

Product datasheet for **RG213527**

CYP2A7 (NM_000764) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CYP2A7 (NM_000764) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CYP2A7
Synonyms:	CPA7; CPAD; CYP2A; CYP11A7; P450-IIA4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG213527 representing NM_000764
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTGGCCTCAGGGCTGCTTCTGGTGGCCTTGTCTGGCCTGCCTGACTGTGATGGTCTTGATGTCTGTCT
 GGCAGCAGAGGAAGAGCAGGGGGAAGCTGCCTCCGGGACCCACCCACTGCCCTTATTGAAAACACTACCT
 CCAGCTGAACACAGAGCACATATGTGACTCCATCATGAAGTTCAGTGAGTCTATGGCCCGTGTTCACC
 ATTCACCTTGGGGCCCGCGGGCGTGGTGTGTGGACATGATGCCGTGAGGAGGCTCTGGTGGACC
 AGGCTGAGGAGTTCAGCGGGCAGGGCAGCAAGCCACCTTCGACTGGGTCTTCAAAGGCTATGGCGTGGC
 GTTCAGCAACGGGGAGCGCGCAAGCAGCTCTGCGCTTGGCCATCGCCACCTGAGGGACTTCGGGGTG
 GGCAAGCGAGGCATCGAGGAGCGCATCCAGGAGGAGTCCGGCTTCTCATCGAGGCCATCCGGAGCACGC
 ACGGCGCCAATATCGATCCACCTTCTTCTGAGCCGACAGTCTCCAATGTCATCAGCTCCATTGTCTT
 TGGGGACCGCTTGGACTATGAGGACAAAGAGTTCTGTCTGACTGCTGAGCGTGATGCTAGGAATCTCCAG
 TTCACGTCAACCTCCACGGGGCAGCTCTATGAGATGTTCTCTTCGGTGATGAAACACCTGCCAGGACCAC
 AGCAACAGGCCTTAAGTTGCTGCAAGGGCTGGAGGACTTCATAGCCAAGAAGGTGGAGCACAACCAGCG
 CACGCTGGATCCCAATCCCCACGGGACTTCATCGACTCCTTCTCATCCGCATGCAAGGAGGAGGAGAAG
 AACCCCAACACGGAGTTCTACTTGAAGAACCTGATGATGAGCACGTTGAACCTCTTATTGCAGGCCCG
 AGACGGTCAGCACCCCTGCGCTATGGCTTCTTGTCTCATGAAGCACCCAGAGGTGGAGGCCAAGGT
 CCATGAGGAGATTGACAGAGTATCGGCAAGAACCAGCCAGCCAAAGTTTGGAGACCGGCCAAGATGCCC
 TACATGGAGGCAGTATCCAGAGATCCAAGATTTGGAGACGTGATCCCATGAGTTTGGCCCGCAGGG
 TTA AAAAGGACACCAAGTTTCGGGATTTTTCTCCCTAAGGGCACCGAAGTGTTCCTATGCTGGGCTC
 CGTGTGAGAGACCCAGCTTCTTCTCAACCCTCAGGACTTCAATCCCAAGCATTCTCGGATGACAAG
 GGGCAGTTTAAGAAGAGTGATGCTTTTGTGCCCTTTTCCATCGGAAAGCGTACTGTTTCGGAGAAGGCC
 TGGCCAGAATGGAGCTCTTCTCTTCTTACCACCGTCATGCAGAACTCCGCCTCAAGTCTCCAGCTC
 ACCTAAGGACATTGACGTGTCCCCAAACAGTGGGCTTGGCCACGATCCACGAAACTACACCATGAGC
 TTCCTGCCCGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG213527 representing NM_000764
 Red=Cloning site Green=Tags(s)

MLASGLLLVALLACLTVMLMSVWQQRKSRGLPPGPTPLPFIGNYLQLNTEHICDSIMKFSECYGPVFT
 IHLGPRRAVVLCGHDAVREALVDQAEFSGRGEQATFDWVFKGYGVAFSNGERAKQLLRFAIATLRDFGV
 GKRGIEERIQEESGFLIEAIRSTHGANIDPTFFLSRTVSNVISSIVFGDRFDYEDKEFLSLLSVMLGIFQ
 FTSTSTGQLYEMFSSVMKHLPGPQQAFKLLQGLEDFIAKKVEHNQRTLDPNSPRDFIDSLFIRMQEEEK
 NPNTFYLKMLMSTLNLFIAGTETVSTTLRYGFLLLMKHPEVEAKVHEEIDRVIGKNRQPKFEDRAKMP
 YMEAVIHEIQRFQDVIPMSLARRVKKDTKFRDFFLPKGTEVFPMLGSVLRDPSFFSNPQDFNPQHFLDDK
 GQFKKSDAFVPSIGKRYCFGEGLARMELFLFTTVMQNFRLKSSQSPKDIDVSPKHVGFATIPRNYTMS
 FLPR

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_000764

ORF Size: 1482 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_000764.2](#), [NP_000755.2](#)

RefSeq Size: 2281 bp

RefSeq ORF: 1485 bp

Locus ID: 1549

UniProt ID: [P20853](#)

Cytogenetics: 19q13.2

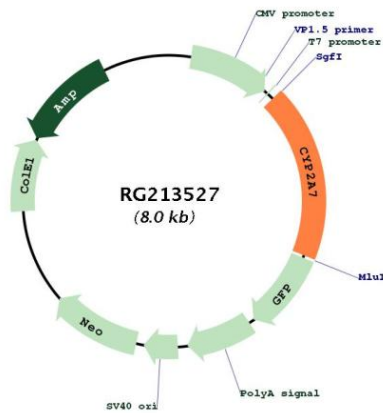
Domains: p450

Protein Families: Druggable Genome, P450, Transmembrane

Protein Pathways: Caffeine metabolism, Drug metabolism - cytochrome P450, Drug metabolism - other enzymes, Metabolic pathways, Retinol metabolism

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 protein localizes to the endoplasmic reticulum; its substrate has not yet been determined. This gene, which produces two transcript variants, is part of a large cluster of cytochrome P450 genes from the CYP2A, CYP2B and CYP2F subfamilies on chromosome 19q. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG213527