

Protein kinase C α isozyme human, Recombinant

Cat. No. NATE-0574

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 PRKCA; protein kinase C, alpha; PKCA; protein kinase C alpha type; PKC-A; PKC α ; AAG6; PKC-alpha; PRKACA

Product Information

Species Human

Source baculovirus infected insect cells

Form buffered aqueous glycerol solution

Molecular Weight mol wt 80-81 kDa by SDS-PAGE

Purity > 70% (SDS-PAGE)

Buffer Solution in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.1 mM PMSF, 25% glycerol and 0.25 mM DTT

Pathway ATF-2 transcription factor network, 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; Alpha6-Beta4 Integrin Signaling Pathway, organism-specific biosystem; Amoebiasis, organism-specific biosystem

Function ATP binding; enzyme binding; histone kinase activity (H3-T6 specific); metal ion binding; nucleotide binding; protein binding; protein kinase C activity; protein kinase activity; protein kinase activity; protein serine/threonine kinase activity; zinc ion binding

Unit Definition One unit will transfer 1 pmol of phosphate to CREBtide in 1 min at pH 7.2 at 30°C

Storage and Shipping Information

Stability -70°C