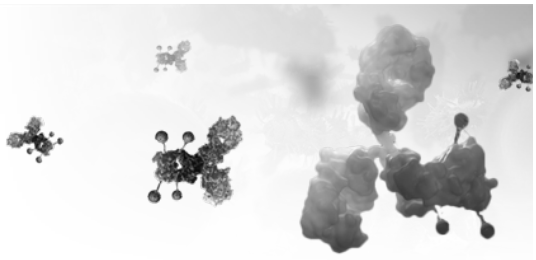

PRKAR2A peptide (DAG-P1890)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description	cAMP is a signaling molecule important for a variety of cellular functions. cAMP exerts its effects by activating the cAMP-dependent protein kinase, which transduces the signal through phosphorylation of different target proteins. The inactive kinase holoenzyme is a tetramer composed of two regulatory and two catalytic subunits. cAMP causes the dissociation of the inactive holoenzyme into a dimer of regulatory subunits bound to four cAMP and two free monomeric catalytic subunits. Four different regulatory subunits and three catalytic subunits have been identified in humans. The protein encoded by this gene is one of the regulatory subunits. This subunit can be phosphorylated by the activated catalytic subunit. It may interact with various A-kinase anchoring proteins and determine the subcellular localization of cAMP-dependent protein kinase. This subunit has been shown to regulate protein transport from endosomes to the Golgi apparatus and further to the endoplasmic reticulum (ER). [provided by RefSeq, Jul 2008]
Specificity	Four types of regulatory chains are found: I-alpha, I-beta, II-alpha, and II-beta. Their expression varies among tissues and is in some cases constitutive and in others inducible.
Purity	> 95 % by SDS-PAGE.
Conjugate	Unconjugated
Applications	WB, ELISA
Sequence Similarities	Belongs to the cAMP-dependent kinase regulatory chain family.Contains 2 cyclic nucleotide-binding domains.
Format	Liquid
Buffer	Preservative: None Constituents: 0.001% Tween 20, 30mM HEPES, 2mM EDTA, 150mM Sodium chloride, pH 6.75
Preservative	None

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Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. Preservative: None Constituents: 0.001% Tween 20, 30mM HEPES, 2mM EDTA, 150mM Sodium chloride, pH 6.75

GENE INFORMATION

Gene Name	PRKAR2A protein kinase, cAMP-dependent, regulatory, type II, alpha [Homo sapiens (human)]
Official Symbol	PRKAR2A
Synonyms	PRKAR2A; protein kinase, cAMP-dependent, regulatory, type II, alpha; PKR2; PRKAR2; cAMP-dependent protein kinase type II-alpha regulatory subunit; protein kinase A, RII-alpha subunit; cAMP-dependent protein kinase regulatory subunit RII alpha;
Entrez Gene ID	5576
mRNA Refseq	NM_004157.2
Protein Refseq	NP_004148.1
UniProt ID	P13861
Chromosome Location	3p21.3-p21.2
Pathway	Apoptosis, organism-specific biosystem; Apoptosis, conserved biosystem; Aquaporin-mediated transport, organism-specific biosystem; Ca-dependent events, organism-specific biosystem; CaM pathway, organism-specific biosystem; Calcium Regulation in the Cardiac Cell, organism-specific biosystem; Calmodulin induced events, organism-specific biosystem; DAG and IP3 signaling, organism-specific biosystem; DAP12 interactions, organism-specific biosystem; DAP12 signaling, organism-specific biosystem; DARPP
Function	cAMP binding; cAMP-dependent protein kinase inhibitor activity; cAMP-dependent protein kinase regulator activity; cAMP-dependent protein kinase regulator activity; protein binding; protein kinase A catalytic subunit binding; ubiquitin protein ligase bindi

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