

## Product datasheet for **RG204605**

### Cytochrome P450 2C8 (CYP2C8) (NM\_000770) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cytochrome P450 2C8 (CYP2C8) (NM_000770) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cytochrome P450 2C8
Synonyms:	CPC8; CYP2C8DM; CYPIIC8; MP-12/MP-20
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG204605 representing NM\_000770  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGGAACCTTTTGTGGTCTGGTGTCTCTCTCTTTATGCTTCTCTTTTCACTCTGGAGACAGAGCT  
 GTAGGAGAAGGAAGCTCCCTCCTGGCCCCACTCCTCTTCTATTATTGGAATATGCTACAGATAGATGT  
 TAAGGACATCTGCAAAATCTTCCACCAATTTCTCAAAGTCTATGGTCTGTGTTACCGGTATTTTGGC  
 ATGAATCCCATAGTGGTGTTCATGGATATGAGTCAGTGAAGGAAGCCCTGATTGATAATGGAGAGGAGT  
 TTTCTGGAAGAGGCAATCCCAATATCTCAAAGAATTACTAAAGGACTTGAATCATTTCCAGCAATGG  
 AAAGAGATGGAAGGAGATCCGGCGTTTCTCCCTCACACCTTGCAGGAATTTGGGATGGGGAAGAGGAGC  
 ATTGAGGACCGTGTCAAGAGGAAGCTCACTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCTTCACCT  
 GTGATCCCACTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCGTTGTTTTCCAGAAACGATT  
 TGATTATAAAGATCAGAATTTTCTCACCTGATGAAAAGATTCAATGAAAACCTCAGGATTCTGAACTCC  
 CCATGGATCCAGGTCTGCAATAATTTCCCTCTACTCATTGATTGTTTCCAGGAACCTCACAAACAAAGTGC  
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 GAATTCATATTGAAAACCTGGTTGGCACTGTAGCTGATCTATTTGTTGCTGGAACAGAGACAACAAGCA  
 CCACTCTGAGATATGGACTCCTGCTCCTGCTGAAGCACCAGAGGTACAGCTAAAGTCCAGGAAGAGAT  
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 GTAGTGCACGAGATCCAGAGATACAGTGACCTTGTCCCACCGGTGTGCCCATGCAGTGACCCTGATA  
 CTAAGTTCAGAACTACCTCATCCCAAGGGCACAACCAATAATGGCATTACTGACTCCGTGCTACATGA  
 TGACAAAAGAATTCCTAATCCAAATATCTTTGACCTGGCCACTTCTAGATAAGAATGGCAACTTTAAG  
 AAAAGTGACTACTTATGCCTTTCTCAGCAGGAAAACGAATTTGTGCAGGAGAAGGACTTCCCCGCATGG  
 AGCTATTTTTATTCTAACCAATTTTACAGAACTTTAACCTGAAATCTGTTGATGATTTAAAGAACCT  
 CAATACTACTGCAGTTACCAAAGGATTGTTTCTCTGCCACCCTCATACCAGATCTGCTTATCCCTGTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG204605 representing NM\_000770  
 Red=Cloning site Green=Tags(s)

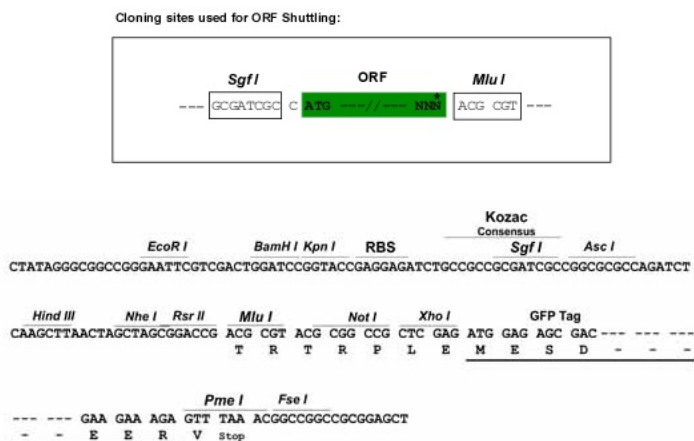
MEPFVVLVLCFSMLLFSLWRQSCRRLPPGPTPLPIIGNMLQIDVKDICKSFTNFSKVYGPVFTVYFG  
 MNPIVVFHGYESVKEALIDNGEEFSGRGNPISQRITKGLGISSNGKRWKEIRRFSLTTLRNFNGMKRS  
 IEDRVQEEAHCLVEELRKTAKSPCDPTFILGCAPCNVICSVVVFQKRFDYKDQNFLTMKRFNENFRILNS  
 PWIQVCNNFPLLIDCFPGTHNKVLKNVALTRSYIREKVKEHQASLDVNNPRDFIDCFLIKMEQEKDNQKS  
 EFNIENLVGTVDLFDVAGTETTSTLRYGLLLLLKHPEVTAKVQEEIDHVIGRHRSPCMQDRSHMPYTD  
 VVHEIQRYSDLVPTGVPHAVTTDTKFRNYLIPKGTTIMALLTSVLHDDKEFPNPNIFDPGHFLDKNGNFK  
 KSDYFMPFSAGKRICAGEGLARMELFLFTTILQFNLSVDDLKLNLTAVTKGIVSLPPSYQICFIPV

TRTRPLE - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



ACCN: NM\_000770

ORF Size: 1470 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](#)

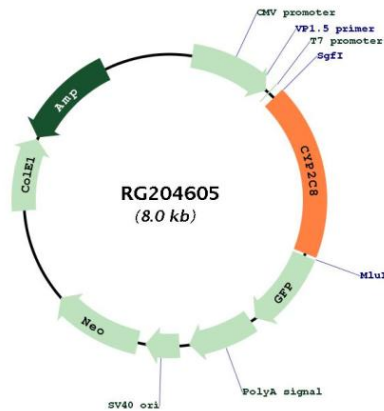
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<a href="#">NM_000770.3</a> , <a href="#">NP_000761.3</a>
RefSeq Size:	1924 bp
RefSeq ORF:	1473 bp
Locus ID:	1558
UniProt ID:	<a href="#">P10632</a>
Cytogenetics:	10q23.33
Domains:	p450
Protein Families:	Druggable Genome, P450, Transmembrane
Protein Pathways:	Arachidonic acid metabolism, Drug metabolism - cytochrome P450, Linoleic acid metabolism, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Retinol metabolism
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 and its expression is induced by phenobarbital. The enzyme is known to metabolize many xenobiotics, including the anticonvulsive drug mephenytoin, benzo(a)pyrene, 7-ethoxycoumarin, and the anti-cancer drug taxol. This gene is located within a cluster of cytochrome P450 genes on chromosome 10q24. Several transcript variants encoding a few different isoforms have been found for this gene. [provided by RefSeq, Nov 2010]

**Product images:**



Circular map for RG204605