

Protein Kinase Cζ isozyme from human, Recombinant

Cat. No. NATE-0625

Lot. No. (See product label)

Introduction

Description

Protein Kinase C (PKC) is a serine/threonine kinase that is activated intracellularly by signal transduction pathways that produce DAG from phosphatidylinositol diphosphate (PIP2) and phosphatidylcholine (PC) through the action of various activated phospholipases. Phorbol esters also stimulate PKC. At least 11 PKC isozymes have been identified that differ in primary structure, tissue distribution, subcellular localization, response to extracellular signals, and substrate specificity. The isozymes can be grouped into three subfamilies. Members of the first family require Ca²⁺ and phospholipid and include PKCα, βI, βII, and γ. Members of the second family are phospholipid-dependent but Ca²⁺-independent, and include PKCδ, ε, η, and θ. Members of the third family are not activated by either DAG or phorbol esters and include PKCξ, μ, and ι.

Synonyms

PRKCZ; protein kinase C, zeta; protein kinase C zeta type; PKC2; PKC-ZETA; EC 2.7.1.37

Product Information

Species

Human

Source

Baculovirus infected insect cells

Form

buffered aqueous solution; Solution in 20 mM HEPES, pH 7.5; 2 mM EDTA, 2 mM EGTA, 5 mM DTT, 250 mM NaCl, 0.05% Triton X-100, and 50% glycerol.

EC Number

EC 2.7.1.37

Molecular Weight

mol wt 76-80 kDa by SDS-PAGE

Purity

> 75% (SDS-PAGE)

Pathway

CDC42 signaling events, organism-specific biosystem; CXCR4-mediated signaling events, organism-specific biosystem; Calcium Regulation in the Cardiac Cell, organism-specific biosystem; Ceramide signaling pathway, organism-specific biosystem; Chemokine signaling pathway, organism-specific biosystem; Chemokine signaling pathway, conserved biosystem; EGFR1 Signaling Pathway, organism-specific biosystem

Function

ATP binding; insulin receptor substrate binding; metal ion binding; nucleotide binding; protein binding; protein kinase C activity; protein kinase activity; protein serine/threonine kinase activity; zinc ion binding

Storage and Shipping Information

Storage

−70°C