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Product datasheet for RC200684

ALDH1B1 (NM_000692) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALDH1B1 (NM_000692) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ALDH1B1
Synonyms:	ALDH5; ALDHX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>RC200684 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTGCGCTTCCTGGCACCCCGGCTGCTTAGCCTCCAGGGCAGGACCGCCCGCTACTCCTCGGCAGCAG
CCCTCCCAAGCCCCATTCTGAACCCAGACATCCCCTACAACCAGCTGTTCATCAACAATGAATGGCAAGA
TGCAGTCAGCAAGAAGACCTTCCCGACGGTCAACCCTACCACCGGGGAGGTCATCGGGCACGTGGCTGAA
GGTGACCGGGCTGATGTGGATCGGGCCGTGAAAGCAGCCCGGGAAGCCTTCCGCCTGGGGTCCCCATGGC
GCCGGATGGATGCCTCTGAGCGGGGCCGGCTGCTGAACCTCCTGGCAGACCTAGTGGAGCGGGATCGAGT
CTACTTGGCCTCACTCGAGACCTTGGACAATGGGAAGCCTTTCCAAGAGTCTTACGCCTTGGACTTGGAT
GAGGTCATCAAGGTGTATCGGTACTTTGCTGGCTGGGCTGACAAGTGGCATGGCAAGACCATCCCCATGG
ATGGCCAGCATTTCTGCTTCACCCGGCATGAGCCCGTTGGTGTCTGTGGCCAGATCATCCCGTGGAACTT
CCCCTTGGTCATGCAGGGTTGGAAACTTGCCCCGGCACTCGCCACAGGCAACACTGTGGTTATGAAGGTG
GCAGAGCAGACCCCCCTCTCTGCCCTGTATTTGGCCTCCCTCATCAAGGAGGCAGGCTTTCCCCCTGGGG
TGGTGAACATCATCACGGGGTATGGCCCAACAGCAGGTGCGGCCATCGCCCAGCACATGGATGTTGACAA
AGTTGCCTTCACCGGTTCCACCGAGGTGGGCCACCTGATCCAGAAAGCAGCTGGCGATTCCAACCTCAAG
AGAGTCACCCTGGAGCTGGGTGGTAAGAGCCCCAGCATCGTGCTGGCCGATGCTGACATGGAGCATGCCG
TGGAGCAGTGCCACGAAGCCCTGTTCTTCAACATGGGCCAGTGCTGCTGTGCTGGCTCCCGGACCTTCGT
GGAAGAATCCATCTACAATGAGTTTCTCGAGAGAACCGTGGAGAAAGCAAAGCAGAGGAAAGTGGGGAAC
CCCTTTGAGCTGGACACCCAGCAGGGGCCTCAGGTGGACAAGGAGCAGTTTGAACGAGTCCTAGGCTACA
TCCAGCTTGGCCAGAAGGAGGGCGCAAAACTCCTCTGTGGCGGAGAGCGTTTCGGGGAGCGTGGTTTCTT
CATCAAGCCTACTGTCTTTGGTGGCGTGCAGGATGACATGAGAATTGCCAAAGAGGAGATCTTTGGGCCT
GTGCAGCCCCTGTTCAAGTTCAAGAAGATTGAGGAGGTGGTTGAGAGGGCCAACAACACCAGGTATGGCC
TGGCTGCGGCTGTGTTCACCCGGGATCTGGACAAGGCCATGTACTTCACCCAGGCACTCCAGGCCGGGAC
CGTGTGGGTAAACACCTACAACATCGTCACCTGCCACACGCCATTTGGAGGGTTTAAGGAATCTGGAAAC
GGGAGGGAGCTGGGTGAGGATGGGCTTAAGGCCTACACAGAGGTAAAGACGGTCACCATCAAGGTTCCTC
AGAAGAACTCG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200684 protein sequence
Red=Cloning site Green=Tags(s)

