

## Product datasheet for **RG223298**

### **ADHFE1 (NM\_144650) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ADHFE1 (NM_144650) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ADHFE1
Synonyms:	ADH8; HMFT2263; HOT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG223298 representing NM\_144650  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCGCTGCCGCCGAGCCCGGGTTCGGTACTTGTCTGAGGCAACTGCAACCGCGCAGCGTGCCAGTGCC  
 CAACTCATTCTCATACTTACTCCCAAGCCCTGGACTTTACCTTCTGGGAAAACAACAGATTATGCCTT  
 TGAGATGGCTGTTTCAAATATTAGATATGGAGCAGCAGTTACAAAGGAAGTAGGAATGGACCTAAAAAAC  
 ATGGGTGCTAAAAATGTGTGCTTGTGATGACAGACAAGAACCCTCCTCAAGCTCCCTCCTGTGCAAGTAGCTA  
 TGGATTCCCTAGTGAAGAATGGCATCCCCTTTACGGTTTATGATAATGTGAGAGTGAACCAACGGATTC  
 AAGCTTCATGGAAGCTATTGAGTTTGCCAAAAGGGAGCTTTTGTATGCCTATGTTGCTGTCGGTGGTGGC  
 TCTACCATGGACACCTGAAGGCTGCTAATCTGTATGCATCCAGCCCTCATTCTGATTTCTAGATTATG  
 TCAGTGCCCCATTGGCAAGGAAAGCCTGTGTCTGTGCCTCTTAAGCCTCTGATTGCAGTGCCAACTAC  
 CTCAGGAACCGGGAGTAAACTACTGGGGTTGCCATTTTTGACTATGAACACTTGAAAGTAAAAATTGGC  
 ATCACTTCGAGAGCCATCAAACCCACACTGGGACTGATTGATCCTCTGCACACCCCTCCACATGCCTGCC  
 GAGTGGTCGCAACAGTGGCTTTGATGTGCTTTGCCATGCCCTGGAGTCATACACCACCCTGCCCTACCA  
 CCTGCGGAGCCCTGCCCTTCAAATCCCATCACACGGCCTGCGTACCAGGGCAGCAACCCAAATCAGTGAC  
 ATTTGGGCTATCCACGCGCTGCGGATCGTGGCTAAGTATCTGAAGAGGGCTGTCAGAAATCCCGATGATC  
 TTGAAGCAAGGTCTCATATGCACCTGGCAAGTGCCTTTGCTGGCATCGGCTTTGGAAATGCTGGTGTTC  
 TCTGTGCCATGGAATGTCTTACCAATTCAGGTTTAGTGAAGATGTATAAGCAAAGGATTACAATGTG  
 GATCACCCACTGGTGCCCATGGCCTTTCTGTGGTGTCTACGTCCCAGCGGTGTTCACTTTCACGGCCC  
 AGATGTTTCCAGAGCGACACCTGGAGATGGCAGAAATACTGGGAGCCGACACCCGCACTGCCAGGATCCA  
 AGATGCAGGGCTGGTGTGGCAGACACGCTCCGAAATTCCTATTTCGATCTGGATGTTGATGATGGCCTA  
 GCAGCTGTTGGTTACTCAAAGCTGATATCCCGCACTAGTAAAAGAACGCTGCCCCAGGAAAGGGTCA  
 CCAAGCTTGCACCCTGTCCCGAGTCAAGAGGATCTGGCTGCTGTTGAAGCTTCAATGAAACTGTA  
 T

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG223298 representing NM\_144650  
 Red=Cloning site Green=Tags(s)

MAAAARARVAYLLRQLQRAACQCPTHSHYSQAPGLSPSGKTTDYAFEMAVSNIRYGAAVTKEVGMDLKN  
 MGAKNVCLMTDKNL SKLPPVQVAMDSL VKNGIPFTVYDNRVEPTDSSFMEIEFAQKGFADAYVAVGGG  
 STMDTCKAANLYASSPHSDFLDYVSAPIGKGPVSVPLKPLIAVPTTSGTGSETTGVAIFDYEHLKVKIG  
 ITSRAIKPTLGLIDPLHTLHMPARVVANSFGFDVLCHALESYTTLPYHLRSPCPSNPITRPAYQGSNPI SD  
 IWAIHALRIVAKYLKRAVRNPDDLEARSHMHLASAFAGIGFNGVHLCGMSYPI SGLVKMYKAKDYNV  
 DHPLVPHGLSVVLTSPAVFTFTAQMFPERHLEMAEILGADTRTARIQDAGLVLADTLRKFLFDLVDVDDGL  
 AAVGYSKADIPALVKGTLPQERVTKLAPCPQSEEDLAALFEASMKLY

**TR**TRPLE - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_144650

**ORF Size:** 1401 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](mailto: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](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

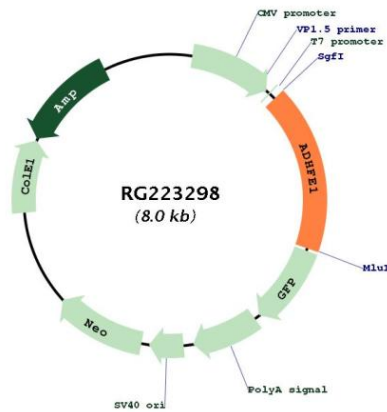
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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\\_144650.3](#)  
 RefSeq Size: 1907 bp  
 RefSeq ORF: 1404 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]

**Product images:**



Circular map for RG223298