

## Product datasheet for **MG207433**

### **Adhfe1 (NM\_175236) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Adhfe1 (NM_175236) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Adhfe1
Synonyms:	6330565B14Rik; Adh8; AI043035; HOT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG207433 representing NM\_175236  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCTGCAGCTGCACGCGCTCGAGTCACACACTTGTGAGGCACCTACAAAGCACAGCATGCCAGTGCC  
 CAACTCATTCTCATACTTACTCCCAAGCCCTGGACCTTCGGGAAAAACAGCAGATTACGCCTTTGAGAT  
 GGCTGTCTCAAATATTAGATATGGAGCAGGGGTTACGAAGGAAGTAGGCATGGATCTACAGAATATGGGA  
 GCTAAGAATGTTTGCTTGATGACAGACAAGAACCTCTCCAGCTCCCTCCTGTACAAATAGTTATGGATT  
 CCCTATCGAAGAATGGCATCAGTTTTAGGTTTATGATGATGTAAGGGTGGAACTACAGATGGAAGCTT  
 CATGGATGCAATTGAATTTGCCAAAAAGGGAGCGTTTGTGCCTATGTTGCTGTGGGTGGGGCTCCACC  
 ATGGACACCTGTAAGCCGCAATCTGTATGCATCCAGCCCTCACTCTGAGTTCCTTGATTATGTCAATG  
 CCCCCATTGGGAAGGGGAAGCCAGTAAGTGTGCCTCTTAAACCTCTGATTGCAGTCCAACCTACCTCAGG  
 GACTGGCAGTGAGACTACCGGGGTGCCATTTTTGACTATGAGCATTGAAAGTAAAACTGGCATTGCT  
 TCACGAGCCATCAAACCCACCCTGGGACTGGTTGATCCCCTGCACACTCTCCACATGCCTTGCCAGGTGG  
 TTGCCAACAGTGGCTTCGATGTCCTTTGCCATGCTCTGGAGTCATACACCGCCATTCCTACAGCATGCG  
 GAGCCCTGCCCTTCAACCCCATCAAACGACCAGCATACCAGGGTAGCAACCCAACTCAGCGACATCTGG  
 GCAGTCCATGCACTGCAGATTGTTGCCAAATATCTGAAGAGGGCTGTGAGAAACCCAGATGATCTGGAAG  
 CAAGGTCTAAAATGCACTTGGCAAGTGTCTTTGCTGGCATTGGCTTCGGAAATGCTGGTGTTCATCTGTG  
 CCATGGCATGTCTTACCAATTTAGGTTTGTGAGACATATAAAGCCAAGGAATATAATGTGGATCAC  
 CCTTTGTGCCCATGGCCTTTCTGTGGTGTACCTCTCCTGCAGTGTTCACCTTACAGCCCAGATGT  
 TTCCAGAGCGGCACCTGGAGACGCGAGGAATATTAGGAGCCAACATCCGCACTGCCAGGATCCAAGATGC  
 TGGGCTTGTGTTGGCAGATGCCCTCCGAAAATTCCTATTTGACCTAAATGTTGATGACGGTCTGGCTGCT  
 CTTGGTTATTCCAAGGATGACATTCCTTCAATTGGTAAAAGGAACACTGCCCCAGGAAAGGGTACGAAGC  
 TCGCACCTCGTCCCAGTCAGAAGAGGATTTGTCTGCTTTGTTGAAGCATCCATGAAACTGTAC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG207433 representing NM\_175236  
 Red=Cloning site Green=Tags(s)

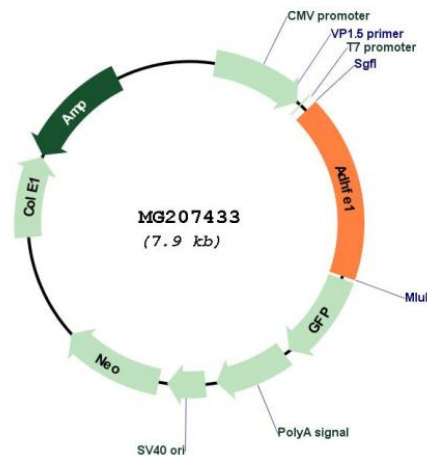
MAAAARARVTHLLRHLQSTACQCPTHSHYSQAPGPSKGTADYAFEMAVSNIRYAGVTKEVGMDLQNMG  
 AKNVCLMTDKNLSQLPPVQIVMDSLKNGISFQVYDDVRVEPTDGSFMDAIEFAKKGAFDAYVAVGGGST  
 MDTCKAANLYASSPHSEFLDYVNAPIGKGPVTVPLKPLIAVPTTSGTGSETTGVAIFDYEHLKVKTGIA  
 SRAIKPTLGLVDPLHTLHMPQCQVVANSQVDFVLCALLESYTAIPYSMRSPCPSNPIQRPAYQGSNPISDI  
 AVHALQIVAKYLKRAVRNPDDLEARSKMHLASAFAGIGFNGAGVHLCHGMSYPIISGLVKTYKAYEYVNDH  
 PLVPHGLSVVLTSPAVFTFTAQMFPERHLETAGILGANIRTARIQDAGLVADALRKFLFDLNVDDGLAA  
 LGYSKDDIPSLVKGTLQPQERVTKLAPRAQSEEDLSALFEASMKLY

**TR**TRPLE - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** NM\_175236

**ORF Size:** 1395 bp

**OTI Disclaimer:** 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.

<b>Components:</b>	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).
<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_175236.5</a>
<b>RefSeq Size:</b>	3108 bp
<b>RefSeq ORF:</b>	1398 bp
<b>Locus ID:</b>	76187
<b>UniProt ID:</b>	<a href="#">Q8R0N6</a>
<b>Cytogenetics:</b>	1 A2
<b>Gene Summary:</b>	Catalyzes the cofactor-independent reversible oxidation of gamma-hydroxybutyrate (GHB) to succinic semialdehyde (SSA) coupled to reduction of 2-ketoglutarate (2-KG) to D-2-hydroxyglutarate (D-2-HG). L-3-hydroxybutyrate (L-3-OHB) is also a substrate for HOT when using 2-KG as hydrogen acceptor, resulting in the formation of D-2-HG (By similarity). [UniProtKB/Swiss-Prot Function]