

Recombinant Mouse Prkci Protein, Myc/DDK-tagged

Cat. No. Prkci-5122M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length protein kinase C, iota (Prkci), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	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

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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. 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.

Molecular Mass	67.2 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Prkci protein kinase C, iota [Mus musculus (house mouse)]
Official Symbol	Prkci

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Synonyms	PRKCI; protein kinase C, iota; protein kinase C iota type; nPKC-iota; aPKC-lambda/iota; protein kinase C, lambda; atypical protein kinase C-lambda/iota; Pkci; Pkcl; Prkcl; AI427505; PKClambda; mKIAA4165; aPKClambda; 2310021H13Rik; KIAA4165
Gene ID	18759
mRNA Refseq	NM_008857
Protein Refseq	NP_032883
UniProt ID	Q62074

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