Applications

WB,ELISA



KPCI Rabbit pAb

CatalogNo: YN1878

Key Features

Host Species Reactivity

Rabbit
Human, Mouse, Rat

MW Isotype • 65kD (Observed) • IgG

Recommended Dilution Ratios

WB 1:500-2000 ELISA 1:5000-20000

Storage

Storage* -15°C to -25°C/1 year(Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen Synthesized peptide derived from part region of human protein

Specificity KPCI Polyclonal Antibody detects endogenous levels of protein.

| Target Information

Gene name PRKCI DXS1179E

Protein Name

Protein kinase C iota type (Atypical protein kinase C-lambda/iota) (PRKC-lambda/iota) (aPKC-lambda/iota) (nPKC-iota)

Organism	Gene ID	UniProt ID
Human	<u>5584;</u>	<u>P41743;</u>
Mouse		<u>Q62074;</u>
Rat		<u>F1M7Y5</u> ;

Cellular Localization

Cytoplasm . Membrane . Endosome . Nucleus . 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. .

Tissue specificity Predominantly expressed in lung and brain, but also expressed at lower levels in many tissues including pancreatic islets. Highly expressed in non-small cell lung cancers.

Function

Catalytic activity:ATP + a protein = ADP + a phosphoprotein.,Domain:The C1 domain does not bind diacylglycerol (DAG)., Domain: The OPR domain mediates interaction with SQSTM1.,enzyme regulation: Might be a target for novel lipid activators that are elevated during nutrient-stimulated insulin secretion. Two specific sites, Thr-412 (activation loop of the kinase domain) and Thr-564 (turn motif), need to be phosphorylated for its full activation (By similarity). Atypical PCKs are not regulated by diacylglycerol, phorbol esters nor calcium ions., Function: 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).,PTM:On neuronal growth factor (NGF) stimulation, phosphorylated by Src on Tyr-265, Tyr-280 and Tyr-334. Phosphorylation on Tyr-265 facilitates binding to KPNB1/importin-beta regulating entry of PRKCI into the nucleus. Phosphorylation on Tyr-334 is important for NF-kappa-B stimulation...similarity:Belongs to the protein kinase superfamily, AGC Ser/Thr protein kinase family. PKC subfamily., similarity: Contains 1 AGC-kinase C-terminal domain., similarity: Contains 1 OPR domain., similarity: Contains 1 phorbol-ester/DAG-type zinc finger., similarity: Contains 1 protein kinase domain., subcellular location: Transported into the endosome through interaction with SQSTM1/p62. After phosphorylation by cSrc, transported into the nucleus through interaction with KPNB1. Colocalizes with CDK7 in the cytoplasm and nucleus. Vesicular tubular clusters. Transported to VTCs through interaction with RAB2A., subunit: Forms a complex with SQSTM1 and MP2K5 (By similarity). Interacts directly with SOSTM1 (Probable). Interacts with IKBKB. Interacts with PARD6A, PARD6B and PARD6G. Part of a quaternary complex containing aPKC, PARD3, a PARD6 protein (PARD6A, PARD6B or PARD6G) and a GTPase protein (CDC42 or RAC1). Part of a complex with LLGL1 and PARD6B. Interacts with ADAP1/CENTA1. Interaction with SMG1, through the ZN-finger domain, activates the kinase activity. Interacts with CDK7. Forms a complex with RAB2A and GAPDH involved in recruitment onto the membrane of vesicular tubular clusters (VTCs).,tissue specificity:Predominantly expressed in lung and brain, but also expressed at lower levels in many tissues including pancreatic islets. Highly expressed in non-small cell lung cancers.,

Validation Data

| Contact information

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Please scan the QR code to access additional product information: **KPCI Rabbit pAb**

For Research Use Only. Not for Use in Diagnostic Procedures.

Antibody | ELISA Kits | Protein | Reagents