

## Product datasheet for **RC216551**

### **CYP11B1 (NM\_000497) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CYP11B1 (NM_000497) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CYP11B1
Synonyms:	CPN1; CYP11B; FHI; P450C11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC216551 representing NM\_000497  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCACTCAGGGCAAAGGCAGAGGTGTGCATGGCAGTGCCTGGCTGTCCCTGCAAAGGGCACAGGCAC  
 TGGGCACGAGAGCCGCCGGTCCCCAGGACAGTGTGCCCTTTGAAGCCATGCCCGGGCTCCAGGCAA  
 CAGGTGGCTGAGGCTGCTGCAGATCTGGAGGGAGCAGGGTTATGAGGACCTGCACCTGGAAGTACACCA  
 ACCTTCCAGAACTAGGGCCATTTTCAGGTACGACTTGGGAGGAGCAGGCATGGTGTGTGTGATGCTGC  
 CGGAGGACGTGGAGAAGCTGCAACAGGTGGACAGCCTGCATCCCCACAGGATGAGCCTGGAGCCCTGGGT  
 GGCCTACAGACAACATCGTGGGCACAAATGTGGCGTGTCTTGTCTGAATGGGCTGAATGGCGCTTCAAC  
 CGATTGCGGTGAATCCAGAAGTGTGTCGCCAACGCTGTGCAGAGGTTCTCCCGATGGTGGATGCAG  
 TGGCCAGGGACTTCTCCAGGCCCTGAAGAAGAAGGTGTGCAGAACGCCGGGGGAGCCTGACCCTGGA  
 CGTCCAGCCCAGCATCTCCACTACACCATAGAAGCCAGCAACTTGGCTCTTTTTGGAGAGCGGCTGGGC  
 CTGGTTGGCCACAGCCCCAGTTCTGCCAGCCTGAACTTCTCCATGCCCTGGAGGTCATGTTCAAATCCA  
 CCGTCCAGCTCATGTTTCATGCCAGGAGCCTGTCTCGCTGGACCAGCCCCAAGGTGTGGAAGGAGCACTT  
 TGAGGCCTGGGACTGCATCTTCCAGTACGGCGACAACGTATCCAGAAAACTATCAGGAACTGGCCTTC  
 AGCCGCCCTCAACAGTACACCAGCATCGTGGCAGAGCTCCTGTTGAATGCCGAACTGTGCCAGATGCCA  
 TCAAGGCCAACTCATGGAACCTACTGCAGGGAGCGTGGACACGACGGTGTTCCTTGTGTGATGACGCT  
 CTTTGAGCTGGCTCGGAACCCCAACGTGCAGCAGGCCCTGCGCCAGGAGACCTGGCCGCCGAGCCAGC  
 ATCAGTGAACATCCCCAGAAGGCAACCACCGAGCTGCCCTTGTCTGCTGCGGCCCTCAAGGAGACCTTGC  
 GGCTTACCCTGTGGGTCTGTTTCTGGAGCGAGTGGCAGCTCAGACTTGGTGTCTCAGAATAACACAT  
 CCCAGCTGGGACATTGGTGCAGCTGTTCTCTACTCTCTGGGTGCAACCCCGCCTTGTTCGCCAGGCT  
 GAGCGCTATAACCCAGCGCTGGCTAGACATCAGGGGCTCCGGCAGGAACCTTACCACGTGCCCTTGT  
 GCTTTGGCATGCGCCAGTGCCTTGGGCGCGCCTGGCAGAGGCAGAGATGCTGCTGCTGCTGCACCATGT  
 GCTGAAACACCTCCAGGTGGAGACATAACCCAAGAGGACATAAAGATGGTCTACAGCTTATATTGAGG  
 CCCAGCATGTTCCCTCCTCACCTTACAGCCATCAAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC216551 representing NM\_000497  
 Red=Cloning site Green=Tags(s)

MALRAKAEVCMVWPWLSLQRAQALGTRARVPRTVLPFEAMPRRPGNRWLRLLQIWRQGYEDLHLEVHQ  
 TFQELGPIFRYDLGGAGMVCVMLPEDVEKLQQVDSLPHRMSLEPWVAYRQHRGHKCGVFLNNGPEWRFN  
 RLRLNPEVLSNVAVQRFLPMVDAVARDFSQALKKKVLQNARGSLTLDVQPSIFHYTIEASNLALFGERLG  
 LVGHSPSSASLNFLHALEVMFKSTVQLMFMPSLSRWTSKPVWKEHFEAWDCIFQYGDNCIQKIYQELAF  
 SRPQQYTSIVAELLLNAELSPDAIKANSMELTAGSVDTTVFPLMLTFLARNPNVQQALRQESLAAAAAS  
 ISEHPQKATTEPLLLRAALKETLRLYPVGLFLERVASSDLVLQNYHIPAGTLVRVFLYSLGRNPALFPRP  
 ERYNPQRWLDIRGSGRNFYHVPFGFGRQCLGRRLAEAEMLLLLHHVLKHLQVETLTQEDIKMVYSFILR  
 PSMFPLLTFRAIN

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6096\\_c01.zip](https://cdn.origene.com/chromatograms/mk6096_c01.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_000497

**ORF Size:** 1509 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_000497.4](#)

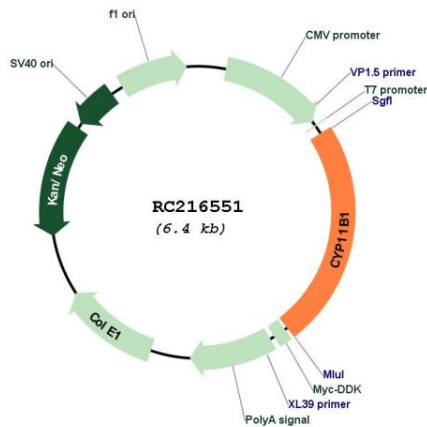
**RefSeq Size:** 3551 bp

**RefSeq ORF:** 1512 bp

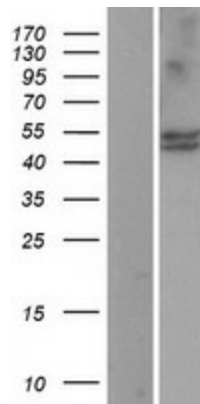
**Locus ID:** 1584

**UniProt ID:** [P15538](#)  
**Cytogenetics:** 8q24.3  
**Protein Families:** Druggable Genome, P450  
**Protein Pathways:** Androgen and estrogen metabolism, C21-Steroid hormone metabolism, Metabolic pathways  
**MW:** 57.57 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 is involved in the conversion of progesterone to cortisol in the adrenal cortex. Mutations in this gene cause congenital adrenal hyperplasia due to 11-beta-hydroxylase deficiency. Transcript variants encoding different isoforms have been noted for this gene. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RC216551



Western blot validation of overexpression lysate (Cat# [LY400168]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216551 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).