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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:8107847, PubMed:7846071). Required for photoreceptor cell viability after birth (PubMed:2215617, PubMed: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:8107847, PubMed:28524165, PubMed:26200343, PubMed:28753425). Subsequent receptor phosphorylation mediates displacement of the bound G-protein alpha subunit by the arrestin SAG and terminates signaling (PubMed:28524165, PubMed: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

RHO Antibody (C-term) Blocking Peptide - Images

RHO Antibody (C-term) Blocking Peptide - Background

Retinitis pigmentosa is an inherited progressive diseasewhich is a major cause of blindness in western communities. It canbe inherited as an autosomal dominant, autosomal recessive, orX-linked recessive disorder. In the autosomal dominant form,whichcomprises about 25% of total cases, approximately 30% of familieshave mutations in the gene encoding the rod photoreceptor-specificprotein rhodopsin. This is the transmembrane protein which, whenphotoexcited, initiates the visual transduction cascade. Defects inthis gene are also one of the causes of congenital stationary nightblindness.

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)