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Product datasheet for SC119755

ADH5 (NM_000671) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ADH5 (NM_000671) Human Untagged Clone
Tag:	Tag Free
Symbol:	ADH5
Synonyms:	ADH-3; ADHX; AMEDS; BMFS7; FALDH; FDH; GSH-FDH; GSNOR; HEL-S-60p
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_000671, the custom clone sequence may differ by one or more nucleotides

ATGGCGAACGAGGTTATCAAGTGCAAGGCTGCAGTTGCTTGGGAGGCTGGAAAGCCTCTCTCCATAGAGG
AGATAGAGGTGGCACCCCCAAAGGCTCATGAAGTTCGAATCAAGATCATTGCCACTGCGGTTTGCCACAC
CGATGCCTATACCCTGAGTGGAGCTGATCCTGAGGGTTGTTTTCCAGTGATCTTGGGACATGAAGGTGCT
GGAATTGTGGAAAGTGTTGGTGAGGGAGTTACTAAGCTGAAGGCGGGTGACACTGTCATCCCACTTTACA
TCCCACAGTGTGGAGAATGCAAATTTTGTCTAAATCCTAAAACTAACCTTTGCCAGAAGATAAGAGTCAC
TCAAGGGAAAGGATTAATGCCAGATGGTACCAGCAGATTTACTTGCAAAGGAAAGACAATTTTGCATTAC
ATGGGAACCAGCACATTTTCTGAATACACAGTTGTGGCTGATATCTCTGTTGCTAAAATAGATCCTTTAG
CACCTTTGGATAAAGTCTGCCTTCTAGGTTGTGGCATTTCAACCGGTTATGGTGCTGCTGTGAACACTGC
CAAGTTGGAGCCTGGCTCTGTTTGTGCCGTCTTTGGTCTGGGAGGAGTCGGATTGGCAGTTATCATGGGC
TGTAAAGTGGCTGGTGCTTCCCGGATCATTGGTGTGGACATCAATAAAGATAAATTTGCAAGGGCCAAAG
AGTTTGGAGCCACTGAATGTATTAACCCTCAGGATTTTAGTAAACCCATCCAGGAAGTGCTCATTGAGAT
GACCGATGGAGGAGTGGACTATTCCTTTGAATGTATTGGTAATGTGAAGGTCATGAGAGCAGCACTTGAG
GCATGTCACAAGGGCTGGGGCGTCAGCGTCGTGGTTGGAGTAGCTGCTTCAGGTGAAGAAATTGCCACTC
GTCCATTCCAGCTGGTAACAGGTCGCACATGGAAAGGCACTGCCTTTGGAGGATGGAAGAGTGTAGAAAG
TGTCCCAAAGTTGGTGTCTGAATATATGTCCAAAAAGATAAAAGTTGATGAATTTGTGACTCACAATCTG
TCTTTTGATGAAATCAACAAAGCCTTTGAACTGATGCATTCTGGAAAGAGCATTCGAACTGTTGTAAAGA
TTTAA

