10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Mouse Prkci Antibody (N-term) Blocking peptide

Synthetic peptide
Catalog # BP14140a

Specification

Mouse Prkci Antibody (N-term) Blocking peptide - Product Information

Primary Accession Q62074

Mouse Prkci Antibody (N-term) Blocking peptide - Additional Information

Gene ID 18759

Other Names
Protein kinase C iota type, Atypical protein kinase C-lambda/iota, aPKC-lambda/iota, nPKC-iota, Prkci, Pkcl

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP14140a was selected from the N-term region of Mouse Prkci. 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.

Mouse Prkci Antibody (N-term) Blocking peptide - Protein Information

Name Prkci

Synonyms Pkcl

Function
Calcium- and diacylglycerol-independent serine/ threonine- protein kinase that plays a general protective role against apoptotic stimuli, is involved in NF-kappa-B activation, cell survival, differentiation and polarity, and contributes to the regulation of microtubule dynamics in the early secretory pathway. Is necessary for BCR-ABL oncogene-mediated resistance to apoptotic drug in leukemia cells, protecting leukemia cells against drug-induced apoptosis. In cultured neurons, prevents amyloid beta protein-induced apoptosis by interrupting cell death process at a very early step. In glioblastoma cells, may function downstream of phosphatidylinositol 3-kinase (PI3K) and PDPK1 in the promotion of cell survival by phosphorylating and inhibiting the pro-apoptotic factor BAD. Can form a protein complex in non-small cell lung cancer (NSCLC) cells with PARD6A and ECT2 and regulate ECT2 oncogenic activity by phosphorylation, which in turn promotes

transformed growth and invasion. In response to nerve growth factor (NGF), acts downstream of SRC to phosphorylate and activate IRAK1, allowing the subsequent activation of NF-kappa-B and neuronal cell survival. Functions in the organization of the apical domain in epithelial cells by phosphorylating EZR. This step is crucial for activation and normal distribution of EZR at the early stages of intestinal epithelial cell differentiation. Forms a protein complex with LLGL1 and PARD6B independently of PARD3 to regulate epithelial cell polarity. Plays a role in microtubule dynamics in the early secretory pathway through interaction with RAB2A and GAPDH and recruitment to vesicular tubular clusters (VTCs). In human coronary artery endothelial cells (HCAEC), is activated by saturated fatty acids and mediates lipid-induced apoptosis (By similarity). Downstream of PI3K is required for insulin-stimulated glucose transport. Activates RAB4A and promotes its association with KIF3A which is required for the insulin-induced SLC2A4/GLUT4 translocation in adipocytes. Is essential in early embryogenesis and development of differentiating photoreceptors by playing a role in the establishment of epithelial and neuronal polarity. Involved in early synaptic long term potentiation phase in CA1 hippocampal cells and short term memory formation (By similarity).

Cellular Location
Cytoplasm {ECO:0000250|UniProtKB:P41743}. Membrane {ECO:0000250|UniProtKB:P41743}. Endosome {ECO:0000250|UniProtKB:P41743}. Nucleus {ECO:0000250|UniProtKB:P41743}
Note=Transported into the endosome through interaction with SQSTM1/p62 After phosphorylation by SRC, transported into the nucleus through interaction with KPNB1. Colocalizes with CDK7 in the cytoplasm and nucleus. Transported to vesicular tubular clusters (VTCs) through interaction with RAB2A. {ECO:0000250|UniProtKB:P41743}

Mouse Prkci Antibody (N-term) Blocking peptide - Protocols

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

- Blocking Peptides

Mouse Prkci Antibody (N-term) Blocking peptide - Images

Mouse Prkci Antibody (N-term) Blocking peptide - Background

Calcium-independent, phospholipid-dependent, serine-and threonine-specific kinase. May play a role in the secretory response to nutrients. Involved in cell polarization processes and the formation of epithelial tight junctions. Implicated in the activation of several signaling pathways including Ras, c-Src and NF-kappa-B pathways. Functions in both pro-and anti-apoptotic pathways. Functions in the RAC1/ERK signaling required for transformed growth. Plays a role in microtubule dynamics through interaction with RAB2A and GAPDH and recruitment to vesicular tubular clusters (VTCs) (By similarity).

Mouse Prkci Antibody (N-term) Blocking peptide - References

Sottocornola, R., et al. Dev. Cell 19(1):126-137(2010)Gao, N., et al. Genes Dev. 24(12):1295-1305(2010)Kim, S., et al. Neuron 66(1):69-84(2010)Yamada, M., et al. Dev. Dyn. 239(3):941-953(2010)Wang, J., et al. Dev. Cell 18(1):114-125(2010)