
Product Data Sheet

Product Name: PKA-RII alpha
 Cat. No.: GP22593
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	cAMP-Dependent Protein Kinase A regulatory subunit-II A; PKA-RII alpha.		
Amino Acid Sequence	MSHIQIPPGL TELLQGYTVE VLRQQPPDLV EFAVEYFTRL REARAPASVL PAATPRQSLG HPPPEPGPDR VADAKGDSSES EEDEDLEVPV PSRFNRRVSV CAETYNPDEE EEDTDPRVIH PKTDEQRCRL QEACKDILLF KNLDQEQLSQ VLDAMFERIV KADEHVIDQG DDGDNFYVIE RGTYDILVTK DNQTRSVGQY DNRGSFGELA LMYNTPRAAT IVATSEGSLW GLDRVTFRRI IVKNNAKKRK MFESFIESVP LLSKLEVSR MKIVDVICEK IYKDGRIIT QGEKADSFYI IESGEVSILI RSRTKSNKDG GNQEVEIARC HKGQYFGELA LVTNKPRAAS AYAVGDVKCL VMDVQAFERL LGPCMDIMKR NISHYEEQLV KMFSSVDLG NLGQ.		
Formulation	PKA regulatory subunit-II alpha is supplied in 20mM MES, 150mM NaCl, 2mM EDTA, 2mM EGTA, 1mM BME and 50% glycerol.		

Introduction

cAMP-dependent PKA is a 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 cAMP₄ 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.

Stability

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

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PKA should be stored at 4°C if entire vial will be used within 2-4 weeks. For long term storage it is recommended to store at -20°C . Avoid multiple freeze-thaw cycles.

Background

The recombinant PKA regulatory subunit II-a is a dimeric 90 kDa protein. Protein Kinase A is purified by proprietary chromatographic techniques.

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