

Supplementary Figure 11

Immuno-fluorescence analysis of CACNA1A distribution within the ocular tissues. Panel A) CACNA1A staining was detected in the corneal epithelium (Epi), cornea endothelium (Endo) and corneal stroma. Panel B) Ocular expression of CACNA1A protein was found to be differently expressed in tissues involved in the aqueous humor outflow pathways with the highest level of immune-reactivity in the ciliary muscle (CM), followed by the iris dilator muscle (IDM), ciliary processes (CP), trabecular meshwork (TM), and Schlemm's canal (SC). No CACNA1A was detected in the sclera. Panel C) CACNA1A was expressed most abundantly in the iris sphincter muscle (ISM), followed by iris pigmented epithelium (IPE) and iris stroma. Panel D) CACNA1A expression was also observed in the lens epithelium (Lens Epi), but not in the lens fibers. Panel E) Strong immunofluorescence labeling of CACNA1A in the ganglion cell layer (GCL), inner nuclear layer (INL) and outer nuclear layer (ONL) was observed. Ubiquitous labeling of other retinal layers such as nerve fibers layer (NFL), rods and cones layer (RCL) and retinal pigment epithelium (RPE) was also detected.

