

## Product datasheet for **RC225738**

### **CYP24A1 (NM\_001128915) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CYP24A1 (NM_001128915) 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:**

>RC225738 representing NM\_001128915  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGCTCCCCATCAGCAAGAGCCGCTCGCTTCCGCCCTTCTGCAGCAGCTGCGCAGTCCGAGGCAGC  
 CCCCAGACTGGTGACATCTACGGCGTACACGTCCCCTCAGCCGCGAGAGGTGCCAGTCTGCCCGCTGAC  
 AGCTGGTGGCGAGACTCAGAACGCGGCCGCCCTGCCGGGCCACCAGCTGGCCACTGCTGGGCAGCCTG  
 CTGCAGATTCTCTGAAAAGGGGTCTCAAGAAACAGCACGACACCCTGGTGGAGTACCACAAGAAGTATG  
 GCAAGATTTCCGCATGAAGTTGGGTCTCTTGTAGTGGTGCACCTGGGCTCGCCATGCCTGCTGGAAGC  
 GCTGTACCGCACCAGAGCGCGTACCCGACGGCTGGAGATCAAACCGTGAAGGCCTATCGGACTAC  
 CGCAAAGAAGGCTACGGGCTGCTGATCCTGGAAGGGAAGACTGGCAGCGGGTCCGGAGTGCCTTTCAA  
 AAAAACTAATGAAACCAGGGGAAGTATGAAGTGGACAACAAAATCAATGAGGTCTTGCCGATTTTAT  
 GGGCAGAATAGATGAGCTCTGTGATGAAAGAGGCCACGTTGAAGACTTGTACAGCGAACTGAACAAATGG  
 TCGTTTAAAAGTATCTGCCTCGTGTGATGAGAAGAGATTTGGGCTTCCAGAAGAATGCAGGGGATG  
 AAGCTGTGAACCTCATCATGGCCATCAAAAATGATGAGCACGTTTGGGAGGATGATGGTCACTCCAGT  
 CGAGCTGCACAAGAGCCTCAACACCAAGGTCTGGCAGGACCACACTCTGGCCTGGGACACCATTTTCAA  
 TCAGTCAAAGCTTGATCGACAACCGGTTAGAGAAGTATTCTCAGCAGCCTAGTGCAGATTTCTTTGTG  
 ACATTTATCACCAGAATCGGCTTTCAAAGAAAGAAATTGTATGCTGCTGTACAGAGCTCCAGCTGGCTGC  
 GGTGGAACGACAGCAACAGTCTAATGTGGATTCTCTACAATTTATCCCGTAATCCCAAGTGAACAA  
 AAGCTTCTAAAGAAATCAAGTGTATTACCTGAGAATCAGGTGCCACGGCAGAAAGATTTGAGGAATA  
 TGCCGATTTAAAAGCCTGTCTGAAAGAATCTATGAGGCTTACGCCGAGTGTACCATTTACAACCTGGG  
 TCTTGACAAGGCAACAGTCTGGGTGAATATGCTTTACCCAAAGGAATTGTCCGCAAAATACGACATCCAG  
 GCCACAGACAATGAGCCTGTTGAGATGCTACACTCAGGCACCCTGGTGCCAGCCGGGAAGTCCCCATCG  
 CGTTTTGCCAGCGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC225738 representing NM\_001128915  
 Red=Cloning site Green=Tags(s)

MSSPISKSRSLAFLQQLRSPRQPRLVTSTAYTSPQPREVPVCPLTAGGETQNAAALPGPTSWPLLGSL  
 LQILWKGLKKQHDTLVEYHKYKGIKFRMKLGSFESVHLGSPCLLEALYRTESAYPQRLEIKPWKAYRDY  
 RKEGYGLLILEGEDWQRVRSFAFQKLMKPGVMKLDNKINEVLADFMRIDELCDERGHVEDLYSELNWK  
 SFESICLVLYEKRFGLLQKNAGDEAVNFIMAIKTMSTFGRMMVTPVELHKSNTKVVQDHTLAWDTIFK  
 SVKACIDNRLEKYSQPSADFLCDIYHQNRLSKKELYAAVTEQLAAVETTANSLMWILYNLSRNPQVQQ  
 KLLKEIQSVLPENQVPRAEDLRNMPYLKACLKESMRLTPSVPFTTRTLDKATVLGEYALPKGIVRKYDIQ  
 ATDNEPVEMLHSGTLVPSRELPIAFCQR

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/ja2326\\_b04.zip](https://cdn.origene.com/chromatograms/ja2326_b04.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001128915

**ORF Size:** 1344 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.

**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\\_001128915.2](#)

**RefSeq Size:** 3089 bp

**RefSeq ORF:** 1347 bp

**Locus ID:** 1591

**UniProt ID:** [Q07973](#)

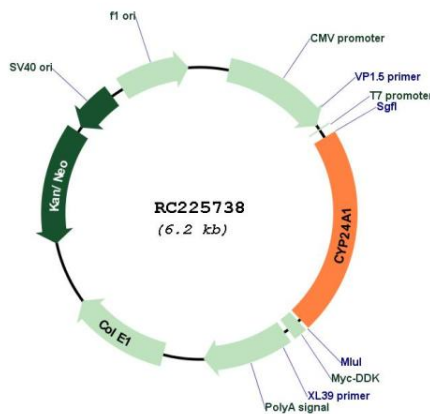
**Cytogenetics:** 20q13.2

**Protein Families:** Druggable Genome

**MW:** 51.7 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 RC225738