

Product datasheet for **SC321535**

ALDH1A1 (NM_000689) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALDH1A1 (NM_000689) Human Untagged Clone
Tag:	Tag Free
Symbol:	ALDH1A1
Synonyms:	ALDC; ALDH-E1; ALDH1; ALDH11; HEL-9; HEL-S-53e; HEL12; PUMB1; RALDH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_000689.3
 CTGTGTTCCAGGAGCCGAATCAGAAATGTCATCCTCAGGCACGCCAGACTTACCTGTCCT
 ACTCACCATTGGAAGATTCAATATACTAAGATCTTCATAAAACAATGAATGGCATGATTC
 AGTGAGTGGCAAGAAATTCCTGTCTTTAATCCTGCAACTGAGGAGGAGCTCTGCCAGGT
 AGAAGAAGGAGATAAGGAGGATGTTGACAAGGCAGTGAAGGCCGCAAGACAGGCTTTTCA
 GATTGGATCCCCGTGGCGTACTATGGATGCTTCCGAGAGGGGGGCGACTATTATACAAGTT
 GGCTGATTTAATCGAAAGAGATCGTCTGCTGCTGGCGACAATGGAGTCAATGAATGGTGG
 AAAACTCTATTCCAATGCATATCTGAATGATTTAGCAGGCTGCATCAAAACATTGCGCTA
 CTGTGCAGGTTGGGCTGACAAGATCCAGGGCCGTACAATACCAATTGATGGAAATTTTTT
 TACATATAACAAGACATGAACCTATTGGTGTATGTGGCAAATCATTCTTGAATTTCCC
 GTTGGTTATGCTCATTGGGAAGATAGGGCCTGCACTGAGCTGTGGAAACACAGTGGTTGT
 CAAACCAGCAGAGCAAACCTCTCACTGCTCTCCACGTGGCATCTTTAATAAAAGAGGC
 AGGTTTTCTCTGGAGTAGTGAATATTGTTCTGGTTATGGGCCTACAGCAGGGGCAGC
 CATTCTCTCACATGGATATAGACAAAGTAGCCTTACAGGATCAACAGAGGTTGGCAA
 GTTGATCAAAGAAGCTGCCGGGAAAAGCAATCTGAAGAGGGTGACCCTGGAGCTTGAGG
 AAAGAGCCCTTGCAATTGTGTTAGCTGATGCCGACTTGGACAATGCTGTTGAATTTGCACA
 CCATGGGGTATTCTACCACCAGGGCCAGTGTGTATAGCCGCATCCAGGATTTTTGTGGA
 AGAATCAATTTATGATGAGTTTGTTCGAAGGAGTGTGAGCGGGCTAAGAAGTATATCCT
 TGGAAATCCTCTGACCCAGGAGTCACTCAAGGCCCTCAGATTGACAAGGAACAATATGA
 TAAATACTTGACCTCATTGAGAGTGGGAAGAAAGAAGGGGCCAAACTGGAATGTGGAGG
 AGGCCCGTGGGGAAATAAGGCTACTTTGTCCAGCCACAGTGTCTCTAATGTTACAGA
 TGAGATGCGCATTGCCAAAGAGGAGATTTTGGACCAGTGCAGCAAATCATGAAGTTTAA
 ATCTTTAGATGACGTGATCAAAAGAGCAAACAATACTTTCTATGGCTTATCAGCAGGAGT
 GTTTACCAAAGACATTGATAAAGCCATAACAATCTCCTCTGCTCTGCAGGCAGGAACAGT
 GTGGGTGAATTGCTATGGCGTGGTAAGTGCCAGTGCCCTTTGGTGGATTCAAGATGTC
 TGGAAATGGAAGAGAAGTGGGAGAGTACGGTTCCATGAATATACAGAGGTCAAAACAGT
 CACAGTAAAAATCTCTCAGAAGAACTCATAAAGAAAATACAAGAGTGGAGAGAAGCTCTT
 CAATAGCTAAGCATCTCCTTACAGTCACTAATATAGTAGATTTTAAAGACAAAATTTTTT
 TTTTCTTGATTTTTTAAACATAAGCTAAATCATATTAGTATTAATACTACCCATAGAAA
 ACTTGACATGTAGCTTCTCTGAAAGAATTATTTGCCTTCTGAAATGTGACCCCAAGTC
 CTATCCTAAATAAAAAAGACAAATTCGGATGTATGATCTCTAGCTTTGTCATAGTTA
 TGTGATTTTCTTTGTAGCTACTTTTGCAGGATAATAATTTTATAGAAAAGGAACAGTTG
 CATTTAGCTTCTTTCCCTTAGTGACTCTTGAAGTACTTAACATACACGTTAACTGTAGAG
 TAAATTGCTCTGTTCCAGTAGTTATAAAGTCCTTGGACTGTTTTGAAAAGTTTCCTAGG
 ATGTCATGTCTGCTGTCAAAGAAATAATCCCTGTAATATTTAGCTGTAACCTGAATAT
 AAAGCTTAATAAAAAACAACCTTGATGAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_000689

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_000689.3 , NP_000680.2
RefSeq Size:	2116 bp
RefSeq ORF:	1506 bp
Locus ID:	216
UniProt ID:	P00352
Cytogenetics:	9q21.13
Domains:	aldedh
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS
Protein Pathways:	Metabolic pathways, Retinol metabolism
Gene Summary:	<p>The protein encoded by this gene belongs to the aldehyde dehydrogenase family. Aldehyde dehydrogenase is the next enzyme after alcohol dehydrogenase in the major pathway of alcohol metabolism. There are two major aldehyde dehydrogenase isozymes in the liver, cytosolic and mitochondrial, which are encoded by distinct genes, and can be distinguished by their electrophoretic mobility, kinetic properties, and subcellular localization. This gene encodes the cytosolic isozyme. Studies in mice show that through its role in retinol metabolism, this gene may also be involved in the regulation of the metabolic responses to high-fat diet. [provided by RefSeq, Mar 2011]</p>