

Recombinant Full Length Mouse PRKAR1A Protein (Met1-Val381), His-tagged

Cat. No. PRKAR1A-868M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse PRKAR1A Protein (NP_068680.1) (Met1-Val381) was produced by Baculovirus-Insect Cells expression system. This protein was expressed with a polyhistidine tag at the C-terminus.
Species	Mouse
Source	Insect Cells
ProteinLength	Met1-Val381
Description	PRKAR1A, also known as PRKAR1 and PKR1, is one of the regulatory subunits of cAMP-dependent protein kinase A (PKA). PKA can be activated by cAMP. cAMP is a signaling molecule important for a variety of cellular functions. cAMP exerts its effects by activating PKA, which transduces the signal through phosphorylation of different target proteins. The inactive holoenzyme of PKA 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 of PKA have been identified in humans. PRKAR1A was found to be a tissue-specific extinguisher that down-regulates the expression of seven liver genes in hepatoma x fibroblast hybrids. Three alternatively spliced transcript variants encoding the same protein have been observed.

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Predicted N Terminal	Met 1
Form	Lyophilized from sterile 20 mM Tris, 300 mM NaCl, pH 7.5, 10 % glycerol. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant mouse PRKAR1A consists of 392 amino acids and predicts a molecular mass of 44.6 kDa.
Endotoxin	< 1.0 EU per µg protein as determined by the LAL method.
Purity	> 90 % as determined by SDS-PAGE.
Stability	Samples are stable for up to twelve months from date of receipt at -70 centigrade.
Storage	Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

GENE INFORMATION

Gene Name *Prkar1a* protein kinase, cAMP dependent regulatory, type I, alpha [*Mus musculus*]

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Official Symbol	PRKAR1A
Synonyms	PRKAR1A; Tse1; Tse-1; Rlalpha; 1300018C22Rik;
Gene ID	19084
mRNA Refseq	NM_021880
Protein Refseq	NP_068680
UniProt ID	A2AI69

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