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ALDH2 Antibody

Aldehyde Dehydrogenase 2, Mouse Anti Human
ABM0030

Product Overview

Name	ALDH2 Antibody

Description

Aldehyde Dehydrogenase 2, Mouse Anti Human

Synonyms

ALDM, ALDHI, ALDH-E2, MGC1806, ALDH2, Aldehyde dehydrogenase mitochondrial, ALDH class 2.

Introduction

ALDH2 is part of the aldehyde dehydrogenase family of proteins which catalyze the chemical transformation from acetaldehyde to acetic acid. ALDH2 is the second enzyme of the major oxidative pathway of alcohol metabolism. ALDH2 has 2 major liver isoforms: cytosolic and mitochondrial, which differ by their electrophoretic mobilities, kinetic properties, and subcellular localizations. Nearly all Caucasians have 2 major isozymes, whereas roughly 50% of Orientals have only the cytosolic isozyme, omitting the mitochondrial isozyme. The extremely higher rate of acute alcohol intoxication with Orientals compared to Caucasians is due to the fact of the absence of mitochondrial isozyme. ALDH2 has a low Km for acetaldehydes, and is localized in mitochondrial matrix.

Source

Escherichia Coli.

Physical Appearance

Sterile Filtered clear solution.

Formulation

ALDH2 protein (1mg/ml) contains 20mM Tris-HCl buffer, pH-7.5, 1mM DTT, 1mM EDTA and 10% Glycerol.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 90.0% as determined by SDS-PAGE.

Amino acid sequence

MSAAATQAVP APNQQPEVFC NQIFINNEWH DAVSRKTFPT VNPSTGEVIC QVAEGDKEDV DKAVKAARAA FQLGSPWRRM DASHRGRLLNRLADLIERDR TYLAALETLD NGKPYVISYL VDLDMVLKCL RYYAGWADKY HGKTIPIDGD FFSYTRHEPV GVCGQIIPWN FPLLMQAWKL GPALATGNVV VMKVAEQTPL TALYVANLIK

EAGFPPGVVN IVPGFGPTAG AAIASHEDVD KVAFTGSTEI GRVIQVAAGS SNLKRVTLEL GGKSPNIIMS DADMDWAVEQ AHFALFFNQG QCCCAGSRTF VQEDIYDEFV ERSVARAKSR VVGNPFDSKT EQGPQVDETQ FKKILGYINT GKQEGAKLLC GGGIAADRGY FIQPTVFGDV QDGMTIAKEE IFGPVMQILK FKTIEEVVGR ANNSTYGLAA AVFTKDLDKA NYLSQALQAGTVWVNCYDVF GAQSPFGGYK MSGSGRELGE YGLQAYTEVK TVTVKVPQKN S.

Biological Activity

Specific activity was found to be > 250pmol/min/ug, and was obtained by measuring the increase of NADH in absorbance at 340 nm resulting from the reduction of NAD at pH 8.0 at 25°C.

Precautions

ALDH2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.