

## Product datasheet for **MR207433**

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

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Adhfe1 (NM_175236) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Adhfe1
Synonyms:	6330565B14Rik; Adh8; AI043035; HOT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>MR207433 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCTGCAGCTGCACGCGCTCGAGTCACACACTTGTGAGGCACCTACAAAGCACAGCATGCCAGTGCC  
 CAACTCATTCTCATACTTACTCCCAAGCCCTGGACCTTCGGGAAAAACAGCAGATTACGCCTTTGAGAT  
 GGCTGTCTCAAATATTAGATATGGAGCAGGGGTTACGAAGGAAGTAGGCATGGATCTACAGAATATGGGA  
 GCTAAGAATGTTTGCTTGATGACAGACAAGAACCTCTCCAGCTCCCTCCTGTACAAATAGTTATGGATT  
 CCCTATCGAAGAATGGCATCAGTTTTAGGTTTATGATGATGTAAGGGTGGAACTACAGATGGAAGCTT  
 CATGGATGCAATTGAATTTGCCAAAAAGGGAGCGTTTGTGCCTATGTTGCTGTGGGTGGGGCTCCACC  
 ATGGACACCTGTAAGCCGCAATCTGTATGCATCCAGCCCTCACTCTGAGTTCCTTGATTATGTCAATG  
 CCCCCATTGGGAAGGGGAAGCCAGTAACGTGCCTCTTAAACCTCTGATTGCAGTCCAACCTACCTCAGG  
 GACTGGCAGTGAGACTACCGGGTGGCATTCTTACTATGAGCATTGAAAGTAAAACTGGCATTGCT  
 TCACGAGCCATCAAACCCACCCTGGGACTGGTTGATCCCCTGCACACTCTCCACATGCCTTGCCAGGTGG  
 TTGCCAACAGTGGCTTCGATGTCCTTTGCCATGCTCTGGAGTCATACACCGCCATTCCTACAGCATGCG  
 GAGCCCCTGCCCTTCAAACCCATCAAACGACCAGCATACCAGGGTAGCAACCCAATCAGCGACATCTGG  
 GCAGTCCATGCACTGCAGATTGTTGCCAAATATCTGAAGAGGGCTGTGAGAAACCCAGATGATCTGGAAG  
 CAAGGTCTAAAATGCACTTGGCAAGTGTCTTGTGGCATTGGCTTCGAAATGCTGGTGTTCATCTGTG  
 CCATGGCATGTCTTACCAATTTAGGTTTGTGAGACATATAAAGCCAAGGAATATAATGTGGATCAC  
 CCTCTTGTGCCCCATGGCCTTTCTGTGGTGTACCTCTCCTGCAGTGTTCACCTTACAGCCCAGATGT  
 TTCCAGAGCGGCACCTGGAGACGCGAGGAATATTAGGAGCCAACATCCGCACTGCCAGGATCCAAGATGC  
 TGGGCTTGTGTTGGCAGATGCCCTCCGAAAATCTTATTTGACCTAAATGTTGATGACGGTCTGGCTGCT  
 CTTGGTTATTCCAAGGATGACATTCCTTATTGGTAAAAGGAACACTGCCCCAGGAAAGGGTACGAAGC  
 TCGCACCTCGTCCCAGTCAGAAGAGGATTTGTCTGCTTTGTTGAAGCATCCATGAAACTGTAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR207433 protein sequence  
 Red=Cloning site Green=Tags(s)

MAAAARARVTHLLRHLQSTACQCPTHSHYSQAPGPSKGTADYAFEMAVSNIRYAGVTKEVGM DLQNMG  
 AKNVCLMTDKNLSQLPPVQIVMDSLKNGISFQVYDDVRVEPTDGSFMDAIEFAKKGAFDAYVAVGGST  
 MDTCKAANLYASSPHSEFLDYVNAPIGKGKPVTVPLKPLIAVPTTSGTGSETTGVAIFDYEHLKVKTGIA  
 SRAIKPTLGLVDPLHTLHMPQCQVANSQVDFVLCALLESYTAIPYSMRSPCPSNPIQRPAYQGSNPISDIW  
 AVHALQIVAKYLRKAVRNPDDLEARSKMHLASAFAGIGFNGAGVHLCHGMSYPIISGLVKTYKAKEYNVDH  
 PLVPHGLSVVLTSPAVFTFTAQMFPERHLETAGILGANIRTARIQDAGLVLADALRKFLFDLNVDDGLAA  
 LGYSKDDIPSLVKGTLQPQERVTKLAPRAQSEEDLSALFEASKLY

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_175236

**ORF Size:** 1398 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.

**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\\_175236.5](#)
**RefSeq Size:** 3139 bp

**RefSeq ORF:** 1398 bp

**Locus ID:** 76187

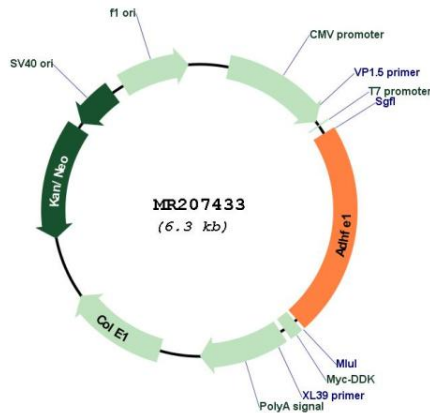
**UniProt ID:** [Q8R0N6](#)

**Cytogenetics:** 1 A2

**MW:** 49.9 kDa

**Gene Summary:** 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]

**Product images:**



Circular map for MR207433