

Product datasheet for **SC120814**

Cytochrome P450 4A (CYP4A11) (NM_000778) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cytochrome P450 4A (CYP4A11) (NM_000778) Human Untagged Clone
Tag:	Tag Free
Symbol:	Cytochrome P450 4A
Synonyms:	CP4Y; CYP4A2; CYP4A11; CYP4A11
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC120814 sequence for NM_000778 edited (data generated by NextGen Sequencing)

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ATGAGTGTCTCTGTGCTGAGCCCCAGCAGACTCCTGGGTGATGTCTCTGGAATCCTCCAA
GCGGCCTCCCTGCTCATTCTGCTTCTGCTGCTGATCAAGGCAGYTCAGCTCTACCTGCAY
AGGCAGTGGCTGCTCAAAGCCCTCCAGCAGTCCCCTGCCCTCCCTCCCCTGGCTTTC
GGGCACATCCAGGAGCTCAAACAGGACCAGGAGCTACAACGGATTAGAAATGGGTGGAG
ACATTCCCAAGTGCCTGTCTYATTGGMTATGGGGAGGCAAAGTTCGTGTCCAGCTCTAT
GACCCTGACTATATGAAGGTGATTCTGGGAGATCAGACCCGAAATCCCATGGWTCTAC
ARATTCCTGGCTCCAYGGATTGGGTACGGCTTGCTCCTGTTGAATGGGCAGACATGGTTC
CAGCATCGACGGATGCTGACCCAGCCTTCCACTATGACATCCTGAAGCCCTATGTGGGG
CTCATGGCAGACTCTGTACGAGTGTGCTGGACAAATGGGAAGAGCTCCTTGGCCAGGAT
TCCCCTCTGGAGGTCTTTCAGCACGTCTCCTTGATGACCTGGACACCATCATGAAGWT
GCCTTCAGCCATCAGGGCAGCATCCAGGTGGACAGGAATTCTCAGTCTACATACAGGCC
ATTAGTGACCTGAACAACCTGGTTTTTCCCGTGTGAGGAATGCCTTTCACCAGAATGAC
ACCATCTACAGCCTGACCTCTGCTGGCCGCTGGACACACCCGCGCTGCCAGCTGGCCAT
CAGCACACAGACCAAGTATCCAACCTGAGGAAGGCTCAACTACAGAAGGAGGGGGAGCTG
GAGAAGATCAAGAGGAAGAGGCATTTGGATTTTCTGGATATCCTCCTCTTGGCCAAAATG
GAGAATGGGAGCATCTTGTGAGACAAGGACCTCCGTGCTGAGGTGGACACGTTTATGTTT
GAGGGCCATGACACCACAGCCAGTGGGATCTCCTGGATCCTCTATGCTCTGGCCACACAC
CCCAAGCATCAGGAGAGGTGCCGGGAGGAGATCCACAGCCTCCTGGGTGATGGAGCCTCC
ATCACCTGGAACCACTGGACCAGATGCCCTACACCACCATGTGCATTAAGGAGGCACTG
AGGCTTACCCACCGTCCAGGCATTGGMAGAGAGCTCAGCACTCCCCTCACCTTCCCT
GATGGCGCTCCTTGCCCAAAGGTATCATGGTCCTCCTCCATTTATGGCCTTACCAC
AACCCAAAAGTGTGGCCCAACCYAGAGGTGTTTACCCTTTCCGTTTTGCACCGGTTCT
GCTCAACACAGCCACGCTTTCCTGCCCTTCTCAGGAGGATCAAGGAACTGCATCGGAAA
CAATTTGCCATGAACSAGCTGAAGGTGGCCASGGCCCTGACCCTGCTCCGCTTTGAGCTG
CTGCTGATCCCACCAGGATCCCCATCCCCATKGCACGACTTGTGTTGAAATCCAAAAAT
GGAATCCACCTGCGTCTCAGGAGGCTCCCTAACCTTGTGAAGACAAGGACCAGCTTTGA
    
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Clone variation with respect to NM_000778.3
 104 t=>y;120 c=>y;262 c=>y;268 c=>m;354 t=>w;362 g=>r;376 t=>y;598 t=>w;969 c=>t;1170
 c=>m;1283 c=>y;1396 g=>s;1412 c=>s;1473 t=>k

