## **Supplementary Materials**

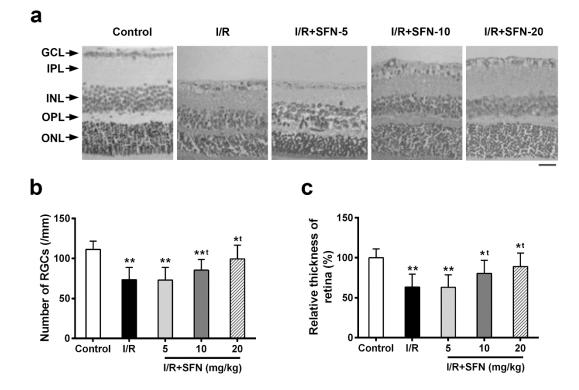


Fig. S1 SFN administration inhibited I/R-induced retinal thickness change. (a) H&E staining of retinal cross-sections in different treated groups and indicated retina layers. (b-c) The quantification of RGCs number (b) and the relative retinal tissue thickness (c) of control, I/R, and I/R+SFN (5, 10, 20 mg/kg) groups. Data are presented as mean  $\pm$  SD, n = 6 for each group, \**P* < 0.05, \*\* *P* < 0.01 compared to control group, \**P* < 0.05 compared to I/R group. Scale bar = 10 µm. GCL ganglion cell layer, IPL inner plexiform layer, INL inner nuclear layer, OPL outer plexiform layer, ONL outer nuclear layer.

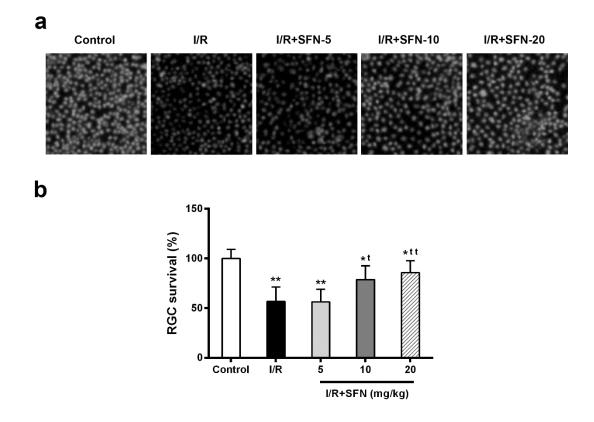


Fig. S2 SFN administration prevented I/R-induced RGCs death in rat. (a) FG labeling showed the surviving RGCs in control group, I/R injury group, and I/R+SFN (5, 10, 20 mg/kg) groups. (b) The quantification of RGC survival (%) in indicated groups. Data are presented as mean  $\pm$  SD, n = 6 for each group, \**P* < 0.05, \*\**P* < 0.01 compared to I/R group. Scale bar = 50 µm.

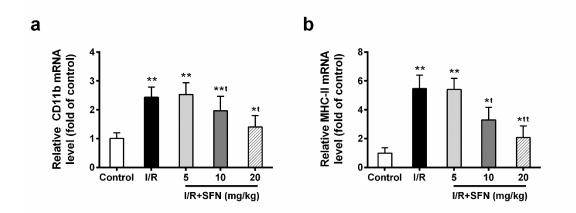


Fig. S3 SFN administration inhibited microglia activation in retinas of I/R rats.

The mRNA expression of microglial cell markers, CD11b (a) and MHC-II (b), were analyzed by qRT-PCR. Data are presented as mean  $\pm$  SD, n = 6 for each group, \**P* < 0.05, \*\* *P* < 0.01 compared to control group, \**P* < 0.05, \*\* *P* < 0.01 compared to I/R group.