

Product datasheet for **RG213720**

ALDH1L1 (NM_012190) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALDH1L1 (NM_012190) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ALDH1L1
Synonyms:	10-fTHF; 10-FTHFDH; FDH; FTHFD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG213720 representing NM_012190
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGATTGCAGTGATTGGACAGAGCCTGTTTGCCAGGAAGTTTACTGCCACCTGAGGAAGGAGGGCC
 ACGAAGTGGTGGGTGTGTTCACTGTTCCAGACAAGGATGGAAAGGCCACCCCTGGGTCTGGAAGCTGA
 GAAGGATGGAGTGCCGGTATTCAAGTACTCCCGTGGCGTGCAAAAGGACAGGCTTTGCCTGATGTGGT
 GCAAAATACCAGGCTTTGGGGCCGAGCTCAACGTCTGCCCTTCTGCAGCAATTCATCCCATGGAGA
 TAATCAGTGCCCCCGGCATGGCTCCATCATCTATCACCCGCTACTGCTCCCTAGGCACCGAGGGCCCTC
 GGCCATCAACTGGACCCTATTACGGAGATAAGAAAGGGGGTTCATCTTCTGGCGGATGATGGT
 CTGGACACCGGAGACCTGCTGCTGCAGAAGGAGTGTGAGGTGCTCCGGACGACACCGTGAGCACGCTGT
 ACAACCGTTCCTTCCCTGAAGGCATCAAAGGATGGTGCAGGCCGTGAGGCTGATCGCTGAGGGCAA
 AGCCCCAGACTCCCTCAGCCTGAGGAAGGAGCCACCTATGAGGGGATTCAGAAGAAGGAGACAGCCAAG
 ATCAACTGGGACAGCCGCGAGAGGCCATTCACAACTGGATCCGCGGGAACGACAAGGTGCCGGGAGCCT
 GGACAGAGGCCTGTGAACAGAACTGACATTTTTCAACTCAACGCTGAACACTTCAGGCCTGGTGCCCGA
 GGGAGACGCTTTGCCATCCCAGGAGCCATCGGCCAGGGGTGGTCACCAAAGCAGGACTCATCCTCTTT
 GGGAAATGATGACAAAATGCTGCTGGTGAAGAATATTCAGCTGGAGGATGGCAAAATGATCCTGGCCTCGA
 ACTTCTTTAAGGGGGCAGCCAGCAGTGTCTTGAGCTGACAGAGGCAGAGCTGGTTACTGCGGAGGCTGT
 GCGGAGTGTGGCAGCGGATCCTCCCCAAGTCTGGAGGTTGAAGACTCCACTGATTTCTTCAAGTCA
 GGGCCCGCTCTGTGGACGTTGTGAGGCTGGTGGAGGAAGTGAAGGAGCTGTGTGATGGCCTGGAGTTAG
 AAAATGAAGATGTGTACATGGCATCCACCTTTGGGGACTTCATCCAGCTGTTAGTGAGGAAGGAGG
 GGACGATGAGGAGGGCGAGTGCAGCATTGACTAGCTGGAATGGCAGTGAACAAGCGCACTGTCCGATG
 CCCCACAGCTCTTCAATGGGGGGAGTTCGTGGATGCCGAGGGCGCAAGACCTCTGAGACCATCAATC
 CCACCGATGGAAGTGTCATCTGCCAGGTATCCCTGGCCAAAGTCAACGACGTCGACAAGGCAGTGGCCGC
 AGCCAAGGATGCCTTTGAGAATGGACGGTGGGGGAAGTCAAGTGCAGCGGGACCGGGCCGGCTGATGTAC
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 TCTACACGCTGGCCCTGAAGACCACGTGGCATGTCCATCCAGACCTCCGCTACTTTGCTGGCTGGT
 TGACAAGATCCAGGGCTCCACATCCCCATCAACCAGGCCAGACCAACCGCAACCTGACCTTGACCAGG
 AAGGAGCCTGTTGGGTTTGTGGCATCATCATCCCTGGAATATCCCTGATGATGCTGTCTGGAAGA
 CAGCTGCCTGCCTGGCTGCCGGGAACACAGTGGTATCAAGCCTGCTCAGGTGACCCCACTCACAGCCTT
 GAAGTTTGCGAGAGCTGACATTAAGGCCGGCATTCCCAAAGGTGTGGTTAACGTCCTCCAGGATCTGGC
 TCCTGGTCCGGCCAGAGACTCTCAGACCATCCTGATGTGAGGAAAATCGGGTTACAGGCTCCACAGAGG
 TGGGAAGCACATCATGAAAAGCTGTGCCATAAGTAAAGTGAAGAAGGTGTCCCTGGAAGTGGGCGGGAA
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 TTCAACAAAGGAGAGAATTGCATTGCAGCAGGCCGACTCTTTGTGGAGGACTCCATTGATGATGATTCC
 TGCGGAGAGTGGTAGAAGAGGTGCGGAAGTGAAGGTGGGCAACCCGCTGGACAGGGACACCGACCAGG
 GCCGAGAATCACCATGCCACCTTGTGAAGCTGATGGAGTACTGCCAGCATGGCGTGAAGGAAGGGGCC
 AACTGGTCTGCCGCGGGAATCAGTCCCTCGGCCAGGGTCTTCTTTGAGCCAACCTGTTTTACAGAGC
 TGGAAAGACCACATGTTTATAGCCAAGGAGGAGTCTTCCGGCCTGTGATGATCATCTCTCGGTTTGTGTA
 TGGGACTTGGATGCCGTGCTGTCTCGGGCCAATGCCACGGAATTTGGCCTGGCTTCTGGTGTCTTACC
 AGGGACATCAACAAGGCCCTGTATGTCAGTGACAAGCTCCAGGCAGGCACTGTGTTTGTCAACACGTACA
 ACAAGACCGAGTGGCCGCTCCCTTCGGAGGATCAAACAGTCTGGATTTGGCAAAGATCTAGGAGAGGC
 GGCTCTGAACGAGTACCTGCGGGTCAAGACAGTACCTTCGAATAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - **GTTTAA**

