

Product datasheet for **RC221335**

ALDH3B1 (NM_001030010) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALDH3B1 (NM_001030010) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ALDH3B1
Synonyms:	ALDH4; ALDH7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC221335 representing NM_001030010
 Red=Cloning site Blue=ORF Green=Tags(s)

CTATAGGGCGGCCGGGAATTCGTCTGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCCGGCGC
 GCC

ATGGACCCCTTGGGACACGCTGCGGCGACTGCGGGAGGCCTCCACGCGGGGCGCACGCGGCCAGCTG
 AGTTCCGGGTGCGCAGCTCCAAGGCCTGGGCCGCTTCTGCAAGAAAACAAGCAGCTTCTGCACGACGC
 ACTGGCCAGGACCTGCACAAGGCCACGACGCTGGACTCCGCTTCATCCGGAAGGAGCCCTTTGGCCTG
 GTCCTCATATTGCGCCCTGGAATATCCGCTGAACCTGACGCTGGTGCCTCGTGGGAGCCCTCGCTG
 CAGGGAAGTGTGTGGTGTGAAGCCATCGGAGATTAGCAAGAAGCTCGAGAAGATCTGGCCGAGGTGCT
 GCCCAATACGTGGACCAGAGCTGCTTTGCTGTGGTGTGGGCGGGCCAGGAGACGGGCGAGCTGCTA
 GAGCACAGTTGACTACATCTTTCACAGGGAGCCCTCGTGTGGCAAGATTGTTATGACTGCTGCCG
 CCAAGCACCTGACACCTGTACCCTGGAGCTGGGGGCAAGAACCCTTGCTACGTGGACGACAACCTGCA
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 TCTATGGCGACGACCCCCAGAGCTCCCCAACCTGGGCGGCATCATCAACCAGAAACAGTTCCAGCGGCT
 GCGGGCATTGCTGGGCTGCGGCCGTGTGCCATTGGGGCCAGAGCGATGAGAGCGATCGCTACATCGCC
 CCCACGGTGTGGTGGATGTGCAGGAGATGGAGCCTGTGATGCAGGAGGAGATCTTCGGGCCATCCTGC
 CCATCGTGAACGTGCAGAGCTTGGACGAGGCCATCGAGTTCATCAACGGCGGGAGAAGCCCTGGCCCT
 GTACGCCCTTCCAACAGCAGCCAGGTGGTCAAGCGGGTGTGACCCAGACCAGCAGCGGGGCTTCTGT
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 GATGGAGAAGCTCAACGCCCTCCGCTACCCGCCGAATCGCCGCCCGCCTGAGGATGCTGCTGGTGCC
 ATGGAGGCCAAGGCTGCAGCTGCACACTGCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221335 representing NM_001030010
 Red=Cloning site Green=Tags(s)

MDPLGDLRRLREAFHAGRTRPAEFRAAQLQGLGRFLQENKQLLHDLAQLDHKATQLDSAFIRKEPFG
 VLIIAPWNYPLNLTLVPLVGALAAGNCVVLKPSEISKVVEKILAEVLPQYVDQSCFAVVLGGPQETGQLL
 EHRFDYIFFTGSPRVGKIVMTAAAKHLTPVTLELGGKNPCYVDDNCDPQTVANRVAVFRYFNAGQTCVAP
 DYVLCSPQMQLRLLPALQSTITRFYGGDPQSSPNLGRINQKQFQRLRALLGCGRVAIGGQSDSDRYIA
 PTVLVDVQEMEPVMQEEIFGPILPIVNVQSLDEAIEFINRREKPLALYAFSNSSQVVKRVLQTSSGGFC
 GNDGFMHMTLASLPFGGVGASGMGRYHGKFSFDTFSHRACLRLRSPGMEKLNALRYPPQSPRRRLMLLVA
 MEAQGCSTLL

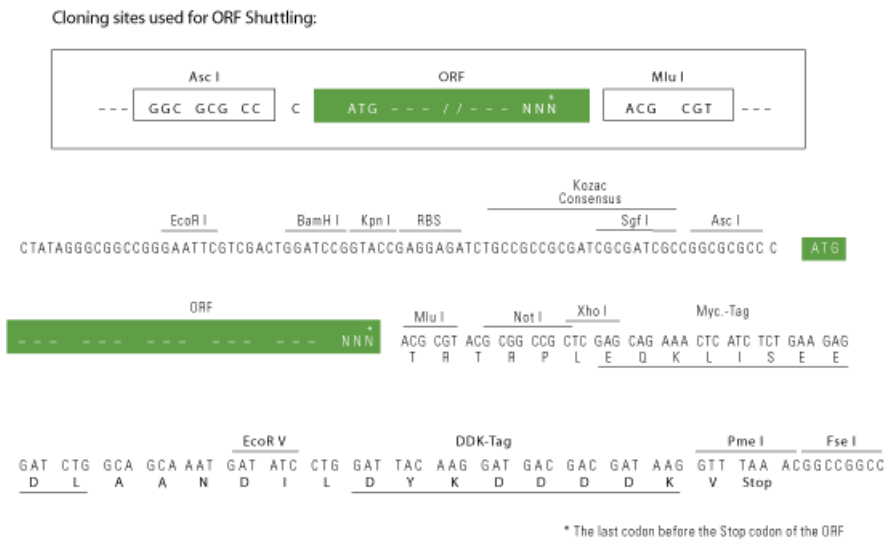
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8042_e10.zip

Restriction Sites:

Ascl-MluI

Cloning Scheme:


ACCN: NM_001030010

ORF Size: 1293 bp

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_001030010.3](#)

RefSeq Size: 2746 bp

RefSeq ORF: 1296 bp

Locus ID: 221

UniProt ID: [P43353](#)

Cytogenetics: 11q13.2

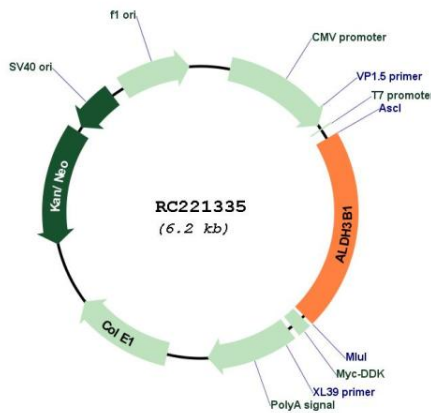
Protein Families: Druggable Genome

Protein Pathways: Drug metabolism - cytochrome P450, Glycolysis / Gluconeogenesis, Histidine metabolism, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Phenylalanine metabolism, Tyrosine metabolism

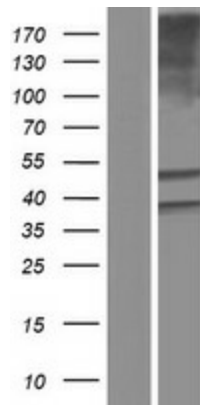
MW: 47.5 kDa

Gene Summary: This gene encodes a member of the aldehyde dehydrogenase protein family. Aldehyde dehydrogenases are a family of isozymes that may play a major role in the detoxification of aldehydes generated by alcohol metabolism and lipid peroxidation. The encoded protein is able to oxidize long-chain fatty aldehydes in vitro, and may play a role in protection from oxidative stress. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2014]

Product images:



Circular map for RC221335



Western blot validation of overexpression lysate (Cat# [LY422233]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221335 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).