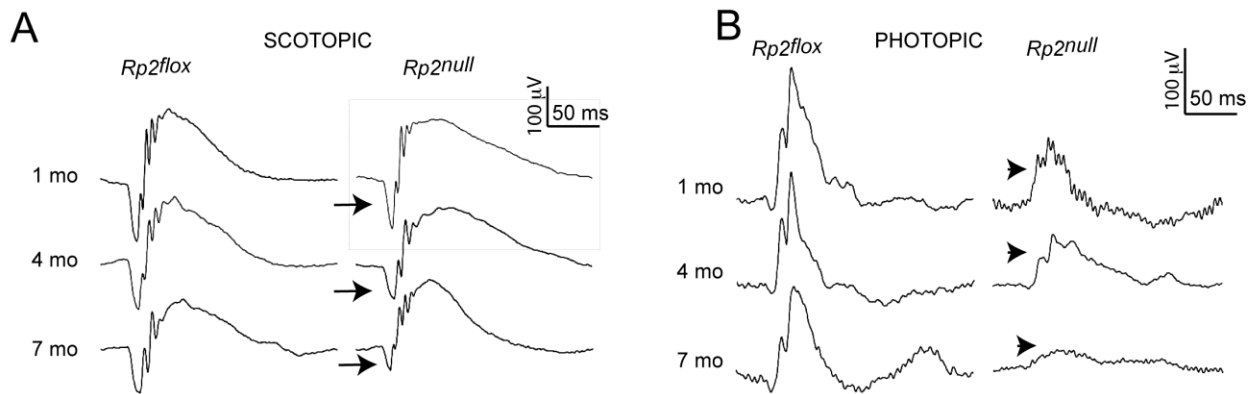
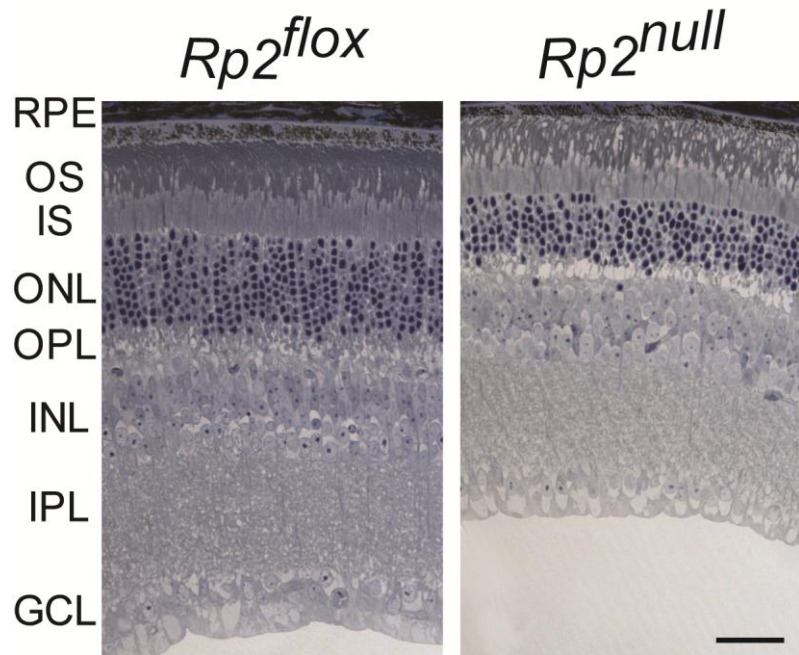


