Creative Enzymes®

Protein Kinase Cε isozyme human, Recombinant

Cat. No. NATE-0575

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	PRKCE; protein kinase C, epsilon; protein kinase C epsilon type; PKCE; nPKC-epsilon; Ca2+-activated phospholipid-dependent serine-threonine kinase, ε isozyme human; PKCε human; PKCε; EC 2.7.1.37

Product Information

Species	Human
Source	baculovirus infected insect cells
Form	buffered aqueous glycerol solution
EC Number	EC 2.7.1.37
Molecular Weight	apparent mol wt 89-96 kDa
Purity	>95% (SDS-PAGE)
Buffer	Solution in 20mM HEPES, pH 7.4; 2mM EDTA, 2 mM EGTA, 5mM DTT, 100 mM NaCl, 0.05% Triton X-100, and 50% glycerol
Pathway	B Cell Receptor Signaling Pathway, organism-specific biosystem; CDC42 signaling events, organism-specific biosystem; Calcium Regulation in the Cardiac Cell, organism-specific biosystem; DAG and IP3 signaling, organism-specific biosystem; Disease, organism-specific biosystem; Downstream signal transduction, organism-specific biosystem; Downstream signaling in naive CD8+ T cells, organism-specific biosystem
Function	ATP binding; SH3 domain binding; actin monomer binding; calcium-independent protein kinase C activity; enzyme activator activity; enzyme binding; ethanol binding; metal ion binding; nucleotide binding; protein kinase C activity; protein kinase binding; receptor activator activity; signal transducer activity
Unit Definition	One unit will transfer 1 nmol of phosphate to PKC ε substrate peptide in 1 min at pH 7.4 at 30°C.

Storage and Shipping Information

Storage	−70°C