

Product datasheet for **RC207121**

CYP11A1 (NM_000781) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CYP11A1 (NM_000781) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CYP11A1
Synonyms:	CYP11A; CYPXIA1; P450SCC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC207121 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGGCCAAGGGTCTTCCCCACGCTCAGTCTGGTCAAAGGCTGCCAGACCTTCTGAGTGCCCCA
 GGGAGGGGCTGGGGCTCTCAGGGTGCCACTGGCGAGGGAGCTGGCATCTCCACCCGAGTCTCGCCC
 CTTCAATGAGATCCCCTCTCCTGGTGACAAATGGCTGGCTAAACCTGTACCATTTCTGGAGGGAGACGGG
 ACACACAAAGTCCACCTTACCATTGTCCAGAATTTCCAGAAGTATGGCCCGATTTACAGGGAGAAGCTCG
 GCAACGTGGAGTCGGTTTATGTCATCGACCCTGAAGATGTGGCCCTTCTCTTTAAGTCCGAGGGCCCCAA
 CCCAGAACGATTCTCATCCGCCCTGGTTCGCTATCACCAGTATTACCAGAGACCCATAGGAGTCTGT
 TTGAAGAAGTCGGCAGCCTGGAAGAAAGACCGGGTGGCCCTGAACCAGGAGGTGATGGCTCCAGAGGCCA
 CCAAGAAGTTTTGCCCCTGTTGGATGCAGTGTCTCGGGACTTCGTGAGTGTCTGCACAGGGCCATCAA
 GAAGGCGGGCTCCGAAATTAAGTTCGGGGACATCAGTGTGACCTGTTCCGCTTTGCCTTTGAGTCCATC
 ACTAACGTCATTTTTGGGGAGCGCCAGGGGATGCTGGAGGAAGTGTGAACCCCGAGGCCAGCGATTCA
 TTGATGCCATCTACCAGATGTTCCACACCAGCGTCCCCATGCTCAACCTTCCCCAGACCTGTTCCGTCT
 GTTCAGGACCAAGACCTGGAAGGACCATGTGGCTGCATGGGACGTGATTTTTCAGTAAAGCTGACATATAC
 ACCCAGAACTTCTACTGGGAATTGAGACAGAAAGGAAGTGTTCACCACGATTACCGTGGCATCCTCTACA
 GACTCCTGGGAGACAGCAAGATGTCCTTCGAGGACATCAAGGCCAACGTCACAGAGATGCTGGCAGGAGG
 GGTGGACACGACGTCCATGACCTGCAGTGGCACTTGTATGAGATGGCACGCAACCTGAAGGTGCAGGAT
 ATGCTGCGGGCAGAGGTCTTGGCTGCGCGGCACCAGGCCAGGGAGACATGGCCACGATGCTACAGCTGG
 TCCCCCTCCTCAAAGCCAGCATCAAGGAGACATAAGACTTACCCCATCTCCGTGACCTGCAGAGATA
 TCTTGTAATGACTTGGTTCTTCGAGATTACATGATTCTGCCAAGACACTGGTGAAGTGGCCATCTAT
 GCTCTGGGCCGAGAGCCACCTTCTTTCGACCCGAAAATTTTACCACCCGATGGCTGAGCAAAG
 ACAAGAACATCACCTACTTCCGAACTTGGGCTTTGGCTGGGGTGTGCGCAGTGTCTGGGACGGCGGAT
 CGCTGAGCTAGAGATGACCATCTTCTCATCAATATGCTGGAGAACTTCAGAGTTGAAATCCAACACCTC
 AGCGATGTGGCACCACATTCAACCTATTCTGATGCCTGAAAAGCCATCTCCTTACCTTCTGGCCCT
 TTAACCAGGAAGCAACCCAGCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC207121 protein sequence
 Red=Cloning site Green=Tags(s)

MLAKGLPPRSVLVKGCQTFLSAPREGLRGLRVPTGEGAGISTRSPRFNEIPSPGDNGWLNLYHFWRETG
 THKVHLHHVQNFQKYGPIYREKLGNEVSVYVIDPEDVALLFKSEGNPERFLIPPWVAYHQYYQRP
 LKKSAAWKKDRVALNQEVMPEATKNFLPLLDVSRDFVSVLHRRIKKAGSGNYSGDISDDLFRFAFESI
 TNVIFGERQGMLEEVNPEAQRFIGDAIYQMFHTSVPMLNLPDDLFRFTKTWKDHAADVIFSKADIY
 TQNFYWELRQKGSVHHDYRGILYRLLGDSKMSFEDIKANVTEMLAGGVDTTSMTLQWHL YEMARNLKVQD
 MLRAEVLAAHQQAQGDMA TMLQLVPLLKASIKETLR LHPISVTLQRYLVNDLVLRDYMIPAKTLVQVAIY
 ALGREPTFFFDPENFDPTRWLSKDKNITYFRNLGFGWVGRQCLGRRIAELEM TIFLINMLENFRVEIQHL
 SDVGTTFNLILMPEKPISTFWPFNQEATQQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6020_a05.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_000781

ORF Size: 1563 bp

OTI Disclaimer: 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](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_000781.3](#)

RefSeq Size: 1936 bp

RefSeq ORF: 1566 bp

Locus ID: 1583

UniProt ID: [P05108](#)

Cytogenetics: 15q24.1

Domains: p450

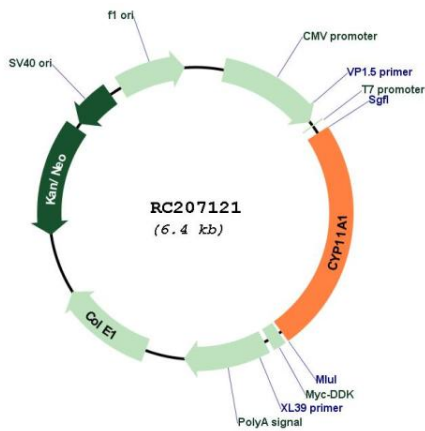
Protein Families: Druggable Genome, P450

Protein Pathways: C21-Steroid hormone metabolism, Metabolic pathways

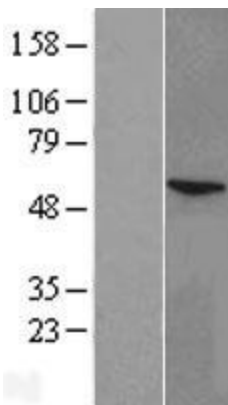
MW: 60.1 kDa

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]

Product images:



Circular map for RC207121



Western blot validation of overexpression lysate (Cat# [LY424523]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207121 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).