

Recombinant Full Length Human ALDH2 Protein, GST-tagged

Cat. No. ALDH2-671HF **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human ALDH2(1 a.a. - 517 a.a.) fused with GST tag at N-terminal was expressed in Wheat Germ.
Species	Human
Source	In Vitro Cell Free System
ProteinLength	517 amino acids
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	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

 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

Molecular Mass	82.8 kDa
AA Sequence	MLRAAARFGP RLGRRLLSAA ATQAVPAPNQ QPEVFCNQIF INNEWHDAVS RKTFTVNPS TGEVICQVAE GDKEDVDKAV KAARAAFQLG SPWRRMDASH RGRLLNRLAD LIERDRTYLA ALETLDNGKP YVISYLVLDL MVLKCLRYYA GWADKYHGKT IPIDGDDFFSY TRHEPVGVCQ QIIPWNFPLL MQAWKLGPAL ATGNVVVMKV AEQTPLTALY VANLIKEAGF PPGVVNIVPG FGPTAGAAIA SHEDVDKQAF TGSTEIGRVI QVAAGSSNLK RVTLELGGKS PNIIMSDADM DWAVEQAHFA LFFNQGCC AGSRTFVQED IYDEFVERSV ARAKSRVVG PFDSKTEQGP QVDETQFKKI LGYINTGKQE GAKLLCGGGI AADRGYFIQ TVFGDVQDGM TIAKEEIFGP VMQILKFKTI EEVVGGRANNS TYGLAAAVFT KDLDKANYLS QALQAGTVWV NCYDVFGAQS PFGGYKMSGG GRELGEYGLQ AYTEVKTVTV KVPQKNS
Applications	Enzyme-linked Immunoabsorbent Assay; Western Blot (Recombinant protein); Antibody Production; Protein Array
Storage	Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.
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

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mRNA Refseq	NM_000690
Protein Refseq	NP_000681
MIM	100650
UniProt ID	P05091

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