



# Melanopsin Polyclonal Antibody

<b>Catalog No</b>	BYab-13414
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Rat;Mouse;
<b>Applications</b>	WB;ELISA;IHC
<b>Gene Name</b>	OPN4
<b>Protein Name</b>	Melanopsin
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human OPN4. AA range:429-478
<b>Specificity</b>	Melanopsin Polyclonal Antibody detects endogenous levels of Melanopsin protein.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	WB 1:500-2000;IHC-p 1:50-300; ELISA 2000-20000
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	OPN4; MOP; Melanopsin; Opsin-4
<b>Observed Band</b>	55kD
<b>Cell Pathway</b>	Cell membrane ; Multi-pass membrane protein . Cell projection, axon . Cell projection, dendrite . Perikaryon .
<b>Tissue Specificity</b>	Expressed in the retina.
<b>Function</b>	caution: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.,

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### 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 Ref

### matters needing attention

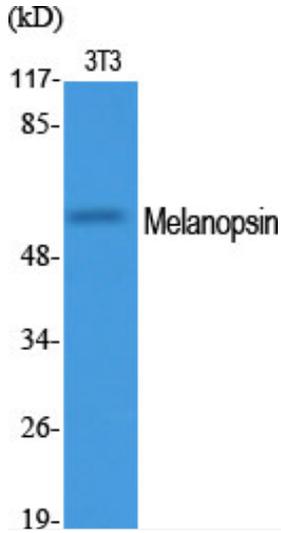
Avoid repeated freezing and thawing!

### Usage suggestions

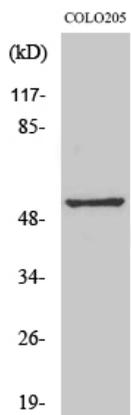
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



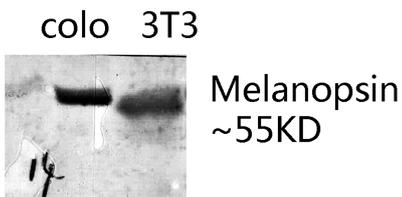
## Products Images



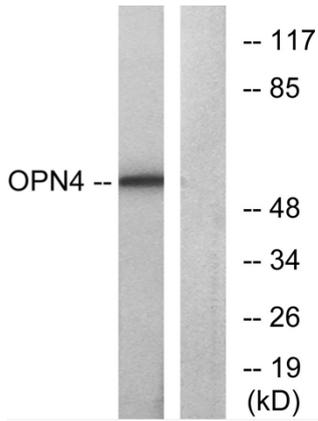
Western Blot analysis of various cells using Melanopsin Polyclonal Antibody



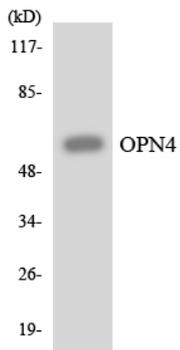
Western Blot analysis of COLO205 cells using Melanopsin Polyclonal Antibody



Western blot analysis of various lysis using Melanopsin Polyclonal Antibody. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



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.