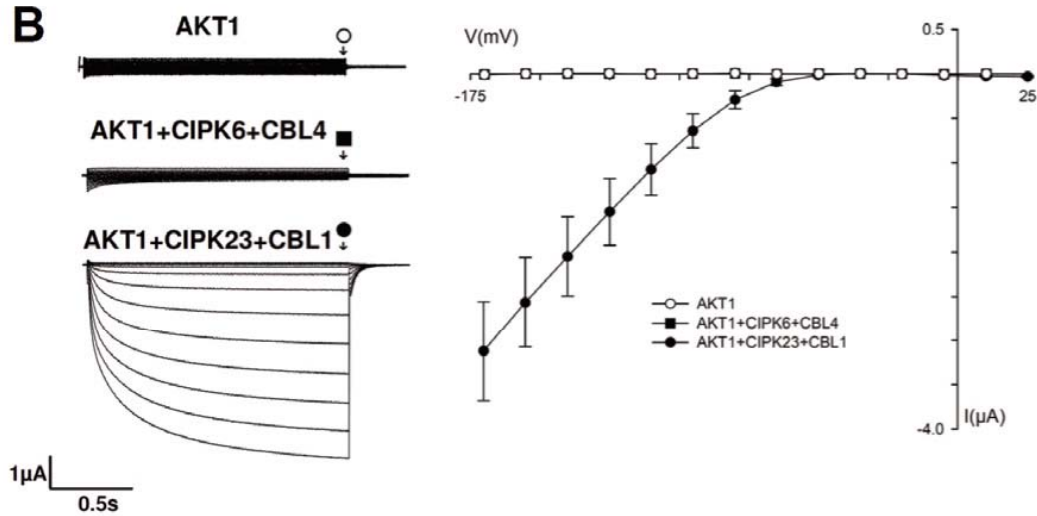
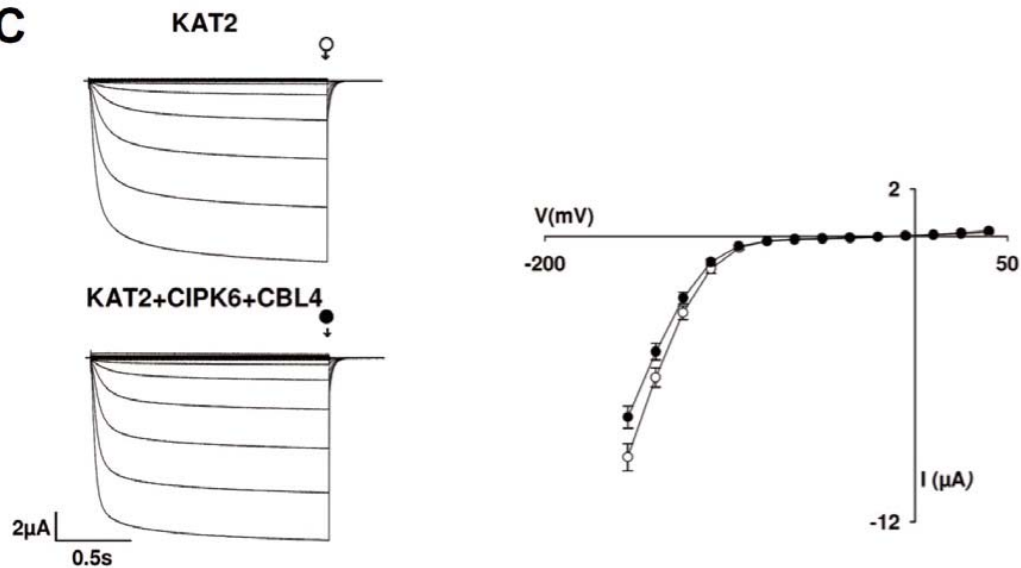


**A****B****C**

**Supplementary information, Figure S1 (A)** Co-localization of AKT2-CIPK6 BiFC complexes with the ER-marker GFP-HDEL. Microscopic analysis of the median cellular plane of *N. benthamiana* epidermal cells transiently expressing the plasmid combinations indicated at the

left. A white arrow marks the region and direction in which the distribution of fluorescence intensities was determined (**B-C**) Both AKT1 and KAT2 are insensitive to CIPK6+CBL4. (**B**) AKT1. Left panel: Typical current recordings in *X. laevis* oocytes expressing either *AKT1*, or *AKT1+CIPK6+CBL4* or *AKT1+CIPK23+CBL1*. Right panel: Current-voltage (I-V) curves for oocytes injected with *AKT1* cRNA (white circles) or with a mix of *AKT1*, *CIPK6* and *CBL4* cRNAs (black squares), or with a mix of *AKT1*, *CIPK23* and *CBL1* cRNAs (black circles). Current values from recordings like in left panel and displayed as means  $\pm$  SE (n=4 for *AKT1+CIPK23+CBL1* and n=6 for *AKT1* and *AKT1+CIPK6+CBL4*). (**C**) KAT2. Left panel: Typical current recordings in *X. laevis* oocytes expressing either *KAT2*, or *KAT2+CIPK6+CBL4*. Right panel: Current-voltage (I-V) curves for oocytes injected with *KAT2* cRNA (white circles) or with a mix of *KAT2*, *CIPK6* and *CBL4* cRNAs (black circles). Current values from recordings like in left panel and displayed as means  $\pm$  SE (n=6 for *KAT2* and n=7 for *KAT2+CIPK6+CBL4*). Experiments were performed 3 days after oocyte injections in a 100 mM K<sup>+</sup> external solution using the voltage clamp protocol described in Figure 1D.