

## Product datasheet for **MR224484**

### **Cyp24a1 (NM\_009996) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cyp24a1 (NM_009996) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cyp24a1
Synonyms:	24-OH; 24-OHase; CP2; CP24; Cyp2; Cyp24
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR224484 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGCTGCCCCATTGACAAAAGGCGCCCTGATCGCTTTCCTGCGCCGGCTGCGGGACCTCGGGCAAC  
 CCCAAGGTCCGTGACATCCAAGGCGCAGTGAAGCGTGCGCCAAAAGAGGTGCCCTCTGCCCGTGAT  
 GACCGACGGTGAGACTCGGAACGTCACCTCCTTACCTGGACCCACCAACTGGCCACTGCTGGCAGCCTA  
 CTGGAGATTTTTGGAAAGGTGGCTGAAGAAACAGCAGACACTGGCAGAGTACCACAAGAAGTATG  
 GCCAGATTTCCGGATGAAGCTGGGCTCCTTCGACTCGGTGCATCTGGGCTCGCCGAGCCTGCTGGAAGC  
 TCTGTACCGCACAGAGAGCGGCATCCCGACGGCTAGAGATCAAACCTGGAAAGCCTATCGGGACCAT  
 CGCAACGAAGCCTACGGGCTGATGATCCTGGAAGGACAGGAGTGGCAGCGGGTCCGACGCGCTTCCAAA  
 AGAAACTCATGAAGCCCGTGAAATCATGAAGCTGGACAAGAAAATCAATGAGGTCTTGGCTGATTTTAT  
 GGGGCAAATCGATGAGCTGCGTGTGAGAGAGGCCGCATCCAAGACTTGTACAGCGAGCTGAACAAATGG  
 TCCTTTGAAAGCATCTGCCTTGTGTATATGAGAAGAGATTTCGGGCTCCTTCAAAAGGACACAGAGGAAG  
 AAGCCCTGACCTTATTGCGGCCATCAAAACAATGATGAGCACATTTGGGAAGATGATGGTGACCCCGT  
 GGAGCTGCACAAGCGCCTCAACACCAAAGTGTGGCAAGCGCACACGCTGGCCTGGGACACCATTTTCAAA  
 TCAGTCAAGCCCTGCATCGACCACCGCTAGAGAGATAATCCAGCAGCCTGGTGCGGATTTCTTTGTG  
 ATATTTATCAGCAAGATCATCTTTCCAAGAAAGAACTGTACGCTGCTGTACGGAGCTCCAGCTGGCTGC  
 AGTGGAGACGACCGCAAACAGCTTGATGTGGATTCTCTACAATCTATCCCGGAATCCCAAGTGAACAG  
 AGACTTCTCCGGAAATCCAGAGCGTGTGCCTGACAACCAGACGCCACGGGCGGAAGATGTGAGGAATA  
 TGCCCTATTTAAAGCCGTCTAAAGGAGTCCATGAGGCTTACCCCAAGTGTGCCATTACAACCTCGGAA  
 CCTTGACAAGCCAACCGTTCTGGGTGAATACACGCTACCCAAAGGAACAGTCTTAACACTAAATACCCAA  
 GTGCTGGGCTCTAGCGAAGACAATTTGAAGATGCTGACAAGTTTAGACCCGAACGCTGGCTTGAAAAGG  
 AGAAAAAGATCAACCCCTTCGCTCATCTCCATTTGGCGTCGGGAAGAGGATGTGCATCGGGCGCCGGCT  
 GGCTGAGCTACAGCTCCACTTGGCTCTTTGCTGGATAATCCAAAAATATAACATTGTGGCTACAGACAGT  
 GAACCTGTGGAGATGCTGCATCTGGCATCCTGGTACCTAGCCGGGAGCTGCCATTGCGTTCTGTCCAC  
 GG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR224484 protein sequence  
 Red=Cloning site Green=Tags(s)

MSCPIDKRRPLIAFLRRLRDLGQPPRSVTSKAHVKRAPKEVPLCPLMTDGETRNVTSLPGPTNWPLLGSL  
 LEIFWKGLKKQHDTLAEYHKYQIFRMKLGFSVHLSPLLEALYRTESAHPQRLEIKPWKAYRDH  
 RNEAYGLMILEGQEWQRVSAFQKLMKPVEIMKLDKKINEVLADFMGQIDELRDERGRIQDLYSELNWK  
 SFESICLVLYEKRFLLQKDTEEEALTFIAAIKTMSTFGKMMVTPVELHKRLNPKVWQAHTLAWDTIFK  
 SVKPCIDHRLERYSQPGADFLCDIYQQDHL SKKEL YAAVTELQLAAVETTANSLMWILYNLSRNPQVQQ  
 RLLREIQSVLPDNQTPRAEDVRNMPYLKACLKESMRLTPSVPTTRTLDKPTVLGEYTLPKGTVLTLNTQ  
 VLGSSDNFEDADKFRPERWLEKEKINPFAHL PFGVGRMCI GRRLAELQLHLALCWIIQKYNI VATDS  
 EPVEMLHLGILVPSRELPIAFCPR

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



ACCN: NM\_009996

ORF Size: 1545 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.

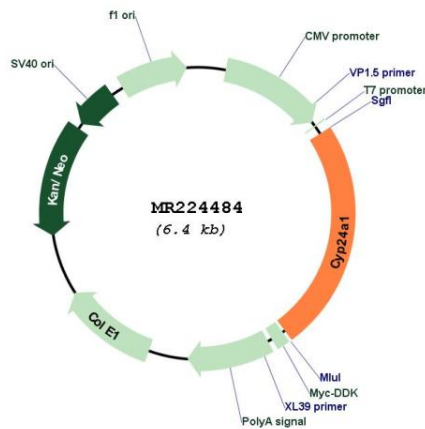
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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\\_009996.4, NP\\_034126.1](#)  
**RefSeq Size:** 3296 bp  
**RefSeq ORF:** 1545 bp  
**Locus ID:** 13081  
**UniProt ID:** [Q64441](#)  
**Cytogenetics:** 2 91.91 cM  
**MW:** 59.5 kDa

**Gene Summary:** The protein encoded by this gene localizes to the mitochondrion, where it degrades calcitriol to calcitretol. This gene is upregulated by binding of calcitriol to the upstream regulatory region and to a downstream enhancer region, thereby allowing calcitriol to autoregulate its concentration in the cell. The encoded protein may also play a role in calcium homeostasis. [provided by RefSeq, Aug 2015]

### Product images:



Circular map for MR224484