



Chaya *et al.*, Figure S4

**Figure S4** Phenotypic analysis of the *ICK Dkk3* CKO retina. (A) *ICK* mRNA expression levels in the P0 control and *ICK Dkk3* CKO retina were analyzed by Q-PCR. (B) *ICK* protein expression in the P0 control and *ICK Dkk3* CKO retina was examined by Western blot analysis.  $\alpha$ -tubulin was used as a loading control. (C–F) Immunohistochemical analysis of the *ICK Dkk3* CKO retina at P0. Retinal sections from P0 control and *ICK Dkk3* CKO mice were immunostained with antibodies against cell proliferation markers, Ki67 (green in C, D) and PH3 (green in E, F). Cell proliferation significantly decreased in the *ICK Dkk3* CKO retina. (G) Retinal thickness is reduced in P0 *ICK Dkk3* CKO mice. (H, I) The numbers of Ki67-positive cells (H) and PH3-positive cells (I) in P0 control and *ICK Dkk3* CKO retinas were counted. (J–M') Photoreceptor cilia were stained with antibodies against acetylated  $\alpha$ -tubulin (green in J–K'') and Mak (red in J–K'') in one month-old control and *ICK Dkk3* CKO mice. Photoreceptor connecting cilia and basal bodies were stained with antibodies against RPGR (red in L–M') and  $\gamma$ -tubulin (green in L–M'), respectively. No obvious difference was observed between the control and *ICK Dkk3* CKO retina. (N, O) The length of the photoreceptor cilia stained with antibodies against acetylated  $\alpha$ -tubulin (N) and RPGR (O) was measured. There was no significant difference in ciliary length between control and *ICK Dkk3* CKO photoreceptors. Nuclei were stained with DAPI (blue). Scale bars, 100  $\mu$ m (C–F), 5  $\mu$ m (J, K, L, M), and 1  $\mu$ m (J', J'', K', K'', L', M'). Error bars show the SD. \* $p < 0.03$ . n.s., not significant. NBL, neuroblastic layer; GCL, ganglion cell layer.