

Product datasheet for **SC123873**

CYP27B1 (NM_000785) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CYP27B1 (NM_000785) Human Untagged Clone
Tag:	Tag Free
Symbol:	CYP27B1
Synonyms:	CP2B; CYP1; CYP1alpha; CYP27B; P450c1; PDDR; VDD1; VDDR; VDDRI; VDR
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

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>OriGene ORF sequence for NM_000785 edited
GGCGGCCGCGAATTCGGCACGAGGCTGAACCCAGACCATGACCCAGACCCTCAAGTACGCC
TCCAGAGTGTTCATCGCGTCCGCTGGGCGCCCGAGTTGGGCGCCTCCCTAGGCTACCGA
GAGTACCACTCAGCACGCCGGAGCTTGGCAGACATCCCAGGCCCTCTACGCCAGCTTT
CTGGCCGAACTTTTCTGCAAGGGGGGGCTGTCGAGGCTACACGAGCTGCAGGTGCAGGGC
GCCGCGCACTTCGGGCCGGTGTGGCTAGCCAGCTTTGGACAGTGCACACCGTGTACGTG
GCTGCCCTGCACTCGTCGAGGAGCTGCTGCGACAGGAGGACCCCGGCCGAGCGCTGC
AGCTTCTCGCCCTGGACGAGCACCGCCGCTGCCGCCAGCGGGCTTGGGACTGCTCACT
GCGGAAGGCGAAGAATGGCAAAGGCTCCGCACTCTCTGGCCCCGCTCCTCCTCCGGCT
CAAGCGGCCGCCCTACGCCGGAACCCTGAACAACGTAGTCTGCGACCTTGTGCGGCGT
CTGAGGCGCCAGCGGGGACGTGGCACGGGGCCGCCCGCCTGGTTCGGGACGTGGCGGGG
GAATTTTACAAGTTCGGACTGGAAGGCATCGCCGCGGTTCTGCTCGGCTCGCGCTGGGC
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TTTGTGTCCACGCTGTTGACCATGGCGATGCCCACTGGCTGCGCCACCTTGTGCCTGGG
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GAGCGGCAGAGGCAGAGGCAGCCATGAGGAACGGAGGACAGCCCGAGAAGGACCTGGAG
TCTGGGGCGCACCTGACCACTTCTGTTCGGGAAGAGTTGCCTGCCAGTCCATCCTG
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GCTCTGTATGAGCTCTCCCGGCACCCCGAAGTCCAGACAGCACTCCACTCAGAGATCACA
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CTGCTGAAGGCGGTGGTCAAGGAAGTGTAAAGTGTACCCTGTGGTACCTGGAAATTTCT
CGTGTCCCAGACAAAGACATTCATGTGGGTGACTATATTATCCCCAAAAATACGCTGGTC
ACTCTGTGTCATATGCCACTTCAAGGGACCCTGCCAGTTCAGAGCCAAATTTCTTTT
CGTCCAGCTCGCTGGCTGGGGGAGGGTCCACCCCCACCCATTTGCATCTCTTCCCTTT
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GAACCACCATAGTGAAGTGTGAGGCGGCCCTGACCAATGTGTGAAGTATGCACTTGGCCT
GACTCAGGAAGCCAGGTGAGAAAACCATGGTCTCTCTGCTTGGCCCTTCTGATCAT
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GGCCGCGGTACAGCTGTTTCTGAACAGATCCCGGGTGGCATCCCTGTGACCCCTCCC
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000785 unedited
 NGGGTTCCCAATTTGTATACGACNACTATAGGCGGCCGCGNAATTCGCACGAGGCTGAAC
 CAGACCTGACCCAGACCCCTCAGTACGCCTCCAGAGTGTCCATCGCGTCCGCTGGGCGCC
 CGAGTTGGGCGCCTCCCTAGGCTACCGAGAGTACCACTCAGCACGCCGGAGCTTGGCAGA
 CATCCCAGGCCCTCTACGCCAGCTTTCTGGCCGAACTTTTCTGCAAGGGGGGGCTGTC
 GAGGCTACACGAGCTGCAGGTGCAGGGCGCCGCGCACTTCGGGCCGGTGTGGCTAGCCAG
