

Product datasheet for RC225751L3

OriGene Technologies, Inc.

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ALDH3A1 (NM_001135168) Human Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: ALDH3A1 (NM_001135168) Human Tagged Lenti ORF Clone

Tag: Myc-DDK
Symbol: ALDH3A1

Synonyms: ALDH3; ALDHIII

Mammalian Cell Puromycin

Selection:

Vector: pLenti-C-Myc-DDK-P2A-Puro (PS100092)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clone is exactly the same as(RC225751).

Sequence:

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF.

ACCN: NM_001135168

ORF Size: 1359 bp





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OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of

reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing

variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression

varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube

containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method: 1. Centrifuge at 5,000xg for 5min.

2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.

3. Close the tube and incubate for 10 minutes at room temperature.

4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid

at the bottom.

5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of

shipping when stored at -20°C.

RefSeq: NM 001135168.1, NP 001128640.1

RefSeq ORF: 1362 bp

Locus ID: 218

UniProt ID: P30838

Cytogenetics: 17p11.2

Protein Families: Druggable Genome

Protein Pathways: Drug metabolism - cytochrome P450, Glycolysis / Gluconeogenesis, Histidine metabolism,

Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Phenylalanine

metabolism, Tyrosine metabolism

MW: 50.2 kDa

Gene Summary: Aldehyde dehydrogenases oxidize various aldehydes to the corresponding acids. They are

involved in the detoxification of alcohol-derived acetaldehyde and in the metabolism of corticosteroids, biogenic amines, neurotransmitters, and lipid peroxidation. The enzyme encoded by this gene 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. The gene is located within the Smith-Magenis syndrome region on chromosome 17. Multiple alternatively spliced variants, encoding the same protein, have been identified.

[provided by RefSeq, Sep 2008]