

**Anti-Panopsin Antibody**  
**Rabbit polyclonal antibody to Panopsin**  
**Catalog # AP60798****Specification**

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**Anti-Panopsin Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">O9H1Y3</a>
Other Accession	<a href="#">O9WUK7</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	44873

**Anti-Panopsin Antibody - Additional Information****Gene ID** 23596**Other Names**

ECPN; Opsin-3; Encephalopsin; Panopsin

**Target/Specificity**

Recognizes endogenous levels of Panopsin protein.

**Dilution**

WB~~WB (1/500 - 1/1000)

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**Anti-Panopsin Antibody - Protein Information****Name** OPN3**Synonyms** ECPN**Function**

G-protein coupled receptor which selectively activates G proteins via ultraviolet A (UVA) light-mediated activation in the skin (PubMed:<a href="http://www.uniprot.org/citations/28842328" target="\_blank">28842328</a>, PubMed:<a href="http://www.uniprot.org/citations/31380578" target="\_blank">31380578</a>, PubMed:<a href="http://www.uniprot.org/citations/31097585" target="\_blank">31097585</a>). Binds both 11-cis retinal and all-trans retinal (PubMed:<a href="http://www.uniprot.org/citations/31097585" target="\_blank">31097585</a>). Regulates melanogenesis in melanocytes via inhibition of

alpha-MSH-induced MC1R- mediated cAMP signaling, modulation of calcium flux, regulation of CAMK2 phosphorylation, and subsequently phosphorylation of CREB, p38, ERK and MITF in response to blue light (PubMed:<a href="http://www.uniprot.org/citations/28842328" target="\_blank">28842328</a>, PubMed:<a href="http://www.uniprot.org/citations/31097585" target="\_blank">31097585</a>). Plays a role in melanocyte survival through regulation of intracellular calcium levels and subsequent BCL2/RAF1 signaling (PubMed:<a href="http://www.uniprot.org/citations/31730232" target="\_blank">31730232</a>). Additionally regulates apoptosis via cytochrome c release and subsequent activation of the caspase cascade (PubMed:<a href="http://www.uniprot.org/citations/31730232" target="\_blank">31730232</a>). Required for TYR and DCT blue light-induced complex formation in melanocytes (PubMed:<a href="http://www.uniprot.org/citations/28842328" target="\_blank">28842328</a>). Involved in keratinocyte differentiation in response to blue-light (PubMed:<a href="http://www.uniprot.org/citations/30168605" target="\_blank">30168605</a>). Required for the UVA-mediated induction of calcium and mitogen-activated protein kinase signaling resulting in the expression of MMP1, MMP2, MMP3, MMP9 and TIMP1 in dermal fibroblasts (PubMed:<a href="http://www.uniprot.org/citations/31380578" target="\_blank">31380578</a>). Plays a role in light-mediated glucose uptake, mitochondrial respiration and fatty acid metabolism in brown adipocyte tissues (By similarity). May be involved in photorelaxation of airway smooth muscle cells, via blue-light dependent GPCR signaling pathways (By similarity).

### Cellular Location

Cell membrane; Multi-pass membrane protein. Cytoplasm

### Tissue Location

Expressed in tracheal airway smooth muscle (at protein level) (PubMed:30284927). Expressed throughout the epidermis and dermis, predominantly in the basal layer on the facial and abdominal skin (at protein level) (PubMed:30168605). Expressed in dermal fibroblasts (at protein level) (PubMed:31380578). Expressed in melanocytes (at protein level) (PubMed:28842328, PubMed:31097585, PubMed:31730232). Expressed in keratinocytes (PubMed:28842328) Expressed in the retina (PubMed:30284927)

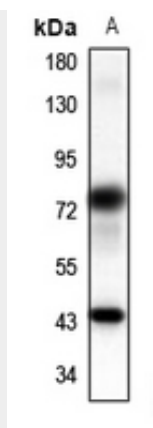
### Anti-Panopsin Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-Panopsin Antibody - Images





Western blot analysis of Panopsin expression in rat brain (A) whole cell lysates.

#### **Anti-Panopsin Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Panopsin. The exact sequence is proprietary.