



Supplemental Fig. 1. Li et al

Supplemental Fig. 1. Conditional knockout of Rac1 in RGCs. **A, B**, Identification of genotypes of Rac1-cKO (**A**) and Chat-cre^{+/-} (**B**) mice. **C**, Representative immunoblots showing Rac1 protein levels in retinal extracts obtained from control, Chat-cre^{+/-}, and Rac1-cKO mice, respectively. **D**, Bar charts summarizing the average densitometric quantification of immunoreactive bands of Rac1 in retinas obtained from different mice as shown in C. All the data are normalized to control. $n = 6$ for all groups, $**P < 0.01$ vs. control. **E**, Double-immunofluorescence labeling showing the expression of Cre recombinase (e3) and Brn-3a (e2) in a retinal slice obtained from Chat-cre^{+/-} mouse. e1: DAPI image. e4: merged image of e1, e2 and e3. Note that the Cre recombinase was co-localized with Brn-3a (arrow heads). **F**, Double-immunofluorescence labeling showing the expression of Rac1 (f3, f7) in Brn-3a-positive RGCs (f2, f6) in control and Rac1-cKO retinal slices. f1 and f5: DAPI

labeling. f4 and f8: merged images. Note that Rac1 expression in RGCs was reduced in Rac1-cKO mouse (arrow heads). Scale bar, 20 μm for all images. GCL, ganglion cell layer; IPL, inner plexiform layer. **G**, Photomicrographs of HE staining showing the morphological changes of both the nasal and the temporal retinas obtained from control, Rac1-cKO and Chat-cre^{+/-} mice. Scale bar, 20 μm .