

Product datasheet for **SC120771**

ADHFE1 (NM_144650) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ADHFE1 (NM_144650) Human Untagged Clone
Tag:	Tag Free
Symbol:	ADHFE1
Synonyms:	ADH8; HMFT2263; HOT
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

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>OriGene ORF sequence for NM_144650 edited
GGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGTCAG
AATTTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGGCACCAGCTGCCGCCGAG
CCCGGGTCGCGTACTTGTGAGGCAACTGCAACGCGCAGCCCCCTGGACTTTCACCTTCT
GGGAAAACAACAGATTATGCCTTTGAGATGGCTGTTTCAAATATTAGATATGGAGCAGCA
GTTACAAAAGGAAGTAGGAATGGACCTAAAAACATGGGTGCTAAAAATGTGTGCTTGATG
ACAGACAAGAACCTCTCCAAGCTCCCTCCTGTGCAAGTAGCTATGGATTCCCTAGTGAAG
AATGGCATCCCCTTTACGGTTTATGATAATGTGAGAGTGGAACCAACGGATTCAAGCTTC
ATGGAAGCTATTGAGTTTGCCAAAAGGGAGCTTTTGTGCTATGTTGCTGTGGTGTT
GGCTCTACCATGGACACCTGTAAGGCTGCTAATCTGTATGCATCCAGCCCTCATTCTGAT
TTCCTAGATTATGTCAGTGCCCCATTGGCAAGGGAAAGCCTGTGTCTGTGCCTCTTAAG
CCTCTGATTGCAGTGCCAACTACCTCAGGAACCGGGAGTGAACTACTGGGGTTGCCATT
TTTGACTATGAACACTTGAAAGTAAAAATTGGCATCACTTCGAGAGCCATCAAACCCACA
CTGGGACTGATTGATCCTCTGCACACCCTCCACATGCCTGCCGAGTGGTCGCCAACAGT
GGCTTTGATGTGCTTTGCCATGCCCTGGAGTCATACACCACCCTGCCCTACCACCTGCGG
AGCCCCTGCCCTTCAAATCCCATCACACGGCCTGCGTACCAGGGCAGCAACCCAATCAGT
GACATTTGGGCTATCCACGCGCTGCGGATCGTGGCTAAGTATCTGAAGAGGGCCGTC AAC
AGCACTGACAAATGAAGAAGAAGATGAGTCTCAGGGCACCTTCTGGAGTGGCCCTCGC
CATCCAGGGACCAGCGCTTGCCTCCCCGGCGCTTTTACATCACATGAGCAGCTGACAG
CGTATTTATTATGCCTTTGCTGAAACAGTTGATGAGAAATATGTTTCCCTTCAGTTTTCA
TTTAGAAGACAAGGCGTGGTTGAATAACTTGCCTGATTTTTCTTCTACCGAGTAGCAT
TGTTGATGTGTTATTGTTAGGTATTTATATCATTACAGGGCTGTCAGAAATCCCGATGA
TCTTGAAGCAAGTCTCATATGCACCTTGCAAGTGCTTTTGTGTCATCGGCTTTGGAAA
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TAAAGCAAAGGATTACAATGTGGATCACCCACTGGTGCCCATGGCCTTTCTGTGGTGCT
CACGTCCCAGCGGTGTTCACTTTCACGGCCAGATGTTTCCAGAGCGACACCTGGAGAT
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CACCAAGCTTGACCCCCGTCAGTCAAGAGGATCTGGCTGCTCTGTTTGAAGCTTC
AATGAAACTGTATTAATTGTCATTTAACTGAAAGAATTACCGCTGGCCATTGTAGTGCT
GAGAGCAAGAGCTGATCTAGCTAGGGCTTTGTCTTTTCATCTTTGTGCATAAATTACCTG
TTACCAGTATAGGTGGGATATACATTTATCTTGCAGGAAATCCCCAAAGCTCAGAGTCC
AGTTCTTCCATAAAAACAGGCTGGACAAATGACCACTATGTTAGACCCCCAGGCTCGACT
TCAGGGGTGAGTGTCTGTCCCAAACCCACACAGAATACTCTGCCTCTGCTTCATGTA
GCAAATGAGCAAAAACACTCAGTATCTATCAAAAGTGAAATTATATTTCTATGCCTAGTA
ATTCACCTCATGTCTAAAAATTTATCTGATAGAAACACTAGCACCAGTACATACAGAAGC
ATGGCAAGGATGTTTCTGGCAGCACTTTTCTAATAATAAAAGATTGAAACAACAAAAA
AAAAAAAAAAAA
    
