

Human Recombinant ALDH3A1

CATALOG #: 6333-50 50 µg

ALTERNATE NAMES: Aldehyde dehydrogenase 3 family, member A1, ALDHIII, ALDH3.

SOURCE: E.Coli

PURITY: > 95% by SDS - PAGE

MOL. WEIGHT: 52.5 kDa (473 aa, 1-453 aa + His Tag (NT))

FORMULATION: 0.5 mg/ml solution in 20 mM Tris-HCl buffer (pH 8.0) containing 0.1 M NaCl and 10% glycerol.

STORAGE CONDITIONS:

Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

DESCRIPTION:

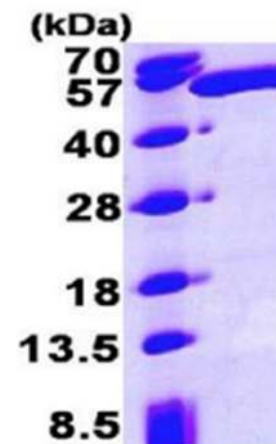
ALDH3A1, also known as Aldehyde dehydrogenase 3 family member A1, is involved in the detoxification of alcohol-derived acetaldehyde and in the metabolism of corticosteroids, biogenic amines, neurotransmitters, and lipid peroxidation. This protein forms a cytoplasmic homodimer that preferentially oxidizes aromatic and medium-chain (6 carbons or more) saturated and unsaturated aldehyde substrates. It is thought to promote resistance to UV and 4-hydroxy-2-nonenal-induced oxidative damage in the cornea.

AMINO ACID SEQUENCE:

MGSSHHHHHH SGLVPRGSH MSKISEAVKR ARAAFSSGRT RPLQFRIQQL
 EALQRLIQEQ EQELVGALAA DLHKNEWNAY YEEVVYVLEE IEYMIQKLPE WAADEPVEKT
 PQTQQDELYI HSEPLGVVLV IGTWNYPFNL TIQPMVGAIA AGNAVVLKPS ELSNEMASLL
 ATII PQYLDK DLYPVIINGGV PETTELLKER FDHILYTGST GVGKIIMTAA AKHLTPVTLE
 LGGKSPCYVD KNCDLDVACR RIAWGFKMNS GQTCVAPDYI LCDPSIQNQI VEKLLKSLKE
 FYGEDAKKSR DYGRISARH FQRVMGLIEG QKVAYGGTGD AATRYIAPTI LTDVDPQSPV
 MQEEIFGPVL PIVCVRSLEE AIQFINQREK PLALYMFSSN DKVIKKMIAE TSSGGVAAND
 VIVHITLHSL PFGGVGNSGM GSYHGKKSFE TFSHRRSCLV RPLMNDEGLK
 VRYPPSPAKM TQH

BIOLOGICAL ACTIVITY:

Specific activity is > 0.5 units/ml, and was obtained by measuring the increase of NADP in absorbance at 340 nm resulting from the reduction of NAD. One unit will oxidize 1.0 µmole of acetaldehyde to acetic acid per minute at pH 8.0 at 25°C in the presence of beta-NAD, potassium and thiols.



15% SDS-PAGE (3µg)
 Human Recombinant ALDH3A1

RELATED PRODUCTS:

- Aldehyde Dehydrogenase Activity Colorimetric Assay kit (Cat. No. K731-100)
- PicoProbe™ Aldehyde Dehydrogenase Activity Assay kit (Cat. No. K741-100)
- Human recombinant ALDH2 (Cat. No. 6332-100)
- Human recombinant AKR7A3 (Cat. No. 6334-50)
- Human recombinant AKR7A2 (Cat. No. 6335-50)
- Human recombinant AKR1C1 (Cat. No. 6336-50)
- Human recombinant AKR1C3 (Cat. No. 6337-50)
- Human recombinant AKR1C4 (Cat. No. 6338-50)
- Human recombinant AKR1B10 (Cat. No. 6339-50)

FOR RESEARCH USE ONLY! Not to be used in humans.

