

**SUPPLEMENTAL FIGURE 1. Raw OCT and ERG sarpogrelate data. (A)**

Receptor plus thicknesses and total retinal thicknesses obtained from segmented horizontal SD-OCT scans were plotted versus retinal eccentricity from the optic nerve head for each animal. (B) A-wave and b-wave ERG amplitudes generated from each mouse were extracted from individual waveforms and plotted versus the light intensity of each flash. Three animals died after acquiring OCT images, but prior to ERG recordings. Injections followed the five-day time course with a six-hour light damage. Naïve (black), 50 mg/kg Sarpogrelate (red), 40 mg/kg Sarpogrelate (yellow), 30 mg/kg Sarpogrelate (purple), 15 mg/kg Sarpogrelate (green), 5 mg/kg Sarpogrelate (blue), Saline (gray).

**SUPPLEMENTAL FIGURE 2. 50 mg/kg sarpogrelate-injected mice generate a normal ERG waveform.**

Scotopic ERGs were performed after SD-OCT imaging. Each panel shows a representative ERG recording from individual mice in response to a series of light flashes at increasing intensity.

**SUPPLEMENTAL FIGURE 3. Raw OCT and ERG 8-OH-DPAT data. (A)**

Receptor plus thicknesses and total retinal thicknesses obtained from segmented horizontal SD-OCT scans were plotted versus retinal eccentricity from the optic nerve head for each animal. (B) A-wave and b-wave ERG amplitudes generated from each mouse were extracted from individual waveforms and plotted versus the light intensity of each flash. One animal died after acquiring OCT images, but prior to ERG recordings. Injections followed the five-day time course with a one-hour light damage. Naïve (black), 10 mg/kg 8-OH-DPAT (red), 1 mg/kg Sarpogrelate (blue), Saline (gray).