

Anti-Panopsin Antibody

Rabbit polyclonal antibody to Panopsin

Catalog # AP60798

Product Information

Application	WB
Primary Accession	Q9H1Y3
Other Accession	Q9WUK7
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	44873

Additional Information

Gene ID	23596
Other Names	ECPN; Opsin-3; Encephalopsin; Panopsin
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Panopsin. The exact sequence is proprietary.
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

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

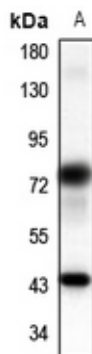
Tissue Location

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)

Background

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

Images



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

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