Recombinant Mouse cAMP-dependent protein kinase type I-alpha regulatory subunit (Prkar1a)

Product Code	CSB-EP887580MO
Abbreviation	Prkar1a
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q9DBC7
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Purity	>85% (SDS-PAGE)
Sequence	MASGSMATSE EERSLRECEL YVQKHNIQAL LKDSIVQLCT TRPERPMAFL REYFERLEKE EARQIQCLQK TGIRTDSRED EISPPPPNPV VKGRRRRGAI SAEVYTEEDA ASYVRKVIPK DYKTMAALAK AIEKNVLFSH LDDNERSDIF DAMFPVSFIA GETVIQQGDE GDNFYVIDQG EMDVYVNNEW ATSVGEGGSF GELALIYGTP RAATVKAKTN VKLWGIDRDS YRRILMGSTL RKRKMYEEFL SKVSILESLD KWERLTVADA LEPVQFEDGQ KIVVQGEPGD EFFIILEGTA AVLQRRSENE EFVEVGRLGP SDYFGEIALL MNRPRAATVV ARGPLKCVKL DRPRFERVLG PCSDILKRNI QQYNSFVSLS V
Source	E.coli
Target Names	Prkar1a
Protein Names	Recommended name: cAMP-dependent protein kinase type I-alpha regulatory subunit
Expression Region	1-381
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag type will be determined during the manufacturing process.
Protein Length	full length protein
Target Details	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). Three alternatively spliced transcript variants encoding the same protein have been observed.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.