

## Product datasheet for SC119751

### ADH1B (NM\_000668) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ADH1B (NM_000668) Human Untagged Clone
Tag:	Tag Free
Symbol:	ADH1B
Synonyms:	ADH2; HEL-S-117
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC119751 sequence for NM_000668 edited (data generated by NextGen Sequencing)

```

ATGAGCACAGCAGGAAAAGTAATCAAATGCAAAGCAGCTGTGCTATGGGAGGTAAAGAAA
CCCTTTCCATTGAGGATGTGGAGGTTGCACCTCCTAAGGCTTATGAAGTTTCGCATTAAG
ATGGTGGCTGTAGGAATCTGTGCGACAGATGACCACGTGGTTAGTGGCAACCTGGTGACC
CCCCTTCTGTGATTTTAGGCCATGAGGCAGCCGGCATCGTGGAGAGTGTGGAGAAGGG
GTGACTACAGTCAAACCAGGTGATAAAGTCATCCCCTCTTTACTCCTCAGTGTGGAAAA
TGCAGAGTTTGTAAAAACCCGGAGAGCAACTACTGCTTAAAAATGATCTAGGCAATCCT
CGGGGGACCTGCAGGATGGCACCAGGAGGTTACCTGCAGGGGAAGCCATTCACCAC
TTCCTTGGCACCAGCACCTTCTCCAGTACACGGTGGTGGATGAGAATGCAGTGGCCAAA
ATTGATGCAGCCTCGCCCCTGGAGAAAAGTCTGCCTCATTGGCTGTGATTCTCGACTGGT
TATGGGTCTGCAGTTAAGTTGCCAAGGTCACCCAGGCTCTACCTGTGCTGTGTTGGC
CTGGGAGGGTCCGGCCTATCTGCTGTTATGGGCTGTAAAGCAGCTGGAGCAGCCAGAATC
ATTGCGGTGGACATCAACAAGGACAAAATTTGCAAAGGCCAAAGAGTTGGGTGCCACTGAA
TGCATCAACCCTCAAGACTACAAGAAACCCATCCAGGAAGTGCTAAAGGAAATGACTGAT
GGAGGTGTGGATTTTTCGTTTGAAGTCATCGGTCCGGCTTGACACCATGATGGCTTCCCTG
TTATGTTGTCATGAGGCATGTGGCACAAGCGTCATCGTAGGGGTACCTCCTGCTTCCCAG
AACCTCTCAATAAACCTATGCTGCTACTGACTGGACGCACCTGGAAGGGGGCTGTTTAT
GGTGGCTTTAAGAGTAAGAAGGTATCCCAAACCTTGTGGCTGATTTTATGGCTAAGAAG
TTTTCACTGGATGCGTTAATAACCCATGTTTTACCTTTTGAAAAATAAATGAAGGATTT
GACCTGCTTCACTCTGGGAAAAGTATCCGTACCGTCCCTGACGTTTTGA

```

Clone variation with respect to NM\_000668.4  
143 a=>g;753 t=>c



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**5' Read Nucleotide Sequence:**

```
>OriGene 5' read for NM_000668 unedited
TCTTGGGATTTTGTAAATCCCACTTTACTATAGGGCGGCACACACATTCGGCAGAGGCAA
AGACTCACAGTCTGCTGGTGGGCAGAGAAGACAGAAAACGACATGAGCACAGCAGGGAAAA
GTAATCAAATGCAAAGCAGCTGTGCTATGGGAGGTAAAGAAACCTTTTCCATTGAGGAT
GTGGAGGTTGCACCTCCTAAGGCTTATGAAGTTCGCATTTTTATGGTGGCTGTAGGAAT
CTGTCGCACAGATGACCACGTGGTTAGTGGCAACCTGGTGACCCCTTCTGTGATTTT
AGGCCATGAGGCAGCCGGCATCGTGGAGAGTGTGGAGAAGGGGTGACTACAGTCAAACC
AGGTGATAAAGTCATCCCGCTCTTTACTCCTCAGTGTGGAAAATGCAGAGTTTGTAAAAA
CCCGGAGAGCAACTACTGCTTGA AAAATGATCTAGGCAATCCTCGGGGACCCTGCAGGA
TGGCACCAGGAGGTTACCTGCAGGGGGAAGCCATTACCACCTTCTTGGCACCAGCAC
CTTCTCCAGTACACGGTGGTGGATGAGAATGCAGTGGCCAAAATTGATGCAGCCTCGCC
CCTGGAGAAAAGTGCCTCATTGGCTGTGGATTCTCGACTGGTTATGGGTCTGCAGTTAA
CGTTGCCAATGTCACCCANGCTCTACCTGTGCTGTGTTGGCCTGAGGAGGGTCGGCCT
ATCTGCTGTTATGGGCTGTNAAGCAGCTGGAGCAGCCAGAATCATTGCGGTGGACATNNC
ACAGGGACAATTTGCAAGGCCAAGAGTTGGGTGCCACTGAATGCATACCCCTCAGACT
ACAGGATACCATCCAGNAAGTGCTAAAGGAATGACTNGATGGAGTGTGGATTTTCGTTT
AAGTCATCGTCGGCTTGACCATGAGG
```

