

Product datasheet for **RG200684**

ALDH1B1 (NM_000692) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALDH1B1 (NM_000692) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ALDH1B1
Synonyms:	ALDH5; ALDHX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG200684 representing NM_000692
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTGCGCTTCCTGGCACCCCGCTGCTTAGCCTCCAGGGCAGGACCGCCGCTACTCCTCGGCAGCAG
 CCCTCCCAAGCCCATCTGAACCCAGACATCCCTACAACCAGCTGTTATCAACAATGAATGGCAAGA
 TGCAGTCAGCAAGAAGACCTTCCCGACGGTCAACCCTACCACCGGGAGGTTCATCGGGCAGCTGGCTGAA
 GGTGACCGGGCTGATGTGGATCGGGCCGTGAAAGCAGCCCGGAAGCCTTCCGCCTGGGGTCCCCATGGC
 GCCGGATGGATGCCTCTGAGCGGGCCGGCTGCTGAACCTCCTGGCAGACCTAGTGGAGCGGGATCGAGT
 CTACTTGGCCTCACTCGAGACCTTGACAATGGGAAGCCTTCCAAGAGTCTTACGCCTTGGACTTGGAT
 GAGGTCATCAAGGTGATCGGTACTTTGCTGGCTGGGCTGACAAGTGGCATGGCAAGACCATCCCCATGG
 ATGGCCAGCATTCTGCTTCACCCGGCATGAGCCCGTTGGTGTCTGTGGCCAGATCATCCCGTGGAACTT
 CCCCTTGGTCATGCAGGGTTGAAAACCTGCCCCGGCACTGCCACAGGCAACACTGTGGTTATGAAGGTG
 GCAGAGCAGACCCCTCTCTGCCCTGTATTTGGCCTCCCTCATCAAGGAGGCAGGCTTTCCTCCCTGGGG
 TGGTGAACATCATCACGGGGTATGGCCCAACAGCAGGTGCGGCCATCGCCAGCAGCATGGATGTTGACAA
 AGTTGCCCTTACCGGTTCCACCGAGGTGGGCCACCTGATCCAGAAAGCAGCTGGCGATTCCAACCTCAAG
 AGAGTCACCCCTGGAGCTGGGTGGTAAGAGCCCCAGCATCGTGTGGCCGATGCTGACATGGAGCATGCCG
 TGGAGCAGTGCCACGAAGCCCTGTTCTTCAACATGGGCCAGTGTCTGTGTCTGGCTCCCGGACCTTCGT
 GGAAGAATCCATCTACAATGAGTTTCTCGAGAGAACCTGGAGAAAGCAAAGCAGAGGAAAGTGGGGAAC
 CCCTTTGAGCTGGACACCCAGCAGGGCCCTCAGGTGGACAAGGAGCAGTTTGAACGAGTCTAGGCTACA
 TCCAGCTTGGCCAGAAGGAGGGCGAAAACCTCTGTGGCGGAGAGCGTTTCGGGGAGCGTGGTTTCTT
 CATCAAGCCTACTGTCTTTGGTGGCGTGCAGGATGACATGAGAATTGCCAAAGAGGAGATCTTTGGCCT
 GTGCAGCCCTGTTCAAGTTCAAGAAGATTGAGGAGGTGGTTGAGAGGGCCAACAACACAGGTATGGCC
 TGGCTGCGGCTGTGTTACCCCGGATCTGGACAAGGCCATGACTTACCCAGGCACTCCAGGCCGGGAC
 CGTGTGGGTAAACACCTACAACATCGTCACCTGCCACACGCCATTTGGAGGGTTAAGGAATCTGGAAAC
 GGGAGGGAGCTGGGTGAGGATGGGCTTAAGGCCTACACAGAGGTAAGACGGTCACCATCAAGTTCTCTC
 AGAAGAACTCG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG200684 representing NM_000692
 Red=Cloning site Green=Tags(s)

MLRFLAPRLLSLQGRTRYSSAAALPSPILNPDIPYNQLFINNEWQDAVSKKTFPTVNPPTTGEVIGHVAE
 GDRADVDRAVKAAREAFRLGSPWRRMDASERGLLNLLADLVERDRVYLASLETLDNGKPFQESYALDLD
 EVIKVYRYFAGWADKWHGKTIPMDGQHFCFTRHEPVGVCQIIPWNFPLVMQGWKLAPALATGNTVVMKV
 AEQTPLSALYLASLIKEAGFPVGVNIITGYGPTAGAAIAQHMDVDKVAFTGSTEVGHLIQAAGDSNLK
 RVTLELGGKSPSIVLADADMEHAVEQCHEALFFNMGCCAGSRTFVEESIYNEFLERTVEKAKQRKVG
 NPFELDTQQGPQVDKEQFERVLGYIQLGQKEGAKLLCGGERFGERGFFIKPTVFGGVQDDMRIAKEEIFGP
 VQPLFKFKKIEEVVERANNTRYGLAAAVFTRDLDKAMYFTQALQAGTVVWNTYNIIVTCHTPFGGFKESGN
 GRELGEDGLKAYTEVKTVTIKVPQKNS

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_000692

ORF Size: 1551 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).

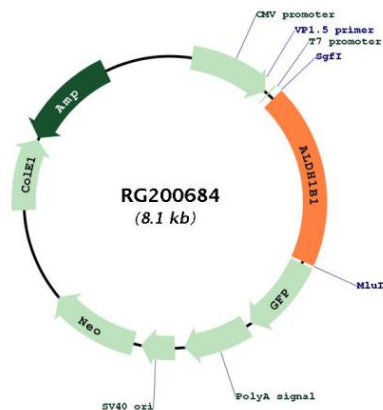
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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_000692.2](#)

RefSeq Size: 3044 bp
RefSeq ORF: 1554 bp
Locus ID: 219
UniProt ID: [P30837](#)
Cytogenetics: 9p13.1
Domains: aldedh
Protein Families: Druggable Genome
Protein Pathways: Arginine and proline metabolism, Ascorbate and aldarate metabolism, beta-Alanine metabolism, Butanoate metabolism, Fatty acid metabolism, Glycerolipid metabolism, Glycolysis / Gluconeogenesis, Histidine metabolism, Limonene and pinene degradation, Lysine degradation, Metabolic pathways, Propanoate metabolism, Pyruvate metabolism, Tryptophan metabolism, Valine, leucine and isoleucine degradation

Gene Summary: This protein belongs to the aldehyde dehydrogenases family of proteins. Aldehyde dehydrogenase is the second enzyme of the major oxidative pathway of alcohol metabolism. This gene does not contain introns in the coding sequence. The variation of this locus may affect the development of alcohol-related problems. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG200684