

Product datasheet for **RC205446**

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:	Myc-DDK
Symbol:	CYP46
Synonyms:	CP46; CYP46
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC205446 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGCCCGGGCTGCTGCTGCTCGGCAGCGCCGTCTGCTCGCCTTCGGCTCTGCTGCACCTTCGTGC
 ACCGCGCTCGCAGCCGCTACGAGCACATCCCCGGGCCCGCGGCCAGTTTCCTTCTAGGACACCTCCC
 CTGCTTTTGGAAAAAGGATGAGTTGGTGGCCGTGTGCTCCAAGATGTGTTTTGGATTGGGCTAAGAAG
 TATGGACCTGTTGTGCGGGTCAACGTCTCCACAAAACCTCAGTCATCGTCACGAGTCTGAGTCGGTTA
 AGAAGTTCCTGATGTCAACCAAGTACAACAAGGACTCCAAGATGTACCGTGCCTCCAGACTGTGTTGG
 TGAGAGACTCTTCGGCCAAGGCTTGGTGTCCGAATGCAACTATGAGCGCTGGCACAAGCAGCGGAGAGTC
 ATAGACCTGGCCTTCAGCCGGAGCTCCTTGGTTAGCTTAATGGAAACATTCAACGAGAAGGCTGAGCAGC
 TGGTGGAGATTCTAGAAGCCAAGGCAGATGGGCAGACCCAGTGTCCATGCAGGACATGCTGACCTACAC
 CGCCATGGACATCTGGCCAAGGCAGCTTTTGGGATGGAGACCAGTATGCTGCTGGGTGCCAGAAGCCT
 CTGTCCCAGGCAGTGAACTTATGTTGGAGGGAATCACTGCGTCCCGCAACTCTGGCAAAGTTCTCTGC
 CAGGGAAGAGGAAGCAGCTCCGGGAGGTCCGGGAGAGCATTTCGCTTCTGCGCCAGGTGGCAGGGACTG
 GGTCCAGCGCCGCGGGAAGCCCTGAAGAGGGGCGAGGAGTTCCCTGCCGACATCCTCACACAGATTCTG
 AAAGCTGAAGAGGGAGCCAGGACGACGAGGGTCTGCTGGACAACCTTCGTACCTTCTTATTGCTGGTC
 ACGAGACCTCTGCCAACCACTTGGCGTTCACAGTGATGGAGTGTCTCGCCAGCCAGAGATCGTGGCAAG
 GCTGCAGGCCGAGGTGGATGAGGTCAATTGGTCTAAGAGGTACCTGGATTTCGAGGACCTGGGGAGACTG
 CAGTACCTGTCCCAGGTCTCAAAGAGTCTGAGGCTGTACCCACCAGCATGGGGCACCTTTCGCTGCTG
 TGAAGAGGAGACCTTGATTGATGGGGTCAGAGTCCCCGGCAACACCCCGCTCTTGTTCAGCACCTATGT
 CATGGGGCGGATGGACACATACTTTGAGGACCCGCTGACTTTCAACCCCGATCGCTTCGGCCCTGGAGCA
 CCCAAGCCACGGTTCACCTACTTCCCCTTCTCCCTGGGCCACCGCTCCTGCATCGGGCAGCAGTTTGCTC
 AGATGGAGGTGAAGGTGGTCAATGGCAAAGCTGCTGCAGAGGCTGGAGTTCGGCTGGTCCCGGGCAGCG
 CTTCCGGCTGCAGGAGCAGGCCACACTCAAGCCACTGGACCCCGTGTGTGCACCCTGCGGCCCCCGGGC
 TGGCAGCCCGCACCCACCACCCCTGC

**ACGGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA**

Protein Sequence:

>RC205446 protein sequence
 Red=Cloning site Green=Tags(s)

MSPGLLLLGSVLLAFGLCCTFVHRARSRYEHIPGPPRPSFLLGHLPCFWKKDEVGGRVLQDVFLLDWAKK
 YGPVVRVNVFHKTSVIVTSPESVKKFLMSTKYNKDSKMYRALQTVFGERLFGQLVSECNYERWHKQRRV
 IDLAFSRSSLVSLMETFNEAEQLVEILEAKADGQTPVSMQDMLTYTAMDILAKAAFGMETSMLLGAQKP
 LSQAVKLMLEGITASRNTLAKFLPGKRKQLREVRESIRFLRQVGRDWWQRRREALKRGEVVPADILTQIL
 KAEEGAQDDEGLLDNFVTFIAGHETSANHLAFTVMELSRQPEIVARLQAEVDEIVGSKRYLDFEDLGRLL
 QYLSQLKESRLRYPPAWGTFRLLEEETLIDGVRVPGNTPLLFSTYVMGRMDTYFEDPLTFNPDRFGPGA
 PKPRFTYFPFSLGHRSCIGQQAQMEVKVVMKLLQRLEFRLVPGQRFGLQEATLKLPLDPVLCVLRPRG
 WQPAPPPPPC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6226_f09.zip

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

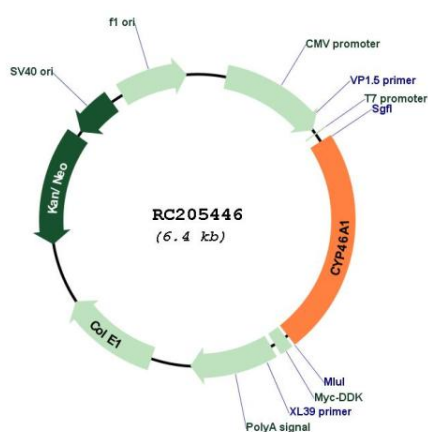
Protein Families: Druggable Genome, P450

Protein Pathways: Primary bile acid biosynthesis

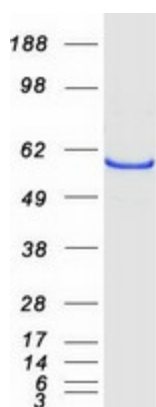
MW: 56.8 kDa

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 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]

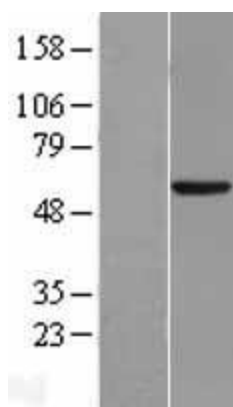
Product images:



Circular map for RC205446



Coomassie blue staining of purified CYP46A1 protein (Cat# [TP305446]). The protein was produced from HEK293T cells transfected with CYP46A1 cDNA clone (Cat# RC205446) using MegaTran 2.0 (Cat# [TT210002]).



Western blot validation of overexpression lysate (Cat# [LY416493]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205446 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).