

Product datasheet for **MR230096**

Hadhb (NM_001289799) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hadhb (NM_001289799) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Hadhb
Synonyms:	4930479F15Rik; Mtpb; TP-beta
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR230096 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACTACCATCTTGACTTCCACTTTTAGAACTTGCAACTACATCAAATGGGCTCTCAGATCTTCTA
 TAAGACCTCTGAGCTGTTCTTCCAACTGCACTCTGCCAGCTGTCCAGACCAAGTCAAAGAAGACTTT
 AGCAAAACCCAATATGAAGAATATTGTGGTGGTGAAGGGTCCGCATTCCATTTCTGCTGTCAGGCACT
 TCGTATAAAGACCTAATGCCACATGACTTGGCTAGAGCTGCACCTTCGGGTTTGTTCATCGGACCAATA
 TTCCAAAGGATGTTGTTGATTATATCATCTTGGTACAGTTATTCAGGAAGTAAAAACAAGCAATGTGGC
 TAGAGAGGCTGCCCTGGGAGCTGGCTTCTCTGATAAGACTCCAGCTCACACTGTCACCATGGCTTGATC
 TCTTCAAACCAAGCCATGACCACAGCTGTTGGTCTGATAGCTTCTGGCCAGTGTGATGTCGTCGTTGGCTG
 GTGGTGTGAGTTAATGTCTGATGTCCCTATTCGTCATTCAAGAAATATGAGGAAATGATGCTTGATCT
 CAATAAGCCAAGACTCTGGGCCAGCGCTGTCCTTACTCAGTAAATTCAGATTGAATTTCTGTCCCCT
 GAGCTCCCTGCAGTGGCTGAGTTCTCCACTAATGAGACCATGGGCCACTCTGCAGACCGACTGGCTGCTG
 CCTTGTCTGTTTCTGAATGGAACAGGATGAATATGCACTGCGTTCTCATAGTCTGGCCAAGAAGGCACA
 GGATGAAGGACACCTTTCTGATATTGTACCCTTCAAAGTACCAGGAAAGGACACAGTTACCAAAGATAAT
 GGGATCCGTCCTTCTCACTGGAGCAAATGGCCAACTAAAACCTGCGTTCATCAAACCTATGGCACAG
 TGACAGCTGCAAATCTTCTTCTGACTGATGGCGCTTCTGCGATGCTAATCATGTGAGGACAGAGC
 TCTGGCCATGGTTATAAACCAAAGGCATATTTGAGGGATTTTATATGTGTCCAGGATCCGAAAGAT
 CAGCTTTTACTCGGACCAACATATGCTACTCCTAAAGTTTATAGAAAAGGCAGGGTTAACCATGAATGATA
 TCGATGCTTTTGAATTTTATGAAGCCTTCTCAGGCCAGATTTTAGCTAACTTTAAAGCCATGGATTCTGA
 TTGGTTTGCACAAAACACTACATGGGTAGGAAAACCAAGTTGGATCACCTCCTCTGGAGAAGTTTAAATATC
 TGGGGCGGATCACTGTCTCTGGGCACCCTTTTGGAGCCACTGGCTGTCGGCTGGTCATGGCAGCTGCCA
 ACAGACTGAGGAAGGATGGAGGCCAGTATGCTTTAGTGGCTGCCTGTGCAGCTGGAGGACAGGGTCATGC
 TATGATTGTGGAAGCTTACCCAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR230096 protein sequence
 Red=Cloning site Green=Tags(s)

MTTILTSTFRNLSTTSKVALRSSIRPLSCSSQLHSAPAVQTKSKKTLAKPNMKNI VVVEGVRIPFLSGT
 SYKDLMPHDLARAALSGLLHRTNIPKDVVDYIIFGTVIQEVKTSNVAREALGAGFSDKTPAHTVTMACI
 SSNQAMTTAVGLIASGQCDVVVAGGVELMSDVP IRHSRNMKMLDLNKAKTLGQRLSLLSKFRLNFLSP
 ELPVAEAFSTNETMGHSADRLAAAFVSRMEQDEYALRSHSLAKKAQDEGHLSDIVPFKVPKDTVTKDN
 GIRPSSLEQMAKLPKPAFIKPYGTVTAANSSFLTDGASAMLIMSEDRALAMGYKPKAYLRDFIYVSQDPKD
 QLLLGPYATPKVLEKAGLTMNDIDAFEFHEAFSGQILANFKAMDSDF AQNYMGRKTKVGSPPLEKFN
 WGGSLSLGHPFGATGCRVMAAANRLRKDGQYALVAACAAGGQGHAMIVEAYPK

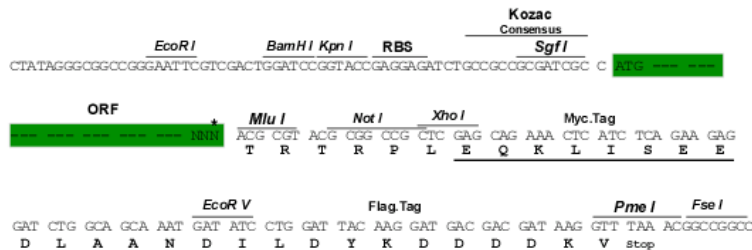
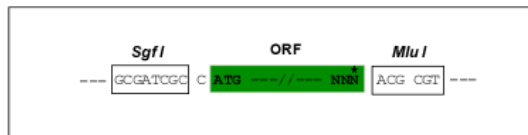
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001289799

ORF Size: 1428 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_001289799.1](#), [NP_001276728.1](#)

RefSeq Size: 2088 bp

RefSeq ORF: 1428 bp

Locus ID: 231086

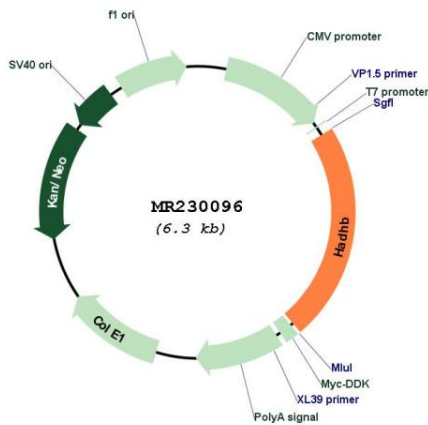
UniProt ID: [Q99JY0](#)

Cytogenetics: 5 B1

MW: 51.4 kDa

Gene Summary: Mitochondrial trifunctional enzyme catalyzes the last three of the four reactions of the mitochondrial beta-oxidation pathway. The mitochondrial beta-oxidation pathway is the major energy-producing process in tissues and is performed through four consecutive reactions breaking down fatty acids into acetyl-CoA. Among the enzymes involved in this pathway, the trifunctional enzyme exhibits specificity for long-chain fatty acids. Mitochondrial trifunctional enzyme is a heterotetrameric complex composed of two proteins, the trifunctional enzyme subunit alpha/HADHA carries the 2,3-enoyl-CoA hydratase and the 3-hydroxyacyl-CoA dehydrogenase activities, while the trifunctional enzyme subunit beta/HADHB described here bears the 3-ketoacyl-CoA thiolase activity.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR230096