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Product datasheet for SC119684

CYP11A1 (NM_000781) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CYP11A1 (NM_000781) Human Untagged Clone
Tag:	Tag Free
Symbol:	CYP11A1
Synonyms:	CYP11A; CYPXIA1; P450SCC
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF sequence for NM_000781 edited
TTCGCACCAGGCAGGTACAGTCACAGCTGTGGGGACAGCATGCTGGCCAAGGGTCTTCCC
CCACGCTCAGTCCTGGTCAAAGGCTGCCAGACCTTTCTGAGTGCCCCCAGGGAGGGGCTG
GGGCGTCTCAGGGTGCCCACTGGCGAGGGAGCTGGCATCTCCACCCGCAGTCCTCGCCCC
TTCAATGAGATCCCCTCTCCTGGTGACAATGGCTGGCTAAACCTGTACCATTTCTGGAGG
GAGACGGGCACACACAAAGTCCACCTTCACCATGTCCAGAATTTCCAGAAGTATGGCCCG
ATTTACAGGGAGAAGCTCGGCAACGTGGAGTCGGTTTATGTCATCGACCCTGAAGATGTG
GCCCTTCTCTTTAAGTCCGAGGGCCCCAACCCAGAACGATTCCTCATCCCGCCCTGGGTC
GCCTATCACCAGTATTACCAGAGACCCATAGGAGTCCTGTTGAAGAAGTCGGCAGCCTGG
AAGAAAGACCGGGTGGCCCTGAACCAGGAGGTGATGGCTCCAGAGGCCACCAAGAACTTT
TTGCCCCTGTTGGATGCAGTGTCTCGGGACTTCGTCAGTGTCCTGCACAGGCGCATCAAG
AAGGCGGGCTCCGGAAATTACTCGGGGGACATCAGTGATGACCTGTTCCGCTTTGCCTTT
GAGTCCATCACTAACGTCATTTTTGGGGAGCGCCAGGGGATGCTGGAGGAAGTAGTGAAC
CCCGAGGCCCAGCGATTCATTGATGCCATCTACCAGATGTTCCACACCAGCGTCCCCATG
CTCAACCTTCCCCCAGACCTGTTCCGTCTGTTCAGGACCAAGACCTGGAAGGACCATGTG
GCTGCATGGGACGTGATTTTCAGTAAAGCTGACATATACACCCAGAACTTCTACTGGGAA
TTGAGACAGAAAGGAAGTGTTCACCACGATTACCGTGGCATCCTCTACAGACTCCTGGGA
GACAGCAAGATGTCCTTCGAGGACATCAAGGCCAACGTCACAGAGATGCTGGCAGGAGGG
GTGGACACGACGTCCATGACCCTGCAGTGGCACTTGTATGAGATGGCACGCAACCTGAAG
GTGCAGGATATGCTGCGGGCAGAGGTCTTGGCTGCGCGGCACCAGGCCCAGGGAGACATG
GCCACGATGCTACAGCTGGTCCCCCTCCTCAAAGCCAGCATCAAGGAGACACTAAGACTT
CACCCCATCTCCGTGACCCTGCAGAGATATCTTGTAAATGACTTGGTTCTTCGAGATTAC
ATGATTCCTGCCAAGACACTGGTGCAAGTGGCCATCTATGCTCTGGGCCGAGAGCCCACC
TTCTTCTTCGACCCGGAAAATTTTGACCCAACCCGATGGCTGAGCAAAGACAAGAACATC
ACCTACTTCCGGAACTTGGGCTTTGGCTGGGGTGTGCGGCAGTGTCTGGGACGGCGGATC
GCTGAGCTAGAGATGACCATCTTCCTCATCAATATGCTGGAGAACTTCAGAGTTGAAATC
CAACACCTCAGCGATGTGGGCACCACATTCAACCTCATTCTGATGCCTGAAAAGCCCATC
TCCTTCACCTTCTGGCCCTTTAACCAGGAAGCAACCCAGCAGTGATCAGAGAGGATGGCC
TGCAGCCACATGGGAGGAAGGCCCAGGGGTGGGGCCCATGGGGTCTCTGCATCTTCAGTC
GTCTGTCCCAAGTCCTGCTCCTTTCTGCCCAGCCTGCTCAGCAGGTTGAATGGGTTCTCA
GTGGTCACCTTCCTCAGCTCAGCTGGGCCACTCCTCTTCACCCACCCCAGGAGACAATAA
ACAGCTGAACCATGAAAAAAAAAAAAAAAAAAC

