9853 Pacific Heights Blvd.
Suite D. San Diego,
CA 92121, USA
Tel: 858-263-4982
Email: info@abeomics.com

32-6659: ALDH2 Mouse, Active

Application : Functional Assay
Alternative Name : Aldehyde dehydrogenase, mitochondrial, AHD-M1, ALDH class 2, ALDH-E2, ALDHI.

Description

Source: Escherichia Coli.
Sterile Filtered clear solution.
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.
ALDH2 Mouse Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 523 amino acids (20-519) and having a molecular mass of 56.8kDa. ALDH2 Mouse is fused to a 23 amino acid His-Tag at N-terminus and purified by proprietary chromatographic techniques.

Product Info

Amount :	2 µg / 10 µg
Purification :	Greater than 95% as determined by SDS-PAGE.
Content :	ALDH2 Mouse protein (0.5mg/ml) is formulated in Phosphate buffered saline (pH7.4), 20% glycerol and 1mM DTT.
Storage condition :	Store at 4°C if entire vial will be used within 2-4 weeks.
Amino Acid :	MGSSHHHHHH SSGLVPRGSH MGSSAAATSA VPAPNHQPEV FCNQIFINNE WHDAVSRKTF PTVNPSTGEV ICQVAEGNKE DVDKAVKAARAAFQLGSPWR RMDASDRGRL LYRLADLIER DRTYLAALET LDNGKPYVIS YLVDLDMVLK CLRYYAGWAD KYHGKTIPID GDFFSYTRHEPVGVCGQIIP WNFPLLMQAW KLGPALATGN VVVMKVAEQT PLTALYVANL IKEAGFPPGV VNIVPGFGPT AGAAIASHEG VDKVAFTGSTEVGHLIQVAA GSSNLKRVTL ELGGKSPNII MSDADMDWAV EQAHFALFFN QGQCCCAGSR TFVQENVYDE FVERSVARAK SRVVGNPFDSRTEQGPQVDE TQFKKILGYI KSGQQEGAKL LCGGGAAADR GYFIQPTVFG DVKDGMTIAK EEIFGPVMQI LKFKTIEEVV GRANDSKYGLAAAVFTKDLD KANYLSQALQ AGTVWINCYD VFGAQSPFGG YKMSGSGREL GEYGLQAYTE VKTVTVKVPQ KNS.

Application Note

Specific activity is > 180 pmol/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 25C.

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