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GRK1 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP7003a

Specification

GRK1 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q15835

GRK1 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 6011

Other Names
Rhodopsin kinase, RK, G protein-coupled receptor kinase 1, GRK1, RHOK

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7003a was selected from the C-term region of human GRK1 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

GRK1 Antibody (C-term) Blocking Peptide - Protein Information

Name GRK1 (HGNC:10013)

Synonyms RHOK

GRK1 Antibody (C-term) Blocking Peptide - Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The AGC kinase group consists of 63 kinases including the cyclic nucleotide-regulated protein kinase (PKA & PKG) family, the diacylglycerol-activated/phospholipid-dependent protein kinase C (PKC) family, the related to PKA and PKC (RAC/Akt) protein kinase family, the kinases that phosphorylate G protein-coupled receptors family (ARK), and the kinases that phosphorylate ribosomal protein S6 family (RSK).The AGC kinase group consists of 63 kinases including the cyclic nucleotide-regulated protein kinase (PKA & PKG) family, the diacylglycerol-activated/phospholipid-dependent protein kinase C (PKC) family, the related to PKA and PKC (RAC/Akt) protein kinase family, the kinases that phosphorylate G protein-coupled receptors family (ARK), and the kinases that phosphorylate ribosomal protein S6 family (RSK).

GRK1 Antibody (C-term) Blocking Peptide - References

Zhao, X., et al., J. Biol. Chem. 273(9):5124-5131 (1998).Zhao, X., et al., Vis. Neurosci. 14(2):225-232 (1997).Yamamoto, S., et al., Nat. Genet. 15(2):175-178 (1997).Khani,

Function
Retina-specific kinase involved in the signal turnoff via phosphorylation of rhodopsin (RHO), the G protein- coupled receptor that initiates the phototransduction cascade (PubMed:15946941). This rapid desensitization is essential for scotopic vision and permits rapid adaptation to changes in illumination (By similarity). May play a role in the maintenance of the outer nuclear layer in the retina (By similarity).

Cellular Location
Membrane {ECO:0000250|UniProtKB:P28327}; Lipid-anchor {ECO:0000250|UniProtKB:P28327}. Cell projection, cilium, photoreceptor outer segment {ECO:0000250|UniProtKB:Q9WVL4} Note=Subcellular location is not affected by light or dark conditions {ECO:0000250|UniProtKB:Q9WVL4}

Tissue Location
Retinal-specific. Expressed in rods and cones cells.

GRK1 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

S.C., et al., Genomics 35(3):571-576 (1996).Lorenz, W., et al., Proc. Natl. Acad. Sci. U.S.A. 88(19):8715-8719 (1991).