 CTTTGGGACAGTGCACCCGTGTACGTGGCTGCCCTGCACTCGTCGAGGAGCTGCTGCG
 ACAGGAGGGACCCCGGCCGAGCGCTGCAGCTTCTCGCCCTGGACGGAGACCCGCCGCTG
 CCGCCAGCGGGCTTGCAGACTGCTCACTGCGAAAGGCGAAGAATGGCAAAGGCTCCGCGAG
 TCTCTGGCCCCGCTCCTCCTCCGGCTCAAGCGGCCGCCGCTACGCCGGAACCCTGAA
 CAACGTAGTCTGCGACCTTGTGCGGCTCTGAGGCCAGCGGGGACGTGGCACGGGGCC
 GCCCGCCTGGTTCGGGACGTGGCGGGGAATTTACAAGTTCGGACTGGAAGGCATCGC
 CGCGGTTCTGCTCGGCTCGGCTTGGGCTGCCTGGAGGCTCAAGTCCACCGACACGGA
 GACCTTACCCGCTGTGGGCTCGGTGTTTGTGTCCACGCTGTTGACCATGGCGATGCC
 CCACTGGCTGCGCCACCTTGTGCTGGGCCCTGGGGCCGCTCTGCCGAGACTGGGACCA
 GATGTTTGCAATTTGCTCAGAGCACNNTGGAGCGCNAGAGGCANAAGCAGCCATNGAGAAC
 GGNAGACAGCCCCGAGAAG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000785 unedited
 GGAGAGGCACTGGGGAGGGTACAGGGATGCCACCCGGGATCTGTTTCAGGAAACAGCTA
 TGACCGCGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTAAATGGAATATTTGAT
 TTATTCTAAAATTTGTGAATATTTAAAAATTTTCAATATAAAAAGCCAGAGGCCTGGGCA
 GGGACAGGCCAAAGATGTCTCTGCCTGAGAACTAAGTATGGGGCAAACCCACTTAATA
 GTGGCCAGAGAGCAAAGGAGAGTTATAAGAAACCGTAAACCAGGCTAGGGCAGATTACCC
 TTCTAGGGGCAAGACAAAGAAGGAAGGGGTAGACAGAGCCTACTAAGTAAGCTGCTTA
 TCCCTTCTGCCACATGGTTCAGATTCAATCTAAGAATGTGTATGGTGACACCTAGTCAGA
 GACAGGCCCTGGCAGGGGACATAAAAAACAAATAAGGCTTACCCTTCTCTCAAAGAGC
 TTACATGCAAAGACGAAGGACCAACCAGGTACAGACCAGATGCACAGTTACTGAGCTTAT
 GCTTTGATAAATGCTTAGCCAGCAGCATCAATGAACACTATGAAAGCCCCAAAAGAGAGG
 CAGTTGAATCTTCTCAGGCCATCCAGCATTATTAGTTAAAATCTGATTTTCATCCTTGG
 NGGATGCATACATGATCAGAAGGGCCAAGCAAGCAGAGAGACCATGGTTTTCTCACCTGG
 CTTCTGAGTCAGGCCAAGTGCAT

Restriction Sites:

NotI-NotI

ACCN:

NM_000785

Insert Size:

2500 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_000785.3](#), [NP_000776.1](#)

RefSeq Size: 2503 bp

RefSeq ORF: 1527 bp

Locus ID: 1594

UniProt ID: [O15528](#)

Cytogenetics: 12q14.1

Protein Families: Druggable Genome, P450

Protein Pathways: Metabolic pathways, Steroid biosynthesis

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. The protein encoded by this gene localizes to the inner mitochondrial membrane where it hydroxylates 25-hydroxyvitamin D3 at the 1alpha position. This reaction synthesizes 1alpha,25-dihydroxyvitamin D3, the active form of vitamin D3, which binds to the vitamin D receptor and regulates calcium metabolism. Thus this enzyme regulates the level of biologically active vitamin D and plays an important role in calcium homeostasis. Mutations in this gene can result in vitamin D-dependent rickets type I. [provided by RefSeq, Jul 2008]