Creative Enzymes®

Protein Kinase CβII isozyme from human, Recombinant

Cat. No. NATE-0622

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	calculated mol wt 76.9 kDa; mol wt 80 kDa by SDS-PAGE
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 H3 in 1 min at pH 7.4 at 30°C.

Storage and Shipping Information

Storage	−70°C