

Encephalopsin Polyclonal Antibody
Catalog # AP69737**Specification****Encephalopsin Polyclonal Antibody - Product Information**

Application	WB, IHC-P, IF
Primary Accession	Q9H1Y3
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal

Encephalopsin Polyclonal Antibody - Additional Information**Gene ID** 23596**Other Names**

OPN3; ECPN; Opsin-3; Encephalopsin; Panopsin

Dilution

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/5000. Not yet tested in other applications.
IHC-P~~N/A
IF~~1:50~200

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

Encephalopsin Polyclonal 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).

target="_blank">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)

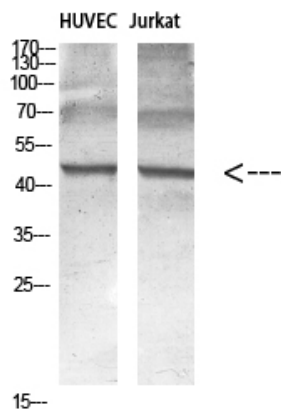
Encephalopsin Polyclonal Antibody - Protocols

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

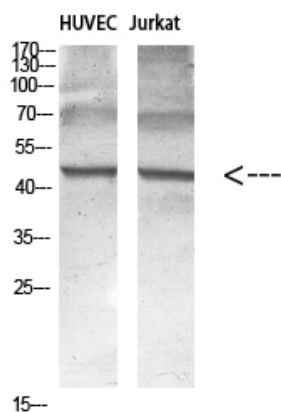
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Encephalopsin Polyclonal Antibody - Images





Western blot analysis of various cell Lysate, antibody was diluted at 1:1000. Secondary antibody was diluted at 1:20000



Western blot analysis of various cell Lysate, antibody was diluted at 1:1000. Secondary antibody was diluted at 1:20000

Encephalopsin Polyclonal Antibody - Background

May play a role in encephalic photoreception.