

## Product datasheet for **RG207432**

### 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:	TurboGFP
Symbol:	Cytochrome P450 3A5
Synonyms:	CP35; CYP3A5; P450PCN3; PCN3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG207432 representing NM\_000777  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGGACCTCATCCCAAATTTGGCGGTGGAACCTGGCTTCTCCTGGCTGTCAGCCTGGTGTCTCTATC  
 TATATGGACCCGTACACATGGACTTTTTAAGAGACTGGGAATCCAGGGCCACACCTCTGCCTTTGTT  
 GGGAAATGTTTTGTCTATCGTCAGGGTCTCTGGAAATTTGACACAGAGTGCTATAAAAAAGTATGGAAAA  
 ATGTGGGGAACGTATGAAGGTCAACTCCCTGTGCTGGCCATCACAGATCCCGACGTGATCAGAACAGTGC  
 TAGTGAAGAATGTTATTCTGTCTTACAAATCGAAGGTCTTTAGGCCAGTGGGATTTATGAAAAGTGC  
 CATCTCTTTAGCTGAGGATGAAGAATGGAAGAGAATACGGTCATTGCTGTCTCCAACCTTACCAGCGGA  
 AAACCAAGGAGATGTTCCCATCATTGCCAGTATGGAGATGTATTGGTGAAGAACTTGAGGCGGGAAG  
 CAGAGAAAGCAAGCCTGTACCTTGAAGACATCTTTGGGCGCTACAGCATGGATGTGATTACTGGCAC  
 ATCATTTGGAGTGAACATCGACTCTCTCAACAATCCACAAGACCCTTTGTGGAGAGCACTAAGAAGTTC  
 CTAATAATTTGGTTTCTTAGATCCATTATTTCTCTCAATAATACTTTTCCATTCTTACCCAGTTTTTG  
 AAGCATAAATGTCTCTCTGTTTCCAAAAGATACCATAAATTTTTAAGTAAATCTGTAAACAGAATGAA  
 GAAAAGTCGCCTCAACGACAAAACAAAAGCACCAGTAGATTTCTTCAGCTGATGATTGACTCCCAGAAT  
 TCGAAAGAAACTGAGTCCACAAAGCTCTGTCTGATCTGGAGCTCGCAGCCAGTCAATAATCTTCATTT  
 TTGCTGGCTATGAAACCACCAGCAGTGTCTTTCTTCACTTTATATGAACTGGCCACTCACCTGATGT  
 CCAGCAGAAACTGCAAAAGGAGATTGATGCAGTTTTGCCAATAAGGCACCACCTACCTATGATGCCGTG  
 GTACAGATGGAGTACCTTGACATGGTGGTGAATGAAACTCAGATTATCCAGTTGCTATTAGACTTG  
 AGAGGACTTGCAAGAAAGATGTTGAAATCAATGGGGTATTCATTCCCAAAGGGTCAATGGTGGTATTCC  
 AACTTATGCTCTTACCATGACCCAAAGTACTGGACAGAGCCTGAGGAGTTCCGCCCTGAAAGGTTCA  
 AAGAAGAAGGACAGCATAGATCCTTACATATACACACCCTTTGGAAGTGGACCCAGAAACTGCATTGGCA  
 TGAGGTTTGTCTCATGAACATGAAACTTGCTCTAATCAGAGTCTTTCAGAACTTCTCTTCAAACCTTG  
 TAAAGAAACACAGATCCCTTGAATTAGACACGCAAGGACTTCTTCAACCAGAAAAACCCATTGTTCTA  
 AAGGTGGATTCAAGAGATGGAACCCTAAGTGGAGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG207432 representing NM\_000777  
 Red=Cloning site Green=Tags(s)

MDLIPNLAVETWLLLAVSLVLLYLYGTRTHGLFKRLGIPGPTPLPLLGNVLSYRQGLWKFDTCEYKKYGK  
 MWGTYEQQLPVLAITDPDVIRTVLVKECYSVFTNRRSLGPVGFMSAISLAEDEEWKRIRSLLSPTFTSG  
 KLKEMFPIIAQYGDVLRNLRREAEGKPVTLKIDIFGAYSMDVITGTSFGVNIIDSLNPNQDPFVESTKFF  
 LKFGFLDPLFLSIIILFPFLTPVFEALNVSLFPKDTINFLSKSVNRMKKSRLNDKQKHLRDLQLMIDSN  
 SKETESHKALSDELEAAQSIIFIFAGYETTSSVLSFTLYELATHPDVQKQLQKEIDAVLPNKAPPTYDAV  
 VQMEYLDMMVNETLRLFPVAIRLERTCKKDVEINGVFIKGSMMVVIPTYALHHPKYWTEPEEFRPERFS  
 KKKDSIDPYIYTPFGTGRNRCIGMRFALMNMKLALIRVLQNFSPKPKETQIPLKLDQGLLQPEKPIVL  
 KVDSRDGTLSGE

TRTRPLE - GFP Tag - V

**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](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.

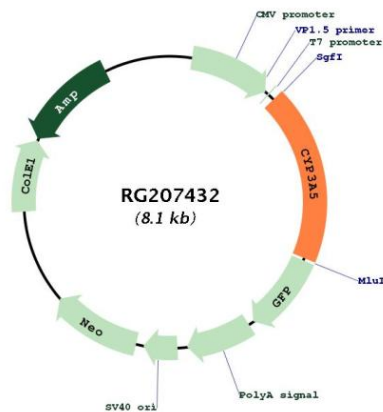
RefSeq: [NM\\_000777.5](#)

**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 RG207432