

Recombinant human Aldehyde dehydrogenase 2/ALDH2 protein

Catalog Number: ALD0905

PRODUCT INFORMATION

Expression system

E.coli

Domain

18-517aa

UniProt No.

P05091

NCBI Accession No.

NP_000681.2

Alternative Names

Aldehyde dehydrogenase 2 family member, Aldehyde dehydrogenase mitochondrial, ALDH class 2, ALDH-E2, ALDHI, ALDM

PRODUCT SPECIFICATION

Molecular Weight

54.5 kDa (501aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by absorbance at 280nm)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 7.5) containing 1mM DTT, 1mM EDTA, 10% glycerol

Purity

> 90% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Specific activity is > 250pmol/min/ug, and is defined as the amount of enzyme that catalyze the oxidation of 1.0 pmole Acetaldehyde by NAD per minute at pH 8.0 at 25°C.

Tag

Non-Tagged

Application

SDS-PAGE, Enzyme Activity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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BACKGROUND

Description

ALDH2 (Aldehyde dehydrogenase 2 family) belongs to the aldehyde dehydrogenase family which catalyze the chemical transformation from acetaldehyde to acetic acid and is the second enzyme of the major oxidative pathway of alcohol metabolism. There are two major liver isoforms of this enzyme, cytosolic and mitochondrial, and they can be also distinguished by their electrophoretic mobilities, kinetic properties, and subcellular localizations. Recombinant human ALDH2 protein was expressed in *E. coli* and purified by using conventional chromatography techniques.

Amino acid Sequence

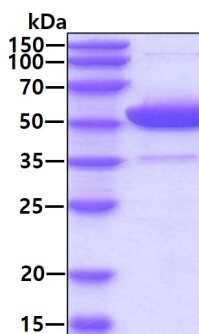
MSAAATQAVP APNQQPEVFC NQIFINNEWH DAVSRKTFPT VNPSTGEVIC QVAEGDKEDV DKAVKAARAA FQLGSPWRRM DASHRGRLLN RLADLIERDR TYLAALETLD NGKPYVISYL VDLDMVLKCL RYYAGWADKY HGKTIPIDGD FFSYTRHEPV GVCGQIIPWN FPLLMQAWKL GPALATGNVV VMKVAEQTPL TALYVANLIK EAGFPPGVVN IVPGFGPTAG AAIASHEDVD KVAFTGSTEI GRVIQVAAGS SNLKRVTLEL GKGSPNIIMS DADMDWAVEQ AHFALFFNQG QCCAGSRTF VQEDIYDEFV ERSVARAKSR VVGPNFDSKT EQGPQVDETQ FKKILGYINT GKQEGAKLLC GGGIAADRGY FIQPTVFGDV QDGMTIAKEE IFGPVMQILK FKTIEEVVGR ANNSTYGLAA AVFTKDLDKA NYLSQALQAG TVWVNCYDVF GAQSPFGGYK MSGSGRELGE YGLQAYTEVK TVTVKVPQKN S

General References

Crabb DW., et al. (1989). *J Clin Invest.* 83(1):314-6
Feng Liu., et al. (2002). *Plant Physiol.* 130(4):1657-1674

DATA

SDS-PAGE



3 μ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain.