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Product datasheet for RC209853

HADHB (NM_000183) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HADHB (NM_000183) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HADHB
Synonyms:	ECHB; MSTP029; MTPB; TP-BETA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC209853 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACTACTATCTTGACTTACCCCTTTAAAAATCTTCCCACTGCATCAAAATGGGCCCTCAGATTTTCCA
TAAGACCTCTGAGCTGTTCCTCCCAGCTACGAGCTGCCCCAGCTGTCCAGACCAAAACGAAGAAGACGTT
AGCCAAACCCAATATAAGGAATGTTGTGGTGGTGGATGGTGTTCGCACTCCATTTTTGCTGTCTGGCACT
TCATATAAAGACCTGATGCCACATGATTTGGCTAGAGCAGCGCTTACGGGTTTGTTGCATCGGACCAGTG
TCCCTAAGGAAGTAGTTGATTATATCATCTTTGGTACAGTTATTCAGGAAGTGAAAACAAGCAATGTGGC
TAGAGAGGCTGCCCTTGGAGCTGGCTTCTCTGACAAGACTCCTGCTCACACTGTCACCATGGCTTGTATC
TCTGCCAACCAAGCCATGACCACAGGTGTTGGCTTGATTGCTTCTGGCCAGTGTGATGTGATCGTGGCAG
GTGGTGTTGAGTTGATGTCCGATGTCCCTATTCGTCACTCAAGGAAAATGAGAAAACTGATGCTTGATCT
CAATAAGGCCAAATCTATGGGCCAGCGACTGTCTTTAATCTCTAAATTCCGATTTAATTTCCTAGCACCT
GAGCTCCCTGCGGTTTCTGAGTTCTCCACCAGTGAGACCATGGGCCACTCTGCAGACCGACTGGCCGCTG
CCTTTGCTGTTTCTCGGCTGGAACAGGATGAATATGCACTGCGCTCTCACAGTCTAGCCAAGAAGGCACA
GGATGAAGGACTCCTTTCTGATGTGGTACCCTTCAAAGTACCAGGAAAAGATACAGTTACCAAAGATAAT
GGCATCCGTCCTTCCTCACTGGAGCAGATGGCCAAACTAAAACCTGCATTCATCAAGCCCTACGGCACAG
TGACAGCTGCAAATTCTTCTTTCTTGACTGATGGTGCATCTGCAATGTTAATCATGGCGGAGGAAAAGGC
TCTGGCCATGGGTTATAAGCCGAAGGCATATTTGAGGGATTTTATGTATGTGTCTCAGGATCCAAAAGAT
CAACTATTACTTGGACCAACATATGCTACTCCAAAAGTTCTAGAAAAGGCAGGATTGACCATGAATGATA
TTGATGCTTTTGAATTTCATGAAGCTTTCTCGGGTCAGATTTTGGCAAATTTTAAAGCCATGGATTCTGA
TTGGTTTGCAGAAAACTACATGGGTAGAAAAACCAAGGTTGGATTGCCTCCTTTGGAGAAGTTTAATAAC
TGGGGTGGATCTCTGTCCCTGGGACACCCATTTGGAGCCACTGGCTGCAGGTTGGTCATGGCTGCTGCCA
ACAGATTACGGAAAGAAGGAGGCCAGTATGGCTTAGTGGCTGCGTGTGCAGCTGGAGGGCAGGGCCATGC
TATGATAGTGGAAGCTTATCCAAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC209853 protein sequence
Red=Cloning site Green=Tags(s)

