

Product datasheet for **RG200466**

HADHA (NM_000182) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HADHA (NM_000182) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HADHA
Synonyms:	ECHA; GBP; HADH; LCEH; LCHAD; MTPA; TP-ALPHA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>RG200466 representing NM_000182
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGTGGCCTGCCGGCGATTGGCATCCTCAGCCGCTTTTCTGCCTTCAGGATCCTCCGCTCCCGAGGTT
ATATATGCCGCAATTTTACAGGGTCTTCTGCTTTGCTGACCAGAACCATATTAACATATGGAGTCAAAGG
GGATGTGGCAGTTGTTTGAATTAACCTCCCAATTCAAAGGTAATACTGAGTAAAGAGCTACATTCA
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CCAGCTGCTAGCTGACCATGCTAACAGCCCTAACAAAAAGTTCTACCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG200466 representing NM_000182
Red=Cloning site Green=Tags(s)

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MVACRAIGILSRFSAFRILRSRGYICRNFTGSSALLTRTHINYGKGDVAVVRINSPNSKVNTLSKELHS
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INGSCLGGGLEVAISQCQYRIATKDRKTVLGTPEVLLGALPGAGGTQRLPKMVGVPAAALDMLTGRSIRAD
RAKKMGLVDQLVEPLGGLKPEERTIEYLEEVAITFAKGLADKKISPKRDKGLVEKLTAYAMTIPFVRQ
QVYKVEEKVRKQTKGLYPAPLKIIDVVKTGIEQGS DAGYLCESQKFGELVMTKESKALMGLYHGQVLC
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ERDSIFSNLTGQLDYQGFEKADMVIEAVFEDLSLKHRVLKEVEAVIPDHCIFASNTSALPISEIAAVSKR
PEKVI GMHYFSPVDMQ LLEIITTEKTSKDTASAVAVGLKQGVIIIVKDGPGFYTTTRCLAPMMSEVIR
ILQEGVDPKKLDSLTTSF GFPVGAATLVDEVGVDVAKHVAEDLGKVFGERF GGGNPELLTQM VSKGFLGR
KSGKGFYIQEGVKRKDLNSDMDSILASLKLPPKSEVSSDEDIQFRLVTRFVNEAVMCLQEGILATPAEG
DIGAVFGLGFPCLGGPFRFVDLYGAQKIVDRLKKYEAAYGKQF TPCQLLADHANSPNKKFYQ
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TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000182

ORF Size: 2289 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_000182.5](#)

RefSeq Size: 3048 bp

RefSeq ORF: 2292 bp

Locus ID: 3030

UniProt ID: [P40939](#)

Cytogenetics: 2p23.3

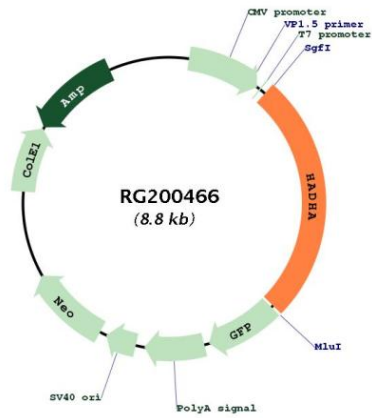
Domains: ECH, 3HCDH, 3HCDH_N

Protein Families: Druggable Genome

Protein Pathways: beta-Alanine metabolism, Biosynthesis of unsaturated fatty acids, Butanoate metabolism, Fatty acid elongation in mitochondria, Fatty acid metabolism, Limonene and pinene degradation, Lysine degradation, Metabolic pathways, Propanoate metabolism, Tryptophan metabolism, Valine, leucine and isoleucine degradation

Gene Summary: This gene encodes the alpha 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 alpha subunit catalyzing the 3-hydroxyacyl-CoA dehydrogenase and enoyl-CoA hydratase activities. Mutations in this gene result in trifunctional protein deficiency or LCHAD deficiency. 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. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG200466