

# Anti-Rhodopsin Rabbit Monoclonal Antibody

Catalog # ABO14005

## Product Information

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|--------------------------|----------------------------------------------------------------------------------------------------------------------|
| <b>Application</b>       | WB, IHC                                                                                                              |
| <b>Primary Accession</b> | <a href="#">P08100</a>                                                                                               |
| <b>Host</b>              | Rabbit                                                                                                               |
| <b>Isotype</b>           | Rabbit IgG                                                                                                           |
| <b>Reactivity</b>        | Rat, Human                                                                                                           |
| <b>Clonality</b>         | Monoclonal                                                                                                           |
| <b>Format</b>            | Liquid                                                                                                               |
| <b>Description</b>       | Anti-Rhodopsin Rabbit Monoclonal Antibody . Tested in WB, IHC applications.<br>This antibody reacts with Human, Rat. |

## Additional Information

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|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene ID</b>                  | 6010                                                                                                                                                                                  |
| <b>Other Names</b>              | Rhodopsin, Opsin-2, RHO, OPN2                                                                                                                                                         |
| <b>Calculated MW</b>            | 38893                                                                                                                                                                                 |
| <b>Application Details</b>      | WB 1:500-1:2000<br>IHC 1:50-1:200                                                                                                                                                     |
| <b>Subcellular Localization</b> | Membrane ; Multi-pass membrane protein. Synthesized in the inner segment (IS) of rod photoreceptor cells before vectorial transport to the rod outer segment (OS) photosensory cilia. |
| <b>Tissue Specificity</b>       | Rod shaped photoreceptor cells which mediates vision in dim light.                                                                                                                    |
| <b>Source</b>                   | Eukaryota                                                                                                                                                                             |
| <b>Contents</b>                 | Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.                                                                   |
| <b>Clone Names</b>              | Clone: AADI-18                                                                                                                                                                        |
| <b>Immunogen</b>                | A synthesized peptide derived from human Rhodopsin                                                                                                                                    |
| <b>Purification</b>             | Affinity-chromatography                                                                                                                                                               |
| <b>Storage</b>                  | Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.                                            |

## Protein Information

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| <b>Name</b> | RHO ( <a href="#">HGNC:10012</a> ) |
|-------------|------------------------------------|

**Synonyms**

OPN2

**Function**

G protein-coupled photoreceptor that activates the G protein transducin (t) signaling pathway in response to light and is essential for image-forming vision under low-light conditions (PubMed:[6140680](#), PubMed:[7846071](#), PubMed:[8107847](#)). Required for postnatal photoreceptor cell viability (PubMed:[12566452](#), PubMed:[2215617](#)). Activation occurs when the covalently bound 11-cis-retinal chromophore absorbs a photon and isomerizes to all-trans-retinal, inducing a conformational change in the opsin that triggers G protein-mediated phototransduction (Probable) (PubMed:[26200343](#), PubMed:[28753425](#), PubMed:[8107847](#)). Signal termination occurs via receptor phosphorylation, which promotes binding of arrestin (SAG) and displacement of the G protein alpha subunit (Probable) (PubMed:[26200343](#)).

**Cellular Location**

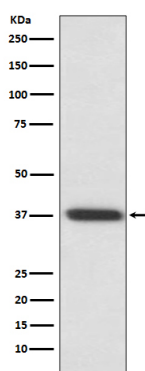
Photoreceptor outer segment membrane; Multi-pass membrane protein. Membrane; Multi-pass membrane protein Note=Synthesized in the inner segment (IS) of rod photoreceptor cells before vectorial transport to disk membranes in the rod outer segment (OS) photosensory cilia.

**Tissue Location**

Rod shaped photoreceptor cells which mediate vision in dim light.

**Images**

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Western blot analysis of Rhodopsin expression in rat eyeball lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.