Creative Enzymes®

Native Bovine Protein Kinase A Catalytic Subunit

Cat. No. NATE-1889

Lot. No. (See product label)

Introduction

Description	Protein Kinase A (PKA) catalyzes the transfer of the terminal phosphate of ATP to threonine or serine residues in a variety of protein substrates. The enzyme is composed of two subunit types: a catalytic subunit and a regulatory subunit. In the absence of cAMP, the two subunits are bound to each other and no catalysis can take place. In the presence of cAMP, the regulatory subunit binds cAMP, thus releasing the catalytic subunit. In the presence of cAMP, the catalytic subunit exists as a monomer of 40,862 Da (amino acid sequence), but on SDS-PAGE the apparent molecular mass is 43,000 Da.
Synonyms	PKA; cAMP-dependent protein kinase; ATP:protein phosphotransferase (cAMP-dependent); Protein Kinase A catalytic subunit; Protein kinase A; PKAC; cAMP-dependent protein kinase catalytic subunit; PRKAC

Product Information

Species	Bovine
Source	Bovine Heart
Form	Lyophilized from a solution containing approximately: 80% sucrose, 19% potassium phosphate buffer, pH 6.7, 0.0625% 2-mercaptoethanol (2-ME), 0.002% EDTA, 0.016% dithiothreitol (DTT), and ≤1% protein. The lyophilized product may contain traces of DTT or 2-ME.
EC Number	EC 2.7.11.11
Activity	>9 units/μg protein
Isoelectric point	7.01, 7.48, and 7.78 (three isozymes)
Optimum pH	7.0–7.8
Unit Definition	One unit will transfer 1.0 picomole of phosphate from γ-32P-ATP to hydrolysed and partially dephosphorylated Casein per min at pH 6.5 at 30 °C.

Storage and Shipping Information

Storage	Store at -20°C