Supplementary Figure S1



**Figure S1. Representative kinase assays for Fig. 3B** (**A**) **and Fig. 3C** (**B**). In these assays, 50 nM PI4KIIα was used with 100 nM Dvl or GST.

## Supplementary Figure S2



## Figure S2. Interactions of Dvl, PI4KII $\alpha$ and PIP5KI $\beta$ .

(A) Coimmunoprecipitation of PI4KII $\alpha$  and PIP5KI $\beta$  in transfected HEK293T cells.  $\Delta N$ - $\beta$ -catenin-HA was used as a control.

(B,C) Direct interaction of purified recombinant PI4KII $\alpha$  and PIP5KI $\beta$  proteins in an *in vitro* pull-down assay. GST and GSK3 $\beta$ -GST were used as a control.

(D) Effect of overexpression of Dvl1 on coimmunoprecipitation of PI4KII $\alpha$  and PIP5KI $\beta$  in transiently transfected HEK293T cells.