

## Product datasheet for **SC119943**

### Aldehyde dehydrogenase 10 (ALDH3A2) (NM\_000382) Human Untagged Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | Aldehyde dehydrogenase 10 (ALDH3A2) (NM_000382) Human Untagged Clone |
| Tag:                      | Tag Free   |
| Symbol:                   | Aldehyde dehydrogenase 10  |
| Synonyms:                 | ALDH10; FALDH; SLS   |
| Mammalian Cell Selection: | None   |
| Vector:                   | <u><a href="#">pCMV6-XL4</a></u>                                     |
| E. coli Selection:        | Ampicillin (100 ug/mL)   |



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**Fully Sequenced ORF:** >OriGene ORF within SC119943 sequence for NM\_000382 edited (data generated by NextGen Sequencing)

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ATGGAGCTCGAAGTCCGGCGGGTCCGACAGGCGTTCCTGTCCGGCCGGTCGCGACCTCTG
CGGTTTCGGCTGCAGCAGCTGGAGGCCCTGCGGAGGATGGTGCAGGAGCGCGAGAAGGAT
ATCCTGACGGCCATCGCCGCCGACCTGTGCAAGAGTGAATTCAATGTGTACAGTCAGGAA
GTCATTACTGTCTTGGGGAAATTGATTTTATGCTTGAGAATCTTCTGAATGGGTTACT
GCTAAACAGTTAAGAAGAACGTGCTACCATGCTGGATGAGGCCTATATTCAGCCACAG
CCTCTGGGAGTGGTGTGATAAATCGGAGCTTGAATTACCCCTTCTGTTCTCACCATTGAG
CCTGATAGGAGCCATCGCTGCAGGAAATGCTGTGATTATAAAGCCTTCTGAACTGAGT
GAAAATACAGCCAAGATCTTGGCAAAGCTTCTCCCTCAGTATTTAGACCAGGATCTCTAT
ATTGTTATTAATGGTGGTGTGAGGAAACCACGGAGCTCCTGAAGCAGCGATTTGACCAC
ATTTTCTATACGGGAAACACTGCGGTTGGCAAAATTGTCATGGAAGCTGCTGCCAAGCAT
CTGACCCCTGTGACTCTTGAAGTGGGAGGAAAAGTCCATGTTATATTGATAAAGATTGT
GACCTGGACATTGTTTGCAGACGCATAACCTGGGAAAAATACATGAATTGTGGCCAAACC
TGCATTGCACCCGACTATATTCTGTGAAGCATCCCTCCAAAATCAAATTGTATGGAAG
ATTAAGGAAACAGTGAAGGAATTTTATGGAGAAAATATAAAGAGTCTCCCTGATTATGAA
AGGATCATCAATCTTCGTCATTTAAGAGGATACTAAGTTTGCTTGAAGGACAAAAGATA
GCTTTTGGTGGGAGACTGATGAGGCCACACGCTACATAGCCCCAACGTAAGTACTTACCGAT
GTTGATCCTAAAACCAAGGTGATGCAAGAAGAAATTTTGGACCAATTCTTCCAATAGTG
CCTGTGAAAAATGTAGATGAGGCCATAAATTTTCATAAATGAACGTGAAAAGCCTCTGGCT
CTTTATGTATTTTCGCATAACCATAAGCTCATCAAACGGATGATTGATGAGACATCCAGT
GGAGGTGTACAGGCAATGACGTCAATTATGCACCTCACGCTCAACTCTTCCCATTTGGA
GGAGTGGGTTCCAGTGGGATGGGAGCTTATCACGAAAAACATAGTTTTTGATACTTTTTCT
CATCAGCGTCCCTGTTTATTAATAAAGTTTAAAGAGAGAAGGTGCTAACAAACTCAGATAT
CCTCCCAACAGCCAGTCAAAGGTGGATTGGGAAAAATTTTTCTCTTGAACGGTTCAAC
AAAGAAAAACTCGGTCTCCTGTTGCTCACTTCTGGGTATTGTAGCCGCTGTGCTTGTG
AAGGCTGAATATTACTGA
    
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Clone variation with respect to NM\_000382.2  
1446 a=>t

