

## Product datasheet for **MG207907**

### **Cyp2e1 (NM\_021282) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cyp2e1 (NM_021282) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cyp2e1
Synonyms:	Cyp2e
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG207907 representing NM\_021282  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCGGTTCTTGGCATCACCGTTGCCTTGCTGTCTGGATCGCCACCCTCCTCCTCGTATCCATCTGGA  
 AACAGATCTATAGAAGTTGGAACCTGCCCCAGGACCTTCCCAATTCCTTCTTTGGAAACATTTTCA  
 GCTGGATTGAAGGATATCCCAAGTCTTTAACCAAGTTGGCAAAGCGCTTCGGGCCAGTGTTCACACTG  
 CACCTGGGTGAGAGGCGCATCGTGGTCTGCATGGCTACAAGGCTGTCAAGGAGGTGCTACTGAACCACA  
 AGAATGAGTTCTCTGGCCGAGGGGACATTCCTGTGTTCCAGGAGTACAAGAACAAGGGGATTATTTTCAA  
 TAATGGACCCACATGGAAGGACGTGCGGAGTTTTCCCTAAGTATCCTCCGTGACTGGGGAATGGGGAAA  
 CAGGGTAATGAGGCCCGCATCAAAGAGAGGCACACTTCTGGTGGAGGAGCTCAAAAAGACCAAAGGCC  
 AGCCTTTTGACCCTACCTTCTGATTGGCTGTGCACCCTGCAATGTCATTGCGGATATTCTTTCAACAA  
 ACGCTTCGATTACGATGACAAGAAGTGTCTGGAGCTCATGAGTTGTTCAATGAAAACCTTCTACCTGCTG  
 AGTACTCCCTGGATCCAGGCTTACAATTACTTTTCGGATTATCTACAATATCTACCTGGAAGCCACAGAA  
 AAGTCATGAAAAATGTGTCTGAAATAAGACAGTACACACTTGAAAAGCCAAGGAACACCTTAAGTCACT  
 GGACATCAACTGCCCCGGGATGTGACTGACTGTCTCCTCATAGAGATGGAGAAGGAAAAACACAGCCAA  
 GAACCCATGTACACAATGGAAAAATTTCTGTGACTTTGGCCGACCTGTTCTTTGCGAGAACAGAGACCA  
 CCAGCACAACTCTGAGATATGGGCTCCTGATTCTCATGAAATACCCAGAAATTGAAGAGAAAACCTTATGA  
 AGAAATGACAGGGTTATTGGGCCAAGCCGTGCCCTGCAGTCCGAGACAGGATGAATATGCCCTACATG  
 GACGCTGTAGTGCATGAGATTGAGAGATTCATCAACCTCGTCCCTTCAACCTGCCCCACGAAGCAACCC  
 GAGACACCGTGTCCGAGGATATGTCATCCCAAGGGTACAGTTGTAATTCCAACCTCTGGACTCCCTTTT  
 ATTTGACAACTATGAGTTTCCAGATCCAGAGACATTTAAACCTGAGCATTCTGAATGAAAATGGGGAAG  
 TTCAAGTACAGTACTATTTCAAGGCGTTTTCTGCAGGAAAGCGCGTGTGTGTTGGAGAAGCGCTGGCCC  
 GCATGGAAGTGTCTGCTTTTGTCTGCTATTCTGCAGCATTTTAACTGAAAGTCTCTGTTGACCCATA  
 GGATATCGACCTCAGCCCTGTTACAATTGGCTTTGGCAGTATCCACGCGAATTTAAACTCTGTGCATT  
 CCTCGTTCA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG207907 representing NM\_021282  
 Red=Cloning site Green=Tags(s)

MAVLGITVALLVWIATLLLVSIIWKIYRSWNLPPGPFPIPFNGNIFQLDLKDIPKSLTKLAKRFGPVFTL  
 HLGQRRIVVLHGYKAVKEVLLNHKNEFSGRGDIPVFQYKNGKGIIFNNGPTWKDVRRLSILRDWGMGK  
 QGNEARIQREAHFLVEELKKTGQPFDPFLIGCAPCNVIADILFNKRFDYDDKKCLELMSLFNENFYLL  
 STPWIQAYNYFSDYLQYLPGSHRKVMKNVSEIRQYTLGKAKEHLKSLDINCPRDVTDCLLIEMEKEKHSQ  
 EPMYTMENISVTLADLFFAGTETTSTTLRYGLLILMKYPEIEEKLHEEIDRVIGPSRAPAVRDRMNPYM  
 DAVVHEIQRFINLVPSNLPHEATRDTVFRGYVIPKGTVVIPITLDSLLFDNYEFPDPETFKPEHFLNENK  
 FKYSDFKAFSAGKRVCVGEGLRMELFLLL SAILQHFNLSLVDPKDIDLSPVTIGFGSIPREFKLCVI  
 PRS

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



ACCN: NM\_021282

ORF Size: 1479 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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).

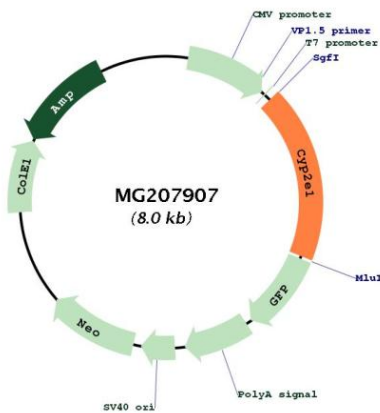
- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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\\_021282.3](#)

RefSeq Size: 1759 bp  
 RefSeq ORF: 1482 bp  
 Locus ID: 13106  
 UniProt ID: [Q05421](#)  
 Cytogenetics: 7 85.94 cM

**Gene Summary:** A cytochrome P450 monooxygenase involved in the metabolism of fatty acids. Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (NADPH--hemoprotein reductase). Catalyzes the hydroxylation of carbon-hydrogen bonds. Hydroxylates fatty acids specifically at the omega-1 position displaying the highest catalytic activity for saturated fatty acids. May be involved in the oxidative metabolism of xenobiotics.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MG207907