

## Protein kinase Cy isozyme from human, Recombinant

Cat. No. NATE-0624

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  $\text{Ca}^{2+}$  and phospholipid and include PKC $\alpha$ ,  $\beta$ I,  $\beta$ II, and  $\gamma$ . Members of the second family are phospholipid-dependent but  $\text{Ca}^{2+}$ -independent, and include PKC $\delta$ ,  $\epsilon$ ,  $\eta$ , and  $\theta$ . Members of the third family are not activated by either DAG or phorbol esters and include PKC $\xi$ ,  $\mu$ , and  $\iota$ .

#### Synonyms

PRKCG; protein kinase C, gamma; protein kinase C gamma type; PKC-gamma; PKCC; PKCG; SCA14; 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, 250 mM NaCl, 0.05% Triton X-100, and 50% glycerol.

#### EC Number

EC 2.7.1.37

#### Molecular Weight

mol wt 77-84 kDa by SDS-PAGE

#### Purity

>95% (SDS-PAGE)

#### Pathway

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; Amoebiasis, conserved biosystem; Amphetamine addiction, organism-specific biosystem

#### Function

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