www.neobiolab.com
info@neobiolab.com
888.754.5670, +1 617.500.7103 United States
0800.088.5164, +44 020.8123.1558 United Kingdom

ALDH3A1 Human

Catalog #:ENPS-486

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Description:ALDH3A1 Human Recombinant produced in E.Coli is a single, non-glycosylated,polypeptide chain containing 473 amino acids (1-453 a.a.) and having a molecular mass of 52.5 kDa. ALDH3A1 is fused to a 20 amino acid His Tag at N-terminus and purified by proprietary chromatographic techniques.

Synonyms: Aldehyde dehydrogenase 3 family member A1, aldehyde dehydrogenase, dimeric NADP-preferring, ALDH-3, aldehyde dehydrogenase isozyme, ALDHIII,MGC104062, aldehyde dehydrogenase type III, Aldehyde dehydrogenase, stomach aldehyde dehydrogenase, EC 1.2.1.53, al

Source: Escherichia Coli.

Physical Appearance: Sterile filtered colorless solution.

Amino Acid Sequence:MGSSHHHHHH SSGLVPRGSH MSKISEAVKR ARAAFSSGRT RPLQFRIQQL EALQRLIQEQ EQELVGALAA DLHKNEWNAY YEEVVYVLEE IEYMIQKLPE WAADEPVEKT PQTQQDELYI HSEPLGVVLV IGTWNYPFNL TIQPMVGAIA AGNAVVLKPS ELSENMASLL ATIIPQYLDK DLYPVINGGV PETTELLKER FDHILYTGST GVGKIIMTAA AKHLTPVTLE LG

Purity: Greater than 95% as determined by SDS-PAGE.

Formulation:
ALDH3A1 solution containing 20mM Tris-HCl pH-8, 0.1M NaCl and 10% glycerol.

Stability:
Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Avoid multiple freeze-thaw cycles.

Usage:
NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. They may not be used as drµgs, agricultural or pesticidal products, food additives or household chemicals.

Introduction:
ALDH3A1 is involved in the detoxification of alcohol-derived acetaldehyde. ALDH3A1 participates in the metabolism of corticosteroids, biogenic amines, neurotransmitters, and lipid peroxidation. ALDH3A1 oxidizes aromatic aldehyde substrates and toxic aldehydes. ALDH3A1 forms a cytoplasmic homodimer that oxidizes aromatic and medium-chain saturated and unsaturated aldehyde substrates. ALDH3A1 promotes resistance to UV and 4-hydroxy-2-nonenal-induced oxidative damage in the cornea.

Biological Activity:
Specific activity was found to be < 1 units/ml. Activity was obtained by measuring the increase of NADP in absorbance at 340 nm resulting from the reduction of NAD. 1 unit will oxidize 1umole of acetaldehyde to acetic acid per minute at pH 8 at 25°C in the presence of beta-NAD, potassium and thiols.

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