

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

Anti-Panopsin Antibody - Product Information

Application	WB
Primary Accession	O9H1Y3
Other Accession	O9WUK7
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:28842328, PubMed:31097585, PubMed:31380578). Binds both 11-cis retinal and all-trans retinal (PubMed:31097585). 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:28842328, PubMed:31097585). Plays a role in melanocyte survival through regulation of intracellular calcium levels and subsequent BCL2/RAF1 signaling (PubMed:31730232). Additionally regulates apoptosis via cytochrome c release and subsequent activation of the caspase cascade (PubMed:31730232). Required for TYR and DCT blue light-induced complex formation in melanocytes (PubMed:28842328). Involved in keratinocyte differentiation in response to blue-light (PubMed:30168605). 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:31380578). 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

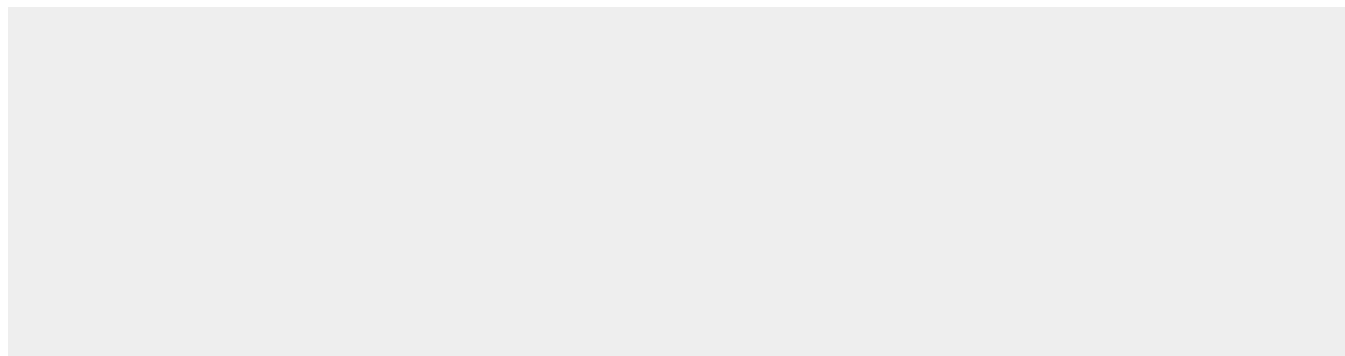
Expressed in tracheal airway smooth muscle (at protein level) (PubMed:30284927). Expressed throughout the epidermis and dermis, predominantly in the basal layer on the facial and abdominal skin (at protein level) (PubMed:30168605). Expressed in dermal fibroblasts (at protein level) (PubMed:31380578).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

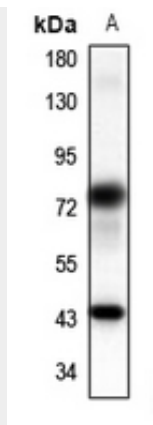
Anti-Panopsin Antibody - Protocols

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.