



Chaya *et al.*, Figure S8

**Figure S8** Characterization of an anti-p-Kif3a antibody and a hypothetical model for ICK function. (A–C') The FLAG-tagged GFP- (A, A'), ICK-WT- (B, B'), or ICK-KD- (C, C') expressing plasmids were transfected into NIH3T3 cells. Cells were stained with anti-FLAG (green) and anti-p-Kif3a (red) antibodies. (D) Inhibition test of shRNA expression constructs to knockdown *Kif3a*. Control shRNA or each of three types of shKif3a (shKif3a-1, -2, and -3) expression plasmids was co-transfected with GFP-expressing plasmids and FLAG-tagged Kif3a-WT-expressing constructs into HEK293T cells. Western blotting was performed using an antibody against FLAG. GFP was used as an internal transfection control. All the shRNAs against *Kif3a* showed an inhibitory effect on *Kif3a*. For rescue experiments, shKif3a-1 was used. (E) Schematic diagrams representing ICK function in neural progenitor cells and mature neurons. ICK is required for ciliogenesis in neuronal progenitor cells. *ICK*-deficient neural progenitor cells show aberrant accumulation of Smo in the cilia and exhibit a defect of Shh signaling. In contrast, ICK is dispensable for ciliogenesis in mature neurons. Nuclei were stained with DAPI (blue). Scale bar represents 20  $\mu\text{m}$ .