

c-AMP dependant Protein Kinase A catalytic subunit alpha Active Protein | PRKACA active protein

Recombinant c-AMP dependant Protein Kinase A catalytic subunit alpha

CATALOG # AAA38382	HOST E Coli
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PRODUCT SYNONYMS

c-AMP dependant Protein Kinase A catalytic subunit alpha; Recombinant c-AMP dependant Protein Kinase A catalytic subunit alpha; PRKACA; cAMP-Dependent Protein Kinase A catalytic subunit alpha Recombinant; cAMP-dependent protein kinase alpha-catalytic subunit; EC 2.7.11.11; PKA C-alpha; PKACA; MGC48865; MGC102831; PRKACA active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 95% as determined by SDS-PAGE.
Form/Format	PKA catalytic subunit a is supplied in a buffer containing 25mM potassium phosphate (pH 6.5), 5mM 2-mercaptoethanol, 5mM EDTA, 150mM NaCl and 50% glycerol.
Sequence	MGNAAAAKKG SEQESVKEFL AKAKEDFLKK WESPAQNTAH LDQFERIKTL GTGSFGRVML VKHKETGNHY AMKILDKQKV VKLKQIEHTL NEKRILQAVN FPFLVKLEFS FKDNSNLYMV MEYVPGGEMF SHLRRIGRFS EPHARFYAAQ IVLTFEYLHS LDLIYRDLKP ENLLIDQQGY IQVTDGFAK RVKGRTWTLC GTPEYLAPEI ILSKGYNKAV DWWALGVLIY EMAAGYPPFF ADQPIQIYEK IVSGKVRFPS HFSSDLKDLL RNLLQVDLTK RFGNLKNGVN DIKNHKWFAT TDWIAIYQRK VEAPFIPFKF GPGDTSNFDD YEEEEIRVSI NEKCGKEFSE F
Sequence Length	351
Unit Defenition	One unit is defined as the amount of recombinant PKA catalytic subunit a, required to incorporate 1pmol of phosphate into the specific substrate peptide kemptide (LRRASIG) in one minute at 30 degree C.
Specific Activity	The specific activity of the recombinant PKA catalytic subunit a, is >15.000.000 U/mg.
Preparation and Storage	Store at 4 degree C if entire vial will be used within 2-4 weeks. Store, frozen at -20 degree C for longer periods of time. Avoid multiple freeze-thaw cycles.

ADDITIONAL INFORMATION

Related Product Information for PRKACA active protein	Description: cAMP-dependent PKA is an ubiquitous serine/threonine protein kinase present in a variety of tissues (e.g. brain, skeletal muscle, heart). The intracellular cAMP level regulates cellular responses by altering the interaction between the catalytic C and regulatory R subunits of PKA. The inactive tetrameric PKA holoenzyme R2C2 is activated when cAMP binds to R2, which dissociates the tetramer to R2 cAMP 4 and two active catalytic subunits. Free Catalytic subunits of PKA can phosphorylate a wide variety of intracellular target proteins. In response to hormone- induced high cAMP levels, PKA phosphorylates glycogen synthetase (inhibition of the enzyme activity) and phosphorylase kinase to block glycogen synthesis. Different isoforms of catalytic and regulatory subunits suggest specific functions. The recombinant PKA catalytic subunit a is a 41kDa protein. The a- isoform is the predominant form with a broad tissue distribution and can be used for in vitro enzymological studies of neural and hormonal signal transduction or to phosphorylate target proteins in vivo including Ion channels, transcriptional activator proteins and regulatory enzymes of glycogen metabolism.
Product Categories/Family for PRKACA active protein	Protein Kinases ; Enzymes ; Protein Kinase-A

NCBI AND UNIPROT INFORMATION

NCBI GI #	4506055
NCBI GeneID	5566
NCBI Accession #	NP_002721.1
NCBI GenBank Nucleotide #	NM_002730.3
UniProt Accession #	P17612; Q32P54; Q9H2Y0; Q9NRB4; Q9NRH9
Molecular Weight	39,822 Da
NCBI Official Full Name	cAMP-dependent protein kinase catalytic subunit alpha isoform Calpha1
NCBI Official Synonym Full Names	protein kinase, cAMP-dependent, catalytic, alpha
NCBI Official Symbol	PRKACA
NCBI Official Synonym Symbols	PKACA; PPNAD4
NCBI Protein Information	cAMP-dependent protein kinase catalytic subunit alpha; PKA C-alpha; cAMP-dependent protein kinase catalytic subunit alpha, isoform 1; protein kinase A catalytic subunit
UniProt Protein Name	cAMP-dependent protein kinase catalytic subunit alpha
UniProt Gene Name	PRKACA
UniProt Synonym Gene Names	PKACA; PKA C-alpha
UniProt Entry Name	KAPCA_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-prkaca-active-protein/c-amp-dependant-protein-kinase-a-catalytic-subunit-alpha/38382>