

Product datasheet for **RG222647**

CYP7B1 (NM_004820) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CYP7B1 (NM_004820) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CYP7B1
Synonyms:	CBAS3; CP7B; SPG5A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG222647 representing NM_004820
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCAGGAGAAGTGTCCGCGGCCACGGGCCGCTTTTCGCTGGAGCGGTTGGGCCTCCCGGCCCTGGCCC
 TCGCCCGGCCCTGCTGCTCCTGGCCCTCTGCTTGCTTGTCGGCGCACCAGGAGACCGGTGAGCCTCC
 ATTGATAAAAGGTTGGCTTCCTTATCTTGGAGTGGTCTGAACCTACGAAAGACCCCTAAGGTTTCATG
 AAAACACTTCAAAGCAACATGGTGACACTTTCACAGTCTTCTTGGTGGAAAGTACATAACATTTATCC
 TGGACCCCTTCCAGTACCAGCTAGTGATAAAAAATCATAAACAATTAAGCTTTCGAGTATTTTCTAATAA
 ATTATTAGAGAAAGCATTTAGCATCAGTCAGTTGCAAAAAATCATGACATGAATGATGAGCTTCACCTC
 TGCTATCAATTTTGAAGGCAATCTTTGGACATACTCTTGAAAGCATGATGCAGAATCTAAAACAAG
 TTTTGAACCCAGCTGTTAAAAACCACAAGTTGGGACACGGCAGAACTGTATCCATTCTGCAGCTCAAT
 AATATTTGAGATCACATTTACAACATATATGGAAGGTTATTGTTTGTGACAACAACAAATTTATTAGT
 GAGCTAAGAGATGATTTTTTAAATTTGATGACAAGTTTGCATATTTAGTATCCAACATACCCATTGAGC
 TTCTAGGAAATGTCAAGTCTATTAGAGAGAAAATTATAAAATGCTTCTCATCAGAAAAGTTAGCCAAGAT
 GCAAGGATGGTCAGAAGTTTTCAAAGCAGGCAAGATGTCCTGGAGAAATATTATGTGCACGAGGACCTT
 GAAATAGGAGCACATCATTTAGGCTTCTCTGGGCCTCTGTGGCAAACTATTCCAACTATGTTCTGGG
 CAATGTATTATCTTCTGCGGCACCCAGAAGCTATGGCAGCAGTGCGTGACGAAATTGACCGTTTGCTGCA
 GTCAACAGGTCAAAGAAAGGCTCTGGATTTCCCATCCACCTCACCAGAGAACAAATTGGACAGCCTAATC
 TGCCTAGAAAGCAGCATTTTGAAGCTTACGACTGTCTCATATTCAACCACCATTGTTTTGTTGAGG
 AGGATTTGACTCTCAGTTCAGAGACCGGGGACTACTGTGTGCGAAAGGGAGACTTGGTAGCATCTTTCC
 TCCAGTCTACATGGTGACCCTGAAATCTTTGAAGCTCCAGAGGAGTTTAGATATGATCGTTTTATAGAA
 GATGGTAAGAAGAAAACACCTTTTCAAAGAGGGAAGGCTGAAGTGTACCTAATGCCGTTTGGA
 CTGGAACAGCAAATGTCCAGGCCGATTTTTCACCTTATGGAATAAAACAATTGTTGTTTACTTTT
 AACTTATTTGATTTAGAAATAATTGATGATAAGCCCATAGGACTAAACTACAGCCGCTTGTGTTGGT
 ATTCAGTATCCAGATTCTGATGTTTTATTAGATACAAAGTGAATCT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG222647 representing NM_004820
 Red=Cloning site Green=Tags(s)

MAGEVSAATGRFSLERLGLPGLALAAALLLLALCLLVRRTRRPGEPLIKGWLPYLGVLNLRKDPLRFM
 KTLQKQHGDTFTVLLGGKYITFILDPFQYQLVIKNHKQLSFRVFSNKLLEKAFSISQLQKNHDMNDELHL
 CYQFLQKSLDILLESMMQNLKQVFEPQLKTTSDTAELYPFCSSIIIFEITFTTIYGKIVICDNNKFIS
 ELRDDFLKFDDKFAYLVSNIPIELLGNVKSIREKIIKCFSEKLAKMQGWSEVFQSRQDVLEKYYVHEDL
 EIGAHLGLFLWASVANTIPTMFWAMYLLRHPEAMAAVRDEIDRLLQSTGQKKGSGFPIHLTREQLDSL
 CLESSIFEALRLSSYSTTIRFVEEDLTLSETGDYCVRKGDVAIFPPVLHGDPEIFEAPEEFYDRFIE
 DGKKKTTFFKRGKCLKYLMPTGTGTSKCPGRFFALMEIKQLLVILLTYFDLEIIDDKPIGLNYSRLIFG
 IQYPDSVDLFRYKVK

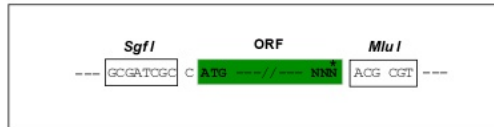
TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI
 CTATAGGGCGGCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCCGCCGATCGCCGGCGCCAGATCT
 HindIII NheI RsrII MluI NotI XhoI GFP Tag
 CAAGCTTAAGTACTAGCGGACG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- ---
 T R T R P L E M E S D - - -
 --- GAA GAA AGA GTT TAA ACGGCGGCCCGGAGCT
 - - E E R V Stop

ACCN: NM_004820

ORF Size: 1518 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_004820.5](#)

RefSeq Size: 2230 bp

RefSeq ORF: 1521 bp

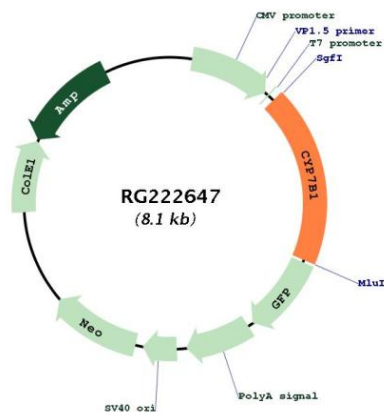
Locus ID: 9420

UniProt ID: [O75881](#)

Cytogenetics: 8q12.3

Domains:	p450
Protein Families:	Druggable Genome, P450, Transmembrane
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 membrane protein catalyzes the first reaction in the cholesterol catabolic pathway of extrahepatic tissues, which converts cholesterol to bile acids. This enzyme likely plays a minor role in total bile acid synthesis, but may also be involved in the development of atherosclerosis, neurosteroid metabolism and sex hormone synthesis. Mutations in this gene have been associated with hereditary spastic paraplegia (SPG5 or HSP), an autosomal recessive disorder. [provided by RefSeq, Apr 2016]

Product images:



Circular map for RG222647