

ALDH3A1, 1-453 aa

Human, His-tagged, Recombinant, *E.coli*

Cat. No. IBATGP0472

Full name: Aldehyde dehydrogenase 3 family, memberA1

NCBI Accession No.: AAH04370

Synonyms: ALDHIII, ALDH3

Description: ALDH3A1, also known as Aldehyde dehydrogenase 3 family memberA1, 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. Recombinant human ALDH3A1 protein, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography techniques

Form: Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 0.1M NaCl

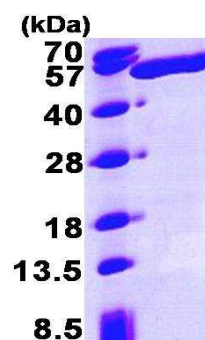
Molecular Weight: 52.5 kDa (473aa)

Purity: > 95% by SDS - PAGE

Concentration: 0.5 mg/ml (determined by Bradford assay)

Endotoxin Level: < 1.0 EU per 1 µg of protein (determined by LAL method)

Biological activity: Specific activity is > 5,000 pmol/min/ug. It was obtained by measuring the increase of NADPH in absorbance at 340nm resulting from the reduction of NADP at pH9.0 at 37C.



15% SDS-PAGE (3ug)

Sequences of amino acids:

MGSSHHHHHH SSGLVPRGSH MSKISEAVKR ARAAFSSGRT RPLQFRIQQL EALQRLIQEQ EQELVGALAA DLHKNEWNAY YEEVVVLEE
IEYMIQKLPE WAADEPVEKT PQTQQDELYI HSEPLGVVLV IGTWNYPFNL TIQPMVGAIA AGNAVVLKPS ELSNEMASLL ATIIPQYLDK
DLYPVINGGV PETTELLKER FDHILYTGST GVGKIIMTAA AKHLTPVTL E LGGKSPCYVD KNCDL DVACR RIAWGKFMNS GQTCVAPDYI
LCDPSIQNQI VEKLKSLKE FYGEDAKKSR DYGRISIARH FQVMGLIEG QKVAYGGTGD AATRYIAPTI LTDVDPQSPV MQEEIFGPVL
PIVCVRSLEE AIQFINQREK PLALYMFSSN DKVIKKMIAE TSSGGVAAND VIVHITLHSL PFGGVGNSGM GSYHGKKSFE TFSHRRSCLV
RPLMNDEGLK VRYPPSPAKM TQH

General references:

Estey T., *et al.* (2007) *Exp Eye Res.* 84(1):3-12

Bogucka M., *et al.* (2009) *Acta Pol Pharm.* 66(5):477-82

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.



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Product information



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Storage: 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.

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