

Product datasheet for **SC119858**

CYP1A1 (NM_000499) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CYP1A1 (NM_000499) Human Untagged Clone
Tag:	Tag Free
Symbol:	CYP1A1
Synonyms:	AHH; AHRR; CP11; CYP1; CYP1A1; P1-450; P450-C; P450DX
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_000499, the custom clone sequence may differ by one or more nucleotides

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ATGCTTTTCCCAATCTCCATGTCGGCCACGGAGTTTCTTCTGGCCTCTGTCACTTCTGTCTGGTATTCT
GGGTAATCAGGGCCTCAAGACCTCAGGTCCCCAAGGCCTGAAGAATCCACCAGGGCCATGGGGCTGGCC
TCTGATTGGGCACATGCTGACCTGGGAAAGAACCCGCACCTGGCACTGTCAAGGATGAGCCAGCAGTAT
GGGGACGTGCTGCAGATCCGAATTGGCTCCACACCCGTGGTGGTCTGAGCGGCCGGACACCATCCGGC
AGGCCCTGGTGGCCAGGGCGATGATTTCAAGGGCCGGCCGACCTCTACACCTTACCCTCATCAGTAA
TGGTCAGAGCATGCTCCTCAGCCAGACTCTGGACCAGTGTGGGCTGCCCGCCGGCCTGGCCAGAAT
GGCCTGAAAAGTTTCTCCATTGCCTCTGACCCAGCCTCCTCAACCTCCTGTACCTGGAAGAGCATGTGA
GCAAGGAGGCTGAGGTCCTGATAAGCACGTTGACGAGCTGATGGCAGGGCCTGGCACTTTAACCCCTA
CAGGTATGTGGTGGTATCAGTGACCAATGTCATCTGTGCCATTTGCTTTGGCCGGCGCTATGACCACAAC
CACCAAGAACTGCTTAGCCTAGTCAACCTGAATAATAATTTGGGGAGGTGGTTGGCTCTGGAAACCCAG
CTGACTTCATCCCTATTCTTCGCTACCTACCCAACCTTCCCTGAATGCCTTCAAGGACCTGAATGAGAA
GTTCTACAGTTCATGCAGAAGATGGTCAAGGAGCACTACAAAACCTTTGAGAAGGGCCACATCCGGGAC
ATCACAGACAGCCTGATTGAGCACTGTGAGGAGAAGCAGCTGGATGAGAAGCCCAATGTCAGCTGTGAG
ATGAGAAGATCATTAAACATCGTCTTGGACCTCTTTGGAGCTGGGTTTGACACAGTCACACTGCTATCTC
CTGGAGCCTCATGATTTGGTGTGAACCCAGGGTACAGAGAAAGATCCAAGAGGAGCTAGACACAGTG
ATTGGCAGGTACGGCCGGCCCGCTCTCTGACAGATCCCATCTGCCCTATATGGAGGCCTTCATCCTGG
AGACCTTCCGACACTCTTCTTCTGTCCTTCCATCCCCACAGCACACAAGAAGACACAAGTTTGAA
AGGCTTTTACATCCCAAGGGGCTTGTGTCTTTGTAACCAGTGGCAGATCAACCATGACCAGAAGCTA
TGGGTCAACCCATCTGAGTTCCTACCTGAACGTTTCTCACCCCTGATGGTGTATCGACAAGGTGTTAA
GTGAGAAGGTGATTATCTTTGGCATGGGCAAGCGGAAGTGTATCGGTGAGACCATTGCCCGCTGGGAGGT
CTTTCTTCTTCTGGCTATCCTGTGCAACGGGTGGAATTCAGCGTGCCACTGGGCGTGAAGGTGGACATG
ACCCCATCTATGGGCTAACCATGAAGCATGCCTGCTGTGAGCACTTCCAATGCAGCTGCGCTCTTAG
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000499 unedited
 GCAACCCANTCGCACCAGGTTCCCTTGGAACTTCCCTGATCCTTGTGATCCCAGGCTCCA
 AAAGTCCACCCTTCCCAGCTCAGCTCAGTACCTCAGCAGCCACCTCCAAGATCCCTACAC
 TGATCATGCTTTTCCCAATCTCCATGTCGGCCACGGAGTTTCTTCTGGCCTCTGTCAAT
 NCTGNCTGGTATTCTGGTAATCAGGGCCTCAAGACCTCATGTCCCAAAGGCCTGAAGA
 ATCCACCAGGGCCATGGGGCTGGCCTCTGATTGGGCACATGCTGACCCTGGAAAGAACC
 CGCACCTGGCACTGTCAAGGATGAGCCAGCAGTATGGGGACGTGCTGCAGATCCGAATTG
 GCTCCACACCCGTGGTGGTGTGAGCGGCCTGGACACCATCCGGCAGGCCCTGGTGCGGC