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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000671 unedited
NGGTTCACTATTTTGTATACGACTCCTATAGGGCGGCCGCGAATTCGCACGAGGCCAGAA
TCCGTGAACATGGCGAACGAGGTTATCAAGTGCAAGGCTGCAGTTGCTTGGGAGGCTGGA
AAGCCTCTCTCCATAGAGGAGATAGAGGTGGCACCCCCAAAGGCTCATGAAGTTCGAATC
AAGATCATTGCCACTGCGGTTTGCCACACCGATGCCTATACCCTGAGTGGAGCTGATCCT
GAGGGTTGTTTTCCAGTGATCTTGGGACATGAAGGTGCTGGAATTGTGGAAAGTGTTGGT
GAGGGAGTTACTAAGCTGAAGGCGGGTGACACTGTCATCCCACTTTACATCCCACAGTGT
GGAGAATGCAAATTTTGTCTAAATCCTAAAACTAACCTTTGCCAGAAGATAAGAGTCACT
CAAGGGAAAGGATTAATGCCAGATGGTACCAGCAGATTTACTTGCAAAGGAAAGACAATT
TTGCATTACATGGGAACCAGCACATTTTCTGAATACACAGTTGTGGCTGATATCTCTGTT
GCTAAAATAGATCCTTTAGCACCTTTGGATAAAGTCTGCCTTCTAGGTTGTGGCATTTCA
ACCGGTTATGGTGCTGCTGTGAACACTGCCAAGTTGGAGCCTGGCTCTGTTTGTGCCGTC
TTTGGTCTGGGAGGAGTCGGATTGGCAGTTATCATGGGCTGTAAAGTGGCTGGTGCTTCC
CGGATCATTGGTGTGGACATCAATAAAGATAAATTTGCAAGGGCCACAAGAGTTGGAGCC
ACTGAATGTATTACCCCTCAGATTTTAGTAAACCCATCCAGGAAGTGCTCATTGAGATGA
CCGATGGAGGAGTGGACTATTCCCTCGAATGTATTGGTAATGTGAAGGCATGAGNACCAC
ACTTGAGG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000671 unedited
TTAAACTTTATTCCAACAAAATACCATAAAGTAAAAGAAAAGTCACAAAATAGACTAGAA
GATATTTGCAACATATAAAACTGACAAATGATTGATGTCTAGAATAAAAGAACTCCTAAA
AATTATTCAGAGAAAAATAATTCAATACAAAGTTGAGCACAGGATATGAACAGGTTCTTC
ACAATAAAATGTCCATTAGAATGAAGGATTTAACGAGAATTGAGGAAAATGCAAACTAAA
GTCATAATAAAACACCATTCCATACTCATGTAATTCACAAAAACTCACATTTACTTTGAA
GAGCAATTTGGCAATGTCTATAAGGCTAAATGTGTTTATTCTGTGATACGTCTTAGGTAA
CACGCAGTGAGCCCAATGCAGAAGAATGTTCCACTACAGTGTTATAATACAGAAACTGGC
AACAACTTCATGCCTTCAACTGGAGAACAGATAAATTATGGTAGTTCCCGTAATTGAATT
CTGCTACACAGGACTAAAATTAATGAACGAGAGCTTCAGATATAATTATACAATAATGAG
TGAAAAAAGCTGTAGAATGAGCAAGTATGAGGCTTAAAAATATATAAAACAGTACTAAAG
AGTAGATGGTTTAGGTTATACACAGTGAAAGTACAACAACACAGGAATGATAAACATCAA
ATTGTGGATAATTGTTACCTCTGGACGCGAGGAATGGCAATGTGATCTCCAAGTGGCAAA
ATGTTAAGATTTGACANAAGTACGTGCTGAGAAACTTGGATATTCAGTATGTAGTTCACT
ATACTAGAAATAGGTCCAGTCCCACCAACACATACATACACCTATNTAAGCCCAAAAGCT
GGTTCAATATACATTTTAATGCCCCCTGAAGGGCGATGCATCTAAGAATTTGGGGACCAG
GTTAACAAGCCCAATCCTCCTTACAAAATTCCCAAACAAACTGGGCTCGATAATTTGACT
GAGGGTGAATCGTTTTTAACACGGGCGG

Restriction Sites: NotI-NotI

ACCN: NM_000671

Insert Size: 2680 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).

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:	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_000671.3, NP_000662.3
RefSeq Size:	2644 bp
RefSeq ORF:	1125 bp
Locus ID:	128
UniProt ID:	P11766
Cytogenetics:	4q23
Domains:	ADH_zinc_N
Protein Families:	Druggable Genome
Protein Pathways:	Drug metabolism - cytochrome P450, Fatty acid metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Methane metabolism, Retinol metabolism, Tyrosine metabolism
Gene Summary:	This gene encodes a member of the alcohol dehydrogenase family. Members of this family metabolize a wide variety of substrates, including ethanol, retinol, other aliphatic alcohols, hydroxysteroids, and lipid peroxidation products. The encoded protein forms a homodimer. It has virtually no activity for ethanol oxidation, but exhibits high activity for oxidation of long-chain primary alcohols and for oxidation of S-hydroxymethyl-glutathione, a spontaneous adduct between formaldehyde and glutathione. This enzyme is an important component of cellular metabolism for the elimination of formaldehyde, a potent irritant and sensitizing agent that causes lacrymation, rhinitis, pharyngitis, and contact dermatitis. The human genome contains several non-transcribed pseudogenes related to this gene. [provided by RefSeq, Oct 2008]