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Datasheet for ABIN350682
anti-OPN4 antibody (AA 2-70)

Overview

Quantity:	100 µL
Target:	OPN4
Binding Specificity:	AA 2-70
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This OPN4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Immunogen:	A synthetic peptide from AA 2-70 of mouse melanopsin conjugated to an immunogenic carrier protein was used as the antigen.
Specificity:	Specific for Melanopsin.
Cross-Reactivity:	Mouse
Cross-Reactivity (Details):	Other species not yet tested.
Purification:	Whole serum

Target Details

Target:	OPN4
Alternative Name:	Melanopsin (OPN4 Products)

Target Details

Background: Opsins are members of the guanine nucleotide-binding protein (G protein)-coupled receptor superfamily. This gene encodes a photoreceptive opsin protein that is expressed within the ganglion and amacrine cell layers of the retina. In mouse, retinal ganglion cell axons expressing this gene project to the suprachiasmatic nucleus and other brain nuclei involved in circadian photoentrainment. In mouse, this protein is coupled to a transient receptor potential (TRP) ion channel through a G protein signaling pathway and produces a physiologic light response via membrane depolarization and increased intracellular calcium. The protein functions as a sensory photopigment and may also have photoisomerase activity. Experiments with knockout mice indicate that this gene attenuates, but does not abolish, photoentrainment. Alternative splicing results in multiple transcript variants encoding different isoforms. **FUNCTION:** Photoreceptor required for regulation of circadian rhythm. Contributes to pupillar reflex and other non-image forming responses to light. May be able to isomerize covalently bound all-trans retinal back to 11-cis retinal. **SUBCELLULAR LOCATION:** Membrane, Multi-pass membrane protein. **Note:** Found in soma, dendrites and proximal part of axons of certain retinal ganglion cells. **TISSUE SPECIFICITY:** Eye. Expression is restricted within the ganglion and amacrine cell layers of the retina., Vision, Opsin-4, OPN4, MOP, Mopn

UniProt: [Q9QXZ9](#)

Application Details

Application Notes: IHC, WB. A dilution of 1 : 300 to 1 : 2000 is recommended. The optimal dilution should be determined by the end user. Not yet tested in other applications.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Reconstitute in 100 µL of sterile water. Centrifuge to remove any insoluble material.

Handling Advice: Avoid freeze and thaw cycles.

Storage: 4 °C/-20 °C

Storage Comment: Maintain the lyophilised/reconstituted antibodies frozen at -20°C for long term storage and refrigerated at 2-8°C for a shorter term. When reconstituting, glycerol (1:1) may be added for an additional stability. Avoid freeze and thaw cycles.

Expiry Date: 12 months