

Product datasheet for **MC205925**

Hadha (NM_178878) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hadha (NM_178878) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Hadha
Synonyms:	C77020; Mtpa
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC058569
 GAAGAGCTTTCGTCTTCTGCTCAAGATGGTGGCGTCCCGGGCGATTGGCAGTCTCAGTCGCTTCTCT
 GCCTTCAGGATCTACGCTCCAGAGGCTGCATTTGCCGCAGCTTTACAACGTCTTCTGCTGCTGACCA
 GAACCCATATTAATTATGGCGTCAAAGGGGATGTGGCAGTTATTCGGATTAACACACCAATTCAAAGGT
 AAATACATTGAATAAAGAAGTACAGTCAAGTTCATAGAAGTCATGAACGAAATCTGGGCCAACGACCAA
 ATCAGGAGTGTCTTATCTCATCAAAGCCTGGCTGCTTTGTGCGAGGGGCTGACATCAACATGCTAT
 CCTCTTGTACAACCCCAAGAAGCAACACGAATATCACAGGAAGTTCAGAGAATGTTTGAAGAACTTGA
 AAAGTCCCAAGCCCGTTGTGGCCGCCATCAGTGGATCCTGCTTGGGAGGAGGACTTGAGCTTGCCATA
 GCATGCCAATACAGAATAGCAACAAAAGACAGAAAAACAGTATTAGGTGTCCCTGAAGTGTGCTGGGA
 TCTTACCAGGAGCCGGAGGTACCCAGAGACTGCCCAAAATGGTGGGTGTGCTGCTGATTTGACATGAT
 GCTGACTGGCAGGAACATTCGTGACAGACAGAGCAAAGAAAATGGGACTGGTTGACCAGTTGGTGGAAACCG
 CTGGGACCAGGAATAAAATCACCAGAAGAAAGGACAATTGAATACCTAGAGGAAGTTGCAGTTAATTTTG
 CCAAAGGCCTGGCTGATCGAAAGTCTCTGCAAAGCAGAGCAAAGGCCTTGTGGAAAAGCTGACAACGTA
 TGCCATGACTGTCCATTTGTGACACAACAGGTTTACAAAACAGTTGAAGAAAAAGTGAAGAAGCAGACT
 AAAGGCCTTTATCCTGCCCTTTGAAAAAATTTGATGCTGTGAAGGCTGGACTTGAGCAAGGCAGTGACG
 CTGTTTATCTTGCTGAATCGCAGAAATTTGGAGAGCTTGCAATGACCAAAGAATCGAAGGCCCTGATGGG
 GCTTTATAACGGCCAGGTCTGTGCAAGAAAAATAAATTTGGAGCACCACAGAAGAACGTTACAGAGCTA
 GCCATCCTTGGCGCAGGGCTGATGGGGGCTGGCATTGCCAGGTCTCTGTGGATAAGGGACTGAAAACTC
 TTCTTAAAGACACCACAGTGACGGGGCTGGGCCGGGACAGCAGCAAGTGTTCAAAGGGCTGAACGACAA
 AGTGAAGAAGAAAGCTCTCACATCATTTGAAAGGGATTCCATCTTCAGCAACTTGATTGGGCAGCTGGAT
 TACAAAGGCTTTGAGAAGCCGACATGGTGATTGAGGCTGTGTTTGAAGACCTCGGTGTAAGCACAAAG
 TGTTAAAGGAAGTGGAAAGCGTGACTCCAGAACACTGTATCTTTGCCAGCAACACATCTGCTCTCCCAAT
 CAATCAAATTTGCTGCTGTCAGCAAAAGGCCTGAGAAGGTGATCGGCATGCACTACTTCTCCCCCTGGAC
 AAGATGACAGTCTTAGAAATCATCACCAGTACAAAAACCTCCAAGGACACAACGGCCTCTGCCGTGGCCG
 TGGGGCTCAGGCAAGGGAAGGTCACTATTGTGGTCAAGGACGGACCCGGCTTCTACACCACAGGTGCT
 TGCACCCATGATGCTGAAGTCAATGCGAATCCTCCAGGAAGGAGTTGACCCTAAGAAGCTGGACGCCTTG
 ACCACAGGTTTCGGCTTCCCTGTGGGTGCTGCCACGCTGGCAGACGAAGTGGGTGTGGATGACACAGC
 ACGTAGCAGAAGATCTAGGCAAAGCCTTTGGGAGCGATTTGGAGGTGGCAGCGTAGAAGTGTGAAACA
 GATGGTCTCCAAGGGCTTCTTAGGTCGCAAGTCTGGGAAGGGCTTTTACATCTATCAGGAGGGCTCAAAG
 AATAAGAGTTTGAATTTGAAATGGATAATATCTTGGCAAATCTGAGGCTGCCTGCCAAGCCGAGGTCT
 CCTCTGATGAAGACGTCCAATACCGTGTGATAACAAGGTTGCTGAACGAGGCAGTCTGTGCTACAGGA
 AGGGATCCTGGCCACACCGGCAGAGGGAGACATCGGAGCTGTCTTTGGGCTTGGCTTCCCCTTGTCTC
 GGAGGGCCCTTCCGCTTTGTGGATCTGATGGTGTCTCAGAAGGTAGTGGACCGGCTACGGAAGTACGAGT
 CTGCTATGGAACACAGTTTACCCCATGCCAGTGTCTCCTCGACCACGCTAACAACTCTAGCAAGAAGTT
 CTACCAGTGACAGGCCCTCCACCCATCCCCACCATGCACTAACCCAGACCTGGCAGTGGCCGCTTCTCAG
 CTGTGCTGTCAAATATCAGGAAGCAGGAAAAAGACCAAGGCTAGCCTTGGGCTTGTCTCTCCATCAGA
 GTGCCCTTCTGCCCTGGCCGCTCTTCTCCTGGTGAAGTCTGACTGTGAATTAAGTGTGCACTTCATG
 TTAAGGGGAGCCCCACTGTGCTTCTTTGCAAGCCCTGCCTGAGACCAATCAACAGCTAAGAGTAAC
 CCAGAACACCTGCTGCCGTGCTTCCCAGAGGCCAGTGGGGCTGGCAGTGGTAAGGGCATTTTTTGCA
 CCAAGCCAAACACAGGATAACAATAAAATCCGGACTTTGTGCTCAAAAAAAAAAAAAAAAAAAAAAAAAA
 AAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI

ACCN: NM_178878

Insert Size: 2292 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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:	<ol style="list-style-type: none">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:	BC058569 , AAH58569
RefSeq Size:	2749 bp
RefSeq ORF:	2292 bp
Locus ID:	97212
UniProt ID:	Q8BMS1
Cytogenetics:	5 B1
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 described here carries the 2,3-enoyl-CoA hydratase and the 3-hydroxyacyl-CoA dehydrogenase activities while the trifunctional enzyme subunit beta/HADHB bears the 3-ketoacyl-CoA thiolase activity. Independently of the subunit beta, the trifunctional enzyme subunit alpha/HADHA also has a monolysocardiolipin acyltransferase activity. It acylates monolysocardiolipin into cardiolipin, a major mitochondrial membrane phospholipid which plays a key role in apoptosis and supports mitochondrial respiratory chain complexes in the generation of ATP. Allows the acylation of monolysocardiolipin with different acyl-CoA substrates including oleoyl-CoA for which it displays the highest activity.[UniProtKB/Swiss-Prot Function]