

Product datasheet for **RG223201**

Cytochrome P450 4A (CYP4A11) (NM_000778) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cytochrome P450 4A (CYP4A11) (NM_000778) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cytochrome P450 4A
Synonyms:	CP4Y; CYP4A2; CYP4A11; CYP4A11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG223201 representing NM_000778
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGAGTGTCTCTGTGCTGAGCCCCAGCAGACTCCTGGGTGATGTCTCTGGAATCCTCCAAGCGCCCTCCC
 TGCTCATTCTGCTTCTGCTGCTGATCAAGGCAGTTCAGCTCTACCTGCACAGGCAGTGGCTGCTCAAAGC
 CCTCCAGCAGTTCCTCGTCCCTCCCTCCCACTGGCTCTTCGGGCACATCCAGGAGCTCCAACAGGACCAG
 GAGCTACAACGGATTAGAAATGGGTGGAGACATCCCAAGTGCCTGTCCTATTGGCTATGGGGAGGCA
 AAGTTCGTGTCCAGCTCTATGACCCTGACTATATGAAGGTGATTCTGGGGAGATCAGACCCGAAATCCCA
 TGGTTCCTACAGATTCTGGCTCCATGGATTGGGTACGGCTTCTCTGTTGAATGGGCAGACATGGTTC
 CAGCATCGACGGATGCTGACCCAGCCTCCACTATGACATCCTGAAGCCCTATGTGGGGCTCATGGCAG
 ACTCTGTACGAGTGTGTTGACAAAATGGGAAGAGCTCCTTGCCAGGATCCCCTCTGGAGGTCTTTCA
 GCAGTCTCCTTGATGACCCTGGACACCATCATGAAGTGTGCCTCAGCCATCAGGGCAGCATCCAGGTG
 GACAGGAATTCTAGTCCCTACATACAGGCCATTAGTGACCTGAACAACCTGGTTTTTTCCCGTGTGAGGA
 ATGCCTTTTACCAGAATGACACCATCTACAGCCTGACCTCTGCTGGCCGCTGGACACACCCGCGCTGCCA
 GCTGGCCCATCAGCACACAGACCAAGTATCCAAGTGGAGGAGCTCAACTACAGAAGGAGGGGGAGCTG
 GAGAAGATCAAGAGGAAGAGGCATTTGGATTTTCTGGATATCCTCCTCTTGCCAAAATGGAGAATGGGA
 GCATCTTGTGAGACAAGGACCTCCGTGCTGAGGTGGACACGTTTATGTTTGGGGCCACGACACCACAGC
 CAGTGGGATCTCCTGGATCCTCTATGCTCTGGCCACACACCCCAAGCATCAGGAGAGGTGCCGGGAGGAG
 ATCCACAGCCTCCTGGGTGATGGAGCCTCCATCACCTGGAACACCTGGACCAGATGCCCTACACCACCA
 TGTGCATTAAGGAGGCACTGAGGCTCTACCCACCGTGCCAGGCATTGGCAGAGAGCTCAGCACTCCCCT
 CACCTTCCCTGATGGGCGCTCCTTGCCCAAAGGTATCATGGTCCCTCTCCATTTATGGCCTTACCAC
 AACCCAAAAGTGTGGCCAAACCCAGAGGTGTTGACCCTTCCCGTTTTGACCGGTTTCTGCTCAACACA
 GCCACGCTTCTGCCCTTCTCAGGAGGATCAAGGAACGATCGGGAAACAATTTGCCATGAACGAGCT
 GAAGGTGGCCACGGCCCTGACCCTGCTCCGCTTTGAGCTGCTGCCTGATCCCACCAGGATCCCCATCCCC
 ATTGACGACTTGTGTTGAAATCCAAAATGGAATCCACCTGCGTCTCAGGAGGCTCCCTAACCTTGTG
 AAGACAAGGACCAGCTT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG223201 representing NM_000778
 Red=Cloning site Green=Tags(s)

MSVSVLSPSRLLDVSGILQAASLLILLLLIKAVQLYLHRQWLLKALQQFPCPPSHWLFGHIQELQQDQ
 ELQRIQKWVETFPSACPHWLWGGKVRVQLYDPDYMKVILGRSDPKSHGSYRFLAPWIGYGLLLLNGQTWF
 QHRRMLTPAFHYDILKPYVGLMADSVRVMLEKWEELLGQDSPLEVFQHVSLMTLDTIMKCAFHQGSIQV
 DRNSQSYIQAISDLNLFVSRVRNAFHQNDTIYSLTSAGRWTHRACQLAHQHTDQVIQLRKAQLQKEGEL
 EKIKRKRHLDFLDILLAKMENGSIKSDKDLRAEVDTFMFEGHDTTASGISWILYALATHPKHQERCREE
 IHSLLDGASITWNHLDQMPYTTMCIKEALRLYPPVPGIGRELSTPVTFPDGRSLPKGIMVLLSIYGLHH
 NPKVWPNEVFDPSRFAPGSAQHSFLPFSGSRNICIGKQFAMNELKVATALTLRFFELLDPDTRIPIP
 IARLVLKSNGIHLRLRRLPNPCEDKDQL

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_000778

ORF Size: 1557 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 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.

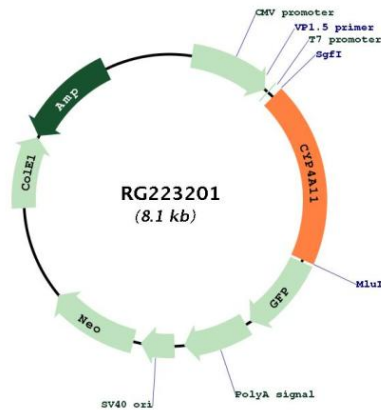
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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_000778.2](#), [NP_000769.1](#)

RefSeq Size:	2815 bp
RefSeq ORF:	1560 bp
Locus ID:	1579
UniProt ID:	Q02928
Cytogenetics:	1p33
Domains:	p450
Protein Families:	Druggable Genome, P450, Transmembrane
Protein Pathways:	Arachidonic acid metabolism, Fatty acid metabolism, Metabolic pathways, PPAR signaling pathway, Retinol metabolism, Vascular smooth muscle contraction
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 hydroxylates medium-chain fatty acids such as laurate and myristate. Multiple transcript variants have been found for this gene. [provided by RefSeq, Jan 2016]

Product images:



Circular map for RG223201