

Recombinant Human PRKACA Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. PRKACA-3492H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

PRKACA MS Standard C13 and N15-labeled recombinant protein (NP_997401) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.

Species

Human

Source

HEK293

Description

This gene encodes one of the catalytic subunits of protein kinase A, which exists as a tetrameric holoenzyme with two regulatory subunits and two catalytic subunits, in its inactive form. cAMP causes the dissociation of the inactive holoenzyme into a dimer of regulatory subunits bound to four cAMP and two free monomeric catalytic subunits. Four different regulatory subunits and three catalytic subunits have been identified in humans. cAMP-dependent phosphorylation of proteins by protein kinase A is important to many cellular processes, including differentiation, proliferation, and apoptosis. Constitutive activation of this gene caused either by somatic mutations, or genomic duplications of regions that include this gene, have been associated with hyperplasias and adenomas of the adrenal cortex and are linked to corticotropin-independent Cushing's syndrome. Alternative splicing results in multiple transcript variants encoding different isoforms. Tissue-specific isoforms that differ at the N-terminus have been described, and these isoforms may differ in the post-translational modifications that occur at the N-terminus of some isoforms.

Molecular Mass

39.6 kDa

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

AA Sequence

MASNSSDVKEFLAKAKEDFLKKWESPAQNTAHLDQFERIKTLGTGSFGRVMLVKHK
 ETGNHYAMKILDKQKVVKLKQIEHTLNEKRILQAVNFPFLVKLEFSFKDNSNLYMVME
 YVPGGEMFSLRRIGRFSEPHARFYAAQIVLTFEYLHSLDLIYRDLKPENLLIDQQGYI
 QVTDFGFAKRVKGRWTWLCGTPEYLAPEIILSKGYNKAVDWWALGVLIYEMAAGYP
 PFFADQPIQIYEKIVSGKVRFP SHFSSDLKDLLRNLLQVDLTKRFGNLKNGVNDIKNH
 KWFATTDWIAIYQRKVEAPFIPKFKGPGDTSNFDDYEEEEIRVSINEKCGKEFSEFTR
 TRPLEQKLISEEDLAANDILDYKDDDDKV

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name PRKACA protein kinase cAMP-activated catalytic subunit alpha [Homo sapiens (human)]

Official Symbol PRKACA

Synonyms PRKACA; protein kinase, cAMP-dependent, catalytic, alpha; cAMP-dependent protein kinase catalytic subunit alpha; PKACa; PKA C-alpha; protein kinase A catalytic subunit; cAMP-dependent protein kinase catalytic subunit alpha, isoform 1; PKACA; MGC48865; MGC102831;

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Gene ID 5566

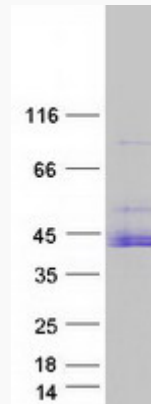
mRNA Refseq NM_207518

Protein Refseq NP_997401

MIM 601639

UniProt ID P17612

SDS-PAGE



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