

ALDH1A1 Human

Aldehyde Dehydrogenase 1A1 Human Recombinant

Catalogue Number	ENZ-453
Synonyms	ALDC, Aldehyde dehydrogenase cytosolic, Aldehyde dehydrogenase family 1 member A1, ALDH1, ALDH11, ALDH-E1, ALHDII, MGC2318, PUMB1, RaLDH1, RALDH1, RALDH 1, Retinal dehydrogenase 1, ALDH1A1.
Introduction	ALDH1A1 is part of the aldehyde dehydrogenases family. Aldehyde dehydrogenase is the 2nd protein of the main oxidative pathway of alcohol metabolism. Cytosolic and mitochondrial are 2 main liver isoforms of ALDH that are differentiated by their electrophoretic mobility, kinetic property, & subcellular localization. The majority of Caucasians have two main isozymes, whereas just about 50% of Orientals have only the cytosolic form, excluding the mitochondrial form. ALDH1A1 is also a member of the group of corneal crystallins that assist the transparency of the cornea. (Retinal + NAD ⁺ + H ₂ O = retinoate + NADH).
Description	The ALDH1A1 Human recombinant protein is a single, non-glycosylated polypeptide chain produced in E. coli, having a molecular weight of 54.8kDa and containing 501 amino acids (1-501 a.a.).
Source	Escherichia Coli.
Physical Appearance	Sterile Filtered clear solution.
Formulation	The ALDH1A1 protein solution is formulated in 50mM Tris-HCl pH-7.5 and 10% glycerol.
Amino Acid Sequence	MSSSGTPDLP VLLTDLKIY TKIFINNEWH DSVSGKKFPV FNPATEEELC QVEEGDKEDV DKAVKAARQA FQIGSPWRM DASERGRLLYKLADLIERDR LLLATMESMN GGKLYSNAYL NDLAGCIKTL RYCAGWADKI QGRTIPIDGN FFTYRHEPI GVCGQIIPWN FPLVMLIWKIGPALSCGNTV VVKPAEQTPL TALHVASLIK EAGFPPGVVN IVPYGYPTAG AAISSHMDID KVAFTGSTEV GKLIKEAAGK SNLKRVTLEL GKGSPCIVLA DADLDNAVEF AHHGVFYHQG QCCIAASRIF VEESIYDEFV RRSVERAKKY ILGNPLTPGV TQGPQIDKEQ YDKILD LIES GKKEGAKLEC GGGPWGNKGY FVQPTVFSNV TDEMRIAKEE IFGPVQQIMK FKSLDDVIKR ANNTFYGLSA GVFTKIDIDKA ITISSALQAG TVVWVNCYGVV SAQCFFGGFK MSGNGRÉLGE YGFHEYTEVK TVTVKISQKN S.
Purity	Greater than 90% as determined by SDS-PAGE.
Storage	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Please avoid freeze thaw cycles.