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PRK2 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP7939a

Specification

PRK2 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q16513

PRK2 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 5586

Other Names
Serine/threonine-protein kinase N2, PKN gamma, Protein kinase C-like 2, Protein-kinase C-related kinase 2, PKN2, PRK2, PRKCL2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7939a was selected from the C-term region of human PRK2 . 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.

PRK2 Antibody (C-term) Blocking Peptide - Protein Information

Name PKN2

Synonyms PRK2, PRKCL2

Function
PKC-related serine/threonine-protein kinase and Rho/Rac effector protein that participates in specific signal transduction responses in the cell. Plays a role in the regulation of cell cycle progression, actin cytoskeleton assembly, cell migration, cell adhesion, tumor cell invasion and transcription activation signaling processes. Phosphorylates CTTN in hyaluronan-induced astrocytes and hence decreases CTTN ability to associate with filamentous actin. Phosphorylates HDAC5, therefore lead to impair HDAC5 import. Direct RhoA target required for the regulation of the maturation of primordial junctions into apical junction formation in bronchial epithelial cells. Required for G2/M phases of the cell cycle progression and abscission during cytokinesis in a ECT2-dependent manner. Stimulates FYN kinase activity that is required for establishment of skin

cell-cell adhesion during keratinocytes differentiation. Regulates epithelial bladder cells speed and direction of movement during cell migration and tumor cell invasion. Inhibits Akt pro-survival-induced kinase activity. Mediates Rho protein-induced transcriptional activation via the c-fos serum response factor (SRF). Involved in the negative regulation of ciliogenesis (PubMed:27104747).

Cellular Location
Cytoplasm. Nucleus Membrane {ECO:0000250|UniProtKB:Q8BWW9}. Cell projection, lamellipodium. Cytoplasm, cytoskeleton. Cleavage furrow. Midbody Cell junction. Note=Colocalizes with PTPN13 in lamellipodia-like structures, regions of large actin turnover. Accumulates during telophase at the cleavage furrow and concentrates finally around the midbody in cytokinesis. Recruited to nascent cell-cell contacts at the apical surface of cells. In the course of viral infection, colocalizes with HCV NS5B at perinuclear region in the cytoplasm.

Tissue Location
Ubiquitous. Expressed in numerous tumor cell lines, especially in bladder tumor cells.

PRK2 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

PRK2 Antibody (C-term) Blocking Peptide - Images

PRK2 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 calcium/calmodulin-dependent kinase (CAMK) group consists of 75 kinases regulated by Ca2+/CaM and close relative family (CAMK, CAMKL, DAPK, MAPKAPK).

PRK2 Antibody (C-term) Blocking Peptide - References

Yu, W., et al., J. Biol. Chem. 272(15):10030-10034 (1997).Palmer, R.H., et al., FEBS Lett. 356(1):5-8 (1994).Palmer, R.H., et al., Eur. J. Biochem. 227 (1-2), 344-351 (1995).