

Product datasheet for **RC235023**

ALDH1L1 (NM_001270364) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALDH1L1 (NM_001270364) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ALDH1L1
Synonyms:	10-fTHF; 10-FTHFDH; FDH; FTHFD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC235023 representing NM_001270364
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCAGGTCCTTCCAACCTCCTGCTACCATGAAGATTGCAGTGATTGGACAGAGCCTGTTTGGCCAGG
 AAGTTTACTGCCACCTGAGGAAGGAGGGCCACGAAGTGGTGGTGTGTTCACTGTTCCAGACAAGGATGG
 AAAGGCCGACCCCTGGGTCTGGAAGCTGAGAAGGATGGAGTGCCGGTATTCAAGTACTCCCGTGGCGT
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 CCTTCTGCAGCAATTCATCCCATGGAGATAATCAGTGCCCCCGGCATGGCTCCATCATCTATCACCC
 GTCACTGCTCCCTAGGCACCGAGGGGCTCGGCCATCACTGGACCCTCATTACGGAGATAAGAAAGGG
 GGGTTTTCCATCTTCTGGCGGATGATGGTCTGGACACCGGAGACCTGCTGCTGCAGAAGGAGTGTGAGG
 TGCTCCCGGACGACACCGTGAGCAGCTGTACAACCGCTTCTCTCCCTGAAGGCATCAAAGGGATGGT
 GCAGGCCGTGAGGCTGATCGCTGAGGGCAAAGCCCCAGACTCCCTCAGCCTGAGGAAGGAGCCACCTAT
 GAGGGGATTGAGAAGAAGGAGACAGCAAGATCAACTGGGACCAGCCGGCAGAGGCCATTACAACCTGGA
 TCCGCGGGAACGACAAGGTGCCGGGAGCCTGGACAGAGGCTGTGAACAGAACTGACATTTTTCAACTC
 AACGCTGAACACTTCAGGCCTGGTCCCCGAGGGAGACGCTTTGCCATCCCAGGAGCCCATCGGCCAGGG
 GTGGTCACCAAAGCAGGACTCATCTCTTTGGGAATGATGACAAAATGCTGCTGGTGAAGAATATTCAGC
 TGGAGGATGGCAAATGATCCTGGCCTCGAACTTCTTTAAGGGGGCAGCCAGCAGTGTCTTGAGCTGAC
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 GTTGAAGACTCCACTGATTTCTCAAGTCAGGGCCGCGTCTGTGGACGTTGTGAGGCTGGTGGAGGAAG
 TGAAGGAGCTGTGTGATGGCCTGGAGTTAGAAAATGAAGATGTGTACATGGCATCCACCTTTGGGACTT
 CATCCAGCTGTTAGTGAGGAAGCTGCGAGGGGACGATGAGGAGGGCAGTGCAGCATTGACTACGTGGAA
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 AGTCACCGACGTGACAAGGCAGTGGCCGAGCCAAGGATGCCTTTGAGAATGGACGGTGGGGGAAGATC
 AGTGCGCGGGACCGGGCCGGCTGATGTACAGTTGGCAGATCTCATGGAGCAGCACCAGGAGGAGCTGG
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 CCAGACCTTCGCTACTTTGCTGGCTGGTGTGACAAGATCCAGGGCTCCACCATCCCATCAACCAGGCC
 AGACCAACCGCAACCTGACCTTGACCAGGAAGGAGCCTGTTGGGTTTTGTGCCATCATATCCCCTGGA
 ACTATCCCTGATGATGTCTGGAAGACAGCTGCCTGCCTGGCTGCCGGGAACACAGTGGTATCAA
 GCCTGCTCAGGTGACCCCACTCACAGCCTTGAAGTTTGCAGAGCTGACATTAAGGCCGGCATTCCAAA
 GGTGTGGTTAACGTCCTCCCAGGATCTGGCTCCCTGGTCGGCCAGAGACTCTCAGACCATCTGATGTGA
 GGAAAAATCGGGTTCACAGGCTCCACAGAGGTGGGCAAGCACATCATGAAAAGCTGTGCCATAAGTAACT
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 CAACCCGCTGGACAGGGACACCGACCGGGCCGAGAATCACCATGCCACCTTGTGAAGCTGATGGAG
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 TCTTCTTTGAGCCAACCTGTTTTACAGAGCTGGAAGACCACATGTTTCATAGCCAAGGAGGAGTCTTCGG
 GCCTGTATGATCATCTCTCGTTTGTGATGGGACTTGGATGCCGTGCTGTCTCGGGCAATGCCACG
 GAATTTGGCCTGGCTTCTGGTGTCTTACCAGGGACATCAACAAGGCCCTGTATGTCAAGTACAAGCTCC
 AGGCAGGCACTGTGTTTGTCAACACGTACAACAAGACCGAGCTGGCCGCTCCCTTCGGAGGATCAAACA
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 GAATAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAAGTTTAA

