Supplementary Information

Persimmon Leaves (*Diospyros kaki*) Extract Protects Optic Nerve Crush-Induced Retinal Degeneration

Hong Ryul Ahn^a, Kyung-A Kim^{a,b}, Suk Woo Kang^a, Joo Young Lee^a, Tae-Jin Kim^{a,b,c,*} and Sang Hoon Jung^{a,b,*}

^aNatural Products Research Center, Korea Institute of Science and Technology (KIST), Gangneung 25451, ^bDepartment of Biological Chemistry, Korea University of Science and Technology (UST), Daejeon 34113, ^cDepartment of Biological Sciences, Pusan National University, Busan 46241, Republic of Korea





THY-1

Merged

Supplementary Figure 1. Immunofluorescence of THY-1 and BRN3a proteins in RGC-5 cells. DAPI was used to visualize nuclei. Scale bar = 50 μ m.



Supplementary Figure 2. Entire lanes from western blots showing the effect of EEDK on protein-expression levels in response to glutamate/BSO.



Supplementary Figure 3. Entire lanes from western blots showing the effect of EEDK on protein-expression levels in PONC-induced mice retinas.



Supplementary Figure 4. Effect of EEDK on RGC survival in retinas at 1 week after PONC. (A) Representative fluorescence images of retrograde-labelled RGCs in PONC-induced mice: (a) control, (b) vehicle, (c) 1 mg/kg EEDK-treated, and (d) 10 mg/kg EEDK-treated groups. Scale bar = 500 μ m. Low-magnification (×100) images of labelled RGCs in a-d are shown in e-h. Scale bars in d-f represent 200 μ m. High magnification (×200) images of a-d are shown in i-l. Scale bars in i-l represent 100 μ m. (B) The bar graph shows quantitative analysis of the RGC density (cells/mm²) (***p < 0.001, mean ± S.E.M. n = 8 from each group).



Supplementary Figure 5. Effect of EEDK on RGC survival in damaged retinas at 4 weeks after PONC. (A) Representative fluorescence images of retrograde-labelled RGCs in PONC-induced mice: (a) control, (b) vehicle, (c) 1 mg/kg EEDK-treated, and (d) 10 mg/kg EEDK-treated groups. Scale bar = 500 µm. Low-magnification (×100) images of labelled RGCs in a-d are shown in e-h. Scale bars in d-f represent 200 µm. High magnification (×200) images of a-d are shown in i-l. Scale bars in i-l represent 100 µm. (B) The bar graph shows quantitative analysis of the RGC density (cells/mm²) (***p < 0.001, mean ± S.E.M. n = 8 from each group).