Creative Enzymes®

# Protein Kinase Cη 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 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*** | PRKCH; Ca2+-activated phospholipid-dependent serine-threonine kinase η isozyme human; PKCη 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 |