

Product datasheet for **RC207432**

Cytochrome P450 3A5 (CYP3A5) (NM_000777) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cytochrome P450 3A5 (CYP3A5) (NM_000777) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cytochrome P450 3A5
Synonyms:	CP35; CYP11A5; P450PCN3; PCN3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC207432 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGACCTCATCCAAATTTGGCGGTGGAACCTGGCTTCTCCTGGCTGTCAGCCTGGTCTCTCTATC
 TATATGGACCCGTACACATGGACTTTTTAAGAGACTGGGAATCCAGGGCCACACCTCTGCCTTTGTT
 GGGAAATGTTTTGTCTATCGTCAGGGTCTCTGGAAATTTGACACAGAGTCTATAAAAAAGTATGGAAAA
 ATGTGGGGAACGTATGAAGGTCAACTCCCTGTGCTGGCCATCACAGATCCCGACGTGATCAGAACAGTGC
 TAGTGAAGAATGTTATTCTGTCTTACAAATCGAAGGTCTTTAGGCCAGTGGGATTTATGAAAAGTGC
 CATCTCTTTAGCTGAGGATGAAGAATGGAAGAGAATACGGTCATTGCTGTCTCCAACCTTACCAGCGGA
 AAACCAAGGAGATGTTCCCATCATTGCCAGTATGGAGATGTATTGGTGAAGAACTTGAGCGGGGAAG
 CAGAGAAAGGCAAGCCTGTCACCTTGAAGACATCTTTGGGCCCTACAGCATGGATGTACTGCGAC
 ATCATTTGGAGTGAACATCGACTCTCTCAACAATCCACAAGACCCTTTGTGGAGAGCACTAAGAAGTTC
 CTAATAATTTGGTTTTCTTAGATCCATTATTTCTCTCAATAACTCTTTCCATTCTTACCCAGTTTTTG
 AAGCATAAATGTCTCTCTGTTTCCAAAAGATACCATAAATTTTTAAGTAAATCTGTAAACAGAATGAA
 GAAAAGTCGCCTCAACGACAAAACAAAAGCACCAGTAGATTTCTTCAGCTGATGATTGACTCCCAGAAT
 TCGAAAGAACTGAGTCCCAAAAGCTCTGTCTGATCTGGAGCTCGCAGCCAGTCAATAATCTTCATTT
 TTGCTGGCTATGAAACCACCAGCAGTGTCTTTCTTCACTTTATATGAACTGGCCACTCACCTGATGT
 CCAGCAGAACTGCAAAAGGAGATTGATGCAGTTTTGCCAATAAGGCACCACCTACCTATGATGCCGTG
 GTACAGATGGAGTACCTTGACATGGTGGTGAATGAAACTCAGATTATCCAGTTGCTATTAGACTTG
 AGAGACTTGCAAGAAAGATGTTGAAATCAATGGGGTATTCATTTCCAAAGGGTCAATGGTGGTATTCC
 AACTTATGCTCTTACCATGACCCAAAGTACTGGACAGAGCCTGAGGAGTTCCGCCCTGAAAGGTTCAAT
 AAGAAGAAGGACAGCATAGATCCTTACATATACACCCCTTTGGAAGTGGACCCAGAAACTGCATTGGCA
 TGAGGTTTGTCTCATGAACATGAAACTTGTCTAATCAGAGTCTTTCAGAACTTCTCTTCAAACCTTG
 TAAAGAAACACAGATCCCTTGAATTAGACACGCAAGGACTTCTTCAACCAGAAAAACCATTGTTCTA
 AAGGTGGATTCAAGAGATGGAACCCTAAGTGGAGAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC207432 protein sequence
 Red=Cloning site Green=Tags(s)

MDLIPNLAVETWLLLAVSLVLLYLYGTRTHGLFKRLGIPGPTPLPLLGNVLSYRQGLWKFDETECYKKGK
 MWGTYEGQLPVLAITDPDVIRTVLVKECYSVFTNRRSLGPVGFMSAISLAEDEEWKRIRSLLSPTFTSG
 KLKEMFPJIAAQYGDVLRNLRREAEKGPVTLKDFGAYSMVDITGTSFGVNIDSLNPNQDPFVESTKFF
 LKFGFLDPLFLSIILFPFLTPVFEALNVSLFPKDTINFLSKSVNRMKKSRLNDKQKHRLDFLQLMIDSQN
 SKETESHKALSDELEAAQSIIFIFAGYETTSSVLSFTLYELATHPDVQKQLQKEIDAVLPNKAPPTYDAV
 VQMEYLDMMVNETLRLFPVAIRLERTCKKDVEINGVFIKQSMVVIPTYALHHPKYWTEPEEFRPERFS
 KKKDSIDPYIYTPFGTGRNCIGMRFALMNMKLALIRVLQNF SFKPKETQIPLKLDQGLLQPEKPIVL
 KVDSRDGTLSGE