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000781 unedited
TATTTTGTAATACGACTCACTATAGAGGCGGCCGCGAATTCGCACCAGGCAGGTACAGTC
ACAGCTGTGGGGACAGCATGCTGGCCAAGGGTCTTCCCCCACGCTCAGTCCTGGTCAAAG
GCTGCCAGACCTTTCTGAGTGCCCCCAGGGAGGGGCTGGGGCGTCTCATGGTGCCCACTG
GCGAGGGAGCTGGCATCTCCACCCGCAGTCCTCGCCCCTTCAATGAGATCCCCTCTCCTG
GTGACAATGGCTGGCTAAACCTGTACCATTTCTGGAGGGAGACGGGCACACACAAAGTCC
ACCTTCACCATGTCCAGAATTTCCAGAAGTATGGCCCGATTTACAGGGAGAAGCTCGGCA
ACGTGGAGTCGGTTTATGTCATCGACCCTGAAGATGTGGCCCTTCTCTTTAAGTCCGAGG
GCCCCAACCCAGAACGATTCCTCATCCCGCCCTGNGTCGCCTATCACCAGTATTACCAGA
GACCCATAGGAGTCCTGTTGAAGAAGTCGGCAGCCTGGAAGAAAGACCGGGTGGCCCTGA
ACCAGGAGGTGATGGCTCCAGAGGCCACCAAGAACTTTTTGCCCCTGTTGGATGCAGTGT
CTCGGGACTTCGTCAGTGTCCTGCACAGGCGCATCAAGATAGCGGGCTCCGGATATTACT
CGGNGGACATCAGTGATGACCTGTTCCGCTNTGCCTTTGAGTCCATCACTAACGTCATTN
TTGGGGAGCGCCAGGGGATGCTGGNAGAAGTANTGAACCCCGAGGCCAGCGATTCATTGA
TGCCATCTACCAGATGTTNCACACCAGCGTNCCCATGCTCAACCTTCCCCAGACCCTGTN
NCGTCTGTCAGGACCAGACCTGNAATGACATGNTGCTGCATGGGNACGTGATTTCAGTAA
GCTGACTATACACCAGAACTCTACTGGGAATTGAGACGAAGGGANTGTCACACGATACCG
TGGCATCTCTAGACTCTGGAGAAGCAGATGTCTTCAGGACTAAGGCACGNCANAATCTGC
GNNAGGTGGN

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000781 unedited
NCGCATTGTCACTGTTTTTGTCTTCTGGGGTGGGTNGAANAGAGTGGCCCAGCTGAGCTG
AGGAAGGTGACCACTGNANAACCCATTCAACCTGCTGAGCAGGCTGGGCAGAAAGGAGCA
GGACTTGGGACAGACGACTGAAGATGCAGAGACCCCATGGGCCCCACCCCTGGGCCTTCC
TCCCATGTGGCTGCAGGCCATCCTCTCTGATCACTGCTGGGTTGCTTCCTGGTTAAAGGG
CCAGAAGGTGAAGGAGATGGGCTTTTCAGGCATCAGAATGAGGTTGAATGTGGTGCCCAC
ATCGCTGAGGTGTTGGATTTCAACTCTGAAGTTCTCCAGCATATTGATGAGGAAGATGGT
CATCTCTAGCTCAGCGATCCGCCGTCCCAGACACTGCCGCACACCCCAGCCAAAGCCCAA
GTTCCGGAAGTAGGTGATGTTCTTGTCTTTGCTCAGCCATCGGGTTGGGTCAAAATTTTC
CGGGTCGAAGAAGAAGGTGGGCTCTCGGCCCAGAGCATAGATGGCCACTTGCACCAGTGT
CTTGGCAGGAATCATGTAATCTCGAAGAACCAAGTCATTTACAAGATATCTCTGCAGGGT
CACGGAGATGGGGTGAAGTCTTAGTGTCTCCTTGATGCTGGCTTTGAGGAGGGGGACCAG
CTGTAGCATCGTGGCCATGTCTCCCTGGGCCTGGTGCCGCGCAGCCAAGACCTCTGCCCG
CAGCATATCCTGCACCTTCAGGTTGCGTGCCATCTCATACAAGTGCCACTGCAGGGTCAT
GGACGTCGTGTCCACCCCTTCTGCCAGCATCTCTGTGACCGTGGCCTTGATGTCCTCGAA
GACATTTTGCTGTCTCCCAGNAGTCTGTAGAGGATGCCANCGGTAATCGNGGTGAACACT
TCCTTTCTGTCTCATTNCCAGTAGAAGTCA

Restriction Sites: NotI-NotI

ACCN: NM_000781

Insert Size: 1840 bp

OTI Disclaimer: 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).

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_000781.1, NP_000772.1

RefSeq Size: 1821 bp

RefSeq ORF: 1566 bp

Locus ID: 1583

UniProt ID: P05108

Cytogenetics: 15q24.1

Domains: p450

Protein Families:	Druggable Genome, P450
Protein Pathways:	C21-Steroid hormone metabolism, Metabolic pathways
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. This protein localizes to the mitochondrial inner membrane and catalyzes the conversion of cholesterol to pregnenolone, the first and rate-limiting step in the synthesis of the steroid hormones. Two transcript variants encoding different isoforms have been found for this gene. The cellular location of the smaller isoform is unclear since it lacks the mitochondrial-targeting transit peptide. [provided by RefSeq, Jul 2008] Transcript Variant: This variant (1) encodes the longer isoform (a).