

Product datasheet for **RG202242**

ALDH3B1 (NM_000694) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALDH3B1 (NM_000694) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ALDH3B1
Synonyms:	ALDH4; ALDH7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG202242 representing NM_000694
 Red=Cloning site Blue=ORF Green=Tags(s)

GACGTTGTATACGACTCCTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGGCGCGCC

ATGGACCCCTTGGGACACGCTGCGGCGACTGCGGGAGGCCTCCACGCGGGGCGCACGGCCAGCTG
 AGTTCCGGGCTGCGCAGCTCCAAGGCCTGGGCCGCTTCTGCAAGAAAACAAGCAGCTTCTGCACGACGC
 ACTGGCCAGGACCTGCACAAGTCAGCCTTCGAGTCGGAGGTGTCTGAGTTGCCATCAGCCAGGGCGAG
 GTCACCCTGGCCCTCAGGAACCTCCGGGCTGGATGAAGGACGAGCGTGTGCCAAGAACCTGGCCACGC
 AGCTGGACTCCGCTTTCATCCGGAAGGAGCCCTTGGCCCTGCTCATCATTGCGCCCTGGAACATCC
 GCTGAACCTGACGCTGGTCCCTCGTGGGAGCCCTCGCTGCAGGAACTGTGTGGTGTGAAGCCATCG
 GAGATTAGCAAGAAGCTCGAGAAGATCCTGGCCGAGGTGTGCCCAATACGTGGACCAGAGCTGCTTTG
 CTGTGGTGTGGCGGGCCAGGAGACGGGCGAGCTGCTAGAGCACAGTTGACTACATCTTCTTCCAC
 AGGGAGCCCTCGTGTGGCAAGATTGTTATGACTGCTGCCGCAAGCACCTGACACCTGTACCCTGGAG
 CTGGGGGCAAGAACCCTTGTACGTGGACGACAACCTGCCACCCAGACCGTGGCCAACCCGCTGGCCT
 GTTCCGCTACTTCAACGCCGGCCAGACCTGCGTGGCCCCGACTACGTCTATGACGCCCTGAGATGCA
 GGAGAGGCTGCTGCCTGCCCTGCAGAGCACCATCACCCGTTTCTATGGCGACGACCCAGAGCTCCCA
 AACCTGGGCCGCATCATCAACCAGAAACAGTTCACGCGGCTGCGGGCATTGCTGGGCTGCGGCCGTGTG
 CCATTGGGGCCAGAGCGATGAGAGCGATCGCTACATCGCCCCACGGTGTGGTGGATGTGAGGAGAT
 GGAGCCTGTGATGAGGAGGAGATCTTCGGGCCATCTGCCATCGTGAACGTGACAGCTTGGACGAG
 GCCATCGAGTTCATCAACCGCGGGAGAAGCCCTGGCCCTGTACGCTTCTCCAACAGCAGCCAGGTGG
 TCAAGCGGTGCTGACCCAGACCAGCAGCGGGGCTTCTGTGGAACGACGGCTTCATGCACATGACCCT
 GGCCAGCCTGCCTTTGGAGGAGTGGGTGCCAGTGGGATGGGCGGTACCATGGCAAGTTCTCCTTCGAC
 ACCTTCTCCACCATCGCGCCTGCTCCTGCGCAGCCGGGGATGGAGAAGCTCAACGCCCTCCGCTACC
 CGCCGCAATCGCCGCGCCGCTGAGGATGCTGCTGGTGGCCATGGAGGCCAAGGCTGCAGCTGCACACT
 GCTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG202242 representing NM_000694
 Red=Cloning site Green=Tags(s)

MDPLGDTLRRLEAFHAGRTRPAEFRAAQLQGLGRFLQENKQLLHDLAQLHKSFAFESEVSEVAISQGE
 VTLALRNLRAWMKDERVPKNLATQLDSAFIRKEPFLVLIAPWNYPLNLTLVPLVGALAAGNCVVKPS
 EISKNEKILAEVLPQYVDQSCFAVVLGGPQETGQLLEHRFDYIFFTGSPRVGKIVMTAAAKHLTPVTLE
 LGGKNPCYVDDNCDPQTVANRVAWFRYFNAGQTCVAPDYVLCSPQMQRLLPALQSTITRFYGGDDPQSSP
 NLGRIINQKQFQRLRALLGCGRVAIGGQSDSDRYIAPTIVLDVQEMEPVMQEEIFGPILPIVNVQSLDE
 AIEFINRREKPLALYAFSNSSQVVKRVLQTSSGGFCGNDGFMHMTLASLPFGGVSAGSMGRYHGKFSFD
 TFSHRACLLRSPGMEKLNALRYPPQSPRRLRMLLVAMEAQGCSTLL

TRTRPLE – GFP Tag – V

Restriction Sites:

AscI-MluI

Cloning Scheme:


ACCN: NM_000694

ORF Size: 1404 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

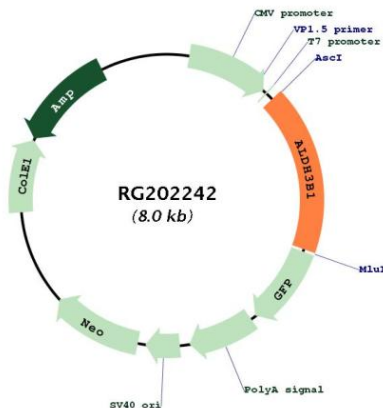
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_000694.4](#)
RefSeq Size: 2857 bp
RefSeq ORF: 1407 bp
Locus ID: 221
UniProt ID: [P43353](#)
Cytogenetics: 11q13.2
Domains: aldedh
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
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 RG202242