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Product datasheet for RR206998

Adhfe1 (NM_001025423) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Adhfe1 (NM_001025423) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Adhfe1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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ORF Nucleotide Sequence:

>RR206998 representing NM_001025423
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCGCAGCTGCACGCGCTCGAGTGACACATTTGCTGAGGCACCTGCAAAGCACAGCATGCCAGTGTC
CAACTCATTCTCATACCTACTCCCAAGTCCCTGGACTCTCACCTTCAGGAAAAACAACGGATTATGCATT
TGAGATGGCGGTCTCGAACATTAGATATGGAGCAGGGGTTACAAAGGAAGTGGGCATGGATCTACAGAAT
ATGGGAGCTAAGAATGTCTGCCTGATGACAGACAAGAACCTCTCCCAGCTCCCTCCTGTCCAAATAGTTA
TGGATTCCCTATCGAAGAATGGCATTAGTTTTCAGGTTTATGACAACGTGAGGGTGGAGCCTACAGACGG
AAGCTTCATGGATGCGATTGAATTTGCTAAAAAGGGAGCCTTTGATGCCTATGTTGCTGTGGGTGGGGGC
TCCACCATGGACACCTGTAAAGCCGCTAATCTGTACGCATGCAGCCCTCACTCTGAGTTCCTTGATTATG
TCAATGCCCCCATTGGGAAGGGGAAGCCAGTAACTGTGCCTCTTAAACCTCTGATCGCAGTTCCAACTAC
CTCGGGGACTGGCAGTGAGACTACCGGGGTCGCCATTTTTGACTATGAACATTTGAAAGTAAAAACTGGA
ATTGCTTCACGGGCCATCAAACCCACCCTGGGGCTGGTTGATCCCCTGCATACTCTCCACATGCCTTGCC
AGGTGGTTGCCAACAGTGGCTTCGATGTCCTTTGCCATGCTCTGGAGTCATACACCGCCATTCCCTACAG
CATGAGGAGCCCCTGCCCTTCCAATCCCATCCAACGACCAGCATACCAGGGTAGCAACCCAATCAGTGAC
ATCTGGGCAGTCCATGCACTGCGCATCGTTGCCAAATATCTGAAGAGGGCTGTCAGAAACCCTGACGATC
TGGAAGCAAGGTCTAGCATGCACTTGGCAAGCGCCTTCGCTGGCATTGGCTTCGGAAACGCCGGTGTTCA
TCTGTGCCATGGCATGTCTTACCCAATTTCAGGTTTAGTGAAGACATACAAAGCCAAGGAATACAATGTG
GATCACCCTCTGGTGCCCCATGGCCTCTCTGTGGTGCTCACCTCTCCCGCAGTGTTCACCTTCACAGCCC
AGATGTTTCCAGAGCGGCACCTGGAGACGGCAGAAATATTAGGAGCCAACATTCGCACCGCCAAGATCCA
AGATGCCGGGCCTGTGTTGGCAGATGCTCTCCGAAAATTCCTATTTGACCTAAATGTTGATGACGGTCTC
GCTGCCCTTGGTTATTCTAAAGATGACATTCCTTCACTGGTGAAAGGAACACTGCCCCAGGAAAGGGTCA
CGAAGCTTGCGCCGCGTGCCCAGTCAGAGGAAGATTTGTCTGCTTTGTTCGAAGCATCAATGAAACTGTA
C

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

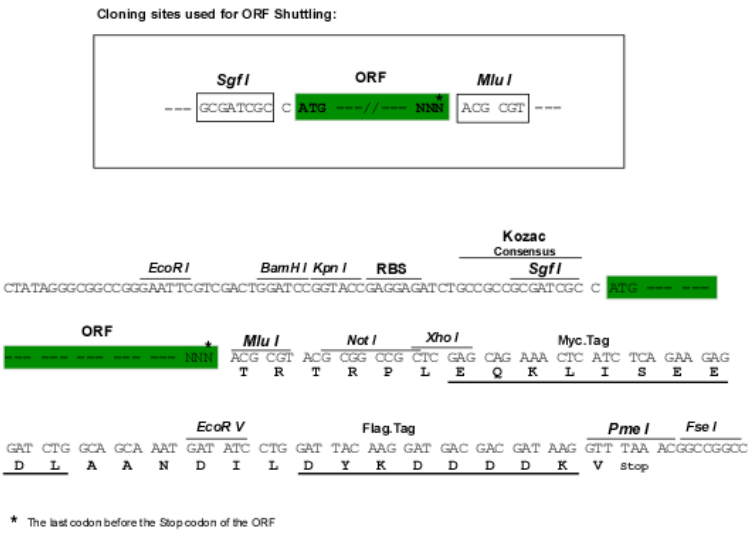
>RR206998 representing NM_001025423
Red=Cloning site Green=Tags(s)

MAAAARARVTHLLRHLQSTACQCPTHSHTYSQVPGLSPSGKTTDYAFEMAVSNIRYGAGVTKEVGMDLQN
MGAKNVCLMTDKNLSQLPPVQIVMDSLSKNGISFQVYDNVRVEPTDGSFMDAIEFAKKGAFDAYVAVGGG
STMDTCKAANLYACSPHSEFLDYVNAPIGKGKPVTVPLKPLIAVPTTSGTGSETTGVAIFDYEHLKVKTG
IASRAIKPTLGLVDPLHTLHMPCQVVANSGFDVLCHALESYTAIPYSMRSPCPSNPIQRPAYQGSNPISD
IWAVHALRIVAKYLKRAVRNPDDLEARSSMHLASAFAGIGFGNAGVHLCHGMSYPISGLVKTYKAKEYNV
DHPLVPHGLSVVLTSPAVFTFTAQMFPERHLETAEILGANIRTAKIQDAGPVLADALRKFLFDLNVDDGL
AALGYSKDDIPSLVKGTLPQERVTKLAPRAQSEEDLSALFEASMKLY

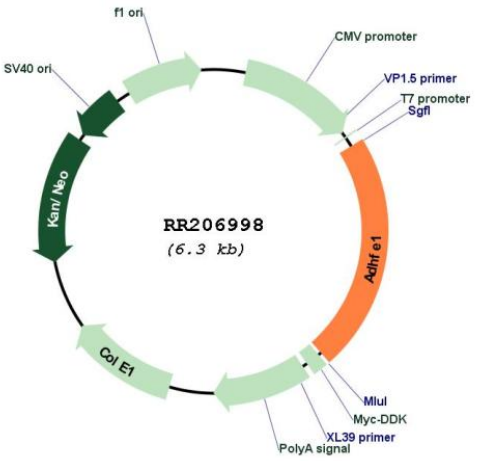
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001025423

ORF Size: 1401 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_001025423.1, NP_001020594.1
RefSeq Size:	1884 bp
RefSeq ORF:	1404 bp
Locus ID:	362474
UniProt ID:	Q4QQW3
Cytogenetics:	5q11
MW:	50.2 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]