

Product datasheet for **RC213246**

CYP24A1 (NM_000782) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CYP24A1 (NM_000782) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CYP24A1
Synonyms:	CP24; CYP24; HCAI; HCINF1; P450-CC24
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC213246 representing NM_000782
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGCTCCCCATCAGCAAGAGCCGCTCGCTTCCGCCCTTCTGCAGCAGCTGCGCAGTCCGAGGCAGC
 CCCGAGACTGGTACATCTACGGCGTACACGTCCCCTCAGCCGCGAGAGGTGCCAGTCTGCCCGCTGAC
 AGCTGGTGGCGAGACTCAGAACGCGGCCGCCCTGCCGGGCCCCACCAGCTGGCCACTGCTGGGCAGCCTG
 CTGCAGATTCTCTGAAAAGGGGTCTCAAGAAACAGCACGACACCCTGGTGGAGTACCACAAGAAGTATG
 GCAAGATTTTCCGCATGAAGTTGGGTCTCTTGGTGGTGCACCTGGGCTCGCCATGCCTGCTGGAAGC
 GCTGTACCGCACCAGAGCGCGTACCCGACGGCTGGAGATCAAACCGTGAAGGCCTATCGGACTAC
 CGCAAAGAAGGCTACGGGCTGCTGATCCTGGAAGGGGAAGACTGGCAGCGGGTCCGGAGTGCCTTTCAA
 AAAAACTAATGAAACCAGGGGAAGTATGAAGCTGGACAACAAAATCAATGAGGTCTTGGCCGATTTTAT
 GGGCAGAATAGATGAGCTCTGTGATGAAAGAGGCCACGTGAAGACTTGTACAGCGAACTGAACAAATGG
 TCGTTTAAAAGTATCTGCCTCGTGTGATGAGAAGAGATTTGGGCTTCTCCAGAAGAATGCAGGGGATG
 AAGCTGTGAACCTCATCATGGCCATCAAAAATGATGAGCACGTTTGGGAGGATGATGGTCACTCCAGT
 CGAGCTGCACAAGAGCCTCAACACCAAGGTCTGGCAGGACCACACTCTGGCCTGGGACACCATTTTCAA
 TCAGTCAAAGCTTGATCGACAACCGGTTAGAGAAGTATTCTCAGCAGCCTAGTGCAGATTTCTTTGTG
 ACATTTATCACCAGAATCGGCTTTCAAAGAAAGAAATTGTATGCTGCTGTACAGAGCTCCAGCTGGCTGC
 GGTGGAACGACAGCAACAGTCTAATGTGGATTCTCTACAATTTATCCCGTAATCCCAAGTGAACAA
 AAGCTTCTAAAGAAATCAAGTGTATTACCTGAGAATCAGGTGCCACGGCAGAAGATTTGAGGAATA
 TGCCGTATTTAAAAGCCTGTCTGAAAGAATCTATGAGGCTTACGCCGAGTGTACCATTTACAACCTGGG
 TCTTGACAAGGCAACAGTTCTGGGTGAATATGCTTTACCCAAAGGAACAGTGTCTCATGCTAAATACCCAG
 GTGTTGGGATCCAGTGAAGACAATTTGAAGATCAAGTCAAGTTAGACCTGAACGTTGGCTTCAGGAGA
 AGGAAAAAATTAATCCTTTTGGCATCTTCCATTTGGCGTTGGAAAAAGAATGTGCATTGGTCCGCCGATT
 AGCAGAGCTTCAACTGCATTTGGCTCTTTGTTGGATTGTCCGCAATACGACATCCAGGCCACAGACAAT
 GAGCCTGTTGAGATGCTACACTCAGGCACCCTGGTGCCAGCCGGGAACCTCCCATCGCGTTTTGCCAGC
 GA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC213246 representing NM_000782
 Red=Cloning site Green=Tags(s)

MSSPISKSRSLAAFLQQLRSPRQPRLVTSTAYTSPQPREVPVCPLTAGGETQNAALPGPTSWPLLGSL
 LQILWKGGLKKQHDTLVEYHKYGKIFRMKLSFESVHLGSPCLLEALYRTE SAYPQRLEIKPWKAYRDY
 RKEGYGLLILEGEDWQRVRSFAFQKLMKPGEVMKLDNKINEVLADFMGRIDE L C DERGHVEDLYSELNKW
 SFESICLVLYEKRFLLQKNAGDEAVNF IMAIKTMMSTFGRMMVTPVELHKS LNTKVWQDHTLAWDTIFK
 SVKACIDNRLEKYSQQPSADFLCDIYHQNRLSKKELYAAVTELQLAAVETTANSLMWILYNLSRNPQVQQ
 KLLKEIQSVLPENQVPRAEDLRNMPYLKACLKESMRLTPSVPTTRTLDKATVLGEYALPKGTVLM LNTQ
 VLGSSDNFEDSSQFRPERWLQEKEKINPFAHL PFGVGRMCI GRRLAELQLHLALCWIVRKYDIQATDN
 EPVEMLHSGTLVPSRELPIAFCQR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_000782

ORF Size: 1542 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.

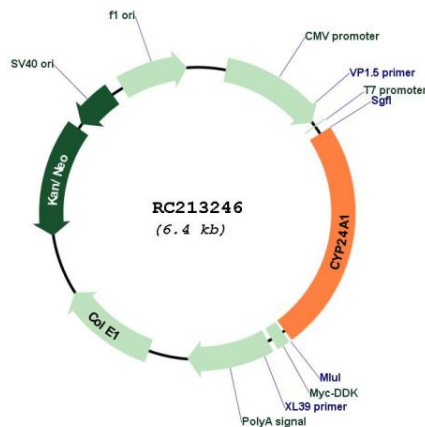
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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_000782.3](#), [NP_000773.2](#)
RefSeq Size: 3295 bp
RefSeq ORF: 1545 bp
Locus ID: 1591
UniProt ID: [Q07973](#)
Cytogenetics: 20q13.2
Protein Families: Druggable Genome
MW: 58.88 kDa

Gene Summary: This gene encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This mitochondrial protein initiates the degradation of 1,25-dihydroxyvitamin D3, the physiologically active form of vitamin D3, by hydroxylation of the side chain. In regulating the level of vitamin D3, this enzyme plays a role in calcium homeostasis and the vitamin D endocrine system. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC213246