**3' Read Nucleotide Sequence:**

```
>OriGene 3' read for NM_000668 unedited
CTATGGACGCGGCCGAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTTGAAGAAACACAG
TAAATGATAAACTATTTTACTTTATGTCTAAGGCTTTTCATAATATGAAATAGAATGTAG
ATATTGCAACAATAGCATTTTTGGAGACAGCTACCTCCTTTACCAGGAATAATCTTTGCA
TGTCACATTTAGAGATAAAGCTCAAAATGCAAATCCTTCCCTGAGAGTGGGAAAGCATT
AACAAATGAGAGTGGGAAAAGCATTAAACAAAGCATTAAACACAGGTCTTTACATATTCAAA
ATATTAATACTAATGCTAGGATTATAGACTTGATTTTAAGACATGGTAGTTAATAGAAAAG
TTCTAGATTGAAAACAATTTTGCAAAAATATACATTTGTATATGTGTATATATGTATGTG
TATATATATATCTACTAGGAAAATATATTGCTTAAGGTGTTTGTGCCATTTCTTAGTTAC
CAATTTTACATTCTGCATTACAGCATTGGCCATCCCATCTTACACTTAAAGCCACCAT
ATTACTTTTAATTACTTTATACACATTTTCAGTCATCATCTAAATAATCATTTTATAGCCA
CAAATAACTGTTTAGTCAATGAAGCACTTTTCATCAGCAAAAATTACAGATTTTTTGA
ACATGATTCTGGGAATAGTTCAGTTTTTACAATTAGTAATTGAGGCTTTTGCATATGAAG
CAAGAAATCTGCTATTATTTTAAAAAATCAATTGTATATCGACCATAAAGAAATAGTATA
AAAGTCATAAAAAACTGCCATTTACTGTAGTAAAATGTGGGCATTTTATTTGAGTTCC
TAAGAAATTTCTGTATTTAGACTCTCGGCCTTCACTACTTGAATGTGAGTCTATCCTT
TACCTTACCCTAGCTTTTACCCAGGGATTTGGTACATTTTTATAAAAAAGAAATTGT
CGACGGTGAAACCGACAGAGTTTGAAGACTTCATCACATGGGCCACA
```

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_000668

**Insert Size:**

2790 bp

<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>Components:</b>	<p>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).</p>
<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_000668.3</a> , <a href="#">NP_000659.2</a>
<b>RefSeq Size:</b>	2666 bp
<b>RefSeq ORF:</b>	1128 bp
<b>Locus ID:</b>	125
<b>UniProt ID:</b>	<a href="#">P00325</a>
<b>Cytogenetics:</b>	4q23
<b>Domains:</b>	ADH_zinc_N
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Drug metabolism - cytochrome P450, Fatty acid metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Retinol metabolism, Tyrosine metabolism

**Gene Summary:**

The protein encoded by this gene is a member of the alcohol dehydrogenase family. Members of this enzyme family metabolize a wide variety of substrates, including ethanol, retinol, other aliphatic alcohols, hydroxysteroids, and lipid peroxidation products. This encoded protein, consisting of several homo- and heterodimers of alpha, beta, and gamma subunits, exhibits high activity for ethanol oxidation and plays a major role in ethanol catabolism. Three genes encoding alpha, beta and gamma subunits are tandemly organized in a genomic segment as a gene cluster. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2013]

Transcript Variant: This variant (1) encodes the longer isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.