

Product datasheet for **RG205446**

CYP46 (CYP46A1) (NM_006668) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | CYP46 (CYP46A1) (NM_006668) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | CYP46 |
| Synonyms: | CP46; CYP46 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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ORF Nucleotide Sequence:

>RG205446 representing NM_006668
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGCCCGGGCTGCTGCTGCTCGGCAGCGCCGTCTGCTCGCCTTCGGCTCTGCTGCACCTTCGTGC
 ACCGCGCTCGCAGCCGCTACGAGCACATCCCCGGGCCCGCGGCCAGTTTCCTCTAGGACACCTCCC
 CTGCTTTTGAAAAAGGATGAGTTGGTGGCCGTGTGCTCCAAGATGTGTTTTGGATTGGGCTAAGAAG
 TATGGACCTGTTGTGCGGGTCAACGTCTCCACAAAACCTCAGTCATCGTCACGAGTCTGAGTCGGTTA
 AGAAGTTCCTGATGTCAACCAAGTACAACAAGGACTCCAAGATGTACCGTGCCTCCAGACTGTGTTGG
 TGAGAGACTCTTCGCCAAGGCTTGGTGTCCGAATGCAACTATGAGCGCTGGCACAAGCAGCGGAGAGTC
 ATAGACCTGGCCTTCAGCCGGAGCTCCTTGGTTAGCTTAATGAAACATTCAACGAGAAGGCTGAGCAGC
 TGGTGGAGATTCTAGAAGCCAAGGCAGATGGGCAGACCCAGTGTCCATGCAGGACATGCTGACCTACAC
 CGCCATGGACATCTGGCCAAGGCAGCTTTGGGATGGAGACCAGTATGCTGCTGGGTGCCAGAAGCCT
 CTGTCCCAGGCAGTGAACTTATGTTGGAGGGAATCACTGCGTCCCGCAACTCTGGCAAAGTTCTCTGC
 CAGGGAAGAGGAAGCAGCTCCGGGAGGTCCGGGAGAGCATTTCGCTTCTGCGCCAGGTGGCAGGGACTG
 GGTCCAGCGCCGCGGGAAGCCCTGAAGAGGGGCGAGGAGTTTCCTGCCGACATCCTCACACAGATTCTG
 AAAGCTGAAGAGGGAGCCAGGACGACGAGGGTCTGCTGGACAACCTTCGTACCTTCTTCATTGCTGGTC
 ACGAGACCTCTGCCAACCACTTGGCGTTCACAGTGATGGAGTGTCTCGCCAGCCAGAGATCGTGGCAAG
 GCTGCAGGCCGAGGTGGATGAGGTCAATGGTCTAAGAGGTACCTGGATTCGAGGACCTGGGGAGACTG
 CAGTACCTGTCCCAGTCTCAAAGAGTCTGAGGCTGTACCCACCAGCATGGGGCACCTTTCGCTGTC
 TGAAGAGGAGACCTTGATTGATGGGGTCAAGTCCCCGGCAACACCCCGCTCTTGTTCAGCACATGATG
 CATGGGGCGGATGGACACATACTTTGAGGACCCGCTGACTTTCAACCCCGATCGCTTCGGCCCTGGAGCA
 CCCAAGCCACGGTTCACCTACTTCCCCTTCTCCCTGGGCCACCGCTCCTGCATCGGGCAGCAGTTTGCTC
 AGATGGAGGTGAAGGTGGTCAAGGCAAGCTGCTGCAGAGGCTGGAGTTCGGCTGGTCCCGGGCAGCG
 CTTCCGGCTGCAGGAGCAGGCCACACTCAAGCCACTGGACCCCGTGTGTGCACCCTGCGGCCCGCGGGC
 TGGCAGCCCGCACCCACCACCCCTGC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG205446 representing NM_006668
 Red=Cloning site Green=Tags(s)

MSPGLLLLGSVLLAFGLCCTFVHRARSRYEHIIPGPPRPSFLLGHLPCFWKKDEVGGRVLQDVFLDWAKK
 YGPVVRVNVFHKTSVIVTSPESVKKFLMSTKYNKDSKMYRALQTVFGERLFGQGLVSECNRYERWHKQRRV
 IDLAFSRSSLVSLMETFNEKAEQLVEILEAKADGQTPVSMQDMLTYTAMDILAKAAFGMETSMLLGAQKP
 LSQAVKLMLEGITASRNTLAKFLPGKRKQLREVRESIRFLRQVGRDWWQRRREALKRGEEVPADILTQIL
 KAEEGAQDDEGLLDNFVFFIAGHETSANHLAFTVMELSRQPEIVARLQAEVDEVIKSKRYLDFEDLGRLL
 QYLSQVLKESRLYPPAWGTFRLLEEETLIDGVRVPGNTPLLFSTYVMGRMDTYFEDPLTFNPDRFGPGA
 PKPRFTYFPFSLGHRSCIGQQFAQMEVKVVMKLLQRLEFRLVPGQRFGLQEATLKLPLDPVLCRLPRG
 WQPAPPPPPC

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_006668

ORF Size: 1500 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_006668.2](#)

RefSeq Size: 2138 bp

RefSeq ORF: 1503 bp

Locus ID: 10858

UniProt ID: [Q9Y6A2](#)

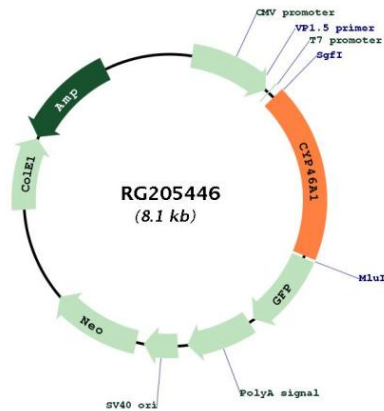
Cytogenetics: 14q32.2

Protein Families: Druggable Genome, P450

Protein Pathways: Primary bile acid biosynthesis

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 endoplasmic reticulum protein is expressed in the brain, where it converts cholesterol to 24S-hydroxycholesterol. While cholesterol cannot pass the blood-brain barrier, 24S-hydroxycholesterol can be secreted in the brain into the circulation to be returned to the liver for catabolism. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG205446