

Product datasheet for RC204884L3

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

ALDH4A1 (NM_170726) Human Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: ALDH4A1 (NM_170726) Human Tagged Lenti ORF Clone

Tag: Myc-DDK Symbol: ALDH4A1

Synonyms: ALDH4; P5CD; P5CDh

Mammalian Cell Puromycin

Selection:

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

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

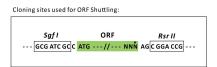
ORF Nucleotide The ORF insert of this clo

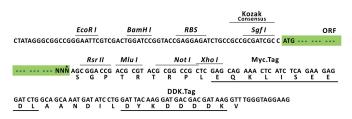
Sequence:

The ORF insert of this clone is exactly the same as(RC204884).

Restriction Sites: Sgfl-Rsrll

Cloning Scheme:





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

ACCN: NM_170726

ORF Size: 1689 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: <u>NM 170726.1</u>

 RefSeq Size:
 2386 bp

 RefSeq ORF:
 1692 bp

 Locus ID:
 8659

 UniProt ID:
 P30038

Cytogenetics: 1p36.13

Protein Families: Druggable Genome

Protein Pathways: Alanine, aspartate and glutamate metabolism, Arginine and proline metabolism, Metabolic

pathways

MW: 61.7 kDa

Gene Summary: This protein belongs to the aldehyde dehydrogenase family of proteins. This enzyme is a

mitochondrial matrix NAD-dependent dehydrogenase which catalyzes the second step of the proline degradation pathway, converting pyrroline-5-carboxylate to glutamate. Deficiency of this enzyme is associated with type II hyperprolinemia, an autosomal recessive disorder characterized by accumulation of delta-1-pyrroline-5-carboxylate (P5C) and proline.

Alternatively spliced transcript variants encoding different isoforms have been identified for

this gene. [provided by RefSeq, Jun 2009]