

A16289

Leader in Biomolecular Solutions for Life Science



## OPN4 Rabbit pAb

Catalog No.: A16289

### Basic Information

#### Observed MW

53kDa

#### Calculated MW

53kDa

#### Category

Polyclonal Antibody

#### Applications

WB,IHC-P,ELISA

#### Cross-Reactivity

Human,Rat

### 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.

### Recommended Dilutions

**WB** 1:500 - 1:2000

**IHC-P** 1:50 - 1:200

**ELISA** Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.

### Immunogen Information

#### Gene ID

94233

#### Swiss Prot

Q9UHM6

#### Immunogen

Recombinant protein (or fragment). This information is considered to be commercially sensitive.

#### Synonyms

MOP; OPN4

### Contact

 [www.abclonal.com](http://www.abclonal.com)

### Product Information

#### Source

Rabbit

#### Isotype

IgG

#### Purification

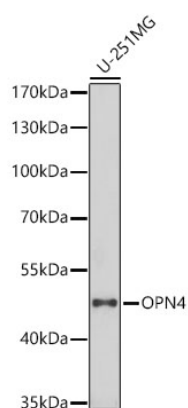
Affinity purification

#### Storage

Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS containing 50% glycerol, preserved with proclin300 or sodium azide (as specified on the Certificate of Analysis), pH 7.3.

## Validation Data



Western blot analysis of lysates from U-251MG cells, using OPN4 Rabbit pAb (A16289) at 1:1000 dilution.

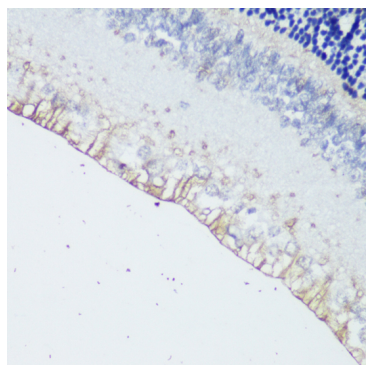
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.

Lysates/proteins: 25µg per lane.

Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

Exposure time: 90s.



Immunohistochemistry analysis of paraffin-embedded Rat retina using OPN4 Rabbit pAb (A16289) at dilution of 1:200 (40x lens).

Microwave antigen retrieval performed with 0.01M PBS Buffer (pH 7.2) prior to IHC staining.