

## Product datasheet for **SC119671**

### Cytochrome P450 1A2 (CYP1A2) (NM\_000761) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cytochrome P450 1A2 (CYP1A2) (NM_000761) Human Untagged Clone
Tag:	Tag Free
Symbol:	Cytochrome P450 1A2
Synonyms:	CP12; CYP1A2; P3-450; P450(PA)
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 sequence for NM\_000761 edited  
 GCACCAGGCCATTACAACCTGCCAATCTCAAGCACCTGCCTCTACAGTTGGTACAGATG  
 GCATTGTCCCAGTCTGTTCCCTTCTCGGCCACAGAGCTTCTCCTGGCCTCTGCCATCTTC  
 TGCCTGGTATTCTGGGTGCTCAAGGTTTGAGGCCTCGGGTCCCCAAAGGCCTGAAAAGT  
 CCACCAGAGCCATGGGGCTGGCCCTTGTCTGGGCATGTGCTGACCCTGGGAAGAACCCG  
 CACCTGGCACTGTCAAGGATGAGCCAGCGCTACGGGACGCTCTGCAGATCCGCATTGGC  
 TCCACGCCCGTGTGGTGTGAGCCGCTGGACACCATCCGGCAGGCCCTGGTGCGGCAG  
 GCGCAGCATTTCAAGGGCCGGCCTGACCTCTACACCTCCACCCTATCACTGATGGCCAG  
 AGCTTGACCTTACGACAGACTCTGACCCGGTGTGGGCTGCCCGCCGGCCTGGCCAG  
 AATGCCCTCAACACCTTCTCCATCGCCTCTGACCCAGCTTCTCATCCTCCTGCTACCTG  
 GAGGAGCATGTGAGCAAGGAGGCTAAGGCCCTGATCAGCAGGTTGCAGGAGCTGATGGCA  
 GGGCCTGGGCACTTCGACCCTTACAATCAGGTGGTGGTGTGAGTGGCAACGTCATTGGT  
 GCCATGTGCTTCGGACAGCACTTCCCTGAGAGTAGCGATGAGATGCTCAGCCTCGTGAAG  
 AACACTCATGAGTTCGTGGAGACTGCCTCTCCGGGAACCCCTGGACTTCTCCCCATC  
 CTTGCTACCTGCCTAACCTGCCTGCAGAGGTTCAAGGCCTTCAACCAGAGGTTCTCTG  
 TGGTTCCTGCAGAAAACAGTCCAGGAGCACTATCAGGACTTTGACAAGAACAGTGTCCGG  
 GACATCACGGGTGCCCTGTTCAAGCACAGCAAGAAGGGGCTAGAGCCAGCGCAACCTC  
 ATCCCACAGGAGAAGATTGTCAACCTTGTCAATGACATCTTTGGAGCAGGATTTGACACA  
 GTCACCACAGCCATCTCCTGGAGCCTCATGTACCTTGTGACCAAGCCTGAGATACAGAGG  
 AAGATCCAGAAGGAGCTGGACACTGTGATTGGCAGGGAGCGGGCCCGGCTCTCTGAC  
 AGACCCAGCTGCCCTACTTGGAGGCCTTATCCTGGAGACCTTCCGACACTCCTCCTTC  
 TTGCCCTTACCATCCCCACAGCACAAACAGGGACACAACGCTGAATGGCTTCTACATC  
 CCCAAGAAATGCTGTGTTTGTAAACCAAGTGGCAGGTCACCATGACCCAGAGCTGTGG  
 GAGGACCCCTCTGAGTTCGGCCTGAGCGGTTCTCACCCCGATGGCACTGCCATTAAC  
 AAGCCCTTGAGTGAGAAGATGATGCTGTTTGGCATGGCAAGCGCCGGTGTATCGGGGAA  
 GTCCTGGCCAAGTGGGAGATCTTCTTCTTCTGCCATCCTGCTACAGCAACTGGAGTTC  
 AGCGTGCCCGGGCGTAAAGTCGACCTGACCCCATCTACGGGCTGACCATGAAGCAC  
 GCCCGCTGTGAACATGTCCAGGCGGGCTGCGCTTCTCCATCACTGAAGAAGACACCAC  
 CATTCTGAGGCCAGGAGCGAGTGGGGCCAGCCACGGGACTCAGCCCTGTTTCTCTT  
 CCTTTCTTTTTTAAAAAATAGCAGCTTAGC

