

Product datasheet for **RC234300**

Cytochrome P450 3A4 (CYP3A4) (NM_001202855) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cytochrome P450 3A4 (CYP3A4) (NM_001202855) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cytochrome P450 3A4
Synonyms:	CP33; CP34; CYP3A; CYP3A3; CYP11A3; CYP11A4; HLP; NF-25; P450C3; P450PCN1; VDDR3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC234300 representing NM_001202855
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTCTCATCCAGACTTGGCCATGGAACCTGGCTTCTCCTGGCTGTCAGCCTGGTCTCTCTATC
 TATATGGAACCCATTACATGGACTTTTTAAGAAGCTTGAATTCAGGGCCACACCTCTGCCTTTTTT
 GGGAAATATTTTGTCTACCATAAGGGCTTTTGTATGTTTGCATGGAATGCATAAAAAAGTATGAAAA
 GTGTGGGGCTTTTATGATGGTCAACAGCCTGTGCTGGCTATCACAGATCCTGACATGATCAAAACAGTGC
 TAGTGAAGAATGTTATTCTGTCTTACAAACCGGAGGCCTTTGGTCCAGTGGGATTTATGAAAAGTGC
 CATCTCTATAGCTGAGGATGAAGAATGGAAGAGATTACGATCATTGCTGTCTCCAACCTTACCAGTGA
 AAACCAAGGAGATGGTCCCTATCATTGCCAGTATGGAGATGTGTTGGTGAAGAACTGAGGCGGGAAG
 CAGAGACAGGCAAGCCTGTACCTTGAAGACGTCTTTGGGCCCTACAGCATGGATGTGATCACTAGCAC
 ATCATTTGGAGTGAACATCGACTCTCTCAACAATCCACAAGACCCTTTGTGAAAAACCAAGAAGCTT
 TTAAGATTTGATTTTTTGGATCCATTCTTCTCTCAATAATCTTCCATTCTCATCCCAATTCTTGAAG
 TATTAATATCTGTGTGTTTCCAAGAGAAGTTACAAATTTTTAAGAAAATCTGTAAAAAGGATGAAGA
 AAGTCGCCTCGAAGATACACAAAAGCACCAGTGGATTTCTTCAGCTGATGATTGACTCTCAGAATTCA
 AAAGAACTGAGTCCACAAAGCTCTGTCCGATCTGGAGCTCGTGGCCCAATCAATTATCTTTATTTTTG
 CTGGCTATGAAACCACGAGCAGTGTCTCTCTCATTATGTATGAACTGGCCACTACCCTGATGTCCA
 GCAGAACTGCAGGAGGAAATGATGCAGTTTTACCAATAAGGCACCACCACCTATGATACTGTGCTA
 CAGATGGAGTATCTTGACATGGTGGTGAATGAAACGCTCAGATTATCCCAATTGCTATGAGACTTGAGA
 GGGTCTGCAAAAAAGATGTTGAGATCAATGGGATGTTTCATTCCCAAAGGGGTGGTGGTATGATTTCAAG
 CTATGCTCTTACCGTGACCCAAAGTACTGGACAGAGCCTGAGAAGTTCCTCCCTGAAAGATTAGCAAG
 AAGAACAAGGACAACATAGATCCTTACATATACACACCCTTTGGAAGTGACCCAGAAAAGTGCATTGGCA
 TGAGGTTTGTCTCATGAACATGAACTTGTCTAATCAGAGTCTTCAAGAACTTCTCTTCAAACCTTG
 TAAAGAAACACAGATCCCCTGAAATTAAGCTTAGGAGGACTTCTTCAACCAGAAAAACCGTTGTCTA
 AAGTTGAGTCAAGGGATGGCACCGTAAGTGGAGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC234300 representing NM_001202855
 Red=Cloning site Green=Tags(s)

MALIPDLAMETWLLLAVSLVLLYLYGTHSHGLFKKLGIPGPTPLPFLGNILSYHKGFCMFDMECHKKYGK
 VWGFYDQQPVLAITDPDIKTVLVKECYSVFTNRRPFGPVGFMKSAISIAEDEEWKRLRSLLSPTFTSG
 KLKEMVPIIAQYGDVLRNLRREAETGKPVTLKDVFGAYSMDVITSTSGVNIIDSLNPNQDPFVENTKLL
 LRFDFLDPFFLSIIFPFLIPILEVLNLCVFPREVNTNLRKSVKRMKESRLEDTQKHRVDFLQLMIDSQNS
 KETESHKALSDELVAQSIIFIFAGYETSSVLSFIMYELATHPDVQKQLQEEIDAVALPNKAPPTYDTVL
 QMEYLDVMVNETLRLFP IAMRLERVCKDVEINGMFIKGVVVMIPSYALHRDPKYWTEPEKFLPERFSK
 KNKDNIDPYIYTPFGSGPRNCIGMRFALMNMKLALIRVLQNF SFKPKETQIPLKLSLGLLQPEKPVVL
 KVESRDGTVSGA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_001202855

ORF Size: 1506 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_001202855.3](#)

RefSeq Size: 2789 bp

RefSeq ORF: 1509 bp

Locus ID: 1576

UniProt ID: [P08684](#)

Cytogenetics: 7q22.1

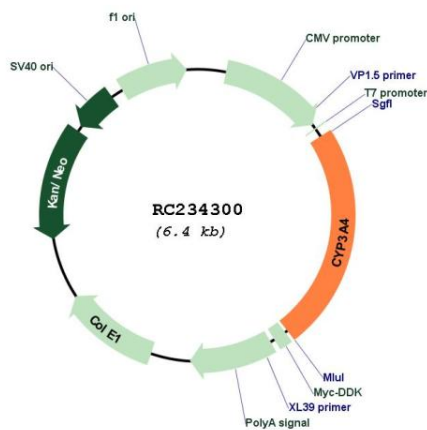
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, P450, Transmembrane

Protein Pathways: Drug metabolism - cytochrome P450, Drug metabolism - other enzymes, Linoleic acid metabolism, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Retinol metabolism

MW: 57.7 kDa

Gene Summary: This gene encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases that catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This protein localizes to the endoplasmic reticulum and its expression is induced by glucocorticoids and some pharmacological agents. This enzyme is involved in the metabolism of approximately half the drugs in use today, including acetaminophen, codeine, cyclosporin A, diazepam, erythromycin, and chloroquine. The enzyme also metabolizes some steroids and carcinogens. This gene is part of a cluster of cytochrome P450 genes on chromosome 7q21.1. Previously another CYP3A gene, CYP3A3, was thought to exist; however, it is now thought that this sequence represents a transcript variant of CYP3A4. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Aug 2020]

Product images:



Circular map for RC234300