OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC220836

CYP8B1 (NM_004391) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CYP8B1 (NM_004391) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CYP8B1
Synonyms:	CP8B; CYP12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC220836 representing NM_004391
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGTTCTCTGGGGTCCAGTGCTGGGAGCTCTGCTGGTGGTCATTGCTGGATACCTGTGCCTGCCAGGGA
TGCTCCGACAACGCAGGCCATGGGAGCCCCCTCTGGACAAGGGTACCGTGCCCTGGCTTGGCCATGCCAT
GGCTTTCCGGAAGAATATGTTTGAATTTCTGAAGCGCATGAGGACCAAGCATGGGGATGTGTTCACAGTG
CAGCTAGGGGGCCAGTACTTCACCTTCGTCATGGACCCCCTCTCCTTTGGCCCCATCCTCAAGGACACAC
AGAGAAAACTAGACTTTGGGCAATATGCAAAAAAACTGGTGCTGAAGGTATTTGGATACCGTTCAGTGCA
AGGGGACCATGAGATGATACACTCAGCCAGCACCAAGTATCTGAGGGGGGATGGCTTGAAGGATCTTAAT
GAGACCATGCTGGACAGCCTGTCCTTTGTAATGCTGACGTCCAAAGGCTGGAGTCTGGATGCCAGTTGCT
GGCATGAGGACAGCCTCTTTCGCTTCTGCTATTACATCTTGTTCACAGCTGGCTACCTGAGCTTGTTCGG
CTACACGAAGGACAAGGAGCAGGACCTGCTACAGGCAGGAGAGTTATTCATGGAGTTCCGCAAGTTTGAC
CTTCTTTTCCCAAGGTTTGTCTACTCCCTGCTGTGGCCCCGGGAGTGGCTAGAAGTGGGCCGACTCCAGC
GTCTCTTTCACAAGATGCTCTCCGTGAGCCACAGCCAGGAGAAGGAGGGCATCAGCAACTGGCTGGGCAA
CATGCTTCAGTTTCTGAGGGAGCAGGGGGTACCCTCAGCTATGCAGGACAAGTTCAACTTCATGATGCTC
TGGGCCTCCCAGGGGAACACGGGGCCTACCTCTTTCTGGGCCCTCTTGTACCTCCTGAAGCACCCAGAAG
CTATTCGGGCTGTGAGGGAGGAAGCTACCCAGGTCCTGGGTGAGGCCAGGCTGGAGACCAAGCAGTCCTT
TGCCTTCAAACTCGGTGCCCTGCAACACACCCCAGTTCTAGACAGCGTGGTGGAGGAGACGCTGCGGCTG
AGGGCTGCACCCACCCTCCTCAGGTTGGTTCATGAAGACTATACCCTGAAGATGTCCAGTGGGCAGGAGT
ATCTGTTCCGCCATGGAGACATCCTGGCCCTCTTTCCCTACCTCTCAGTGCACATGGACCCTGACATCCA
CCCTGAGCCCACCGTCTTCAAGTACGATCGCTTCCTCAACCCTAATGGCAGCCGGAAAGTGGACTTCTTC
AAGACAGGCAAGAAGATCCACCACTACACCATGCCCTGGGGTTCGGGCGTTTCCATCTGCCCTGGGAGGT
TCTTTGCACTCAGTGAGGTGAAGCTCTTTATCCTGCTTATGGTCACACACTTTGACTTAGAGTTGGTGGA
CCCTGACACACCACTACCCCATGTTGACCCGCAGCGCTGGGGTTTTGGCACCATGCAGCCCAGCCACGAT
GTGCGCTTCCGCTACCGCCTGCATCCTACAGAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220836 representing NM_004391
Red=Cloning site Green=Tags(s)

