

Product datasheet for **MR207907**

Cyp2e1 (NM_021282) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cyp2e1 (NM_021282) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cyp2e1
Synonyms:	Cyp2e
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MR207907 representing NM_021282
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGTTCTTGGCATCACCGTTGCCTTGCTGTCTGGATCGCCACCCTCCTCCTCGTATCCATCTGGA
 AACAGATCTATAGAAGTTGGAACCTGCCCCAGGACCTTCCCAATTCCTTCTTTGAAAACATTTTCA
 GCTGGATTGAAGGATATCCCAAGTCTTTAACCAAGTTGGCAAAGCGCTTCGGGCCAGTGTTCACACTG
 CACCTGGGTGAGAGGCGCATCGTGGTCTGCATGGCTACAAGGCTGTCAAGGAGGTGCTACTGAACCACA
 AGAATGAGTTCTTGCCGAGGGGACATTCCTGTGTTCCAGGAGTACAAGAACAAGGGGATTATTTTCAA
 TAATGGACCCACATGGAAGGACGTGCGGAGTTTTCCCTAAGTATCCTCCGTGACTGGGGAATGGGGAAA
 CAGGTAATGAGGCCCGCATCCAAGAGAGGCACACTTCTGGTGGAGGAGCTCAAAAAGACCAAGGCC
 AGCCTTTTGACCCTACCTTCTGATTGGCTGTGCACCCTGCAATGTCATTGCGGATATTCTTTCAACAA
 ACGCTTCGATTACGATGACAAGAAGTGTCTGGAGCTCATGAGTTTGTTCATGAAAACCTTCTACCTGCTG
 AGTACTCCCTGGATCCAGGCTTACAATTAATTTTCGGATTATCTACAATATCTACCTGGAAGCCACAGAA
 AAGTCATGAAAAATGTGTCTGAAATAAGACAGTACACACTTGAAAAGCCAAGGAACACCTTAAGTCACT
 GGACATCAACTGCCCCGGGATGTGACTGACTGTCTCCTCATAGAGATGGAGAAGGAAAAACACAGCCAA
 GAACCCATGTACACAATGAAAAATTTCTGTGACTTTGGCCGACCTGTTCTTTGCGAGAACAGAGACCA
 CCAGCACAACTCTGAGATATGGGCTCCTGATTCTCATGAAATACCCAGAAATTGAAGAGAAAACCTCATGA
 AGAAATGACAGGGTTATTGGGCCAAGCCGTGCCCTGCAGTCCGAGACAGGATGAATATGCCCTACATG
 GACGCTGTAGTGCATGAGATTGAGAGATCATCAACCTCGTCCCTTCAACCTGCCCCACGAAGCAACCC
 GAGACACCGTGTCCGAGGATATGTCATCCCAAGGGTACAGTTGTAATTCCAACCTCTGGACTCCCTTTT
 ATTTGACAACTATGAGTTTCCAGATCCAGAGACATTTAAACCTGAGCATTCTGAAATGAAAATGGGAAG
 TTCAAGTACAGTACTATTTCAAGGCGTTTTCTGCAGGAAAGCGCGTGTGTGTTGGAGAAGCGCTGGCCC
 GCATGGAAGTGTCTGCTTTTGTCTGCTATTCTGCAGCATTTTAACTGAAAGTCTCTGTTGACCCATA
 GGATATCGACCTCAGCCCTGTTACAATTGGCTTTGGCAGTATCCACGCGAATTTAAACTCTGTGCATT
 CCTCGTTCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR207907 representing NM_021282
 Red=Cloning site Green=Tags(s)

MAVLGITVALLVWIATLLLVSIWKQIYRSWNLPPGPFPIPFPGNIFQLDLKDIPKSLTKLAKRFGPVFTL
 HLGQRRIIVLHGYKAVKEVLLNHKNEFSGRGDIPVFQEYKNGKGIIFNNGPTWKDVRRLSLSILRDWGMGK
 QGNEARIQREAHFLVEELKKTGQPFDPFTFLIGCAPCNVIADILFNKRFDYDDKKCLELMSLFNENFYLL
 STPWIQAYNYFSDYLQYLPGSHRVMKNVSEIRQYTLGKAKEHLKSLDINCPRDVTDCLLIEMEKEKHSQ
 EPMYTMENISVTLADLFFAGTETTSTLLRYGLLILMKYPEIEEKLHEEIDRVIGPSRAPAVRDRMNPYM
 DAVVHEIQRFINLVPSNLPHEATRDTVFRGYVIPKGTVVIPITLDSLLFDNYEFPDPETFKPEHFLNENK
 FKYSDFKAFSAGKRVCGEGLARMELFLLL SAILQHFNLKSLVDPKDIDLSPVTIGFGSIPREFKLCVI
 PRS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mm9027_b07.zip

Restriction Sites:

SgfI-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 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.

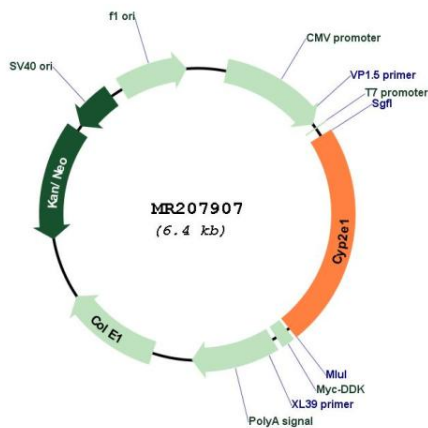
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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
MW: 57.3 kDa

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 MR207907