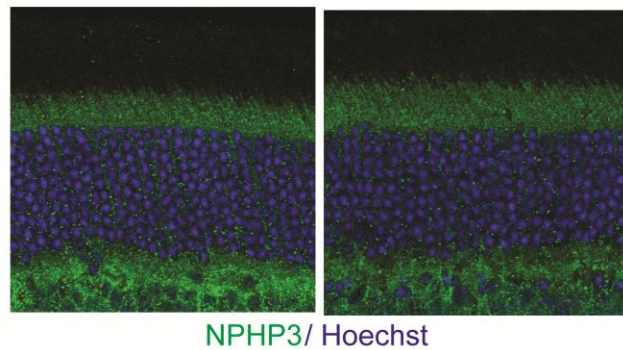
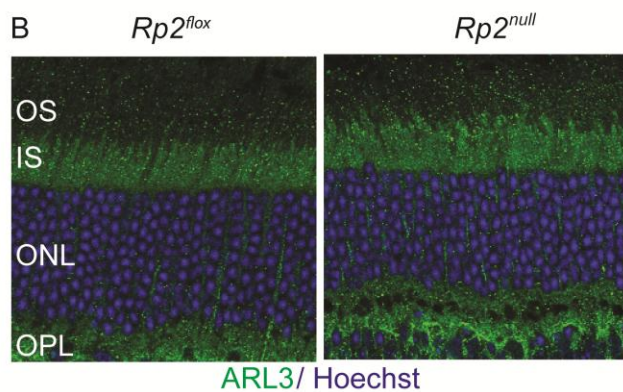
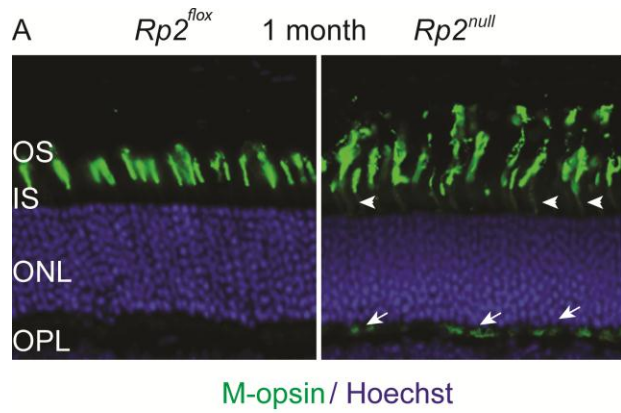
Supplementary Figure S1: Staining of RP2: Retinal cryosections of 2 months old *Rp2^{flox}* (control) and *Rp2^{null}* mice were stained with polyclonal anti-RP2 antibody (green). Specific staining of RP2 was detected in the proximal and distal inner segment (IS) in controls whereas mutant retina showed no detectable staining of RP2. Nuclei are stained with DAPI (blue). OS: outer segment; IS: inner segment; ONL: outer nuclear layer



Supplementary Figure S2: This figure depicts representative traces of ERG of *Rp2^{flox}* and *Rp2^{null}* mice in dark- (scotopic) and light- (photopic) adapted conditions at indicated ages. Arrows indicate scotopic a-wave and arrowheads point to photopic b-wave.



Supplement Figure S3. Representative image of epoxy embedded retinal sections (300 nm) from *Rp2^{flox}* and *Rp2^{null}* mice at 10 months of age. *Rp2^{null}* mice show thinner outer nuclear layer (ONL) than *Rp2^{flox}* control mice RPE: retinal pigment epithelium; OS: outer segment; IS: inner segment; OPL: outer plexiform layer; INL: inner nuclear layer; IPL: inner plexiform layer; GCL: ganglion cell layer. Scale bar: 100 μ m.



Supplement Figure S4. A. Immunofluorescence staining of 1 month old *Rp2^{null}* and *Rp2^{flox}* retinas with anti-M opsin antibody (green). Arrows indicate signal of M opsin in the outer plexiform layer (OPL); arrowheads show mislocalization of M-opsin in the inner segment (IS). Nuclei are stained with Hoechst (blue). **B.** Retinal cryosections of 2 months old *Rp2^{flox}* and *Rp2^{null}* mice were stained with anti-ARL3 or anti-NPHP3 antibodies (green). Nuclei were stained with Hoechst (blue).