Recombinant Human ALDH2 protein, MYC/DDK-tagged

Cat. No. ALDH2-130H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ALDH2 fused with MYC/DDK tag at C-terminal was expressed in HEK293.
Species	Human
Source	HEK293
Description	This protein belongs to the aldehyde dehydrogenase family of proteins. Aldehyde dehydrogenase is the second enzyme of the major oxidative pathway of alcohol metabolism. Two major liver isoforms of aldehyde dehydrogenase, cytosolic and mitochondrial, can be distinguished by their electrophoretic mobilities, kinetic properties, and subcellular localizations. Most Caucasians have two major isozymes, while approximately 50% of Orientals have the cytosolic isozyme but not the mitochondrial isozyme. A remarkably higher frequency of acute alcohol intoxication among Orientals than among Caucasians could be related to the absence of a catalytically active form of the mitochondrial isozyme. The increased exposure to acetaldehyde in individuals with the catalytically inactive form may also confer greater susceptibility to many types of cancer. This gene encodes a mitochondrial isoform, which has a low Km for acetaldehydes, and is localized in mitochondrial matrix. Alternative splicing results in multiple transcript variants encoding distinct isoforms.
Form	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Molecular Mass	54.4 kDa

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Notes	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Concentration	>50 ug/mL as determined by microplate BCA method

GENE INFORMATION

Gene Name	ALDH2 aldehyde dehydrogenase 2 family (mitochondrial) [Homo sapiens]
Official Symbol	ALDH2
Synonyms	ALDH2; aldehyde dehydrogenase 2 family (mitochondrial); aldehyde dehydrogenase, mitochondrial; ALDH class 2; liver mitochondrial ALDH; acetaldehyde dehydrogenase 2; nucleus-encoded mitochondrial aldehyde dehydrogenase 2; ALDM; ALDHI; ALDH-E2; MGC1806;
Gene ID	217
mRNA Refseq	NM_000690
Protein Refseq	NP_000681
MIM	100650
UniProt ID	P05091
Chromosome Location	12q24.12
Pathway	Arginine and proline metabolism, organism-specific biosystem; Arginine and proline

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	metabolism, conserved biosystem; Ascorbate and aldarate metabolism, organism-specific biosystem; Ascorbate and aldarate metabolism, conserved biosystem; Biological oxidations, organism-specific biosystem; Ethanol oxidation, organism-specific biosystem; Fatty Acid Omega Oxidation, organism-specific biosystem;
Function	aldehyde dehydrogenase (NAD) activity; aldehyde dehydrogenase [NAD(P)+] activity; electron carrier activity; oxidoreductase activity;

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