

Product datasheet for RC230978

OriGene Technologies, Inc.

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Cytochrome P450 3A5 (CYP3A5) (NM_001190484) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Cytochrome P450 3A5 (CYP3A5) (NM_001190484) Human Tagged ORF Clone

Tag: Myc-DDK Symbol: CYP3A5

Synonyms: CP35; CYPIIIA5; P450PCN3; PCN3

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

Cell Selection: Neomycin

ORF Nucleotide >RC230978 representing NM_001190484
Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGGACCTCATCCCAAATTTGGCGGTGGAAACCTGGCTTCTCCTGGCTGTCAGCCTGGTGCTCCTCTATC
TATATGGGACCCGTACACATGGACTTTTTAAGAGACTGGGAATTCCAGGGCCCACACCTCTGCCTTTGTT
GGGAAATGTTTTGTCCTATCGTCAGGGTCTCTGGAAATTTGACACAGAGTGCTATAAAAAAGTATGGAAAA
ATGTGGGGAACGTATGAAGGTCAACTCCCTGTGCTGGCCATCACAGATCCCGACGTGATCAGAACAGTGC
TAGTGAAAGAATGTTATTCTGTCTTCACAAATCGAAGGATTTGTGCAACGACCACCATCAAGATGCA
GACCCATTCCGTCACCATGTGGCTCCCTCCTGCTGTCCTACAGTCACAACATGGAGTTTGTCTTTTTCTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT

ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC230978 representing NM_001190484

Red=Cloning site Green=Tags(s)

MDLIPNLAVETWLLLAVSLVLLYLYGTRTHGLFKRLGIPGPTPLPLLGNVLSYRQGLWKFDTECYKKYGK MWGTYEGQLPVLAITDPDVIRTVLVKECYSVFTNRRICATTSTIKMQTHSVTMWLPPAVLQSQHGVCLFL

TRTRPLEQKLISEEDLAANDILDYKDDDDK**V**

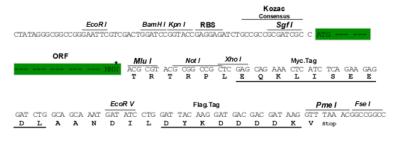
Restriction Sites: Sgfl-Mlul





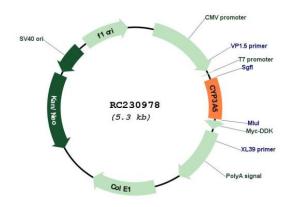
Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001190484

ORF Size: 420 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



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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: <u>NM 001190484.3</u>

 RefSeq ORF:
 423 bp

 Locus ID:
 1577

 UniProt ID:
 P20815

 Cytogenetics:
 7q22.1

Protein Families: Druggable Genome, P450, Transmembrane

Protein Pathways: Drug metabolism - cytochrome P450, Drug metabolism - other enzymes, Linoleic acid

metabolism, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Retinol

metabolism

MW: 16.3 kDa

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. The encoded protein metabolizes drugs as well as the steroid hormones testosterone and progesterone. This gene is part of a cluster of cytochrome P450 genes on chromosome 7q21.1. Two pseudogenes of this gene have been identified within this cluster on chromosome 7. Expression of this gene is widely variable among populations, and a single nucleotide polymorphism that affects

transcript splicing has been associated with susceptibility to hypertensions. Alternative

splicing results in multiple transcript variants. [provided by RefSeq, Apr 2014]