Protein Sequence: >RG213720 representing NM_012190
 Red=Cloning site Green=Tags(s)

MKIAVIGQSLFGQEVYCHLRKEGHEVVGVTVPDKDGKADPLGLEAEKDGVPVFKYSRWRKAGQALPDVV
 AKYQALGAELNVLPFCSQFIPMEIISAPRHGSIYHPSLLPRHRGASAINWTLIHGDKKGGFSIFWADDG
 LDTGDLQLLQKECEVLPDDTVSTLYNRFLFPEGIKGMVQAVRLIAEGKAPRLPQPEEGATYEGIQKETA
 INWDQPAEAIHNWIRGNDKVPGAWTEACEQKLTFFNSTLNTSGLVPEGDALPIPGAHRPGVVTKAGLILF
 GNDDKMLLVKNIQLEDGKMILASNFFKGAASSVLEL TEAELVTAEAVRSVWQRILPKVLEVEDSTDFFKS
 GAASVDVVRVVEEVKELCDGLELENEVYMASTFGDFIQLLVRKLRGDDEEGECSIDYVEMAVNKRTVRM
 PHQLFIGGEFVDAEGAKTSETINPTDGSVICQVSLAQVTDVVKAVAAKDAFENGRWGKISARDRGRMLY
 RLADLMEHQEELATIEALDAGAVYTLALKTHVGMISIQTFRYFAGWCDKIQQSTIPINQARPNRNLTLTR
 KEPVGVCGIIPWNYPLMMLSWKTAACLAAGNTVVIKPAQVTPLTALKFAELTLKAGIPKGVVNLPGSG
 SLVGQRLSDHPDVRKIGFTGSTEVGKHIMKSCAISNVKKVSELEGGKSPLIIFADCDLNKAVQMGMSVF
 FNKGENCIAAGRLFVEDSIHDEFVRRVVEVRKMKVGNPLDRDTHGPNHHAHLVKLMEYCQHGKVEGA
 TLVCGGNQVPRPGFFFEPTVFTDVEDHMFIAKEESFGPVMII SRFADGDLDAVLSRANATEFGLASGVFT
 RDINKALYVSDKLQAGTVFVNTYNKTDVAAPFGGFKQSGFGKDLGEAALNEYLRVKTVTTFEY

TRTRPLE - GFP Tag - V

Restriction Sites:

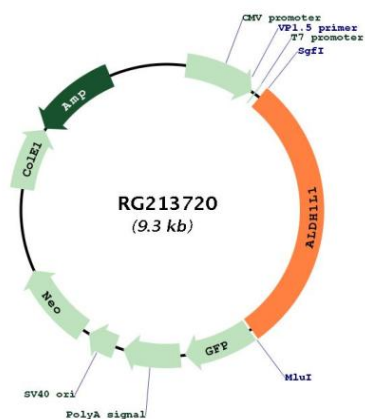
Sgfl-MluI

Cloning Scheme:



ACCN:	NM_012190
ORF Size:	2706 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_012190.4
RefSeq Size:	3125 bp
RefSeq ORF:	2709 bp
Locus ID:	10840
UniProt ID:	O75891
Cytogenetics:	3q21.3
Domains:	aldedh, formyl_transf, formyl_trans_C
Protein Families:	Druggable Genome
Protein Pathways:	One carbon pool by folate
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 RG213720