Recombinant Human ALDH1A1 protein

Cat. No. ALDH1A1-27035TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ALDH1A1(1-501aa) was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	1-501 a.a.
Description	Aldehyde dehydrogenase 1A1 (ALDH1A1), also known as retinal dehydrogenase 1, is the second enzyme of the major oxidative pathway of alcohol metabolism. Two major liver isoforms of this enzyme, cytosolic and mitochondrial, can be distinguished by their electrophoretic mobilities, kinetic properties, and subcellular localizations. ALDH1A1 also belongs to the group of corneal crystallins that help maintain the transparency of the cornea. (Retinal + NAD+ + H2O = retinoate + NADH).
Form	Liquid. In 50mM Tris-HCl buffer (pH7.5) containing 10% glycerol
Molecular Mass	54.8 kDa (501aa), confirmed by MALDI-TOF.
AA Sequence	MSSSGTPDLP VLLTDLKIQY TKIFINNEWH DSVSGKKFPV FNPATEEELC QVEEGDKEDV DKAVKAARQA FQIGSPWRTM DASERGRLLYKLADLIERDR LLLATMESMN GGKLYSNAYL NDLAGCIKTL RYCAGWADKI QGRTIPIDGN FFTYTRHEPI GVCGQIIPWN FPLVMLIWKIGPALSCGNTV VVKPAEQTPL TALHVASLIK EAGFPPGVVN IVPGYGPTAG AAISSHMDID KVAFTGSTEV GKLIKEAAGK SNLKRVTLELGGKSPCIVLA DADLDNAVEF AHHGVFYHQG

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	QCCIAASRIF VEESIYDEFV RRSVERAKKY ILGNPLTPGV TQGPQIDKEQ YDKILDLIESGKKEGAKLEC GGGPWGNKGY FVQPTVFSNV TDEMRIAKEE IFGPVQQIMK FKSLDDVIKR ANNTFYGLSA GVFTKDIDKA ITISSALQAGTVWVNCYGVV SAQCPFGGFK MSGNGRELGE YGFHEYTEVK TVTVKISQKN S
Purity	> 90% by SDS - PAGE
Storage	Can be stored at +4C short term (1-2 weeks). For long term storage, aliquot and store at -20C or -70C. Avoid repeated freezing and thawing cycles.
Concentration	1 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name	ALDH1A1 aldehyde dehydrogenase 1 family, member A1 [Homo sapiens]
Official Symbol	ALDH1A1
Synonyms	ALDH1A1; aldehyde dehydrogenase 1 family, member A1; ALDH1, PUMB1; retinal dehydrogenase 1; RALDH1; retinaldehyde dehydrogenase 1; ALHDII; RALDH 1; ALDH class 1; acetaldehyde dehydrogenase 1; aldehyde dehydrogenase 1, soluble; aldehyde dehydrogenase, liver cytosolic; ALDC; ALDH1; PUMB1; ALDH11; ALDH-E1; MGC2318;
Gene ID	216
mRNA Refseq	NM_000689
Protein Refseq	NP_000680

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MIM	100640
UniProt ID	P00352
Chromosome Location	9q21.13
Pathway	Biological oxidations, organism-specific biosystem; Ethanol oxidation, organism-specific biosystem; Fatty Acid Omega Oxidation, organism-specific biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; Phase 1 - Functionalization of compounds, organism-specific biosystem; Retinol metabolism, organism-specific biosystem;
Function	Ras GTPase activator activity; aldehyde dehydrogenase (NAD) activity; androgen binding; oxidoreductase activity; retinal dehydrogenase activity;

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