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_000761 unedited  
 NGTTCAAATTTGTATACGACTCTATAGGGCGGCCGGAATTCGCACCAGATTACAACCC  
 TGCCAATCTCAAGCACCTGCCTCTACAGTTGGTACAGATGGCATTGTCCCAGTCTGTTCC  
 CTTCTCGGCCACAGAGCTTCTCCTGGCCTCTGCCATCTTCTGCCTGGTATTCTGGGTGCT  
 CAAGGGTTTGAGGCCTCGGGTCCCCAAAGGCCTGAAAAGTCCACCAGAGCCATGGGGCTG  
 GCCCTTGTCTCGGCATGTGCTGACCCTGGGAAGAACCCGCACCTGGCACTGTCAAGGAT  
 GAGCCAGCGTACGGGGACGTCTGCAGATCCGATTGGCTCCACGCCGTGCTGGTGTCT  
 GAGCCGCCTGGACACCATCCGGCAGGCCCTGGTGCGGCAGGGCGACGATTTCAAGGGCCG  
 GCCTGACCTCTACACCTCCACCCTCATCACTGATGGCCAGAGCTTACCTTACGACACAGA  
 CTCTGGACCGGTGTGGGCTGCCCGCGCCTGGCCAGAATGCCCTCAACACCTTCTC  
 CATCGCCTCTGACCCAGCTTCTCATCCTCCTGCTACCTGGAGGAGCATGTGAGCAAGGA  
 GGCTAAGGCCCTGATCAGCAGGTTGCAGGAGCTGATGGCAGGGCCTGGGCACTTCGACCC  
 TTACAATCAGGTGGTGGTGTGAGTGGCCAAACGTCATTGGTGCCATGTGCTTCGGACAGCA  
 CTTCCCTGAGAGTAGCGATGAGATGCTCAGCCTCGTGAAGACACTCATGAGTTCGTGGAG  
 ACTGCCTCCTNCGGAACCCCTGGACTTCTTCCCATCCTTCGTACCTGCCTAACCCCT  
 GCCCTGCAGAGGTTCAAGGCCTTACCAGAGTTCCTGTGGTCTGCAANACAGTCC  
 AGGAGCACTATCAGG

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_000761 unedited TATCTTGNCCGCGCCGCGCATTCTANATCGAGTTTTTTTTTTTTTTTTTTTTTTTTCATTGGGTA ATTCCATTTATATGAAATGTTTAGAGAAGGCAAATCCATAGACACAGAAAGTAGATTAGC AGTTGCCAGGGCTGGTGAGGCAGGGGAGGCAGGCTAGGGGGAAATGTGGAGGGACTGCTA ATGGGTGCAGGGTTTCTTTTAGGGTGATGAAAATGTTCTAAAATTAATTGTGGGCCGGG CACCGTGGCTCACACCTGTAATGCCAGCACTTTGAGAGAGTTCGAGGCGGGCAGATCACT TGAGGTCAAAGTTTGGACTAGTCTAGCCAACATGGTGAAACCCGTCTCTACTAAAAAT ACAAAAATTACCCAGGCGTGGTGGTGTGTGCCTGTAGTCTCAGCTACTTGGGAGGCTGAG GCTGGAGAAGCACTTGAACCTGGGAGGCAAGGTTGCAGTGAGCTGAGATGATGCCACTG CACTCCAGCTTAGGAGACAGAGGAAGACTCTGTCTCAAAAAAAAAAAAAAAAAAAAAAGGC TGGGCGCGGTGGTTCATACCTGTTAATCCAGCACTTTGGGAGGCTGAGGCGGGTGGATC ACGAGGTCAAGAGATGGAGACCATCCTGNCCAACACAGTGAAACCTCGTCTCTACTAAAA AACAAAAATAGCTGGCCATGGTGGCGCATGCCTATAGTCCAGCTACTTCGGAGGGGCTG AGCAGAGAATCCCTGAACATGNNGAGCGGAGTTGTANTGACCTGAAATCGCGCACTGCAC TCAGCCTGGCAACAGAGTAGACTCTGTCTCAAANNATAGAAATATAAATTAATTCTGGG ATGGGTGCACAATNCACACTAAAAATCATTTCGACCTTAAATGTAGTTAGGCTGGATGGG NNGGCTACACCTGNATCCAGNACTTTGGAACCAAGCCAGGG
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_000761
<b>Insert Size:</b>	3000 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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>	<u><a href="#">NM_000761.3</a></u> , <u><a href="#">NP_000752.2</a></u>
<b>RefSeq Size:</b>	3127 bp
<b>RefSeq ORF:</b>	1551 bp
<b>Locus ID:</b>	1544
<b>UniProt ID:</b>	<u><a href="#">P05177</a></u>
<b>Cytogenetics:</b>	15q24.1
<b>Domains:</b>	p450

<b>Protein Families:</b>	Druggable Genome, P450, Transmembrane
<b>Protein Pathways:</b>	Caffeine metabolism, Drug metabolism - cytochrome P450, Linoleic acid metabolism, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Retinol metabolism, Tryptophan metabolism
<b>Gene Summary:</b>	<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 protein encoded by this gene localizes to the endoplasmic reticulum and its expression is induced by some polycyclic aromatic hydrocarbons (PAHs), some of which are found in cigarette smoke. The enzyme's endogenous substrate is unknown; however, it is able to metabolize some PAHs to carcinogenic intermediates. Other xenobiotic substrates for this enzyme include caffeine, aflatoxin B1, and acetaminophen. The transcript from this gene contains four Alu sequences flanked by direct repeats in the 3' untranslated region. [provided by RefSeq, Jul 2008]</p>