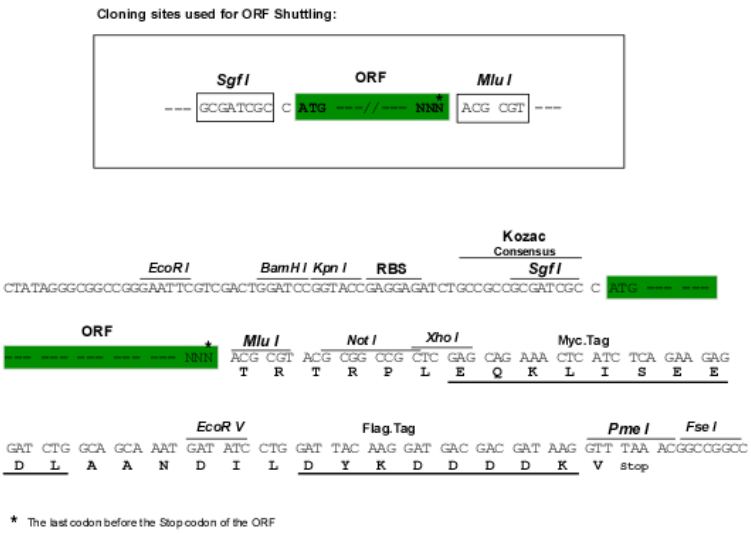
MTTILTYPFKNLPTASKWALRFSIRPLSCSSQLRAAPAVQTKTKKTLAKPNIRNVVVVDGVRTPFLLSGT
SYKDLMPHDLARAALTGLLHRTSVPKEVVDYIIFGTVIQEVKTSNVAREAALGAGFSDKTPAHTVTMACI
SANQAMTTGVGLIASGQCDVIVAGGVELMSDVPIRHSRKMRKLMLDLNKAKSMGQRLSLISKFRFNFLAP
ELPAVSEFSTSETMGHSADRLAAAFAVSRLEQDEYALRSHSLAKKAQDEGLLSDVVPFKVPGKDTVTKDN
GIRPSSLEQMAKLKPAFIKPYGTVTAANSSFLTDGASAMLIMAEEKALAMGYKPKAYLRDFMYVSQDPKD
QLLLGPTYATPKVLEKAGLTMNDIDAFEFHEAFSGQILANFKAMDSDWFAENYMGRKTKVGLPPLEKFNN
WGGSLSLGHPFGATGCRLVMAAANRLRKEGGQYGLVAACAAGGQGHAMIVEAYPK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6279_a02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000183

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 Size: 2196 bp

RefSeq ORF: 1425 bp

Locus ID: 3032

UniProt ID: P55084

Cytogenetics: 2p23.3

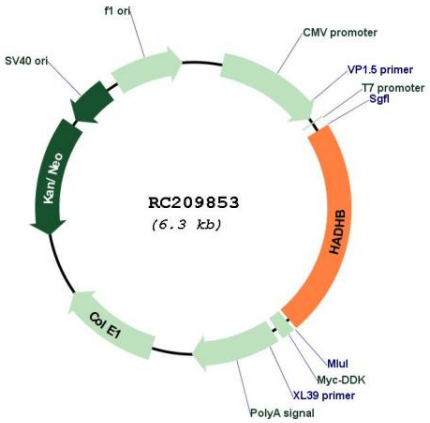
Domains: thiolase

Protein Pathways: Fatty acid elongation in mitochondria, Fatty acid metabolism, Metabolic pathways, Valine, leucine and isoleucine degradation

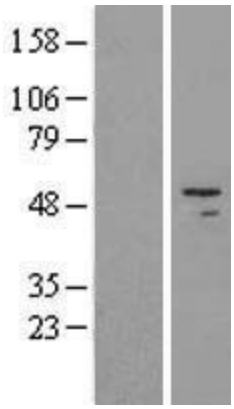
MW: 51.4 kDa

Gene Summary: This gene encodes the beta subunit of the mitochondrial trifunctional protein, which catalyzes the last three steps of mitochondrial beta-oxidation of long chain fatty acids. The mitochondrial membrane-bound heterocomplex is composed of four alpha and four beta subunits, with the beta subunit catalyzing the 3-ketoacyl-CoA thiolase activity. The encoded protein can also bind RNA and decreases the stability of some mRNAs. The genes of the alpha and beta subunits of the mitochondrial trifunctional protein are located adjacent to each other in the human genome in a head-to-head orientation. Mutations in this gene result in trifunctional protein deficiency. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Jul 2013]

Product images:



Circular map for RC209853



Western blot validation of overexpression lysate (Cat# [LY424879]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209853 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).