Recombinant Human ALDH1A1 (N-6His)

Catalog No: CF44

Description	Recombinant Human Aldehyde Dehydrogenase Family 1 Member A1 is produced by our E. coli expression system and the target gene encoding Met1-Ser501 is expressed with a 6His tag at the N-terminus.
Source	E. coli
Alternative name	Retinal Dehydrogenase 1; RALDH 1; RalDH1; ALDH-E1; ALHDII; Aldehyde Dehydrogenase Family 1 Member A1; Aldehyde Dehydrogenase Cytosolic; ALDH1A1; ALDC; ALDH1; PUMB1
Accession No.	P00352
Formulation	Supplied as a 0.2 μm filtered solution of 20mM Tris-HCl, 150mM NaCl, 20% Glycerol, 1mM DTT, pH 8.0.
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100μg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Quality Control	Purity: Greater than 95% as determined by reducing SDS-PAGE. Endotoxin: Less than 0.1 ng/μg (1 IEU/μg) as determined by LAL test.
Shipping	The product is shipped on dry ice/polar packs. Upon receipt, store it immediately at the temperature listed below.
Storage	Store at < -20°C, stable for 6 months after receipt. Please minimize freeze-thaw cycles.
Amino Acid Sequence	MCGNTMSVPLLTDAATVSGAERETAAVIFLHGLGDTGHSWADALSTIRLPHVKYICPHAPRIPVTLNMK MVMPSWFDLMGLSPDAPEDEAGIKKAAENIKALIEHEMKNGIPANRIVLGGFSQGGALSLYTALTCPHPL AGIVALSCWLPLHRAFPQAANGSAKDLAILQCHGELDPMVPVRFGALTAEKLRSVVTPARVQFKTYPGV MHSSCPQEMAAVKEFLEKLLPPVLEHHHHHH
Background	Aldehyde Dehydrogenase Family 1 Member A1 (ALDH1A1) is a cytoplasmic enzyme that belongs to the Aldehyde Dehydrogenase family. ALDH1A1 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 is the main cytosolic isoform, which has a lower affinity for aldehydes than the mitochondrial enzyme. ALDH1A1 binds free retinal and cellular retinol-binding protein-bound retinal. It can convert/oxidize retinaldehyde to retinoic acid.

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