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000778 unedited

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AGGAATTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACCAGGGCACTCAGA
GATCCAGCAGGTGCTGCACCATGAGTGTCTCTGTGCTGAGCCCCAGCAGACTCCTGGGTG
ATGTCTTGAAATCCTCCAAGCGCCTCCCTGCTCATTCTGCTTCTGCTGCTGATCAAGG
CAGTTTCAGCTCTACCTGCACAGGCAGTGGCTGCTCAAAGCCCTCCAGCAGTCCCCTGCC
CTCCCTCCCCTGCTCTTCGGGCACATCCAGGAGCTCCAACAGGACCAGGAGCTACAAC
GGATTCAGAAATGGGTGGAGACATTCCCAAGTGCCTGTCTCATTGGCTATGGGGAGGCA
AAGTTCGTGTCCAGCTCTATGACCTGACTATATGAAGGTGATTCTGGGGAGATCAGACC
CGAAATCCCATGGTTCTACAGATTCTGGCTCCATGGATTGGGTACGGCTTGCTCCTGT
TGAATGGGCAGACATGGTTCAGCATCGACGGATGCTGACCCAGCCTTCCACTATGACA
TCCTGAAGCCCTATGTGGGGCTCATGGCAGACTCTGTACGAGTGTGCTGGACAAATGGG
AAGAGCTCCTTGGCCAGGATCCCCTCTGGAGGCTTTTCAGCACGTCTCCTTGATGACCC
TGGACACCATCATGAAGTGTGCCTTCAGCCATCAGGGCAGCATCCAGGTGGACAGGAATT
CTCAGTCTACATACAGGCCATTAGTGACCTGAACAACCTGNTTNNTTTCCCGTGTGAGG
AATGCCTTTCACCAGAATGACACCATCTACAGCCTGACCTCTGCTGGCCGCTGGACACAC
CGCGCCTGCCAGCTGGNCCATCAGCCACAGAACCAAGTATCCCCTGAGGAAGCTCCCT
TTACAGGAGGAGGGGAGCTGNAGAAAATCAAAAGNANNAGCATNGNATTTCTGAATNCC
TCTCTGCCAAAGNAGAATGGACATCTGTGATAGA
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_000778 unedited CCGAGAGGCACTGGGGAGGGGTCACAGGGATGCCACCCGGGATCTGTTTCAGGAAACAGCT ATGATTTTGGCCCAATCTAGAGTCGAGTTTTTTTTTGGGGTTTTTTTTTTTTCTGGAA GTGCAGATTATTTATTGGTGATCAAACAAGAAACAGGTGGTGAGAATGTGGGGTTCGAA AGGGCATGTTGCATTAACCACATGATTTACAGCTGTGACGGTTTAGCATCTGCTCTGCTA CTTGAGATAATGGAGAGCAGGTTCTTTAACTCAAGATAACAATTGATCCTGGGAGAGCAA GGAGCGAGGAGGCAGCAAGTCCAGACACATTCCAGAGCCACGAGCCCTGGATTCTATCCA AGCCACGAGGGGTTTTATGCCCCGGGCTTAGATTATGGTGCGTCAGGGTAGCCTTCCACC CTTCAGCACAGAGCTTGGTGTTCCAAAGGCCACAAGGGTTTTAGACCCTGGATCCTGGA CATGATTCAAGACTCTTTTACATTATGTGACACATGCAAGCTCGGCCTCAGCTTCTCCCA ACACTCAGCTTTTCTCCAACAAGAGATACAGGTGGGTAGGAGACAGGTAGACAAGCAGG TAGGGAGCCTGGANAAAAGTGAGAGAGAGAAGGGCANGCAAAGTGNNGGACAGCAGGCAG GTGGGAAGAGGGAAGGTGGGCAGACAGAAAACAGGATATGGGCAGACAGGAAGGGGACAG AAAGCGGGGTGAGGAAGACAGGACGGCANGTGGAGGCCCTCAAAGCTTGCCTTGTCTTC ACAGGGTTAGGGAGCCTN
Restriction Sites:	NotI-NotI
ACCN:	NM_000778
Insert Size:	2200 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_000778.2 , NP_000769.1
RefSeq Size:	2815 bp
RefSeq ORF:	1560 bp

Locus ID:	1579
UniProt ID:	Q02928
Cytogenetics:	1p33
Domains:	p450
Protein Families:	Druggable Genome, P450, Transmembrane
Protein Pathways:	Arachidonic acid metabolism, Fatty acid metabolism, Metabolic pathways, PPAR signaling pathway, Retinol metabolism, Vascular smooth muscle contraction
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. This protein localizes to the endoplasmic reticulum and hydroxylates medium-chain fatty acids such as laurate and myristate. Multiple transcript variants have been found for this gene. [provided by RefSeq, Jan 2016]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).</p>