

Protein Kinase C η isozyme human, Recombinant

Cat. No. NATE-0576

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 PKC α , β I, β II, and γ . Members of the second family are phospholipid-dependent but Ca²⁺-independent, and include PKC δ , ϵ , η , and θ . Members of the third family are not activated by either DAG or phorbol esters and include PKC ξ , μ , and ι .

Synonyms

PRKCH; Ca²⁺-activated phospholipid-dependent serine-threonine kinase η isozyme human; PKC η human; PKCH; 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

mol wt 82-84 kDa by SDS-PAGE

Purity

> 90% (SDS-PAGE)

Buffer

Solution in 20 mM HEPES, pH 7.4, 2 mM EDTA, 2 mM EGTA, 5 mM DTT, 250 mM NaCl, 0.05% Triton X-100, and 50% glycerol.

Pathway

Calcium Regulation in the Cardiac Cell, organism-specific biosystem; Effects of PIP₂ hydrolysis, organism-specific biosystem; Endothelins, organism-specific biosystem; G Protein Signaling Pathways, organism-specific biosystem; G alpha (q) signalling events, organism-specific biosystem; G alpha (z) signalling events, organism-specific biosystem; GPCR downstream signaling, organism-specific biosystem

Function

ATP binding; enzyme binding; metal ion binding; nucleotide binding; protein kinase C 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