

Recombinant Human ALDM, His-tagged

Cat. No. ALDM-3265H Lot. No. (See product label)

SPECIFICATION

Product Overview Aldehyde Dehydrogenase, Mitochondrial (ALDM)

Species Human

Source E.coli

ProteinLength 517

Description

This protein belongs to the aldehyde dehydrogenase family of proteins. Aldehyde dehydrogenase is the second enzyme of the major oxidative pathway of alcohol metabolism. Two major liver isoforms of aldehyde dehydrogenase, cytosolic and mitochondrial, can be distinguished by their electrophoretic mobilities, kinetic properties, and subcellular localizations. Most Caucasians have two major isozymes, while approximately 50% of Orientals have the cytosolic isozyme but not the mitochondrial isozyme. A remarkably higher frequency of acute alcohol intoxication among Orientals than among Caucasians could be related to the absence of a catalytically active form of the mitochondrial isozyme. The increased exposure to acetaldehyde in individuals with the catalytically inactive form may also confer greater susceptibility to many types of cancer. This gene encodes a mitochondrial isoform, which has a low Km for acetaldehydes, and is localized in mitochondrial matrix. Alternative splicing results in multiple transcript variants encoding distinct isoforms.

Form Supplied as lyophilized form in PBS,pH7.4, containing 5% sucrose, 0.01% sarcosyl.

Molecular Mass 16.1kDa

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Endotoxin	<1.0eu per 1ug (determined by the lal</1.0eu
Purity	>95%
Applications	SDS-PAGE, Western Blot (WB), ELISA (EIA), Immunoprecipitation (IP)
Notes	Small volumes of ALDM recombinant protein 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.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months.Stability Test: The thermal stability is described by the loss rate of the targetprotein. The loss rate was determined by accelerated thermal degradation test,that is, incubate the protein at 37 degree C for 48h, and no obvious degradation andprecipitation were observed. (Referring from China Biological Products Standard,which was calculated by the Arrhenius equation.) The loss of this protein is lessthan 5% within the expiration date under appropriate storage condition.
Reconstitution	Reconstitute in sterile PBS, pH7.2-pH7.4.
Warning	This product is for research use only. Not for use in diagnostic or therapeutic procedures.

GENE INFORMATION

Gene Name	ALDH2 aldehyde dehydrogenase 2 family (mitochondrial) [Homo sapiens]
Official Symbol	ALDM
Synonyms	ALDM; ALDHI; ALDH-E2; aldehyde dehydrogenase, mitochondrial; ALDH class 2;

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	liver mitochondrial ALDH; acetaldehyde dehydrogenase 2; nucleus-encoded mitochondrial aldehyde dehydrogenase 2
Gene ID	217
mRNA Refseq	NM_000690
Protein Refseq	NP_000681
MIM	100650
UniProt ID	P05091
Chromosome Location	12q24.2
Pathway	Arginine and proline metabolism, organism-specific biosystem; Fatty Acid Omega Oxidation, organism-specific biosystem
Function	aldehyde dehydrogenase (NAD) activity; aldehyde dehydrogenase [NAD(P)+] activity

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