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**Product Data Sheet**


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Product Name: ALDH2 Mouse, Active

Cat. No.: GP21388

Batch No.: 1

**Product Data**

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Aldehyde dehydrogenase; mitochondrial; AHD-M1; ALDH class2; ALDH-E2; ALDHI.		
Amino Acid Sequence	<p>MGSSHHHHHH SSGLVPRGSH MGSSAAATSA VPAPNHQPEV FCNQIFINNE          WHDAVSRKTF PTVNPSTGEV ICQVAEGNKE DVDKAVKAARAAFQLGSPWR          RMDASDRGRL LYRLADLIER DRTYLAALET LDNGKPYVIS YLVDLDMVLK          CLRYAGWAD KYHGKTIPID GFFSYTRHEPVGVCQIIP WNFPLMQAW          KLGALATGN VVMKVAEQT PLTALYVANL IKEAGFPPGV VNIVPGFGPT          AGAAIASHEG VDKVAFTGSTEVGHILQVAA GSSNLKRVTL ELGGKSPNII          MSDADMDWAV EQAHFALFFN QGQCCAGSR TFVQENVYDE FVERSVARAK          SRVVGPNPFSRTEQGPQVDE TQFKKILGYI KSGQQEGAKL LCGGGAAADR          GYFIQPTVFG DVKDGMTIAK EEIFGPVMQI LKFKTIEEVV          GRANDSKYGLAAAVFTKDL D KANYLSQALQ AGTVWENCYD VFGAQSPFGG          YKMSGSGREL GEYGLQAYTE VKTVTVKVPQ KNS.</p>		
Formulation	ALDH2 Mouse protein (0.5mg/ml) is formulated in Phosphate buffered saline (pH7.4), 20% glycerol and 1mM DTT.		

**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

**Caution: Product has not been fully validated for medical applications. For research use only.**

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isozyme. ALDH2 has a low  $K_m$  for acetaldehydes, and is localized in mitochondrial matrix.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks.

### Background

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.

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