

Recombinant Human PRKAR1A Protein, MYC/DDK-tagged

Cat. No. PRKAR1A-2951H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human PRKAR1A protein, fused to MYC/DDK-tagged at C-terminus, was expressed in HEK293.
Species	Human
Source	HEK293
ProteinLength	1-381 a.a.
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. This gene encodes one of the regulatory subunits. This protein was found to be a tissue-specific extinguisher that down-regulates the expression of seven liver genes in hepatoma x fibroblast hybrids. Mutations in this gene cause Carney complex (CNC). This gene can fuse to the RET protooncogene by gene rearrangement and form the thyroid tumor-specific chimeric oncogene known as PTC2. A nonconventional nuclear localization sequence (NLS) has been found for this protein which suggests a role in DNA replication via the protein serving as a nuclear transport protein for the second subunit of the Replication Factor C (RFC40). Several

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alternatively spliced transcript variants encoding two different isoforms have been observed.

Form	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Molecular Mass	42.8 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration	>50 ug/mL as determined by microplate BCA method

GENE INFORMATION

Gene Name	PRKAR1A protein kinase, cAMP-dependent, regulatory, type I, alpha (tissue specific extinguisher 1) [Homo sapiens]
Official Symbol	PRKAR1A
Synonyms	ACRDYS1; ADOHR; CAR; CNC; CNC1; PKR1; PPNAD1; PRKAR1; TSE1
Gene ID	5573
mRNA Refseq	NM_002734
Protein Refseq	NP_002725
MIM	188830
UniProt ID	P10644

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