

# Recombinant Human PKC iota/PRKCI Protein (GST Tag)



Catalog Number:PKSH030411

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

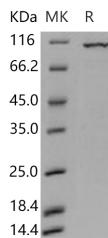
## Description

Synonyms	DXS1179E;nPKC-iota;PKCI
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met 10-Val 596
Accession	NP_002731.4
Calculated Molecular Weight	93.5 kDa
Observed molecular weight	100 kDa
Tag	C-GST

## Properties

Purity	> 88 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per $\mu$ g of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C.
Formulation	Supplied as sterile solution of 50mM Tris, 100mM NaCl, 0.5mM GSH, 0.5mM PMSF, 10% glycerol, pH 7.4
Reconstitution	Not Applicable

## Data



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## Background

Protein kinase C iota type, also known as Atypical protein kinase C-lambda/iota, aPKC-lambda/iota and PRKCI, is a cytoplasm, membrane and nucleus protein which belongs to the protein kinase superfamily, AGC Ser/Thr protein kinase family and PKC subfamily. PRKCI contains one AGC-kinase C-terminal domain, one OPR domain, one phorbol-ester/DAG-type zinc finger and one protein kinase domain. PRKCI is predominantly expressed in lung and brain, but also expressed at lower levels in many tissues including pancreatic islets. It is highly expressed in non-small cell lung cancers. PRKCI is a calcium-independent, phospholipid-dependent, serine- and threonine-specific kinase. It may play a role in the secretory response to nutrients. PRKCI is involved in cell polarization processes and the formation of epithelial tight junctions. It is implicated in the activation of several signaling pathways including Ras, c-Src and NF-kappa-B pathways. PRKCI functions in both pro- and anti-apoptotic pathways. It functions in the RAC1/ERK signaling required for transformed growth. PRKCI plays a role in microtubule dynamics through interaction with RAB2A and GAPDH and recruitment to vesicular tubular clusters (VTCs). PRKCI might be a target for novel lipid activators that are elevated

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during nutrient-stimulated insulin secretion.

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