

Active Recombinant Human ALDH1A1 Protein

Cat. No. ALDH1A1-111H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human ALDH1A1 protein without tag was expressed in E. coli.
Species	Human
Source	E.coli
Description	The protein encoded by this gene belongs to the aldehyde dehydrogenase family. Aldehyde dehydrogenase is the next enzyme after alcohol dehydrogenase in the major pathway of alcohol metabolism. There are two major aldehyde dehydrogenase isozymes in the liver, cytosolic and mitochondrial, which are encoded by distinct genes, and can be distinguished by their electrophoretic mobility, kinetic properties, and subcellular localization. This gene encodes the cytosolic isozyme. Studies in mice show that through its role in retinol metabolism, this gene may also be involved in the regulation of the metabolic responses to high-fat diet.
Bio-activity	ALDH Activity Data(Unless otherwise stated, all assays are carried out at 37 centigrade in 50 mM Hepes buffer (pH 7.4) containing 1 mM EDTA and 1 mM NAD+) Substrate: 4-nitrobenzaldehyde Linear with time up to: 5 min(Determined at 2 μM substrate, using a protein concentration of 0.1 μg/ml) Linear with protein up to: 1 μg/ml(Determined at 2 μM substrate, using an incubation time of 4 min) Vmax: 0.54 nmol/min/μg protein Km: 1.2 μM

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Usage	For laboratory (research) purposes only
Storage	Store at -80 centigrade. Avoid frequent temperature changes. Thaw on ice.
Concentration	Protein Concentration: 10.0 mg/ml
Storage Buffer	10 mM sodium phosphate (pH 7.4), 140 mM NaCl
GENE INFORMATION	
Gene Name	ALDH1A1 aldehyde dehydrogenase 1 family member A1 [Homo sapiens (human)]
Official Symbol	ALDH1A1
Synonyms	ALDH1A1; aldehyde dehydrogenase 1 family member A1; ALDC; ALDH1; HEL-9; HEL12; PUMB1; ALDH11; RALDH1; ALDH-E1; HEL-S-53e; retinal dehydrogenase 1; ALDH class 1; ALHDII; RALDH 1; acetaldehyde dehydrogenase 1; aldehyde dehydrogenase 1, soluble; aldehyde dehydrogenase, liver cytosolic; epididymis luminal protein 12; epididymis luminal protein 9; epididymis secretory sperm binding protein Li 53e; retinaldehyde dehydrogenase 1
Gene ID	216
mRNA Refseq	NM_000689
Protein Refseq	NP_000680
MIM	100640
UniProt ID	P00352

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