

## Aldehyde dehydrogenase 1A1 Recombinant Protein | ALDH1A1 recombinant protein

Aldehyde dehydrogenase 1A1, 1-501aa, Human, E Coli

|                              |                       |                                 |
|------------------------------|-----------------------|---------------------------------|
| CATALOG #<br><b>AAA48589</b> | HOST<br><b>E Coli</b> | APPLICATIONS<br><b>SDS-Page</b> |
|------------------------------|-----------------------|---------------------------------|

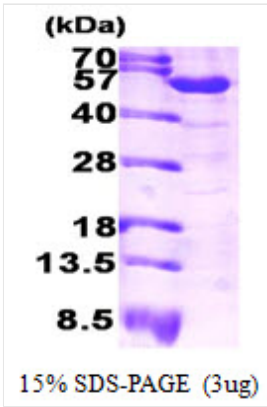
### PRODUCT SYNONYMS

Aldehyde dehydrogenase 1A1; 1-501aa; Human; E Coli; Retinal dehydrogenase 1; RALDH1; ALDC; ALDH-E1; ALDH1; ALDH11; PuMB1; Acetaldehyde dehydrogenase 1; AHD2; Aldehyde Dehydrogenase; MGC2318; RALDH 1; RalDH1 Aldehyde dehydrogenase 1 family member A1; Aldehyde dehydrogenase 1 soluble; Aldehyde dehydrogenase cytosolic; ALHDII; Aldehyde dehydrogenase family 1 member A1; Aldehyde dehydrogenase liver cytosolic; ALDH 1; ALDH 1A1; ALDH class 1; ALDH1 A1; ; ALDH1A1 recombinant protein

### PRODUCT SPECIFICATIONS

|                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                                    | E Coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Purity/Purification                                     | > 90% by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Form/Format                                             | Liquid. In 50mM Tris-HCl Buffer (pH 7.5) containing 10% glycerol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Concentration                                           | 1 mg/ml (determined by Bradford assay) (varies by lot)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Sequence                                                | MSSSGTPDLP VLLTDLKIY TKIFINNEWH DSVSGKKFPV FNPATEEEELC QVEEGDKEDV DKAVKAARQA<br>FQIGSPWRTM DASERGRLLY KLADLIERDR LLLATMESMN GGLKLYSNAYL NDLAGCIKTL RYCAGWADKI<br>QGR TIPIDGN FFTYTRHEPI GVC GQIIPWN FPLVMLIWKI GPALSCGNTV VVKPAEQTPL TALHVASLIK<br>EAGFPPGVVN IVPGYGPTAG AAISSHMDID KVAFTGSTEV GKLIKEAAGK SNLKRVTLEL GKGSPCIVLA<br>DADLDNAVEF AHG VFYHQG QCCIAASRIF VEESIYDEFV RRSVERAKKY ILGNPLTPGV TQGPQIDKEQ<br>YDKILD LIES GKKEGAKLEC GGGPWGNKGY FVQPTVFSNV TDEMRIAKEE IFGPVQQIMK FKSLDDVIKR<br>ANNTFYGLSA GVFTKDIDKA ITISSALQAG TVWVNCYGVV SAQCPFGGFK MSGNGRELGE YGFHEYTEVK<br>TVTVKISQKN S |
| Sequence Length                                         | 501                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Applicable Applications for ALDH1A1 recombinant protein | SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Antigen Species                                         | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Preparation and Storage                                 | Can be stored at 4 degree C short term (1-2 weeks).<br>For long term storage, aliquot and store at -20 degree C or -70 degree C.<br>Avoid repeated freezing and thawing cycles.                                                                                                                                                                                                                                                                                                                                                                                                                  |

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

|                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for ALDH1A1 recombinant protein | 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 <sup>+</sup> + H <sub>2</sub> O = retinoate + NADH) Recombinant ALDH1A1 protein was expressed in E Coli and purified by using conventional chromatography techniques. |
| Product Categories/Family for ALDH1A1 recombinant protein   | Redox Proteins                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| References                                                  | Pereira F., et al. (1991) Biochem Biophys Res Commun. 175 (3):831-8.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

NCBI AND UNIPROT INFORMATION

|                                  |                                                                      |
|----------------------------------|----------------------------------------------------------------------|
| NCBI GI #                        | 21361176                                                             |
| NCBI GeneID                      | 216                                                                  |
| NCBI Accession #                 | NP_000680                                                            |
| NCBI GenBank Nucleotide #        | NM_000689.4                                                          |
| UniProt Accession #              | P00352; O00768; Q5SYR1                                               |
| Molecular Weight                 | 54.8 kDa (501aa), confirmed by MALDI-TOF.                            |
| NCBI Official Full Name          | retinal dehydrogenase 1                                              |
| NCBI Official Synonym Full Names | aldehyde dehydrogenase 1 family member A1                            |
| NCBI Official Symbol             | ALDH1A1                                                              |
| NCBI Official Synonym Symbols    | ALDC; ALDH1; HEL-9; HEL12; PUMB1; ALDH11; RALDH1; ALDH-E1; HEL-S-53e |
| NCBI Protein Information         | retinal dehydrogenase 1                                              |
| UniProt Protein Name             | Retinal dehydrogenase 1                                              |
| UniProt Gene Name                | ALDH1A1                                                              |
| UniProt Synonym Gene Names       | RALDH 1Curated; RaLDH1Curated                                        |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

