

Product datasheet for **SC310397**

ALDH8A1 (NM_170771) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALDH8A1 (NM_170771) Human Untagged Clone
Tag:	Tag Free
Symbol:	ALDH8A1
Synonyms:	ALDH12; DJ352A20.2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC310397 representing NM_170771. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCTGGAACAAACGCACCTTTTGATGCTGGAAAACCTTCATAGATGGAAAATTTTACCTTGTAGCTCA
TATATAGATTCTTACGACCCATCAACAGGGGAAGTGATTGCAGAGTGCCAAATAGTGGAAAAGACGAG
ATCGAAGCCGCGGTCAAGGCCGCCAGAGAAGCCTTCCAGCTGGTCATCCCGCAGCCCCCAGGAGCGC
TCACGGGCTCTGAACCAGGTGGCGGATTTGCTGGAGCAGTCCCTGGAGGAGTTTGCCAGGCCGAGTCT
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TACACGGTGCGGGCCCCGGTGGGAGTCGCTGGTCTGATCAGCCCCGGAATTTGCCACTCTACTTGCCTG
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GTGACTGCGTGGATGTTGTGCAAACCTCGGATAAAGCAGGTGTTCCACCAGGTGTGGTCAATATTGTG
TTTGAACCGGGCCAGGGTGGGTGAGGCCCTGGTGTCCACCCAGAGGTGCCCTGATCTCCTTACC
GGGAGCCAGCCCACCGCTGAGCGGATCACCCAGCTGAGCGCTCCCCACTGCAAAAAGCTCTCCCTGGAG
CTGGGGGCAAGAATCCTGCCATCATCTTTGAGGACGCCAACCTGGATGAGTGCATTCCGGCAACCGTC
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GTCCCCTTTGATAGTGAAGAGGAGGTGATTGAAAGAGCCAACAACGTTAAGTATGGGCTGGCGGCTACC
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AACTGCTGGTCACTCAGGGAGCTGAACCTTCTTTCCGGGGGATGAAGAGTTCTGGAATAGGTAGAGAG
GGAGCCAAGGACTCTTACGACTTCTTCACTGAGATCAAAACCATCACCGTTAAACACTGA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
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Restriction Sites:	Sgfl-Mlul
Plasmid Map:	□
ACCN:	NM_170771
Insert Size:	1302 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_170771.2
RefSeq Size:	2405 bp
RefSeq ORF:	1302 bp
Locus ID:	64577
UniProt ID:	Q9H2A2
Cytogenetics:	6q23.3
Protein Families:	Druggable Genome
MW:	47.3 kDa

Gene Summary:

This gene encodes a member of the aldehyde dehydrogenase family of proteins. The encoded protein has been implicated in the synthesis of 9-cis-retinoic acid and in the breakdown of the amino acid tryptophan. This enzyme converts 9-cis-retinal into the retinoid X receptor ligand 9-cis-retinoic acid, and has approximately 40-fold higher activity with 9-cis-retinal than with all-trans-retinal. In addition, this enzyme has been shown to catalyze the conversion of 2-aminomuconic semialdehyde to 2-aminomuconate in the kynurenine pathway of tryptophan catabolism. [provided by RefSeq, Jul 2018]

Transcript Variant: This variant (2) lacks an in-frame segment of the coding region, compared to variant 1. It encodes a shorter protein (isoform 2), that is missing an internal segment compared to isoform 1.