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

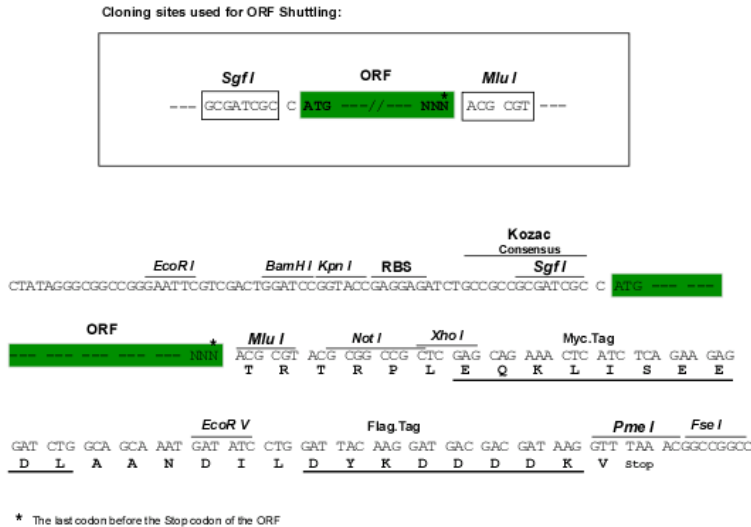
Chromatograms:

https://cdn.origene.com/chromatograms/mk6019_f01.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_000777

ORF Size: 1506 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_000777.5](#)

RefSeq Size: 1755 bp

RefSeq ORF: 1509 bp

Locus ID: 1577

UniProt ID: [P20815](#)

Cytogenetics: 7q22.1

Domains: p450

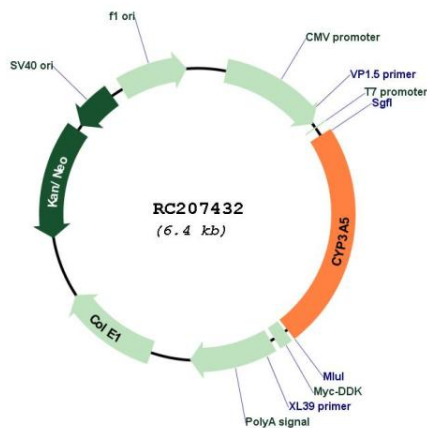
Protein Families: Druggable Genome, P450, Transmembrane

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

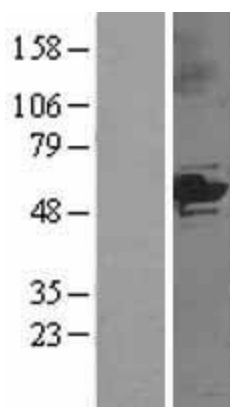
MW: 57.1 kDa

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. The encoded protein metabolizes drugs as well as the steroid hormones testosterone and progesterone. This gene is part of a cluster of cytochrome P450 genes on chromosome 7q21.1. Two pseudogenes of this gene have been identified within this cluster on chromosome 7. Expression of this gene is widely variable among populations, and a single nucleotide polymorphism that affects transcript splicing has been associated with susceptibility to hypertension. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2014]

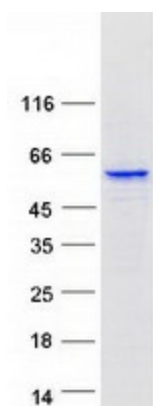
Product images:



Circular map for RC207432



Western blot validation of overexpression lysate (Cat# [LY400265]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207432 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CYP3A5 protein (Cat# [TP307432]). The protein was produced from HEK293T cells transfected with CYP3A5 cDNA clone (Cat# RC207432) using MegaTran 2.0 (Cat# [TT210002]).