

## Product datasheet for **SC120801**

### Cytochrome P450 3A5 (CYP3A5) (NM\_000777) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cytochrome P450 3A5 (CYP3A5) (NM_000777) Human Untagged Clone
Tag:	Tag Free
Symbol:	Cytochrome P450 3A5
Synonyms:	CP35; CYP11A5; P450PCN3; PCN3
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC120801 sequence for NM\_000777 edited (data generated by NextGen Sequencing)

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ATGGACCTCATCCAAATTTGGCGGTGGAACCTGGCTTCTCCTGGCTGTCAGCCTGGT
CTCCTCTATCTATATGGGACCCGTACACATGGACTTTTTAAGAGACTGGGAATCCAGGG
CCCACACCTCTGCCTTTGTTGGGAAATGTTTTGCCTATCGTCAGGGTCTCTGGAATTT
GACACAGAGTGTATAAAAAGTATGGAATAATGTGGGGAACGTATGAAGGTCAACTCCCT
GTGCTGGCCATCACAGATCCCGACGTGATCAGAACAGTGTAGTGAAGAATGTTATTCT
GTCTTACAAATCGAAGGTCTTTAGGCCAGTGGGATTTATGAAAAGTGCCATCTCTTTA
GCTGAGGATGAAGAATGGAAGAGAATACGGTCATTGCTGTCTCCAACCTTACCAGCGGA
AAACTCAAGGAGATGTTCCCATCATTGCCAGTATGGAGATGATTGGTGAGAACTTG
AGGCGGGAAGCAGAGAAAGGCAAGCCTGTCACCTTGAAGACATCTTTGGGGCTACAGC
ATGGATGTGATTACTGGCACATCATTGGAGTGAACATCGACTCTCTCAACAATCCACAA
GACCCCTTTGGGAGAGCACTAAGAAGTTCCTAAAATTTGGTTTCTTAGATCCATTATTT
CTCTCAATAATACTCTTCCATTCTTACCCAGTTTTTGAAGCATTAAATGTCTCTCTG
TTTCCAAAAGATACCATAAATTTTTAAGTAAATCTGTAACAGAATGAAGAAAAGTCGC
CTCAACGACAAAACAAAAGCACCGACTAGATTTCTTCAGCTGATGATTGACTCCCAGAAT
TCGAAAGAAACTGAGTCCACAAAGCTCTGTCTGATCTGGAGCTCGCAGCCCAGTCAATA
ATCTTCATTTTTGCTGGCTATGAAACCACCAGCAGTGTCTTTCCTTCACTTTATATGAA
CTGGCCACTCACCTGATGTCCAGCAGAAACTGCAAAAAGGAGATTGATGCAGTTTTGCC
AATAAGGCACCACCTACCTATGATGCCGTGGTACAGATGGAGTACCTTGACATGGTGGT
AATGAAACACTCAGATTATCCAGTTGCTATTAGACTTGAGAGGACTTGCAAGAAAGAT
GTTGAAATCAATGGGGTATTCATTCCCAAAGGGTCAATGGTGGTATTCCAACCTATGCT
CTTCACCATGACCCAAAGTACTGGACAGACCTGAGGAGTTCGGCCCTGAAAGGTTCA
AAGAAGAAGGACAGCATAGATCCTTACATATACACACCCTTTGGAAGTGGACCCAGAAAC
TGATTGGCATGAGGTTTCTCTCATGAACATGAACTTGTCTAATCAGAGTCTTTCAG
AACTTCTCCTTCAAACCTTGTAAGAAACACAGATCCCCTTGAATTAGACACGCAAGGA
CTTCTTCAACCAGAAAACCCATTGTTCTAAAGGTGGATTCAAGAGATGGAACCCTAAGT
GGAGAATGA
    
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Clone variation with respect to NM\_000777.3