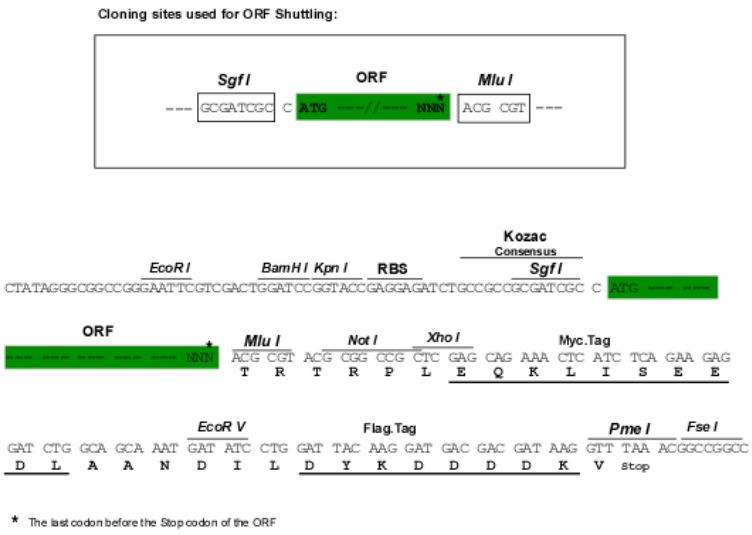
MVLWGPVLGALLVVIAGYLCLPGMLRQRRPWEPPLDKGTVPWLGHAMAFRKNMFEFLKRMRTKHGDVFTV
QLGGQYFTFVMDPLSFGPILKDTQRKLDFGQYAKKLVLKVFGYRSVQGDHEMIHSASTKYLRGDGLKDLN
ETMLDSLSFVMLTSKGWSLDASCWHEDSLFRFCYYILFTAGYLSLFGYTKDKEQDLLQAGELFMEFRKFD
LLFPRFVYSLLWPREWLEVGRLQRLFHKMLSVSHSQEKEGISNWLGNMLQFLREQGVPSAMQDKFNFMML
WASQGNTGPTSFWALLYLLKHPEAIRAVREEATQVLGEARLETKQSFAFKLGALQHTPVLDSVVEETLRL
RAAPTLLRLVHEDYTLKMSSGQEYLFRHGDILALFPYLSVHMDPDIHPEPTVFKYDRFLNPNGSRKVDFF
KTGKKIHHYTMPWGSGVSICPGRFFALSEVKLFILLMVTHFDLELVDPDTPLPHVDPQRWGFGTMQPSHD
VRFRYRLHPTE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg4120_c01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004391

ORF Size: 1503 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.

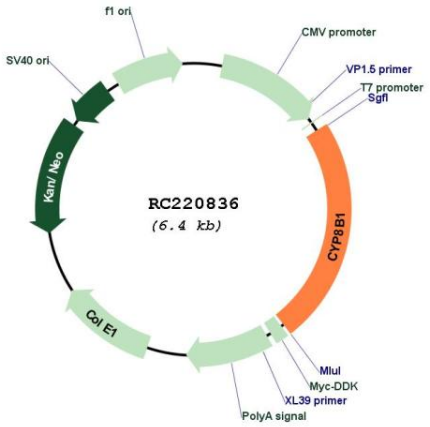
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_004391.3
RefSeq Size:	3951 bp
RefSeq ORF:	1506 bp
Locus ID:	1582
UniProt ID:	Q9UNU6
Cytogenetics:	3p22.1
Domains:	p450
Protein Families:	Druggable Genome, P450, Transmembrane
Protein Pathways:	Metabolic pathways, PPAR signaling pathway, Primary bile acid biosynthesis
MW:	57.9 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 membrane protein catalyzes the conversion of 7 alpha-hydroxy-4-cholesten-3-one into 7-alpha,12-alpha-dihydroxy-4-cholesten-3-one. The balance between these two steroids determines the relative amounts of cholic acid and chenodeoxycholic acid both of which are secreted in the bile and affect the solubility of cholesterol. This gene is unique among the cytochrome P450 genes in that it is intronless. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC220836