Protein Sequence: >RC235023 representing NM_001270364
 Red=Cloning site Green=Tags(s)

MAGPSNPPATMKIAVIGQSLFGQEVYCHLRKEGHEVVGVFTVPDKDGKADPLGLEAEKDGVPVFKYSRWR
 AKGQALPDVVAKYQALGAELNVLPFCSQFIPMEIISAPRHGSIYHPSLLPRHRGASAINWTLIHGDKKG
 GFSIFWADDGLDTGDLQLQKECEVLPDDTVSTLYNRFLFPEGIKGMVQAVRLIAEGKAPRLPQPEEGATY
 EGIQKKETAKINWDQPAEAIHNWIRGNDKVPGAWTEACEQKLTFFNSTLNTSGLVPEGDALPIGHRPG
 VVTKAGLILFGNDDKMLLVKNIQLEDGKMILASNFFKGAASSVLELAEELVTAEAVRSVWQRILPKVLE
 VEDSTDFFKSGAASVDVVRVVEEVKELCDGLELENEVDYMASTFGDFIQLLVRKLRGDDEEGECSIDYVE
 MAVNKRTRVRMPHQLFIGGEFVDAEGAKTSETINPTDGSVICQVSLAQVTDVVKAVAAAKDAFENGRWGKI
 SARDRGRLMYRLADLMEQHQEELATIEALDAGAVYTLALKTHVGMISIQTFRYFAGWCDKIQGSTIPINQA
 RPNRNLTLTRKEPVGCGIIPWNYPLMMLSWKTAACLAAGNTVVIKPAQVTPLTALKFAELTLKAGIPK
 GVVNVLPGSGSLVGQRLSDHPDVRKIGFTGSTEVGKHIMKSCAISNVKKVSELEGGKSPLIIFADCDLNK
 AVQMGMSVFFNKGENCIAAGRLFVEDSIHDEFVRRVVEEVRKMKVGNPLDRDTHGPNHHAHLVKLME
 YCQHGVKEGATLVCGGNQVPRPGFFFEPTVFTDVEDHMFIAKEESFGPVMIIISRFADGDLDAVLSRANAT
 EFGLASGVFTRDINKALYVSDKLQAGTVFVNTYKNTDVAAPFGGFKQSGFGKDLGEAALNEYLRVKTVTFT
 EY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

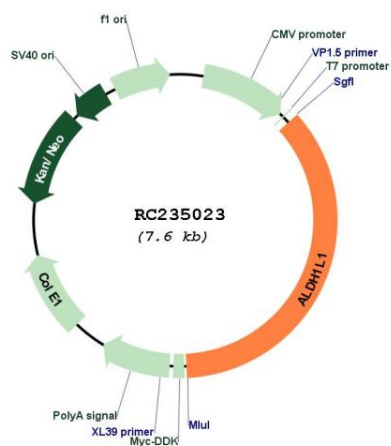


ACCN: NM_001270364

ORF Size: 2736 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:	<ol style="list-style-type: none">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_001270364.1 , NP_001257293.1
RefSeq Size:	3204 bp
RefSeq ORF:	2739 bp
Locus ID:	10840
UniProt ID:	O75891
Cytogenetics:	3q21.3
Protein Families:	Druggable Genome
Protein Pathways:	One carbon pool by folate
MW:	100.2 kDa
Gene Summary:	The protein encoded by this gene catalyzes the conversion of 10-formyltetrahydrofolate, nicotinamide adenine dinucleotide phosphate (NADP+), and water to tetrahydrofolate, NADPH, and carbon dioxide. The encoded protein belongs to the aldehyde dehydrogenase family. Loss of function or expression of this gene is associated with decreased apoptosis, increased cell motility, and cancer progression. There is an antisense transcript that overlaps on the opposite strand with this gene locus. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jun 2012]

Product images:



Circular map for RC235023