
Product Data Sheet

Product Name: PRKACB Human

Cat. No.: GP22610

Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.

Synonyms Protein Kinase CAMP-Dependent Catalytic Beta; PKA C-Beta; EC 2.7.11.11; PKACB; CAMP-Dependent Protein Kinase Catalytic Beta Subunit Isoform 4ab; CAMP-Dependent Protein Kinase Catalytic Subunit Beta; Protein Kinase A Catalytic Subunit Beta; EC 2.7.11; PRKACB.

Amino Acid Sequence MGSSHHHHHH SGLVPRGSH MGSMAAYREP PCNQYTGTTT ALQKLEGFAS RLFHRHSGGT AHDQKTALEN DSLHFSEHTA LWDRSMKEFL AKAKEDFLKK WENPTQNNAG LEDFERKKTLL GTGSFGRVML VKHKATEQYY AMKILDKQKV VKLKQIEHTL NEKRILQAVN FPFLVRLEYA FKDNSNLYMV MEYVPPGGEMF SHLRRIGRFS EPHARFYAAQ IVLTFEYLHS LDLIYRDLKP ENLLIDHQGY IQVTDFGFAK RVKGRTWTLC GTPEYLAPEI ILSKGYNKAV DWWALGVLIY EMAAGYPPFF ADQPIQIYEK IVSGKVRFPS HFSSDLKDLL RNLLQVDLTK RFGNLKNGVS DIKTHKWFAT TDWIAIYQRK VEAPFIPKFR GSGDTSNFDD YEEEDIRVSI TEKCAKEFGE F.

Formulation The PRKACB solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.4M Urea and 10% glycerol.

Introduction

Protein Kinase CAMP-Dependent Catalytic Beta (PRKACB) belongs to the Ser/Thr protein kinase family and is a catalytic subunit of cAMP-dependent protein kinase. cAMP is a signaling molecule imperative for various cellular functions. cAMP activates the cAMP-dependent protein kinase, which transduces the signal by way of phosphorylation of different target proteins. The inactive kinase holoenzyme is a tetramer composed of 2 regulatory and 2 catalytic subunits. cAMP triggers the dissociation of the inactive holoenzyme into a dimer of regulatory subunits bound to 4 cAMP and 2 free monomeric catalytic subunits. PRKACB mediates cAMP-dependent signaling initiated by receptor

Caution: Product has not been fully validated for medical applications. For research use only.

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binding to GPCRs. PKA activation regulates various cellular processes such as cell proliferation, the cell cycle, differentiation and regulation of microtubule dynamics, chromatin condensation and decondensation, nuclear envelope disassembly and reassembly, in addition to regulation of intracellular transport mechanisms and ion flux. PRKACB regulates the abundance of compartmentalized pools of its regulatory subunits via phosphorylation of PJA2 which binds and ubiquitinates these subunits, leading to their consequent proteolysis.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

PRKACB Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 421 amino acids (1-398) and having a molecular mass of 48.6kDa. PRKACB is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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