1,2-Dihydroxy-3-Keto-5-Methylthiopentene Dioxygenase (ADI1) Rat Recombinant Protein

PRODUCT OVERVIEW

Product Name	1,2-dihydroxy-3-keto-5-methylthiopentene dioxygenase (Adi1), Recombinant Protein
Full Product Name	Recombinant Rat 1,2-dihydroxy-3-keto-5-methylthiopentene dioxygenase (Adi1)
Product Gene Name	Adi1 recombinant protein
Product Synonym Gene Name	Adi1
Sequence	MVQAWYMDES TADPRMPHRA QPDRPVGLEQ LRTLGVLYWK LDADKYENDP ELEQIRKTRN YSWMDIITIC KDSLPNYEEK IKMFFEEHLH LDEEIRYILE GSGYFDVRDK EDKWIRISME KGDMITLPAG IYHRFTLDEK NYVKAMRLFV GEPVWTPYNR PADHFDARVQ YVKFLEGTA
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	21,461 Da
Sequence Positions	1-179, full length protein
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 Q562C9
Species	Rat
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for Adi1 recombinant protein	This gene encodes an enzyme that belongs to the aci-reductone dioxygenase family of metal-binding enzymes, which are involved in methionine salvage. This enzyme may regulate mRNA processing in the nucleus, and may carry out different functions depending on its localization. A pseudogene that is located on chromosome 20 has been defined for this gene.
Other Notes	Small volumes of Adi1 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 Adi1 purchase	MBS1387002 is a recombinant protein targeting Adi1. Also known as Recombinant Rat 1,2-dihydroxy-3-keto-5-methylthiopentene dioxygenase (Adi1). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Adi1. It may not necessarily be applicable to this product.

NCBI GI #	40018538
NCBI GeneID	298934
NCBI Accession #	NP_954528.1

UniProt Primary Accession #	Q562C9
UniProt Secondary Accession #	Q6V9S4
UniProt Related Accession #	Q562C9
GenBank Nucleotide #	NM_199097.1
NCBI Official Full Name	1,2-dihydroxy-3-keto-5-methylthiopentene dioxygenase
NCBI Official Synonym Full Names	acireductone dioxygenase 1
NCBI Official Symbol	Adi1
NCBI Official Synonym Symbols	Alp1; Fe-ARD; Ni-ARD; MTCBP-1
UniProt Protein Name	1,2-dihydroxy-3-keto-5-methylthiopentene dioxygenase
UniProt Synonym Protein Names	Acireductone dioxygenase (Fe(2+)-requiring)
Protein Family	1,2-dihydroxy-3-keto-5-methylthiopentene dioxygenase
UniProt Gene Name	Adi1
UniProt Synonym Gene Names	Alp1; Mtcbp1; ARD; Fe-ARD; MTCBP-1
NCBI Protein Information	1,2-dihydroxy-3-keto-5-methylthiopentene dioxygenase
NCBI Summary for Adi1	may be involved in the methionine salvage pathway and prostate homeostasis [RGD, Feb 2006]
UniProt Comments for Adi1	Catalyzes the formation of formate and 2-keto-4-methylthiobutyrate (KMTB) from 1,2-dihydroxy-3-keto-5-methylthiopentene (DHK-MTPene). Also down-regulates cell migration mediated by MMP14 (). Induces apoptosis when overexpressed.
Research Articles on Adi1	**1.** May have an important role in androgen regulated prostate homeostasis as well as in prostate cancer progression by regulating cell death of prostate cancer cells.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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