

Product datasheet for **RG214289**

CYP2A13 (NM_000766) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CYP2A13 (NM_000766) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CYP2A13
Synonyms:	CPAD; CYP2A; CYP11A13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG214289 representing NM_000766
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCTGGCCTCAGGGCTGCTTCTGGTGACCTTGTGGCCTGCCTGACTGTGATGGTCTTGATGTCAGTCT
 GCGGCGAGAGGAAGAGCAGGGGGAAGCTGCCTCCGGGACCCACCCATTGCCCTTATTGAAAACCTACCT
 GCAGCTGAACACAGAGCAGATGTACAACCTCCATGAAGATCAGTGAGCGCTATGGCCCTGTGTTCAACC
 ATTCACCTTGGGGCCCCGGCGGGTCTGGTGTGTGCGGACATGATGCCGTCAAGGAGGCTCTGGTGGACC
 AGGCTGAGGAGTTCAGCGGGCAGGGCAGCAGGCCACCTTCGACTGGCTCTCAAAGGCTATGGCGTGGC
 GTTCAGCAACGGGGAGCGCGCAAGCAGCTCCGGCGCTTCTCCATCGCCACCCTAAGGGGTTTTGGCGTG
 GGCAAGCGCGGCATCGAGGAACGCATCCAGGAGGAGCGGGCTTCTCATCGACGCCCTCCGGGACCGC
 ACGGCGCCAATATCGATCCACCTTCTTCTGAGCCGCACAGTCTCCAATGTCATCAGCTCCATTGTCTT
 TGGGGACCGCTTTGACTATGAGGACAAAGAGTTCTCTGTCAGTGTGCGCATGATGCTGGGAAGCTCCAG
 TTCACGGCAACCTCCACGGGGCAGCTCTATGAGATGTTCTCTTCGGTGATGAAACACCTGCCAGGACCAC
 AGCAACAGGCCTTAAGGAGCTGCAAGGGCTGGAGGACTTCATCGCCAAGAAGGTGGAGCACAACCAGCG
 CACGCTGGATCCCAATCCCCACGGGACTTCATCGACTCCTTCTCATCCGCATGCAGGAGGAGGAGAAG
 AACCCCAACACAGAGTTCTACTTGAAGAACCTGGTGATGACCACCTGAACCTCTTCTTTCGGGGCACTG
 AGACCGTGAGCACCACCTGCGTACGGTTTCTGCTGCTCATGAAGCACCCAGAGGTGGAGGCCAAGGT
 CCATGAGGAGATTGACAGAGTATCGGCAAGAACCGGCAGCCCAAGTTTGAGGACCGGGCCAAGATGCC
 TACACAGAGGCAGTATCCAGAGATCCAAGATTTGGAGACATGCTCCCATGGGTTTGGCCCACAGGG
 TCAACAAGGACACCAAGTTTCGGGATTTCTTCTCCCTAAGGGCACTGAAGTGTTCCTCATGCTGGGCTC
 CGTGCTGAGAGACCCAGGTTCTTCTCCAACCCCGGGACTTCAATCCCAAGCACTTCTGGATAAGAAG
 GGGCAGTTTAAGAAGAGTGATGCTTTTGTGCCCTTTTCCATCGGAAAGCGTACTGTTTTGGAGAAGGCC
 TGGCCAGAATGGAGCTCTTCTCTTCTTACCACCATCATGCAGAACTTCGCTTCAAGTCCCTCAGTC
 GCCTAAGGATATCGACGTGTCCCCAAACAGTGGGCTTGGCACGATCCACGAAACTACACCATGAGC
 TTCCTGCCCGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG214289 representing NM_000766
 Red=Cloning site Green=Tags(s)

MLASGLLLVTLACLTVMLMSVWRQRKSRGKLPPTPLPFIGNYLQLNTEQMYNSLMKISERYGPVFT
 IHLGPRRVVVLCGHDAVKEALVDQAEFSGRGEQATFDWLFKGYGVAFSNGERAKQLRRFSIATLRGFGV
 GKRGIEERIQQEAGFLIDALRGTHGANIDPTFFLSRTVSNVISSIVFGDRFDYEDKEFLSLLRMMLGSFQ
 FTATSTGQLYEMFSSVMKHLPGPQQAFKELQGLEDFIAKKVEHNQRTLDPNSPRDFIDSFLIRMQEEEK
 NPNTFYLKNLVMTTLNLFAGTETVSTTLRYGFLLLMKHPEVEAKVHEEIDRVIGKNRQPKFEDRAKMP
 YTEAVIHEIQRFQDMLPMGLAHRVNDTKFRDFFLPKGTEVFPMLGSVLRDPRFFSNPRDFNPQHFLDKK
 GQFKKSDAFVPSIGKRYCFGEGLARMEFLFFTTIMQNFQKSPQSPKDIDVSPKHVGFATIPRNYTMS
 FLPR

TRTRPLE - GFP Tag - V

Restriction Sites:

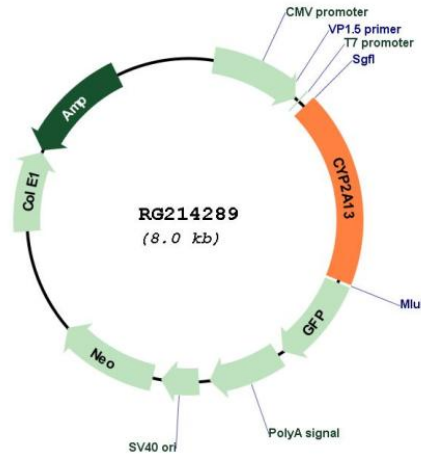
Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_000766

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:	<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_000766.5
RefSeq Size:	1747 bp
RefSeq ORF:	1485 bp
Locus ID:	1553
UniProt ID:	Q16696
Cytogenetics:	19q13.2
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Caffeine metabolism, Drug metabolism - cytochrome P450, Drug metabolism - other enzymes, Metabolic pathways, 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. Although its endogenous substrate has not been determined, it is known to metabolize 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone, a major nitrosamine specific to tobacco. This gene 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]</p>