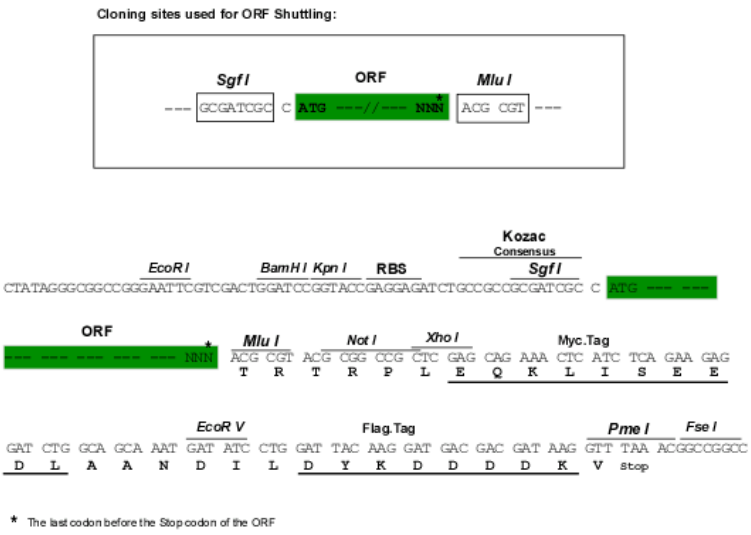
MLRFLAPRLLSLQGRTARYSSAAALPSPILNPDIPYNQLFINNEWQDAVSKKTFPTVNPTTGEVIGHVAE
GDRADVDRAVKAAREAFRLGSPWRRMDASERGRLLNLLADLVERDRVYLASLETLDNGKPFQESYALDLD
EVIKVYRYFAGWADKWHGKTIPMDGQHFCFTRHEPVGVCGQIIPWNFPLVMQGWKLAPALATGNTVVMKV
AEQTPLSALYLASLIKEAGFPPGVVNIITGYGPTAGAAIAQHMDVDKVAFTGSTEVGHLIQKAAGDSNLK
RVTLELGGKSPSIVLADADMEHAVEQCHEALFFNMGQCCCAGSRTFVEESIYNEFLERTVEKAKQRKVGN
PFELDTQQGPQVDKEQFERVLGYIQLGQKEGAKLLCGGERFGERGFFIKPTVFGGVQDDMRIAKEEIFGP
VQPLFKFKKIEEVVERANNTRYGLAAAVFTRDLDKAMYFTQALQAGTVWVNTYNIVTCHTPFGGFKESGN
GRELGEDGLKAYTEVKTVTIKVPQKNS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6080_g11.zip

Restriction Sites: SgfI-MluI

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.

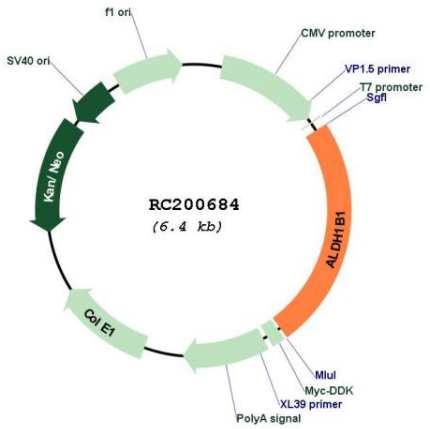
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.

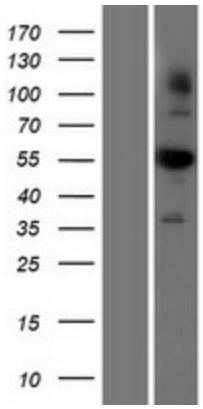
RefSeq: NM_000692.2

RefSeq Size:	3088 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
MW:	57.2 kDa
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]

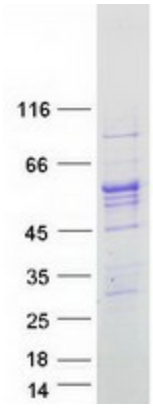
Product images:



Circular map for RC200684



Western blot validation of overexpression lysate (Cat# [LY424568]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200684 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ALDH1B1 protein (Cat# [TP300684]). The protein was produced from HEK293T cells transfected with ALDH1B1 cDNA clone (Cat# RC200684) using MegaTran 2.0 (Cat# [TT210002]).