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5' Read Nucleotide Sequence: >OriGene 5' read for NM_144650 unedited
 CCAACCGGCACACCCACCCCTCCCCCCCCCGTTTCAGATTTGNATACAACCTCATATAG
 GCGGCCGCGAAATTCGCACCAGCTGCCGCCGAGCCCGGGTTCGCTACTTGCTGAGGCAA
 CTGCAACGCGCAGCCCTGGACTTTNNCACCTTCTGGGAAAACAACAGATTATGCCTTT
 GAGATGGCTGTTTCAAATATTAGATATGGAGCAGCAGTTACAAAGGAAGTAGGAATGGAC
 CCTCTGTGCAAGTAGCTATGGATTCCCTAGTGAAGAATGGCATCCCCTTTACGGTTTAT
 GATAATGTGAGAGTGGAACCAACGGATTCAAGCTTCATGGAAGCTATTGAGTTTGCCCAA
 AAGGGAGCTTTTGTATGCCTATGTTGCTGTCGGTGGTGGCTCTACCATGGACACCTGTAAG
 GCTGCTAATCTGTATGCATCCAGCCCTCATTCTGATTTCCCTAGATTATGTCAGTGCCCC
 ATTGGCAAGGAAAGCCTGTGTCTGTGCCTCTTAAGCCTCTGATTGCAGTGCCAACTACC
 TCANGAACCGGGAGTGAACTACTGNGGTTGCCATTTTTGACTATGAACACTTGAAAGTA
 AAAATTGGCATCACTTTGAGAGCCATCAAACCCACACTGGGACTGATTGATCCTCTGCA
 CACCCTTACATGCCTGCCCGAGTGGTCCGACAGTGGCTTTGATGTGCTTTGCATGCC
 TGNAGTCATACACCACCCTTGCCTAACCACCTGCGGAGCCCTGCCCTTCAAATNCCATTA
 CACGGCCTGCGTACCNGGCAGCAACCCAAATCANTGACATTTGGGCTATTACGCCCTGC
 GGATCGGGCCTAAATTTCTGAGAGGGCCGTC AACAGCCTGGCAAATGAAGAGAAAAGGA
 CCTTC

3' Read Nucleotide Sequence: >OriGene 3' read for NM_144650 unedited
 GACTCACTATGGTCGTGGCCGCACCTAAGATCGGTTTTTTTTTTTTTTTTTTTGTGTTT
 CAAATCTTTTATTATTAGAAAAGTGTGCCAGAAACATCCTTGCCATGCTTCTGTATGTA
 CTGGTGCTAGTGTCTATCAGATAAATTTTAGACATGAAGTGAATTACTAGGCATAGG
 AAATATAATTTACACTTTTGATAGATACTGAGTTTTTGCTCATTGCTACATGAAGCAGA
 GGCAGAGTATTCTGTGTGGGTTTGGGACAGGAACACTGACCCCTGAAGTCGAGCCTGGG
 GGTCTAACATAGTGGTCAATTTGTCCAGCCTGTTTTATGGAAGGAACTGGACTCTGAGCTT
 TGGGGAATTTCTGCAAGATAAATGTATATCCACCTATACTGGTAACAGGTAAGTTATG
 CACAAAGATGAAAAGACAAAGCCCTAGCTAGATCAGCTCTTGCTCTCAGCACTACAATGG
 CCAGCGGTAATTTCTTTCAGTAAAATGACAATTAATACAGTTTCATTGAAGCTTCAAACA
 GAGCAGCCAGATCCTCTTCTGACTGGGGACGGGGTCAAGCTTGGTGACCCCTTCTGCGG
 GCAGCGTTCCCTTCACTAGTGCGGGATATCAGCTTTGGAGTAACCAACAGCTGCTAGGC
 CATCATCAACATCCAGATCGAATAAGAATTTCCGGAGCGTGTCTGCCAACACCAGCCCTG
 CATCTGGATCCTGGCAGTGCGGGTGTCGGCTCCAGTATTTCTGCCATCTCCAGGTGTC
 GCTCTGAAAACATCTGGGCCGTGAAAGTGAACACCCTGGGGACGTGAGCACCACAGAT
 AGGCCATGGGGCACCAGTGGGTGATCCACATTGTNATCCTTTGGCTTATACATCTTG

Restriction Sites: NotI-NotI

ACCN: NM_144650

Insert Size: 2250 bp

OTI Disclaimer: 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 custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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. [More info](#)

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_144650.1](#), [NP_653251.1](#)

RefSeq Size: 1830 bp

RefSeq ORF: 1260 bp

Locus ID: 137872

UniProt ID: [Q8IWW8](#)

Cytogenetics: 8q13.1

Domains: Fe-ADH

Gene Summary: The ADHFE1 gene encodes hydroxyacid-oxoacid transhydrogenase (EC 1.1.99.24), which is responsible for the oxidation of 4-hydroxybutyrate in mammalian tissues (Kardon et al., 2006 [PubMed 16616524]).[supplied by OMIM, Mar 2008]