Supplementary material

LEGENDS for SUPPLEMENTARY FIGURES

Supplementary Figure S1. Representative fundus photographs taken before and after intravitreal ET-1 injection. (A) Before ET-1 injection, (B) 1 hour after ET-1 injection (20 pmol/eye).

Constriction of retinal vessels 1 hour after ET-1 injection was graded into 3 groups: Grade 0: few vessels constricted (C), Grade 1: nearly one half of major vessels constricted (D), and Grade 2: almost all major vessels constricted (E).

Supplementary Figure S2. Relative retinal thickness by OCT compared to baseline after intravitreal injection of various doses of ET-1. (A) 1 week and (B) 2 weeks after injection. Data represent the mean ± SD. * P <0.05, **P <0.01, ***P <0.001 (one-way ANOVA).

Supplementary Figure S3. Representative high-magnification images of FG-labeled RGCs in the central retinal area. (A) Control, (B) 0.2 pmol/eye of ET-1, (C) 2 pmol/eye of ET-1, (D) 5 pmol/eye of ET-1, (E) 20 pmol/eye of ET-1, (F) 60 pmol/eye of ET-1, (G) 200 pmol/eye of ET-1. Scale bar: 200 μm.

Supplementary Figure S4. Regional differences in retinal thickness in normal rat eyes (A) and relative RNFL thickness compared to baseline 2 weeks after intravitreal injection of various doses
of ET-1 (B). Data represent the mean ± SD. * $P < 0.05$, †$P < 0.01$, ‡$P < 0.001$ (Repeated-measures ANOVA).

**Supplementary Figure S5.** Regional differences in FG-labeled RGC density in control eyes and relative RGC density compared to control eyes after intravitreal injection of various doses of ET-1. (A): control, (B): 0.2 pmol/eye, (C): 2 pmol/eye, and (D): 5 pmol/eye. Data represent the mean ± SD. * $P < 0.05$, †$P < 0.01$ (Repeated-measures ANOVA).

**Supplementary Figure S6.** Regional differences in relative FG-labeled RGC density compared to control eyes after intravitreal injection of various doses of ET-1. (A): 20 pmol/eye, (B): 60 pmol/eye, and (C): 200 pmol/eye. Data represent the mean ± SD.

**Supplementary Figure S7.** Changes in total retinal thickness in each quadrant by OCT after an intravitreal injection of ET-1 with topical treatment of tafluprost or saline. (A): Superior quadrant, (B): Nasal quadrant, (C): Inferior quadrant, and (D): Temporal quadrant. Data represent the mean ± SD. * $P < 0.05$, †$P < 0.01$, ‡$P < 0.001$ (two-way repeated-measures ANOVA).

**Supplementary Figure S8.** Changes in inner retinal thickness in each quadrant by OCT after an intravitreal injection of ET-1 with topical treatment of tafluprost or saline. (A): Superior quadrant,
(B): Nasal quadrant, (C): Inferior quadrant, and (D): Temporal quadrant. Data represent the mean ± SD. * $P < 0.05$, †$P < 0.01$, ‡$P < 0.001$ (two-way repeated-measures ANOVA).

**Supplementary Figure S9.** Changes in RNFL thickness in each quadrant by OCT after an intravitreal injection of ET-1 with topical treatment of tafluprost or saline. (A): Superior quadrant, (B): Nasal quadrant, (C): Inferior quadrant, and (D): Temporal quadrant. Data represent the mean ± SD. * $P < 0.05$, †$P < 0.01$, ‡$P < 0.001$ (two-way repeated-measures ANOVA).

**Supplementary Figure S10.** Relative FG-labeled RGC density compared to normal eyes in each region after an intravitreal injection of ET-1 with topical treatment of tafluprost or saline. (A): Central retina, (B): Peripheral retina, (C): Mean retina. (S): superior, (NS): nasal superior, (NI) nasal inferior, (I): inferior, (TI): temporal inferior, and (TS): temporal superior regions. Data represent the mean ± SD.
Supplementary Figure S1
Supplementary Figure S2
Supplementary Figure S3
Supplementary Figure S4
Supplementary Figure S5
Supplementary Figure S6
Supplementary Figure S7
Supplementary Figure S8
Supplementary Figure S9
Supplementary Figure S10