Creative Enzymes®

Protein Kinase A catalytic subunit human, Recombinant

Cat. No. NATE-0571

Lot. No. (See product label)

Introduction

Description Ubiquitous serine-threonine kinase that phosphorylates a broad spectrum of substrates, and regulates many cellular processes. The catalytic subunit is released following binding of cyclic AMP to the regulatory subunits of the PKA holoenzyme. The free catalytic subunit has intrinsic activity and does not require added cyclic AMP.

Synonyms Protein Kinase A catalytic subunit; Protein kinase A; PKA; PKAC; cAMP-dependent protein kinase catalytic subunit; PRKAC

Product Information

Species Human

Source E. coli

Form buffered aqueous glycerol solution

Molecular Weight mol wt 43.5 kDa

Purity >90% (SDS-PAGE)

Activity >1000 units/mg protein

Buffer Solution in 30 mM potassium phosphate buffer, pH 7.4, containing 50% glycerol, 150 mM KCl, 1 mM EDTA, and 1 mM DTT.

Pathway Adaptive Immune System, organism-specific biosystem; Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem; Amphetamine addiction, organism-specific biosystem; Amphetamine addiction, conserved biosystem; Apoptosis, organism-specific biosystem; Apoptosis, conserved biosystem

Function ATP binding; cAMP-dependent protein kinase activity; cAMP-dependent protein kinase activity; nucleotide binding; protein binding; protein kinase binding; protein serine/threonine kinase activity; ubiquitin protein ligase binding

Unit Definition One unit will transfer 1 nanomole of phosphate from 32P-ATP to kemptide substrate per minute at pH 7.4 at 30°C (measured by a radioactive filter-binding assay). Km (ATP) = 25 µM at 30°C, pH 7.4. Km (kemptide) = 42 µM (33 µg/ml) at 30°C, pH 7.4.

Storage and Shipping Information

Stability −70°C