

Protein Kinase CβI isozyme from human, Recombinant

Cat. No. NATE-0621

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

PRKCB; PKCB; PRKCB1; PRKCB2; protein kinase C, beta 1; protein kinase C beta type; PKC-beta; EC 2.7.1.37

Product Information

Species

Human

Source

Baculovirus infected insect cells

Form

buffered aqueous glycerol solution; Solution in 20 mM HEPES, pH 7.4; 2 mM EDTA, 2 mM EGTA, 5 mM DTT, 100 mM NaCl, 0.05% Triton X-100, and 50% glycerol.

EC Number

EC 2.7.1.37

Molecular Weight

apparent mol wt 79-80 kDa

Purity

> 95% (SDS-PAGE)

Pathway

Activation of NF-kappaB in B Cells, organism-specific biosystem; Adaptive Immune System, organism-specific biosystem; African trypanosomiasis, organism-specific biosystem; African trypanosomiasis, conserved biosystem; Aldosterone-regulated sodium reabsorption, organism-specific biosystem; Aldosterone-regulated sodium reabsorption, conserved biosystem; Amoebiasis, organism-specific biosystem

Function

ATP binding; androgen receptor binding; chromatin binding; histone binding; histone kinase activity (H3-T6 specific); ligand-dependent nuclear receptor transcription coactivator activity; metal ion binding; nucleotide binding; protein binding; protein kinase C activity; protein kinase C binding; zinc ion binding

Unit Definition

One unit will transfer 1 nmol of phosphate to histone H1 in 1 min at pH 7.4 at 30°C.

Storage and Shipping Information

Storage

-70°C