

Recombinant Human ALDH2 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. ALDH2-4336H Lot. No. (See product label)

SPECIFICATION

Product Overview	ALDH2 MS Standard C13 and N15-labeled recombinant protein (NP_000681) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
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 East Asians have the cytosolic isozyme but not the mitochondrial isozyme. A remarkably higher frequency of acute alcohol intoxication among East Asians 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.
Molecular Mass	56.4 kDa

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AA Sequence	MLRAAARFGPRLGRRLLSAAATQAVPAPNQQPEVFCNQIFINNEWHDAVSRKTFPT VNPSTGEVICQVAEGDKEDVDKAVKAARAAFQLGSPWRRMDASHRGRLLNRLADLI ERDRTYLAALETLDNGKPYVISYLVLDLMVLKCLRYAGWADKYHGKTIPIDGFFS YTRHEPVGVCGQIIPWNFLLMQAWKLGPALATGNVVMKVAEQTPLTALYVANLIK EAGFPPGVNIVPGFGPTAGAAIASHEDVDKVAFTGSTEIGRVIQVAAGSSNLKRVTL ELGGKSPNIIMSDADMDWAVEQAHFALFFNQGCCAGSRTFVQEDIYDEFVERSV ARAKSRVVGPNPFDKTEQGPQVDETQFKKILGYINTGKQEGAKLLCGGGIAADRGY FIQPTVFGDVQDGMTIAKEEIFGPVMQILKFKTIEEVVGRANNSTYGLAAAVFTKDLD KANYLSQALQAGTVWVNCYDVFGAQSPFGGYKMSGSGRELGEYGLQAYTEVKTVT VKVPQKNSTRTRPLEQKLISEEDLAANDILDYKDDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 3 months from receipt of products under proper storage and handling conditions.
Storage	Store at -80 centigrade. Avoid repeated freeze-thaw cycles.
Concentration	50 µg/mL as determined by BCA
Storage Buffer	100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name	ALDH2 aldehyde dehydrogenase 2 family member [Homo sapiens (human)]
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-

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E2; MGC1806;

Gene ID 217

mRNA Refseq NM_000690

Protein Refseq NP_000681

MIM 100650

UniProt ID P05091

SDS-PAGE



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