# A-Kinase Anchor Protein 1, Mitochondrial (AKAP1) Rat Recombinant Protein

## PRODUCT OVERVIEW

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| **Product Name** | A-kinase anchor protein 1, mitochondrial (Akap1), Recombinant Protein |
| **Full Product Name** | Recombinant Rat A-kinase anchor protein 1, mitochondrial (Akap1) , partial |
| **Product Gene Name** | Akap1 recombinant protein |
| **Host** | E Coli or Yeast or Baculovirus or Mammalian Cell |
| **Form/Format** | Lyophilized or liquid (Format to be determined during the manufacturing process) |
| **Purity/Purification** | Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific) |
| **Preparation and Storage** | Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended. |
| **Molecular Weight** | 57,568 Da |
| **Tag Information** | This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information. |
| **Sterility** | Sterile filter available upon request. |
| **Endotoxin** | Low endotoxin available upon request. |
| **3D Structure** | ModBase 3D Structure for O88884 |
| **Species** | Rat |
| **ISO Certification** | Manufactured in an ISO 9001:2015 Certified Laboratory. |
| **Related Product Information for Akap1 recombinant protein** | The A-kinase anchor proteins (AKAPs) are a group of structurally diverse proteins, which have the common function of binding to the regulatory subunit of protein kinase A (PKA) and confining the holoenzyme to discrete locations within the cell. This gene encodes a member of the AKAP family. The encoded protein binds to type I and type II regulatory subunits of PKA and anchors them to the mitochondrion. This protein is speculated to be involved in the cAMP-dependent signal transduction pathway and in directing RNA to a specific cellular compartment. |
| **Other Notes** | Small volumes of Akap1 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for Akap1 purchase** | MBS1237386 is a recombinant protein targeting Akap1. Also known as Recombinant Rat A-kinase anchor protein 1, mitochondrial (Akap1) , partial. Host: E Coli or Yeast or Baculovirus or Mammalian Cell. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Akap1. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 16758478 |
| **NCBI GeneID** | 114124 |
| **NCBI Accession #** | NP_446117.1 |
| **UniProt Primary Accession #** | O88884 |
| **UniProt Secondary Accession #** | O88980 |
| **UniProt Related Accession #** | O88884 |
| **GenBank Nucleotide #** | NM_053665.1 |

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| **NCBI Official Full Name** | A-kinase anchor protein 1, mitochondrial |
| **NCBI Official Synonym Full Names** | A-kinase anchoring protein 1 |
| **NCBI Official Symbol** | Akap1 |
| **NCBI Official Synonym Symbols** | Akap84 |
| **UniProt Protein Name** | A-kinase anchor protein 1, mitochondrial |
| **UniProt Synonym Protein Names** | A-kinase anchor protein 121 kDa; AKAP 121; Dual specificity A-kinase-anchoring protein 1; D-AKAP-1; Protein kinase A-anchoring protein 1; PRKA1; Spermatid A-kinase anchor protein 84; S-AKAP84 |
| **Protein Family** | A-kinase anchor protein |
| **UniProt Gene Name** | Akap1 |
| **UniProt Synonym Gene Names** | Akap; AKAP 121; D-AKAP-1; PRKA1; S-AKAP84 |
| **NCBI Protein Information** | A-kinase anchor protein 1, mitochondrial |
| **NCBI Summary for Akap1** | scaffolding protein that immobilizes and concentrates protein kinase A II (PKAII) isoforms at specific intracellular locations [RGD, Feb 2006] |
| **UniProt Comments for Akap1** | Binds to type I and II regulatory subunits of protein kinase A and anchors them to the cytoplasmic face of the mitochondrial outer membrane. |
| **Research Articles on Akap1** | **1.** the scaffold protein A kinase anchoring protein 1 brings the cAMP-dependent protein kinase A to the outer mitochondrial membrane to protect neurons from injury |
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