
Product Data Sheet

Product Name: PRKAR1A
Cat. No.: GP22605
Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	cAMP-dependent protein kinase type I-alpha regulatory subunit; Tissue-specific extinguisher 1; TSE1; CAR; CNC; CNC1; PKR1; PPNAD1; PRKAR1; PRKAR1A; MGC17251; DKFZp779L0468.		
Formulation	PKA regulatory subunit I a is supplied in 50% glycerol.		

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. Avoid multiple freeze-thaw cycles.

Background

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 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. The recombinant PKA regulatory subunit I a is a dimeric 90kDa protein.

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

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