

Product datasheet for **RC221660**

Cytochrome P450 2D6 (CYP2D6) (NM_001025161) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cytochrome P450 2D6 (CYP2D6) (NM_001025161) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cytochrome P450 2D6
Synonyms:	CPD6; CYP2D; CYP2D7AP; CYP2D7BP; CYP2D7P2; CYP2D8P2; CYP2DL1; CYPIID6; P450-DB1; P450C2D; P450DB1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC221660 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGGCTAGAAGCACTGGTGCCCTGGCCATGATAGTGCCATCTTCTGCTCCTGGTGGACCTGATGC
 ACCGGCGCCAACGCTGGGCTGCACGCTACCCACAGGCCCTGCCACTGCCCGGCTGGCAACCTGCT
 GCATGTGGACTTCCAGAACACACATACTGCTTCGACCAGTTGCGGCGCCGCTTCGGGGACGTGTTGAGC
 CTGCAGCTGGCCTGGACGCCGGTGGTCTGCTCAATGGGCTGGCGGCCGTGCGGAGGCGCTGGTACCC
 ACGGCGAGGACACCGCCGACCGCCGCTGTGCCATCACCCAGATCCTGGGTTTCGGGCGCGTTCCTCA
 AGGACGCCCTTCGCCCCAACGGTCTCTTGGACAAAGCCGTGAGCAACGTGATCGCTCCCTCACCTGC
 GGGCGCCGCTTCGAGTACGACGACCTCGCTTCTCAGGCTGCTGGACCTAGCTCAGGAGGACTGAAGG
 AGGAGTCGGGCTTCTGCGGAGGTGCTGAATGCTGTCCCGTCTCCTGCATATCCAGCGCTGGCTGG
 CAAGTCTACGCTTCCAAAAGGCTTCTGACCCAGCTGGATGAGCTGCTAACTGAGCACAGGATGACC
 TGGGACCCAGCCAGCCCCCGAGACCTGACTGAGGCCTTCTGGCAGAGATGGAGAAGGCCAAGGGGA
 ACCCTGAGAGCAGCTTCAATGATGAGAACCTGTGCATAGTGGTGGCTGACCTGTTCTCTGCCGGGATGGT
 GACCACCTCGACCACGCTGGCCTGGGGCTCCTGCTCATGATCCTACATCCGGATGTGCAGCGCCGTGTC
 CAACAGGAGATCGACGACGTGATAGGGCAGGTGCGGCGACCAGAGATGGGTGACCAGGCTCACATGCCCT
 ACACCACTGCCGTGATTCATGAGGTGCAGCGCTTTGGGGACATCGTCCCCTGGGTGTGACCCATATGAC
 ATCCCCTGACATCGAAGTACAGGCTTCCGCATCCCTAAGGGAACGACACTCATCAACACTGTGATCG
 GTGCTGAAGGATGAGGCCGTCTGGGAGAAGCCCTCCGCTTCCACCCGAACACTTCTGGATGCCAGG
 GCCACTTTGTGAAGCCGAGGCCCTTCTGCCTTCTCAGCAGGCCCGCTGCATGCCTGGGGAGCCCT
 GGCCCGCATGGAGCTTCTCTTCTTCCCTCCCTGCTGCAGCACTTCAGCTTCTCGGTGCCCACTGGA
 CAGCCCCGGCCAGCCACCATGGTGTCTTTGCTTCTGCTGGTACCCCATCCCCTATGAGCTTTGTGCTG
 TGCCCCGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221660 protein sequence
 Red=Cloning site Green=Tags(s)

MGLEALVPLAMIVAIIFLLLVLMHRRQRWAARYPPGPLPLPGLGNLLHVDFQNTPYCFDQLRRRFGDVFS
 LQLAWTPVVVNLGLAAVREALVTHGEDTADRPPVPITQILGFGPRSQGRPFNPGLLDKAVSNVIASLTC
 GRRFEYDDPRFLRLDLAQEGLKEESGFLREVLNAVPLLHLPALAGKVLRFQKAFLTQLDELLTEHRMT
 WDPAQPPRDLTEAFLAEMEKAKGNPESSFNDENLCIVVADLFSAGMVTSTTLAWGLLLMILHPDVQRRV
 QQEIDDVIGQVRRPEMGDQAHMPYTTAVIHEVQRFQDIVPLGVTHMSTRDIEVQGFRIPKGTTLITNLS
 VLKDEAVWEKPFRLFPEHFLDAQGHFVKPEAFLPFSAGRRACLGEPLARMELFLFFTSLLQHF SFSVPTG
 QPRPSHHGVFAFLVTPSPYELCAVPR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6447_b07.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_001025161

ORF Size: 1338 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_001025161.3](#)

RefSeq Size: 1520 bp

RefSeq ORF: 1341 bp

Locus ID: 1565

UniProt ID: [P10635](#)

Cytogenetics: 22q13.2

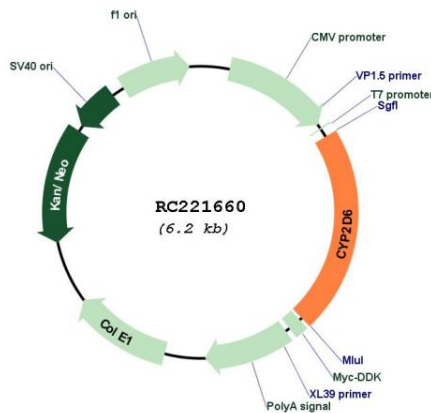
Protein Families: Druggable Genome, P450, Transmembrane

Protein Pathways: Drug metabolism - cytochrome P450

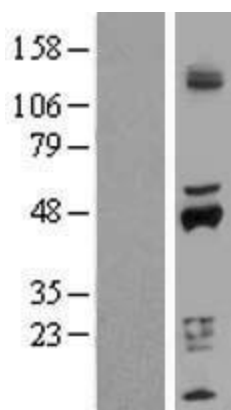
MW: 50.1 kDa

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. This protein localizes to the endoplasmic reticulum and is known to metabolize as many as 25% of commonly prescribed drugs. Its substrates include antidepressants, antipsychotics, analgesics and antitussives, beta adrenergic blocking agents, antiarrhythmics and antiemetics. The gene is highly polymorphic in the human population; certain alleles result in the poor metabolizer phenotype, characterized by a decreased ability to metabolize the enzyme's substrates. Some individuals with the poor metabolizer phenotype have no functional protein since they carry 2 null alleles whereas in other individuals the gene is absent. This gene can vary in copy number and individuals with the ultrarapid metabolizer phenotype can have 3 or more active copies of the gene. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2014]

Product images:



Circular map for RC221660



Western blot validation of overexpression lysate (Cat# [LY422597]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221660 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).