

Product Name: Melanopsin Rabbit Polyclonal Antibody**Catalog #: APRab13815**

For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ELISA
Reactivity	Human,Rat,Mouse
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:50-1:300,ELISA 1:2000-1:20000
Molecular Weight	55kDa

Antigen Information

Gene Name	OPN4
Alternative Names	OPN4; MOP; Melanopsin; Opsin-4
Gene ID	94233.0
SwissProt ID	Q9UHM6
Immunogen	The antiserum was produced against synthesized peptide derived from human OPN4. AA range:429-478

Background

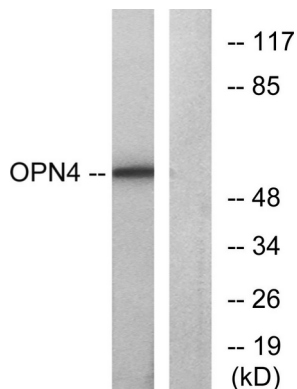
Opsins are members of the guanine nucleotide-binding protein (G protein)-coupled receptor superfamily. This gene encodes a

photoreceptive opsin protein that is expressed within the ganglion and amacrine cell layers of the retina. In mouse, retinal ganglion cell axons expressing this gene projected to the suprachiasmatic nucleus and other brain nuclei involved in circadian photoentrainment. In mouse, this protein is coupled to a transient receptor potential (TRP) ion channel through a G protein signaling pathway and produces a physiologic light response via membrane depolarization and increased intracellular calcium. The protein functions as a sensory photopigment and may also have photoisomerase activity. Experiments with knockout mice indicate that this gene attenuates, but does not abolish, photoentrainment. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by Refcaution: The sequence shown here is derived from an Ensembl automatic analysis pipeline and should be considered as preliminary data.,function: Photoreceptor required for regulation of circadian rhythm. Contributes to pupillar reflex and other non-image forming responses to light. May be able to isomerize covalently bound all-trans retinal back to 11-cis retinal.,similarity: Belongs to the G-protein coupled receptor 1 family.,similarity: Belongs to the G-protein coupled receptor 1 family. Opsin subfamily.,subcellular location: Found in soma, dendrites and proximal part of axons of certain retinal ganglion cells.,tissue specificity: Eye. Expression is restricted within the ganglion and amacrine cell layers of the retina.,

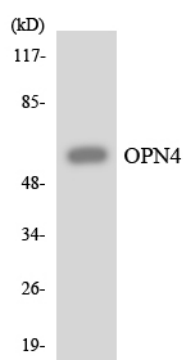
Research Area

Neuroscience; Sensory System; Visual system

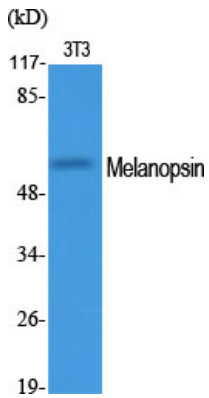
Image Data



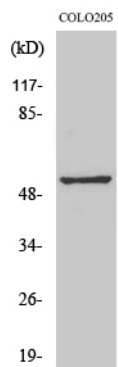
Western blot analysis of lysates from COLO cells, using OPN4 Antibody. The lane on the right is blocked with the synthesized peptide.



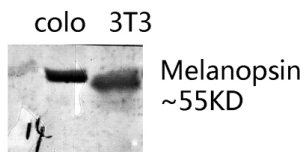
Western blot analysis of the lysates from HeLa cells using OPN4 antibody.



Western Blot analysis of various cells using Melanopsin Polyclonal Antibody



Western Blot analysis of COLO205 cells using Melanopsin Polyclonal Antibody



Western blot analysis of various lysis using Melanopsin Polyclonal Antibody.
Secondary antibody was diluted at 1:20000