

Figure S1 Specificity of anti β -arrestin antibody. Immuno-positive signals of β -arrestin (A, G) were absent if the primary antibody was omitted (D, I), suggesting that the secondary antibody does not bind to the section in a non-specific manner. (B, E, H, I) are the fluorescence images of DAPI of (A, D, G, I). (C, F) are the bright field images of (A, D). (K) A schema showing the cutting plane of the brain section of (G-J). Scale bars: 200 μ m. CG, cerebral ganglia; SEG, subesophageal ganglia; A, anterior; P, posterior; R, right; L, left; D, dorsal; V, ventral.

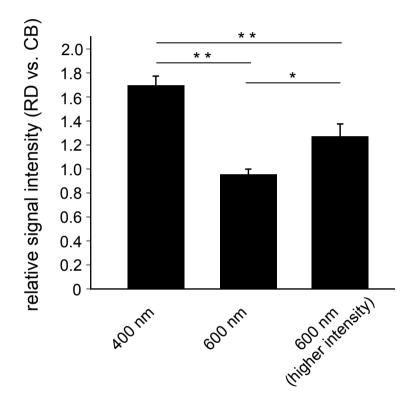


Figure S2 Illumination with 600 nm light with higher intensity $(3.77 \times 10^{14} \text{ photons cm}^{-2}\text{sec}^{-1})$ moderately elicited the translocation of β -arrestin.

The superior tentacles were kept in the dark for 2 h, followed by illumination (400 nm or 600 nm) for 2 h. The data for 400 nm $(2.25 \times 10^{13} \text{ photons cm}^{-2}\text{sec}^{-1})$ and 600 nm $(2.25 \times 10^{13} \text{ photons cm}^{-2}\text{sec}^{-1})$ are reproduced from Fig. 5E. Error bars indicate \pm SE of the mean among 7 - 8 independent samples. **P < 0.01, *P < 0.05 by post hoc Scheffe tests.