

Active Recombinant Human Protein Kinase C, Delta, His-tagged

Cat. No. PRKCD-61H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant Human Protein Kinase C, Delta produced in Sf9 is a glycosylated, polypeptide chain containing amino acids 2-676 and having a molecular mass of 80 KD. This protein is the full-length form of the protein with an amino terminal poly His-tag. PKC- δ is purified by proprietary chromatographic techniques.

Species

Human

Source

Sf9 Cells

Protein Length

2-676 a.a.

Description

Protein kinase C (PKC) is a family of serine- and threonine-specific protein kinases that can be activated by calcium and the second messenger diacylglycerol. PKC family members phosphorylate a wide variety of protein targets and are known to be involved in diverse cellular signaling pathways. PKC family members also serve as major receptors for phorbol esters, a class of tumor promoters. Each member of the PKC family has a specific expression profile and is believed to play distinct roles in cells. The protein encoded by this gene is one of the PKC family members. Studies both in human and mice demonstrate that this kinase is involved in B cell signaling and in the regulation of growth, apoptosis, and differentiation of a variety of cell types. Alternatively spliced transcript variants encoding the same protein have been observed.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Physical Appearance	Sterile Filtered clear solution.
Unit Definition	The Unit Definition is 1160 units/mg. One unit of PKC δ activity transfers 1 nmole of phosphate to a MARCKS protein per minute at 30°C. Recombinant human active PKC δ also phosphorylates full length myelin basic protein, histone, Rad9, MUC1, SRF, eEF-1 α Stat3, hsp-27, and PKC α and PKC ϵ pseudosubstrates. Activity requires incubation with lipid activators but not calcium, and may vary depending on the substrate and reaction conditions. The optimal concentration should be determined for each specific application. PKC δ is involved in B-cell signaling, and in the regulation of growth, apoptosis, and redox responses. PKC δ can be phosphorylated by src tyrosine kinases.
Purity	Greater than 90% as determined by SDS-PAGE.
Formulation	PKC- δ is supplied at a of 0.1mg/ml in 10mM Tris, pH 7.4, 0.1M NaCl, 20% glycerol, 1mM DTT, 0.1mM EDTA, 0.2mM PMSF and 0.03% Brij-35.
Storage	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Avoid multiple freeze-thaw cycles.
GENE INFORMATION	
Gene Name	PRKCD protein kinase C, delta [Homo sapiens]
Synonyms	PRKCD; protein kinase C, delta; MAY1; PKCD; MGC49908; nPKC-delta;Protein kinase C delta type;EC2.7.11.13; protein kinase C delta VIII
Gene ID	5580
mRNA Refseq	NM_006254

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Protein Refseq	NP_006245
UniProt ID	Q05655
Chromosome Location	3p21.31
MIM	176977
Pathway	Chemokine signaling pathway; Fc epsilon RI signaling pathway; Fc gamma R-mediated phagocytosis; GnRH signaling pathway; Neurotrophin signaling pathway; Tight junction; Type II diabetes mellitus; Vascular smooth muscle contraction; Apoptosis; Signalling by NGF
Function	ATP binding; calcium-independent protein kinase C activity; enzyme activator activity; enzyme binding; insulin receptor substrate binding; metal ion binding; nucleotide binding; protein C-terminus binding; transferase activity; zinc ion binding
PDB rendering based on 1bdy.	