

## Product datasheet for **RC217236**

### Cytochrome P450 2B6 (CYP2B6) (NM\_000767) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cytochrome P450 2B6 (CYP2B6) (NM_000767) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cytochrome P450 2B6
Synonyms:	CPB6; CYP2B; CYP2B7; CYP2B7P; CYP11B6; EFVM; IIB1; P450
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC217236 representing NM\_000767  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAAGCTCAGCGTCTCTCTCTTCTTGCCTCCTCACAGGACTCTTGCTACTCCTGGTTAGTCCACC  
 CTAACACCCATGACCGCCTCCCACCAGGCCCCGCCCTCTGCCCTTTTGGGAAACCTTCTGCAGATGGA  
 TAGAAGAGGCCTACTCAAATCCTTTCTGAGGTTCCGAGAGAAATATGGGGACGTCTTACCGGTACACCTG  
 GGACCCAGGCCCGTGGTCATGCTGTGTGGAGTAGAGGCCATACGGGAGGCCCTTGTGGACAAGGCTGAGG  
 CCTTCTCTGGCCGGGAAAAATCGCCATGGTCGACCCATTCTTCCGGGATATGGTGTGATCTTTGCCAA  
 TGGAAACCGCTGGAAGGTGCTTCGGCGATTCTCTGTGACCACTATGAGGGACTTCGGGATGGGAAAGCGG  
 AGTGTGGAGGAGCGGATTAGGAGGAGGCTCAGTGTCTGATAGAGGAGCTTCGAAATCCAAGGGGGCCC  
 TCATGGACCCACCTTCTCTCCAGTCCATTACCGCCAACATCATCTGCTCCATCGTCTTTGGAAAACG  
 ATTCCACTACCAAGATCAAGAGTTCCTGAAGATGCTGAACCTGTTCTACCAGACTTTTTCTACTCATCAGC  
 TCTGTATTTCGGCCAGCTGTTGAGCTCTTCTCTGGCTTCTTAAAATACTTCTCGGGGCACACAGGCAAG  
 TTTACAAAAACCTGCAGGAAATCAATGCTTACATTGGCCACAGTGTGGAGAAGCACCGTGAACCCCTGGA  
 CCCCAGCGCCCCAAGGACCTCATCGACACCTACCTGCTCCACATGGAAAAAGAGAAATCCAACGCACAC  
 AGTGAATTCAGCCACCAGAACCTCAACCTCAACACGCTCTCGCTCTTCTTGGTGGCACTGAGACCACCA  
 GCACCACTCTCCGCTACGGCTTCTGCTCATGCTCAAATACCCTCATGTTGCAGAGAGAGTCTACAGGGA  
 GATTGAACAGGTGATTGGCCACATCGCCCTCCAGAGCTTCATGACCGAGCCAAAATGCCATACACAGAG  
 GCAGTCATCTATGAGATTCAGAGATTTCCGACCTTCTCCCATGGGTGTGCCCCACATGTACCCCAAC  
 ACACCACTTCCGAGGGTACATCATCCCAAGGACACAGAGAATTTCTCATCTGACTGCTCTCCA  
 TGACCCACACTACTTTGAAAAACAGACGCTTCAATCCTGACCACTTCTGGATGCCAATGGGGCACTG  
 AAAAAGACTGAAGCTTTTATCCCTTCTCCTTAGGGAAGCGGATTTGTCTTGGTGAAGGCATCGCCCGTG  
 CGGAATTGTTCTTCTTACCACCATCTCCAGAACTTCTCCATGGCCAGCCCCGTGGCCCCAGAAAGA  
 CATCGATCTGACACCCAGGAGTGTGGTGTGGGCAAAATACCCCAACATACCAGATCCGCTTCTGCC  
 CGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC217236 representing NM\_000767  
 Red=Cloning site Green=Tags(s)

