

RHO Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP16977b**Specification****RHO Antibody (C-term) Blocking Peptide - Product Information**Primary Accession [P08100](#)**RHO Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 6010**Other Names**

Rhodopsin, Opsin-2, RHO, OPN2

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

RHO Antibody (C-term) Blocking Peptide - Protein Information**Name** RHO**Synonyms** OPN2**Function**

Photoreceptor required for image-forming vision at low light intensity (PubMed: <http://www.uniprot.org/citations/8107847> "target="_blank">8107847, PubMed: <http://www.uniprot.org/citations/7846071> "target="_blank">7846071). Required for photoreceptor cell viability after birth (PubMed: <http://www.uniprot.org/citations/7846071> "target="_blank">7846071).

RHO Antibody (C-term) Blocking Peptide - Background

Retinitis pigmentosa is an inherited progressive disease which is a major cause of blindness in western communities. It can be inherited as an autosomal dominant, autosomal recessive, or X-linked recessive disorder. In the autosomal dominant form, which comprises about 25% of total cases, approximately 30% of families have mutations in the gene encoding the rod photoreceptor-specific protein rhodopsin. This is the transmembrane protein which, when photoexcited, initiates the visual transduction cascade. Defects in this gene are also one of the causes of congenital stationary night blindness.

RHO Antibody (C-term) Blocking Peptide - References

Clark, G.R., et al. Ophthalmology 117(11):2169-2177(2010) Li, S., et al. Biochem. Biophys. Res. Commun. 401(1):42-47(2010) Pulagam, L.P., et al. J. Biol. Chem. 285(38):29446-29456(2010) Audo, I., et al. Arch. Ophthalmol. 128(8):1036-1045(2010) Audo, I., et al. Invest. Ophthalmol. Vis. Sci. 51(7):3687-3700(2010)

itations/2215617"
target="_blank">2215617,
PubMed:<a href="http://www.uniprot.org/ci
tations/12566452"
target="_blank">12566452). Light-
induced isomerization of the chromophore
11-cis-retinal to all-trans- retinal triggers a
conformational change that activates
signaling via G-proteins (PubMed:<a href="http://www.uniprot.org/citations/8107847"
target="_blank">8107847,
PubMed:<a href="http://www.uniprot.org/ci
tations/28524165"
target="_blank">28524165,
PubMed:<a href="http://www.uniprot.org/ci
tations/26200343"
target="_blank">26200343,
PubMed:<a href="http://www.uniprot.org/ci
tations/28753425"
target="_blank">28753425).
Subsequent receptor phosphorylation
mediates displacement of the bound
G-protein alpha subunit by the arrestin SAG
and terminates signaling (PubMed:<a href="http://www.uniprot.org/citations/28524165"
target="_blank">28524165,
PubMed:<a href="http://www.uniprot.org/ci
tations/26200343"
target="_blank">26200343).

Cellular Location

Membrane; Multi-pass membrane protein.
Cell projection, cilium, photoreceptor outer
segment. 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

RHO Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you
may find useful for product applications.

- [Blocking Peptides](#)