

Opn3 antibody - C-terminal region
Rabbit Polyclonal Antibody
Catalog # AI14464**Specification**

Opn3 antibody - C-terminal region - Product Information

Application	WB
Primary Accession	O9WUK7
Other Accession	NM_010098 , NP_034228
Reactivity	Human, Mouse, Rat, Rabbit, Horse, Guinea Pig, Dog
Predicted Host	Human, Mouse, Rat, Rabbit, Chicken, Dog
Clonality	Rabbit
Calculated MW	Polyclonal 45kDa kDa

Opn3 antibody - C-terminal region - Additional Information**Gene ID** 13603**Alias Symbol** ERO, Ecpr, MGC124138, panopsin
Other Names
Opsin-3, Encephalopsin, Panopsin, Opn3, Ecpr**Format**

Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage

Add 50 ul of distilled water. Final anti-Opn3 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.

Precautions

Opn3 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Opn3 antibody - C-terminal region - Protein Information**Name** Opn3**Synonyms** Ecpr**Function**G-protein coupled receptor which selectively activates G proteins via ultraviolet A (UVA) light-mediated activation in the skin (PubMed: [30284927](http://www.uniprot.org/citations/30284927)). Binds both 11-cis retinal and all-trans retinal (By similarity). 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 (By similarity). Plays a role in melanocyte survival through regulation of intracellular calcium levels and subsequent BCL2/RAF1 signaling (By similarity). Additionally regulates apoptosis via cytochrome c release and subsequent activation of the caspase cascade (By similarity). Required for TYR and DCT blue light-induced complex formation in melanocytes (By similarity). Involved in keratinocyte differentiation in response to blue-light (By similarity). 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 (By similarity). Plays a role in light- mediated glucose uptake, mitochondrial respiration and fatty acid metabolism in brown adipocyte tissues (PubMed:32040503). May be involved in photorelaxation of airway smooth muscle cells, via blue- light dependent GPCR signaling pathways (PubMed:30284927).

Cellular Location

Cell membrane {ECO:0000250|UniProtKB:Q9H1Y3}; Multi-pass membrane protein. Cytoplasm {ECO:0000250|UniProtKB:Q9H1Y3}

Tissue Location

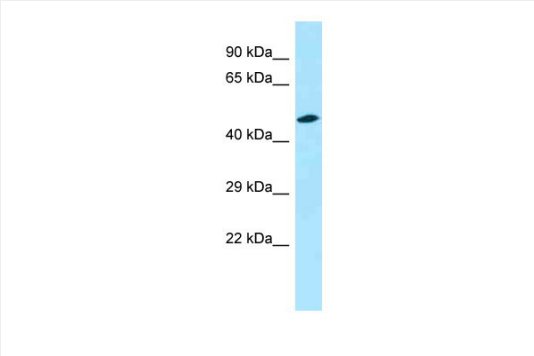
Expressed in the eye (at protein level) (PubMed:30284927). Expressed in tracheal airway smooth muscle (PubMed:30284927). Expressed in brown adipocyte tissue; expression becomes more abundant during differentiation (PubMed:32040503) Strongly expressed in brain (PubMed:10234000). Highly expressed in the preoptic area and paraventricular nucleus of the hypothalamus (PubMed:10234000). Shows highly patterned expression in other regions of the brain, being enriched in selected regions of the cerebral cortex, cerebellar Purkinje cells, a subset of striatal neurons, selected thalamic nuclei, and a subset of interneurons in the ventral horn of the spinal cord (PubMed:10234000)

Opn3 antibody - C-terminal region - 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](#)

Opn3 antibody - C-terminal region - Images



90 kDa
65 kDa
40 kDa
29 kDa
22 kDa

WB Suggested Anti-Opn3 Antibody Titration: 1.0 µg/ml
Positive Control: Mouse Small Intestine

Opn3 antibody - C-terminal region - References

Blackshaw S.,et al.J. Neurosci. 19:3681-3690(1999).
Kasper G.,et al.Gene 295:27-32(2002).
Carninci P.,et al.Science 309:1559-1563(2005).