



Recombinant Protein Technical Manual

Recombinant Human PKC iota/PRKCI Protein (GST Tag)

RPES1871

Product Data:

Product SKU: RPES1871

Size: 20µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: NP_002731.4

Protein Information:

Molecular Mass: 93.5 kDa

AP Molecular Mass: 100 kDa

Tag: C-GST

Bio-activity:

Purity: > 88 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg 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 50mM Tris, 100mM NaCl, 0.5mM GSH, 0.5mM PMSF, 10% glycerol, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: DXS1179E;nPKC-iota;PKCI

Immunogen Information:

Sequence: Met 10-Val 596

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 during nutrient-stimulated insulin secretion.