

## Product datasheet for **MG225242**

### Hacd1 (NM\_001012396) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Hacd1 (NM\_001012396) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Hacd1  
**Synonyms:** Ptpla  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG225242 representing NM\_001012396  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCGTCCAGTGAGGAGGACGGCACCAACGGCGCCTCCGAGGCCAGCGACGAGAAGGAAGCCGCCGGCA  
 AGCGGAGACGCCTAGGCTTACTGGCCACCGCTGGCTCACCTTCTACAATATCGCCATGACGGCCGGGTG  
 GTTGGTCTTGCTATTGCTATGTACGCTTTTATATGGAAAAGGAACACACAGAGGTTTATATAAAAGC  
 ATTCAGAAGACACTTAAGTTTTTCAAACATTTGCTTTGCTTGAGGTAGTCCATTGTCTGATCGGAATTG  
 TACCCACTTCTGTGCTTGTGACTGGGTCCAAGTGAGCTCAAGAATCTTCATGGTGTGGCTCATTACTCA  
 CAGTATAAAACCCATACAATTTGTTTATCATCTTATATCCGTTGGAGTTGCTGGGAACTTCTCACAAT  
 ATACGCCCGCTTGCTTACGTAAGAAGTCAAGGATGTTCTCAGTACGGCTTCCCAACAAGTACAATGTT  
 TCTTT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG225242 representing NM\_001012396  
 Red=Cloning site Green=Tags(s)

MASSEEDGTNGASEASDEKEAAGKRRRLGLLATAWLTFYNIAMTAGWLVLAIAMVRFYMEKGTHRGLYKS  
 IQKTLKFFQTFALLEVVHCLIGIVPTSVLVTGVQVSSRIFMVWLITHSIKPIQFVYHLISRWSCWGTSHN  
 IRRALRKEVRNVLSTASQQVQCFF

**TRTRPLE** - GFP Tag - V

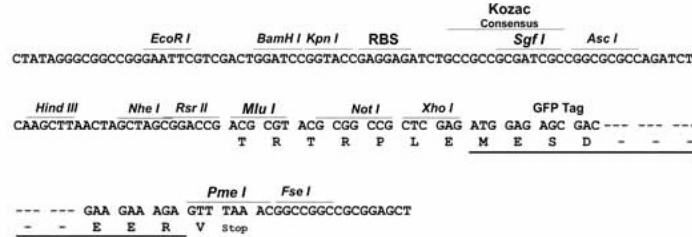
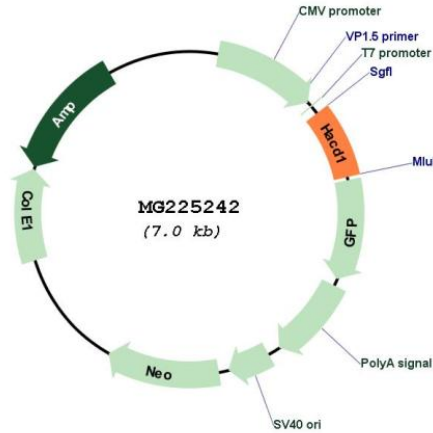
**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**

Cloning sites used for ORF Shutting:


**Plasmid Map:**

**ACCN:** NM\_001012396

**ORF Size:** 495 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001012396.2, NP_001012396.2</u>
<b>RefSeq Size:</b>	893 bp
<b>RefSeq ORF:</b>	498 bp
<b>Locus ID:</b>	30963
<b>Cytogenetics:</b>	2 A1- A2
<b>Gene Summary:</b>	Catalyzes the third of the four reactions of the long-chain fatty acids elongation cycle. This endoplasmic reticulum-bound enzymatic process, allows the addition of two carbons to the chain of long- and very long-chain fatty acids/VLCFAs per cycle. This enzyme catalyzes the dehydration of the 3-hydroxyacyl-CoA intermediate into trans-2,3-enoyl-CoA, within each cycle of fatty acid elongation. Thereby, it participates in the production of VLCFAs of different chain lengths that are involved in multiple biological processes as precursors of membrane lipids and lipid mediators.[UniProtKB/Swiss-Prot Function]