

Product datasheet for **RG207078**

CYP51A1 (NM_000786) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	CYP51A1
Synonyms:	CP51; CYP51; CYPL1; LDM; P450-14DM; P450L1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



ORF Nucleotide Sequence: >RG207078 representing NM_000786
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGCGGCGGCGGCTGGGATGCTGCTGCTGGGCTTGCTGCAGGCGGGTGGGTCGGTCTGGGCCAGGCGA
 TGGAGAAGGTGACAGGCGGCAACCTCTTGCCATGCTGCTGATCGCCTGCGCCTTCACCCTCAGCCTGGT
 CTACCTGATCCGCTCGCCGCGCGCCACCTGGTCCAGCTGCCCGCAGGGGTGAAAAGTCCTCCATACATT
 TTCTCCCCAATTCCATTCTTGGGCATGCCATAGCATTTGGGAAAAGTCCAATTGAATTTCTAGAAAATG
 CATATGAGAAGTATGGACCTGTATTTAGTTTTACCATGGTAGGCAAGACATTTACTTACCTTCTGGGGAG
 TGATGCTGCTGCACTGCTTTTTAATAGTAAAAATGAAGACCTGAATGCAGAAAGTGTCTACAGTCGCCTG
 ACAACACCTGTGTTTGGGAAGGAGTTGCATACGATGTGCCTAATCCAGTTTTCTTGGAGCAGAAGAAAA
 TGTAAAAAGTGGCCTTAACATAGCCCACTTTAAACAGCATGTTTCTATAATTGAAAAGAAACAAAGGA
 ATACTTTGAGAGTTGGGAGAAAAGTGGAGAAAAAATGTGTTTGAAGCTCTTTCTGAGCTCATAATTTTA
 ACAGCTAGCCATTGTTTGCATGAAAAGGAAATCAGAAGTCAACTCAATGAAAAGGTAGCACAGCTGTATG
 CAGATTTGGATGGAGGTTTTCAGCCATGCAGCCTGGCTCTTACCAGGTTGGCTGCCTTTGCCTAGTTTCAG
 ACGCAGGGACAGAGCTCATCGGAAATCAAGGATATTTTCTATAAGGCAATCCAGAAACGCAGACAGTCT
 CAAGAAAAAATTGATGACATTTCTCAAACCTTTACTAGATGCTACATACAAGGATGGGCGTCTTTGACTG
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 AAGAAACATTAAGACTTAGACCTCCTGTAATGATCATGATGAGAATGGCCAGAACTCCTCAGACTGTGGC
 AGGGTATACCATTCCTCCAGGACATCAGGTGTGTGTTTCTCCCACTGTCAATCAAAGACTTAAAGACTCA
 TGGGTAGAACGCCTGGACTTTAATCCTGATCGCTACTTACAGGATAACCCAGCATCAGGGGAAAAGTTTG
 CCTATGTGCCATTTGGAGCTGGGCGTCATCGTTGTATTGGGAAAAATTTTGCCTATGTTCAAATTAAGAC
 AATTTGGTCCACTATGCTTCGTTTATGAATTTGATCTCATTGATGGATACTTCCCACTGTGAATTAT
 ACAACTATGATTCACACCCCTGAAAACCCAGTTATCCGTTACAAACGAAGATCAAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

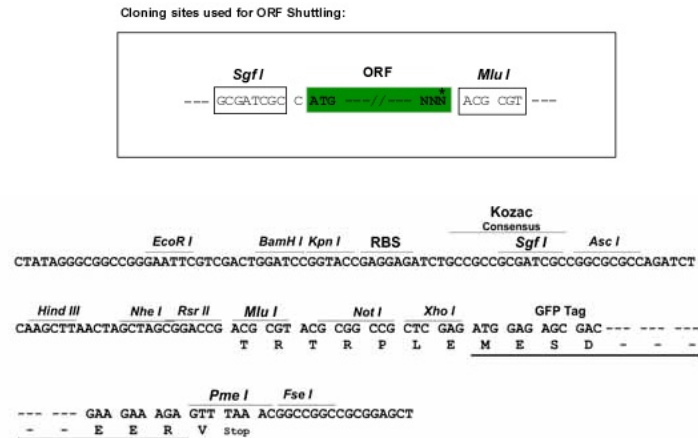
Protein Sequence: >RG207078 representing NM_000786
 Red=Cloning site Green=Tags(s)

MAAAGMLLLGLLQAGGSVLGQAMEKVTGGNLLSMLLIACAFTLSLVYLIRLAAGHLVQLPAGVKSPPYI
 FSPIPFLGHAIAFGKSPIEFLENAYEKYGPVFSFTMVGKTFTYLLGSDAAALLFNSKNEDLNAEDVYSRL
 TTPVFGKGVAYDVPNPVFLEQKKMLKSGLNIAHFKQHSIIIEKETKEYFESWGESGEKNVFEALSELIIIL
 TASHCLHGKEIRSQLEKVAQLYADLDGGFSHAAWLLPGWLPLPSFRRRDRAHREIKDIFYKAIQKRRQS
 QEKIDDILQTLDDATYKDGRPLTDDEVAGMLIGLLLAGQHTSSTTSAWMGFFLARDKTLQKKCYLEQKTV
 CGENLPPLTYDQLKDLNLLDRCIKETLRLRPPVMIMMRMARTPQTVAGYTIPPGHQVCVSPTVNQRLKDS
 WYERLDFNPDRYLQDNPASGEKFAYVPFGAGRHRICIGENFAYVQIKTIWSTMLRLYEFDLIDGYFPTVNY
 TTMIHTPENPVIRYKRRSK

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000786

ORF Size: 1527 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.

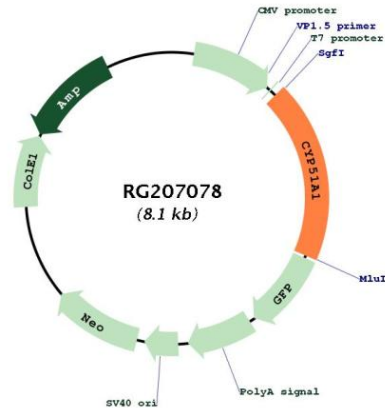
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_000786.2](#), [NP_000777.1](#)

RefSeq Size: 3381 bp

RefSeq ORF:	1530 bp
Locus ID:	1595
UniProt ID:	Q16850
Cytogenetics:	7q21.2
Domains:	p450
Protein Families:	Druggable Genome, P450, Transmembrane
Protein Pathways:	Metabolic pathways, Steroid 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 participates in the synthesis of cholesterol by catalyzing the removal of the 14alpha-methyl group from lanosterol. Homologous genes are found in all three eukaryotic phyla, fungi, plants, and animals, suggesting that this is one of the oldest cytochrome P450 genes. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2009]

Product images:



Circular map for RG207078