 AGGGCGATGATTTCAAGGCGCGCCGACCTCTACACCTTCAACCTCATCAGTAATGGTC
 AGAGCATGTCCTTCAAGCCAGACTCTGGACCAGTGTGGGCTGCCCGCGGCGCCTGGCCC
 AGAATGGCCTGAAAAGTTTCTCCATTGCCTCTGACCCAGCCTCTCAACCTCCTGTACC
 TGGAAAGAGCATGTGAGCAAGGAGGCTGAGGCTCTGATAAGCACGTTGCANGAGCTGATGG
 CAGGGCCTGGGCACTTAAACCCCTACAGGTATGTGGTGGGATCAGTGACCAATGTCATCT
 GTGCCATTTGCTTTGGCCGGCGCTATGACCACAACCAAAAACTGCTTAGCCTAGTCA
 ACCTGAATGCCCTTCAAGACCTGGATGAGGAGGCTACAGCTTATGCAGAAGATGGTCA
 AAGAGCACTACAAAACCTTTGAGAAAGCCACATCCGGGACT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000499 unedited
 CGGAGAGGCACTGGGGAGGGTTCACAGGGATGCCACCCGGGATCTGTTTCAGGAAACAGCT
 ATGACTTCGGCCCAATCTAGAGTCGAGTTTTTTTTTTGGTTTTTTTTCTGAACAATATCT
 TTATTTAGCTCAGGTAGTTGTTCTTACACATTTTTGGATACCTGGGTTAGAATTTTCCCT
 ATTACATTAATCAATGGTTCTTAAGCTCTTATGCAAGCATGCAAGCTCAATGCAGGCTA
 GAATAGAAGGATTGTTGTGTACAACATTAATAATAGACATTTTATTACAAGAGTGTAGA
 GAAGGGAGACCAATAGAAGGTAATTGAAATACCCCCCTCACTCCAGCCCTAGTCTGG
 TGCTGGATATGTGCACTCCCTGTGCGCTCTGATCCCCGAGACACAAGTCCCCAGCCCC
 TCCAGGACAGCAATAAGGGTCTTACAAGGCCAGAAGGCAGCCCTGTTTGTTCCTGCCTGC
 AGGAAGGGCAGAGGAATGTGATGTTCCAGGAAGTGTGCTCCTAGACCCATAGGGTCAGAT
 TGCTCAGCCTAGTTCAAGCAGTGAGACTACCTCTGTGCCAGTATCCTGGGCTGTCTCTTC
 CNTTCACTCTTGGCAGCTCCCAATTGTCAAAGATTGGACAGGGGTCTGGGTTGGGCTAGT
 CTAACCTTGCTGAAGCCAGTCAGCACCCCTCACAGAGCCAGCTAGGTAAGTGGGCCAGGGCC
 TTCCAGAGAGTTCTTCAAGACTTCTCAGAGGCCTAAGGACCTCCTAACCTAGCAGGGCC
 TCCTGCTCAAGCACAACCT

Restriction Sites:

NotI-NotI

ACCN:

NM_000499

Insert Size:

2310 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](#)

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:	<ol style="list-style-type: none">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_000499.2 , NP_000490.1
RefSeq Size:	2602 bp
RefSeq ORF:	1539 bp
Locus ID:	1543
UniProt ID:	P04798
Cytogenetics:	15q24.1
Domains:	p450
Protein Families:	Druggable Genome, P450, Transmembrane
Protein Pathways:	Metabolism of xenobiotics by cytochrome P450, Retinol metabolism, Tryptophan metabolism
Gene Summary:	<p>This gene, CYP1A1, 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. This protein 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. The gene has been associated with lung cancer risk. A related family member, CYP1A2, is located approximately 25 kb away from CYP1A1 on chromosome 15. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jan 2016]</p> <p>Transcript Variant: This variant (1) encodes the longest isoform (1). Variants 1 and 3 encode the same isoform (1). Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.</p>