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_000382 unedited

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NGGGTCATATTTGTATACGACTCCTATAGGGCGGCCGGAATTCGCACCAGGCGGCTGAG
CGAGCGAGCCCTGGGCGAGTGAATTGTGGCTGTGGGTTGACGGTGGAGACACCCCCCGGA
GGGAGGCGGAGGGAAGGGAGGCGAGGCCGACCTGCATGCTTCCCGCCTCCCACTCCCC
AGCGCCCCCGGACCGTGCAGTTCTTGCAGGACCAGGCCATGGAGCTCGAAGTCCGGCGG
GTCCGACAGGCGTTCCTGTCCGGCCGGTCCGACCTCTGCGGTTTCGGCTGCAGCAGCTG
GAGGCCCTGCGGAGGATGGTGCAGGAGCCGAGAAGGATATCCTGACGGCCATCGCCGCC
GACCTGTGCAAGAGTGAATTCAATGTGTACAGTCAGGAAGTCATTAAGTCTTGGGGAA
ATTGATTTTATGCTTGAAGTCTTCTGAAATGGGTTACTGCTAAACCAGTTAAGAAGAAC
GTGCTCACCATGCTGGATGAGGCCATATTCAGCCACAGCCTCTGGGAGTGGTGTGATA
ATCGGAGCTTGAATACCCCTTCGTTCTCACCATTGAGCCACTGATAGGAGCCATCGCT
GCANGAAATGCTGTGATTATAAAGCCTTCTGAACTGAGTAAAAACAGNCAAGGATCTT
GCAAAGCTTCTCCCTCAGTATTTAGACCAGGATCTCTATATTGTTATTAATGGNGGGTGG
TGGAGGGAACACGGAAGCTCCTGAAGCACCGATTTGACCCATTTTCTATACGGGAAAA
CCCTGCCGGTTGGCAAAATGTCATGAAACTTGTGCAAGCATCTGACCCCGGGGACT
CTTGACCTGGGAGGAAAAATCCCTGTTTTTTTGTAAAGATT
    
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|-------------------------------------|--|
| <b>3' Read Nucleotide Sequence:</b> | >OriGene 3' read for NM_000382 unedited<br>CTTGGACGCGCCGCAATCTANAATCGAGTTTTTTTTTTTTTTTTTTTTTTGATAAAGACAT<br>AAAATGATTTATAGTTGGGGAGAATTTATGATCAAAGGATTGTCTCCAATAGGGTATATC<br>TGAGGTTCCATACCAGGAGCGTCATTAATTTGATGCCAATTTTATGAAATATGTTTCATT<br>TTGAAGCAGATGTGTATTAGTAGACAAGCCAATAATTTAAACATACTCAATGAAAATTC<br>ATAGTGAATTTTATCTAAGGTATTTTATGATTACTCTCTTAGAGCCACAGTTTTAAGCA<br>GCTTTTTCCCTAAACTAGGCTCGTTATTAATTTTCAACACTTCATACTATGATGAAGACAT<br>CACATACTTTAGACAGCCTTAATAGAACAATTTCAACAAAGTTGATTATACGTTCTA<br>TAAAGTAAATCACATTCTCTCATTGAGTGAGCTGAGTCTTTCTGAGTGTGGGGACAGAGT<br>CCCTGCAGTCAGGAGCTCCAAGGCATAGAAGTGCCTGCCCTGCTCTGTCCAGCAGGTAAT<br>GCTGCATTCCACAGGCTCTTCTCAGCCTTGCCCACTCAGCAGAGTACCTCAGGTTGTG<br>ACCATGAACGACTGATGAGAGTAACTTCTGACTTGCTCAGGGGATCCTCTGCCATCAAT<br>TCCCTTCAGTATACCAACCGCAGTGGCTTACTCGCTTCTGGCAGACCATCCACCATCT<br>GTCTGCCATGATGCTCTCAAACCCAAAAGTCTAATATCCAGCCCTCTTTGTCTGTGAG<br>AGGAAAGGGCTCCCTCACTTTAAGNTCTGTAGGGCTATCAGAAAGGGATCTCTATAGT<br>TTCAAAAGTGAAATTTACTTGGCCTACAGAAATAGAAACTACCGAATTGTCTGGAAAC<br>CACTACCTGCACCTTAAGGCCCTGAAGAGATAANATGTTATAACTTTATACAGATTTT<br>TATTGTTTCGGAACGGGCTGCCT |
| <b>Restriction Sites:</b>           | NotI-NotI  |
| <b>ACCN:</b>                        | NM_000382  |
| <b>Insert Size:</b>                 | 3370 bp  |
| <b>OTI Disclaimer:</b>              | 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).   |
| <b>Components:</b>                  | 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).   |
| <b>Reconstitution Method:</b>       | <ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>  |
| <b>RefSeq:</b>                      | <a href="#">NM_000382.2</a> , <a href="#">NP_000373.1</a>  |
| <b>RefSeq Size:</b>                 | 3702 bp  |
| <b>RefSeq ORF:</b>                  | 1458 bp  |
| <b>Locus ID:</b>                    | 224  |
| <b>UniProt ID:</b>                  | <a href="#">P51648</a>   |
| <b>Cytogenetics:</b>                | 17p11.2  |
| <b>Domains:</b>                     | aldedh   |

|                          |  |
|--------------------------|--|
| <b>Protein Families:</b> | Druggable Genome, Transmembrane  |
| <b>Protein Pathways:</b> | 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  |
| <b>Gene Summary:</b>     | <p>Aldehyde dehydrogenase isozymes are thought to play a major role in the detoxification of aldehydes generated by alcohol metabolism and lipid peroxidation. This gene product catalyzes the oxidation of long-chain aliphatic aldehydes to fatty acid. Mutations in the gene cause Sjogren-Larsson syndrome. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (2) lacks an alternate segment in the 3' coding region compared to variant 1. Isoform 2 has a shorter and different C-terminus, compared to isoform 1.</p> |