

Product datasheet for **RG211377**

Cytochrome p450 2C19 (CYP2C19) (NM_000769) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cytochrome p450 2C19 (CYP2C19) (NM_000769) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CYP2C19
Synonyms:	CPCJ; CYP2C; CYP11C17; CYP11C19; P450C2C; P45011C19
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG211377 representing NM_000769
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGATCCTTTTGTGGTCTTGTGCTCTGTCTCATGTTTGCTTCTCCTTTCAATCTGGAGACAGAGCT
 CTGGGAGAGGAAAACCTCCTCGGCCACTCCTCTCCAGTGATTGGAAATATCTACAGATAGATAT
 TAAGGATGTCAGCAAATCCTTAACCAATCTCTCAAAAATCTATGGCCCTGTGTTCACTCTGTATTTTGGC
 CTGGAACGCATGGTGGTCTGCATGGATATGAAGTGGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGT
 TTTCTGGAAGAGGCCATTTCCACTGGCTGAAAGAGCTAACAGAGGATTTGGAATCGTTTTTCAGCAATGG
 AAAGAGATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTTGGGATGGGAAGAGGAGC
 ATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCTTCACCCCT
 GTGATCCCACTTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCAGAAACGTTT
 CGATTATAAAGATCAGCAATTTCTTAACCTTGATGGAAAAATTGAATGAAAACATCAGGATTGTAAGCACC
 CCTGGATCCAGATATGCAATAATTTCCCACTATCATTGATTATTTCCCGGGAACCCATAACAAATTAC
 TAAAAACCTTGCTTTTATGAAAGTGATATTTGGAGAAAGTAAAAGAACCACCAAGAATCGATGGACAT
 CAACAACCTCGGGACTTTATTGATTGCTTCTGATCAAAATGGAGAAGGAAAAGCAAACCAACAGTCT
 GAATTCATATTGAAAACCTGGTAATCACTGCAGCTGACTTACTTGGAGCTGGGACAGAGACAACAAGCA
 CAACCCCTGAGATATGCTCTCCTTCTCCTGCTGAAGCACCAGAGGTCACAGCTAAAGTCCAGGAAGAGAT
 TGAACGTGTGCTTGGCAGAAACCGGAGCCCTGCATGCAGGACAGGGCCACATGCCCTACACAGATGCT
 GTGGTGCACGAGGTCCAGAGATACATCGACCTCATCCCCACCAGCCTGCCCATGCAGTGACCTGTGACG
 TTAATTCAGAACTACCTCATTCCCAAGGGCACAACCATATTAACCTCCCTCACTTCTGTGCTACATGA
 CAACAAAGAATGTCCAACCCAGAGATGTTTGACCCCTCGTCACTTCTGGATGAAGGTGGAAATTTTAAG
 AAAAGTAACTACTTCATGCCTTCTCAGCAGGAAAACGGATTTGTGTGGAGAGGGCCTGGCCCGCATGG
 AGCTGTTTTTATCCTGACCTTCATTTTACAGAACTTTAACCTGAAATCTCTGATTGACCCAAAGGACCT
 TGACACAACCTCCTGTTGCAATGGATTTGCTTCTGTCGCCCTTCTATCAGCTGTGCTTCATTCCTGTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG211377 representing NM_000769
 Red=Cloning site Green=Tags(s)

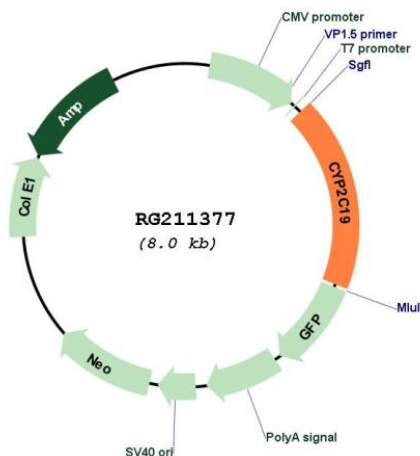
MDPFVVLVLCLSLLLLSIWRQSSGRGKLP GPPTPLPVIGNILQIDIKDVSLSLNL SKIYGPVFTLYFG
 LERMVVLHGVEVVEALIDLGEFSGRGHFPLAERANRFGIVF SNGKRWKEIRRFSLMTRLNFGMGKRS
 IEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSII FQKRFDYKDQQFLNLMKLNENIRIVST
 PWIQICNNFPTIIDYFPGTHNKLLKNLAFMESDILEKVKHEHQSMDINNPRDFIDCFLIKMEKEKQSQS
 EFTIENLVITAADLLGAGTETTSTLRYALLLLKHPEVTA KVQEEIERVVGRNRSPCMQDRGHMPYTD
 VVHEVQRYIDL IPTSLPHAVTCDVKFRNYLIPKGTIIL TSLTSVLHDNKECPNPEMFDRHFLDEGGNFK
 KSNYFMFPSAGKRICVGEGLARMELFLFLTFILQFNLSLIDPKDLDTTPV VNGFASVPPFYQLCFIPV

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

Plasmid Map:


ACCN: NM_000769

ORF Size: 1470 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:	<ol style="list-style-type: none">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_000769.1 , NP_000760.1
RefSeq Size:	1473 bp
RefSeq ORF:	1473 bp
Locus ID:	1557
UniProt ID:	P33261
Cytogenetics:	10q23.33
Domains:	p450
Protein Families:	Druggable Genome
Protein Pathways:	Arachidonic acid metabolism, Drug metabolism - cytochrome P450, Linoleic acid metabolism, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Retinol metabolism
Gene Summary:	<p>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 is known to metabolize many xenobiotics, including the anticonvulsive drug mephenytoin, omeprazole, diazepam and some barbiturates. Polymorphism within this gene is associated with variable ability to metabolize mephenytoin, known as the poor metabolizer and extensive metabolizer phenotypes. The gene is located within a cluster of cytochrome P450 genes on chromosome 10q24. [provided by RefSeq, Jul 2008]</p>