

## Product datasheet for **RG204606**

### **CYP4B1 (NM\_000779) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CYP4B1 (NM_000779) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CYP4B1
Synonyms:	CYPIVB1; P-450HP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG204606 representing NM\_000779  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTGCCAGCTTCTCTCCCTGAGCTTCTCTCTTGGCCTGTGGGCTTCTGGGCTGATCTTGGTCT  
 TAGGCTTTCTCAAGCTCATCCACCTGCTGCTGCGGAGGCAGACGTTGGCTAAGGCTATGGACAAATCC  
 AGGGCCTCCCACCCACTGGCTTTTTGGACATGCCCTCGAGATCCAGGAGACGGGAGCCTGGACAAAGT  
 GTGTCCTGGGCCACCAGTTCCTGATGCCACCCACTCTGGTTCGGACAGTTCATTGGCTTCTGAACA  
 TCTATGAGCCTGACTATGCCAAAGCTGTGTACAGCCGTGGGGACCCTAAGGCCCTGATGTGTACTT  
 CTCTCCAGTGGATTGGGAGAGGCTGCTGGTCTTGGGGGCCAAGTGGTTCAGCAGCCGAAGCTG  
 CTCACACCTGGCTTTCATTATGATGTGCTGAAGCCCTATGTGGCCGTGTTCACTGAGTCTACACGTATCA  
 TGCTGGACAAGTGGGAAGAGAAAGCTCGGGAGGGTAAGTCCTTTGACATCTTCTGCGATGTGGGTACAT  
 GCGCTGAACACACTCATGAAGTGCACCTTTGGAAGAGGAGACACCGCCTGGGCCACAGCAGGGACAGC  
 AGCTACTACCTTGCAGTACGATCTCACTCTGTTGATGCAGCAGCGCCTTGTGTCTTCCAGTACCATA  
 ATGACTTCATCTACTGGCTCACCCACATGGCCGCGCTTCTGCGGGCCTGCCAGTGGCCATGACCA  
 TACAGACCAGGTCATCAGGGAGCGGAAGGCAGCCCTGCAGGATGAGAAGGTGCGGAAGAAGTCCAGAAC  
 CGGAGGCACCTGGACTTCTGGACATTCCTGGGTGCCCGGATGAAGATGACATCAAAGTGCAGATG  
 CAGACCTCCGGCTGAAGTGGACACATTCATGTTGAAGGCCATGACACCACCACAGTGGTATCTCCTG  
 GTTCTCTACTGCATGGCCCTGTACCCTGAGCACCAGCATCGTTGAGAGAGGAGTCCGCGAGATCCTA  
 GGGGACCAGGACTTCTCCAGTGGGATGATCTGGGCAAAATGACTTATCTGACCATGTGCATCAAGGAGA  
 CGTCCGCTCTACCCACCTGTGCCAGGTGTACCGCCAGCTCAGCAAGCCTGTCACCTTTGTGGATGG  
 CCGGTCTCTACCTGCAGGAAGCCTGATCTCTATGCATATCTATGCCCTCCATAGGAACAGTGTGTATGG  
 CCCGACCTGAGGTCTTGGACTCTGCGCTTTCCACTGAGAATGCATCCAAACGCCATCCCTTTGCC  
 TTATGCCCTTCTGCTGGGCCAGGAAGTGCATTGGGCAGCAGTTTGCATGAGTGAGATGAAGGTGGT  
 CACAGCCATGTGCTTGTCCGCTTTGAGTCTCTCTGGACCCCTCACGGCTGCCATCAAGATGCCCCAG  
 CTTGCTCTGCGCTCAAGAATGGCTTTCACCTCCACCTGAAGCCACTGGGCCCTGGGTCTGGGAAG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG204606 representing NM\_000779  
 Red=Cloning site Green=Tags(s)

MVPSFSLSFSSGLLWASGLLVLGFLKLIHLLLRQTLAKAMDKFPGPPTHWLFHGLEIQTGSLDKV  
 VSWAHQFPYAHPLWFGQFIGFLNIYEPDYAKAVYSRDPKAPDVYDFLQWIGRLLVLEGPKWLQHRKL  
 LTPGFHYDVLKPYVAVFTSTRIMLDKWEKAREGKSFDIFCDVGHMALNTLMKCTFGRGDTGLGHSRDS  
 SYYLAVSDLTLLMQRLVSFQYHNDFIYWLTPHGRRFLRACQVAHDHTDQVIRERKAALQDEKVRKKIQN  
 RRHLDFLDILLGARDEDDIKLSDADLRAEVDTFMFEGHDTTSGISWFLYCMALYPEHQHRCREEVREIL  
 GDQDFQWDDLKMTYLTMCIKESFRLYPPVPQVYRQLSKPVTFVDGRSLPAGSLISMHIYALHRNSAVW  
 PDPEVFDLSLRFSTENASKRHPFAFMPFSAGPRNCIGQQFAMSEMKVVTAMCLLRFEFSLDPSRLPIKMPQ  
 LVLRSKNGFHLHLKPLPGSGK

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



ACCN: NM\_000779

ORF Size: 1536 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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).

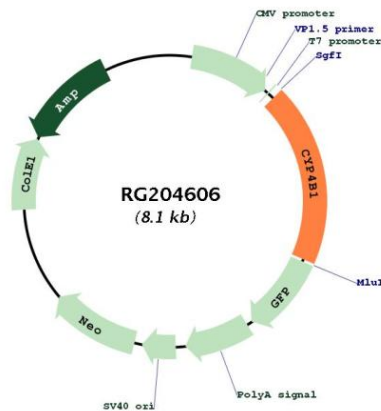
- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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\\_000779.2](#), [NP\\_000770.1](#)

**RefSeq Size:** 2147 bp  
**RefSeq ORF:** 1536 bp  
**Locus ID:** 1580  
**UniProt ID:** [P13584](#)  
**Cytogenetics:** 1p33  
**Domains:** p450  
**Protein Families:** Druggable Genome, P450, Transmembrane

**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 endoplasmic reticulum. In rodents, the homologous protein has been shown to metabolize certain carcinogens; however, the specific function of the human protein has not been determined. Multiple transcript variants have been found for this gene. [provided by RefSeq, Jan 2016]

**Product images:**



Circular map for RG204606