Recombinant Full Length Human PRKAR1A Protein, C-Flag-tagged

Cat. No. PRKAR1A-1070HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human PRKAR1A Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
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 alternatively spliced transcript variants encoding two different isoforms have been

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	observed.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Molecular Mass	42.8 kDa
AA Sequence	MESGSTAASEEARSLRECELYVQKHNIQALLKDSIVQLCTARPERPMAFLREYFERL EKEEAKQIQNLQK AGTRTDSREDEISPPPPNPVVKGRRRRGAISAEVYTEEDAASY VRKVIPKDYKTMAALAKAIEKNVLFSH LDDNERSDIFDAMFSVSFIAGETVIQQGDEG DNFYVIDQGETDVYVNNEWATSVGEGGSFGELALIYGTP RAATVKAKTNVKLWGID RDSYRRILMGSTLRKRKMYEEFLSKVSILESLDKWERLTVADALEPVQFEDGQ KIVV QGEPGDEFFIILEGSAAVLQRRSENEEFVEVGRLGPSDYFGEIALLMNRPRAATVVA RGPLKCVKL DRPRFERVLGPCSDILKRNIQQYNSFVSLSVTRTRPLEQKLISEEDLAANDILDYKDD DDKV		**Purity**	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Protein Families	Druggable Genome, Transcription Factors
Protein Pathways	Apoptosis, Insulin signaling pathway

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Full Length	Full L.

GENE INFORMATION

Gene Name	PRKAR1A protein kinase cAMP-dependent type I regulatory subunit alpha [Homo sapiens (human)]
Official Symbol	PRKAR1A
Synonyms	CAR; CNC; CNC1; PKR1; TSE1; ADOHR; PPNAD1; PRKAR1; ACRDYS1
Gene ID	5573
mRNA Refseq	NM_002734.5
Protein Refseq	NP_002725.1
MIM	188830
UniProt ID	P10644

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