

GRK1 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP7003a**Specification**

GRK1 Antibody (C-term) Blocking Peptide - Product InformationPrimary 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](/product/products/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**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](http://www.uniprot.org/citations/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](#)

GRK1 Antibody (C-term) Blocking Peptide - Images**GRK1 Antibody (C-term) Blocking Peptide - Background**

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the γ 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, 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).