MELSVLLFLALLTGLLLLLVQHPNTHDRLPPGPRPLPLGNLLQMDRRGLLKSFLRFREKYGDVFTVHL  
 GPRPVVMLCGVEAIREALVDKAEAFSGRGKIAMVDPFFRGYGVIFANGNRWVLRFRFSVTTMRDFGMGKR  
 SVEERIQEEAQCLIEELRKSGLMDPTFLFQSITANIICSIVFGKRFHYQDQFLKMLNLFYQTFSLIS  
 SVFGQLFELFSGFLKYFPGAHRQVYKNLQEIINAYIGHVSVEKHRETLDPSAPKDLIDTYLLHMEKEKSNH  
 SEFSHQNLNLNTLSLFFAGTETTSTTLRYGFLMLKYPHVAERYVREIEQVIGPHRPPPELHDKAMPYTE  
 AVIYEIQRFSDLLPMGVPHIVTQHTSFRGYIIPKDETVFLILSTALHDPHYFEKPDANPDHFLDANGAL  
 KKTEAFIPFSLGKRICLGEGIARAELFLFFTTILQNFMSASPVAPEDIDLTPQECGVGKIPPTYQIRFLP  
 R

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6120\\_f11.zip](https://cdn.origene.com/chromatograms/mk6120_f11.zip)

**Restriction Sites:**

Sgfl-Mlul

Cloning Scheme:



ACCN: NM\_000767

ORF Size: 1473 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\\_000767.5](#)

RefSeq Size: 3052 bp

RefSeq ORF: 1476 bp

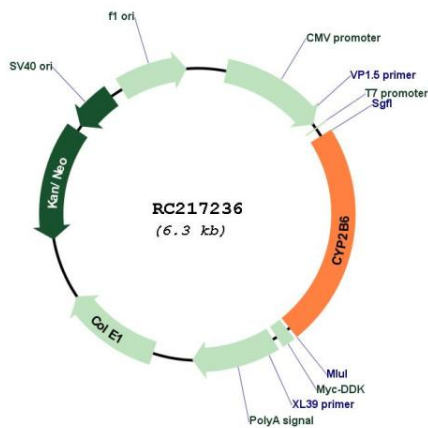
Locus ID: 1555

UniProt ID: [P20813](#)

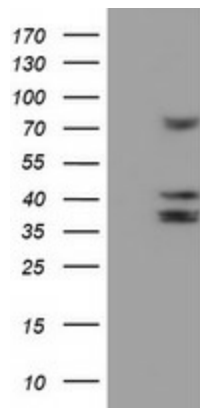
Cytogenetics: 19q13.2

<b>Domains:</b>	p450
<b>Protein Families:</b>	Druggable Genome, P450
<b>Protein Pathways:</b>	Arachidonic acid metabolism, Drug metabolism - cytochrome P450, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Retinol metabolism
<b>MW:</b>	56.1 kDa
<b>Gene Summary:</b>	This gene, CYP2B6, 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 its expression is induced by phenobarbital. The enzyme is known to metabolize some xenobiotics, such as the anti-cancer drugs cyclophosphamide and ifosphamide. Transcript variants for this gene have been described; however, it has not been resolved whether these transcripts are in fact produced by this gene or by a closely related pseudogene, CYP2B7. Both the gene and the pseudogene are located in the middle of a CYP2A pseudogene found in a large cluster of cytochrome P450 genes from the CYP2A, CYP2B and CYP2F subfamilies on chromosome 19q. [provided by RefSeq, Jul 2008]

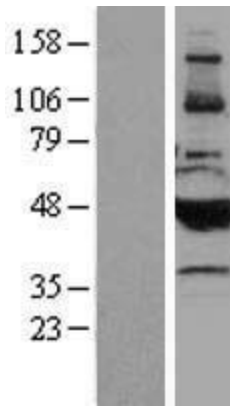
**Product images:**



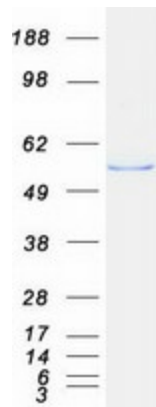
Circular map for RC217236



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CYP2B6 (Cat# RC217236, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CYP2B6(Cat# [TA504328]). Positive lysates [LY400259] (100ug) and [LC400259] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400259]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217236 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CYP2B6 protein (Cat# [TP317236]). The protein was produced from HEK293T cells transfected with CYP2B6 cDNA clone (Cat# RC217236) using MegaTran 2.0 (Cat# [TT210002]).