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32-2143: ALDH2 Recombinant Protein

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

Description

Source : Escherichia Coli. ALDH2 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 501 amino acids (18-517 a.a.) & having a molecular mass of 54.5 kDa. The ALDH2 is purified by proprietary chromatographic techniques. 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.

Product Info

Amount :	50 µg
Purification :	Greater than 90.0% as determined by SDS-PAGE.
Content :	ALDH2 protein contains 20mM Tris-HCl buffer, pH-7.5, 1mM DTT, 1mM EDTA and 10% Glycerol.
Storage condition :	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.
Amino Acid :	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.

Application Note

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 25Ã‚Â°C.