



**Supplemental Figure S1.** Efficiency of DOR silencing. **(A)** Relative DOR mRNA expression in 2 retinal tissue after 1 month of injection with three different silencing constructions in control 3 animals. Construction 7797 presented an average reduction DOR mRNA of approximately 32%. The bars represent the mean  $\pm$  S.D. for the relative expression to control. **(B)** Representative photomicrograph of DOR in retinal tissue after 3 months of injection with construction 7797 presented an average reduction in DOR expression of 29%. DOR immunostaining (green) counterstained with the nuclei marker DAPI (blue), Magnification: 200X, Scale bars: 50  $\mu$ m. **(C)** Semiquantitative analyses of DOR immunofluorescence. The bars represent the mean  $\pm$  S.D. for the percentage of DOR-positive

per retinal area expressed as a percentage of variation relative to empty. **(D–F)** ERG analysis. The bars represent the mean  $\pm$  S.D. for the b-waves and the amplitudes of the a-wave and c-waves expressed in microvolts ( $\mu$ V). **(D)** a-wave negative deflection generated by the photoreceptor potentials; **(E)** b-wave positive deflection generated in part by the Müller and mainly by the bipolar cell potentials; **(F)** c-wave positive deflection generated by the RPE cells potentials. CT, control; shRNA constructs for the DOR gene 7801: TRCN0000027801 construction; 7797: TRCN0000027797 construction; 7842: TRCN0000027842 construction; NS, no significant statistical difference.