**5' Read Nucleotide Sequence:**

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>OriGene 5' read for NM_000777 unedited
NNGGTCAGGATTTGTATACGACTCACTATAGGCGGCCGGAATTCGCACGAGGGGGAAGC
TCCAGGCAAACAGCCAGCAAACAGCAGCACTCAGCTAAAAGGAAGACTCACAGAACACA
GTTGAAGAAGGAAAGTGGCGATGGACCTCATCCAAATTTGGCGGTGGAACCTGGCTTC
TCCTGGCTGTGAGCCTGGTGTCTCTATCTATATGGGACCCGTACACATGGACTTTTTA
AGAGACTGGGAATTCAGGGCCACACCTCTGCCTTTGTTGGGAAATGTTTTGCCTATC
GTCAGGGTCTCTGGAAATTTGACACAGAGTGCTATAAAAAGTATGAAAAATGTGGGGAA
CGTATGAAGGTCAACTCCCTGTGCTGGCCATCACAGATCCCGACGTGATCAGAACAGTGC
TAGTGAAGAATGTTATTCTGTCTTACAAATCGAAGGTCTTTAGGCCAGTGGGATTTA
TGAAAAGTGCCATCTCTTAGCTGAGGATGAAGAATGGAAGAGAATACGGTCATTGCTGT
CTCCAACCTTACCAGCGGAAAACCTCAAGGAGATGTTCCCATCATTGCCAGTATGGAG
ATGATTGGTGAGAACTTGAGGCGGGAAGCAGAGAAAGCAAGCCTGTCACCTTGAAG
ACATCTTTGGGGCTACAGCATGGATGTGATTACTGGCACATCATTGGAGTGAACATCG
ACTCTCTCAACAATCCACAAGACCCCTTTGTGGAGAGCACTAAGAAGTTCCTAANATTTG
GTTTCTTAGATCCATTATTTCTCTCAATAACTCTNTCCATTCTTACCCAGTNTTTGA
GCATTAATGTCTCTCTGTTTCCAAAGATACATANATTTTTAAGTAATCTGTAACAGAAT
GAAGAAAGN
    
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<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_000777 unedited CCTTGTTAGGCCCTCTTTTTTCAGGTTTTATTGACTAAGTTGAAATCTCTGGTGTCTGG GGCACAGCTTTCTTGAAGACCAAGTAGAAGTCCTTAGAATAACTCATTCTCCACTTAGG GTTCCATCTCTTGAATCCACCTTTAGAACAATGGGTTTTCTGGTTGAAGAAGTCCTTGC GTGTCTAATTTCAAGGGGATCTGTGTTTCTTTACAAGGTTTGAAGGAGAAGTTCTGAAGG ACTCTGATTAGAGCAAGTTTCATGTTTCATGAGAGCAAACCTCATGCCAATGCAGTTTCTG GGTCCAGTTCCAAGGGTGTGTATATGTAAGGATCTATGCTGTCCTTCTTCTTACTGAAC CTTTCAGGGCGGAACCTCCTCAGGCTCTGTCCAGTACTTTGGGTCATGGTGAAGAGCATAA GTTGGAATCACCAACATTGACCCTTTGGGAATGAATACCCATTGATTTCAACATCTTTC TTGCAAGTCTCTCAAGTCTAATAGCAACTGGGAATAATCTGAGTGTTCATTACCACC ATGTCAAGGTAATCTGTACACGGCATCATAGGTAGGTGGTGCCTTATTGGGCAAA ACTGCATCAATCTCTTTTGCAGTTTCTGCTGGACATCAGGGTGAAGTGGCCAGTTCATAT AAAGTGAAGGAAAGAACAATGCTGTTGTTTTCATAGCCAGCAAAAATGAAGATTATTGAC TGNGCTGCGAGCTCCAGATCAGACAGAGCTTTGTGGGACTCAGTTTCTTTCGAATTCTGG GAGTCAATCATCAGCTGAAGGAAATCTAGTCGGTCTTTTGTGTTGTCGTTGAGGGCACTT TTCTTCATTCTGTTTACANGATTACTTAAAAATTTATGGTATCTTTTGGAACAGAGAGAC ATTAATGCTTCANAACCTGNNGT
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_000777
<b>Insert Size:</b>	1800 bp
<b>OTI Disclaimer:</b>	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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a>
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_000777.2</a> , <a href="#">NP_000768.1</a>
<b>RefSeq Size:</b>	1707 bp

RefSeq ORF:	1509 bp
Locus ID:	1577
UniProt ID:	<a href="#">P20815</a>
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
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (1) encodes the longest isoform (1).</p>