Isocitrate Dehydrogenase [NAD] Subunit Alpha, Mitochondrial (IDH3A) Rat Recombinant Protein

PRODUCT OVERVIEW

Product Name	Isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial (Idh3a), Recombinant Protein
Full Product Name	Recombinant Rat Isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial (Idh3a)
Product Gene Name	Idh3a recombinant protein
Product Synonym Gene Name	Idh3a
Sequence	AGGVQTVTLI PGDGIGPEIS ASVMKIFDAA KAPIQWEERN VTAIQGPGGK WMIPPEAKES MDKNKMGLKG PLKTPIAAGH PSMNLLLRKT FDLYANVRPC VSIEGYKTPY TDVNIVTIRE NTEGEYSGIE HVIVDGVVQS IKLITEGASK RIAEFAFEYA RNNHRSNVTA VHKANIMRMS DGLFLQKCRE VAENCKDIKF NEMYLDTVCL NMVQDPSQFD VLVMPNLYGD ILSDLCAGLI GGLGVTQSGN IGANGVAIFE SVHGTAPDIA GKDMANPTAL LLSAVMMLRH MGLFDHAAKI EAACFATIKD GKSLTKDLGG NSKCSDFTEE ICRRVKDLD
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	39,614 Da
Sequence Positions	28-366, 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 Q99NA5
Species	Rat
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for Idh3a recombinant protein	Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been reported: three NAD(+)-dependent isocitrate dehydrogenases, which localize to the mitochondrial matrix, and two NADP(+)-dependent isocitrate dehydrogenases, one of which is mitochondrial and the other predominantly cytosolic. NAD(+)-dependent isocitrate dehydrogenases catalyze the allosterically regulated rate-limiting step of the tricarboxylic acid cycle. Each isozyme is a heterotetramer that is composed of two alpha subunits, one beta subunit, and one gamma subunit. This protein is the alpha subunit of one isozyme of NAD(+)-dependent isocitrate dehydrogenase.
Other Notes	Small volumes of Idh3a 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 Idh3a purchase	MBS1393812 is a recombinant protein targeting Idh3a. Also known as Recombinant Rat Isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial (Idh3a). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Idh3a. It may not necessarily be applicable to this product.

NCBI GI #	16758446
NCBI GeneID	114096
NCBI Accession #	NP_446090.1
UniProt Primary Accession #	Q99NA5
UniProt Related Accession #	Q99NA5
GenBank Nucleotide #	NM_053638.1
NCBI Official Full Name	isocitrate dehydrogenase
NCBI Official Synonym Full Names	isocitrate dehydrogenase 3 (NAD+) alpha
NCBI Official Symbol	Idh3a
UniProt Protein Name	Isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial
UniProt Synonym Protein Names	Isocitric dehydrogenase subunit alpha; NAD(+)-specific ICDH subunit alpha
Protein Family	Isocitrate dehydrogenase
UniProt Gene Name	Idh3a
NCBI Protein Information	isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial
NCBI Summary for Idh3a	alpha subunit of the NAD(+)-dependent isocitrate dehydrogenase that is important for metabolism in brown adipose tissue [RGD, Feb 2006]
UniProt Comments for Idh3a	Catalytic subunit of the enzyme which catalyzes the decarboxylation of isocitrate (ICT) into alpha-ketoglutarate. The heterodimer composed of the alpha (IDH3A) and beta (IDH3B) subunits and the heterodimer composed of the alpha (IDH3A) and gamma (IDH3G) subunits, have considerable basal activity but the full activity of the heterotetramer (containing two subunits of IDH3A, one of IDH3B and one of IDH3G) requires the assembly and cooperative function of both heterodimers.
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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