Recombinant mouse Aldehyde dehydrogenase 2/ALDH2 protein

Catalog Number: ATGP3839

PRODUCT INFORMATION

Expression system
E.coli

Domain
20-519aa

UniProt No.
P47738

NCBI Accession No.
NP_033786

Alternative Names
Aldehyde dehydrogenase mitochondrial, Aldehyde dehydrogenase 2 family member, AHD-M1, ALDH class 2, ALDH-E2, ALDHI, Ahd-1, ALDM

PRODUCT SPECIFICATION

Molecular Weight
56.8 kDa (523aa)

Concentration
0.5mg/ml (determined by Bradford assay)

Formulation
Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 20% glycerol, 1mM DTT

Purity
> 95% by SDS-PAGE

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

Biological Activity
Specific activity is > 180pmol/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℃.

Tag
His-Tag

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 also known as Aldehyde dehydrogenase, mitochondrial. Aldh2 belongs to the aldehyde dehydrogenase family which catalyzes 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 mouse ALDH2 was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

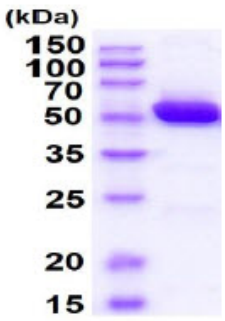
MGSSHHHHHH SSGLVPRGSH MGSSAAATSA VPAPNHQPEV FCNQIFINNE WHDAVSRKTF PTVNPSTGEV ICQVAEGNKE DVDKAVKAAR AAFQLGSPWR RMDASDRGRL LYRLADLIER DRTYLAALET LDNGKPYVIS YLVDLDMVLK CLRYYAGWAD KYHGKTIPID GDFFSYTRHE PVGVCGQIIP WNFPLLMQAW KLGPALATGN VVVMKVAEQT PLTALYVANL IKEAGFPPGV VNIVPGFGPT AGAAIASHEG VDKVAFTGST EVGHLIQVAA GSSNLKRVTL ELGGKSPNII MSDADMDWAV EQAHFALFFN QGQCCCAGSR TFVQENVYDE FVERSVARAK SRVVGNPFDS RTEQGPQVDE TQFKKILGYI KSGQQEGAKL LCGGGAAADR GYFIQPTVFG DVKDGMTIAK EEIFGPVMQI LKFKTIEEVV GRANDSKYGL AAAVFTKDLD KANYLSQALQ AGTVWINCYD VFGAQSPFGG YKMSGSGREL GEYGLQAYTE VKTVTVKVPQ KNS

General References

Chang C., et al. (1994) Gene. 148:331-336.
Chen M., et al. (1994) Mol. Pharmacol. 46:88-96.

DATA

SDS-PAGE



15% SDS-PAGE (3ug)

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