

## **Product datasheet for SC316732**

CYP11A1 (NM 001099773) Human Untagged Clone

## Product data:

**Product Type:** Expression Plasmids

**Product Name:** CYP11A1 (NM 001099773) Human Untagged Clone

Tag: Tag Free Symbol: CYP11A1

Synonyms: CYP11A; CYPXIA1; P450SCC

**Vector:** <u>pCMV6 series</u>

Fully Sequenced ORF: >NCBI ORF sequence for NM\_001099773, the custom clone sequence may differ by one or

more nucleotides

ATGGCTCCAGAGGCCACCAAGAACTTTTTGCCCCTGTTGGATGCAGTGTCTCGGGACTTC GTCAGTGTCCTGCACAGGCGCATCAAGAAGGCGGGCTCCGGAAATTACTCGGGGGACATC AGTGATGACCTGTTCCGCTTTGCCTTTGAGTCCATCACTAACGTCATTTTTGGGGAGCGC CAGGGGATGCTGGAGGAAGTAGTGAACCCCGAGGCCCAGCGATTCATTGATGCCATCTAC CAGATGTTCCACACCAGCGTCCCCATGCTCAACCTTCCCCCAGACCTGTTCCGTCTGTTC AGGACCAAGACCTGGAAGGACCATGTGGCTGCATGGGACGTGATTTTCAGTAAAGCTGAC ATATACACCCAGAACTTCTACTGGGAATTGAGACAGAAAGGAAGTGTTCACCACGATTAC CGTGGCATCCTCTACAGACTCCTGGGAGACAGCAAGATGTCCTTCGAGGACATCAAGGCC AACGTCACAGAGATGCTGGCAGGAGGGGTGGACACGACGTCCATGACCCTGCAGTGGCAC TTGTATGAGATGGCACGCAACCTGAAGGTGCAGGATATGCTGCGGGCAGAGGTCTTGGCT GCGCGGCACCAGGCCCAGGGAGACATGGCCACGATGCTACAGCTGGTCCCCCTCCTCAAA GCCAGCATCAAGGAGACACTAAGACTTCACCCCATCTCCGTGACCCTGCAGAGATATCTT GTAAATGACTTGGTTCTTCGAGATTACATGATTCCTGCCAAGACACTGGTGCAAGTGGCC ATCTATGCTCTGGGCCGAGAGCCCACCTTCTTCTTCGACCCGGAAAATTTTGACCCAACC CGATGGCTGAGCAAAGACAAGAACATCACCTACTTCCGGAACTTGGGCTTTGGCTGGGGT GTGCGGCAGTGTCTGGGACGGCGGATCGCTGAGCTAGAGATGACCATCTTCCTCATCAAT ATGCTGGAGAACTTCAGAGTTGAAATCCAACACCTCAGCGATGTGGGCACCACATTCAAC CTCATTCTGATGCCTGAAAAGCCCATCTCCTTCACCTTCTGGCCCTTTAACCAGGAAGCA

ACCCAGCAG

**Restriction Sites:** Please inquire **ACCN:** NM\_001099773

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).



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## CYP11A1 (NM\_001099773) Human Untagged Clone - SC316732

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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: <u>NM 001099773.1</u>, <u>NP 001093243.1</u>

15q24.1

 RefSeq Size:
 2010 bp

 RefSeq ORF:
 1092 bp

 Locus ID:
 1583

 UniProt ID:
 P05108

Cytogenetics:

**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 (2) uses an alternate first exon compared to variant 1, resulting in the translation start site being located at a downstream AUG. The resulting isoform (b) is

shorter at the N-terminus compared to isoform a.