Legends of Supplementary Figures

Figure S1 Depletion of SIAH1 inhibits Wnt signaling.

(A) siRNAs against SIAH1 decrease the level of SIAH1mRNA in HEK293 cells. **(B)** Depletion of SIAH1 inhibits the Wnt3a-induced cytosolic β-catenin accumulation in YAPC cells.

Figure S2. Depletion of SIAH1 increases the protein expression of AXIN1.

(A) Depletion of SIAH1 does not affect the mRNA level of AXIN1 in YAPC cells. **(B)** Depletion of SIAH1 increases the protein level of AXIN1 in U2OS cells.

Figure S3. SIAH2 interacts with Axin1 in co-immunoprecipitation assay.

Flag-Axin1 was co-expressed with HA-SIAH2 CS mutant in HEK293 cells, and subjected to co-immunoprecipitation assay.

Figure S4 Crystal structural of AXIN1/SIAH1 complex.

(A) Superimposition of AXIN1/SIAH1 and SIAH1 (PDB 4CA1) structures. The structure of the human AXIN1/SIAH1 complex is similar to the unliganded SIAH1 structure, with a root mean square deviation (R.M.S.D) of Cα's of 0.837 Å. **(B)** Stereo view of the AXIN1 377-387 showing the 2Fo-Fc electron density map (grey mesh) contoured to 1.0σ. AXIN1 residues 388-394 were not observable in the structure because of a lack of visible electron density.

Figure S5. Wnt decreases the interaction between AXIN1 and GSK3β.

HEK293 cells were pretreated with MG132 to prevent Wnt-induced Axin degradation, and then treated with Wnt3a for 4 hrs. Cells were were collected and subjected to co-immunoprecipitation assay.