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PRKACA

Catalog #:PKPS-207

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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 sµggest 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.

Synonyms:cAMP-dependent protein kinase alpha-catalytic subunit, EC 2.7.11.11, PKA C-alpha, PKACA, PRKACA, MGC48865, MGC102831.

Source: Escherichia Coli.

Purity: Greater than 95% as determined by SDS-PAGE.

Formulation:
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.

Usage:
NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drµgs, agricultural or pesticidal products, food additives or household chemicals.

Storage:
Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Avoid multiple freeze-thaw cycles.

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