

Product datasheet for **SC119703**

ALDH2 (NM_000690) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALDH2 (NM_000690) Human Untagged Clone
Tag:	Tag Free
Symbol:	ALDH2
Synonyms:	ALDH-E2; ALDHI; ALDM
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC119703 sequence for NM_000690 edited (data generated by NextGen Sequencing)

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ATGTTGCGCGCTGCCGCCGCTTCGGGCCCCGCTGGGCCGCGCCTCTTGTGAGCCGCC
GCCACCCAGGCCGTGCCTGCCCCCAACCAGCAGCCCGAGGTCTTCTGCAACCAGATTTTC
ATAAACAATGAATGGCACGATGCCGTGAGCAGGAAAACATTCCCCACCGTCAATCCGTCC
ACTGGAGAGGTCACTGTGTCAGGTAGCTGAAGGGGACAAGGAAGATGTGGACAAGGCAGTG
AAGGCCGCCCGGCCGCTTCCAGCTGGGCTCACCTTGGCGCCGATGGACGCATCACAC
AGGGGCCCGCTGCTGAACCGCCTGGCCGATCTGATCGAGCGGGACCGACCTACCTGGCG
GCCTTGAGACCCCTGGACAATGGCAAGCCCTATGTCATCTCTACCTGGTGGATTGGAC
ATGGTCTCAAATGTCTCCGGTATTATGCCGGCTGGGCTGATAAGTACCACGGGAAAACC
ATCCCCATTGACGGAGACTTCTTCCAGCTACACACGCCATGAACCTGTGGGGGTGTGCGGG
CAGATCATTCCGTGGAATTTCCCGCTCCTGATGCAAGCATGGAAGCTGGGCCAGCCTTG
GCAACTGGAACGTGGTGTGATGAAGGTAGCTGAGCAGACACCCTCACCGCCCTAT
GTGGCCAACTGATCAAGGAGGCTGGCTTTCCCCCTGGTGTGGTCAACATTGTGCCTGGA
TTTGGCCCCACGGCTGGGGCCGCAATTGCCTCCATGAGGATGTGGACAAAGTGGCATTCC
ACAGGCTCCACTGAGATTGGCCGCTAATCCAGGTTGCTGCTGGGAGCAGCAACCTCAAG
AGAGTGACCTTGAGCTGGGGGGGAAGGCCCAACATCATGTCAGATGCCGATATG
GATTGGCCGTGGAACAGGCCCACTTCCGCTGTTCTTCAACCAGGGCCAGTGTGCTGT
GCCGGCTCCCGGACCTTCGTGACAGGAGGACATCTATGATGAGTTTGTGGAGCGGAGCGTT
GCCCGGGCAAGTCTCGGGTGGTGGGAACCCCTTTGATAGCAAGACCGAGCAGGGGCCG
CAGGTGGATGAACTCAGTTTAAAGAAGTCTCGGCTACATCAACACGGGGAAGCAAGAG
GGGGCAAGCTGCTGTGTTGGTGGGGCATTGCTGCTGACCGTGGTACTTCAATCCAGCCC
ACTGTGTTTGGAGATGTGCAGGATGGCATGACCATCGCCAAGGAGGAGATCTTCCGGCCA
GTGATGCAGATCCTGAAGTTCAAGACCATAGAGGAGGTTGTTGGGAGAGCCAACAATTCC
ACGTACGGCTGGCCGCGCTGTCTTCAAAAGGATTTGGACAAGGCCAATTACCTGTCC
CAGGCCCTCCAGGCGGGCACTGTGTGGTCAACTGCTATGATGTGTTGGAGCCAGTCA
CCCTTTGGTGGTACAAGATGTCGGGGAGTGGCCGGGAGTTGGGCGAGTACGGGCTGCAG
GCATACACTGAAGTAAAACGTGCACAGTCAAAGTGCCTCAGAAGAACTCATAA
    
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Clone variation with respect to NM_000690.3

5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_000690 unedited
GGATTTTGAATACGACTCACTTATAGGGCGGCCGCAATTCGCACGAGGCCGCTGCGAT
GTTGCGCGCTGCCGCCGCTTCGGGCCCCGCTGGGCCGCGCCTCTTGTGAGCCGCCG
CACCCAGGCCGTGCCTGCCCCCAACCAGCAGCCCGAGGTCTTCTGCAACCAGATTTTCAT
AAACAATGAATGGCACGATGCCGTGAGCAGGAAAACATTCCCCACCGTCAATCCGTCCAC
TGGAGAGGTCACTGTGTCAGGTAGCTGAAGGGGACAAGGAAGATGTGGACAAGGCAGTGAA
GGCCGCCCGGCCGCTTCCAGCTGGGCTCACCTTGGCGCCGATGGACGCATCACACAG
GGGCCGGCTGCTGAACCGCCTGGCCGATCTGATCGAGCGGGACCGACCTACCTGGCGGC
CTTGAGACCCCTGGACAATGGCAAGCCCTATGTCATCTCTACCTGGTGGATTTGGACAT
GGTCTCAAATGTCTCCGGTATTATGCCGGCTGGGCTGATAAGTACCACGGGAAAACCAT
CCCCATTGACGGAGACTTCTTCCAGCTACACACGCCATGAACCTGTGGGGGTGTGCGGGCA
GATCATTCCGTGGAATTTCCCGCTCCTGATGCAAGCATGGAAGCTGGGCCAGCCTTGGC
AACTGGAACGTGGTGTGATGAAGGTAGCTGAGCAAACACCCTCACCGCCCTATATGT
GGCCAACCTGATCAGGGAGCTGGCTTTCCCCCTGGTGTGTCAACATTGTGCCTGGATTTG
CCCCACGGTGGGCCCGCATTGCCTCCATGAGGATGTGGACAAGTGGCATCACAGCTC
ACTGAGATGGCCGTAACCACAGGTGCTGCT
    
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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 dehydrogenase family of proteins. Aldehyde dehydrogenase is the second enzyme of the major oxidative pathway of alcohol metabolism. Two major liver isoforms of aldehyde dehydrogenase, cytosolic and mitochondrial, can be distinguished by their electrophoretic mobilities, kinetic properties, and subcellular localizations. Most Caucasians have two major isozymes, while approximately 50% of East Asians have the cytosolic isozyme but not the mitochondrial isozyme. A remarkably higher frequency of acute alcohol intoxication among East Asians than among Caucasians could be related to the absence of a catalytically active form of the mitochondrial isozyme. The increased exposure to acetaldehyde in individuals with the catalytically inactive form may also confer greater susceptibility to many types of cancer. This gene encodes a mitochondrial isoform, which has a low K_m for acetaldehydes, and is localized in mitochondrial matrix. Alternative splicing results in multiple transcript variants encoding distinct isoforms.[provided by RefSeq, Nov 2016]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).