

Product datasheet for **RC220997**

Cytochrome P450 2C9 (CYP2C9) (NM_000771) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cytochrome P450 2C9 (CYP2C9) (NM_000771) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cytochrome P450 2C9
Synonyms:	CPC9; CYP2C; CYP2C10; CYP2C9; P450IIC9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC220997 representing NM_000771
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGATTCTCTTGTGGTCTTGTGCTCTGTCTCATGTTTGCTTCTCCTTTCACTCTGGAGACAGAGCT
 CTGGGAGAGGAAAACCTCCTCGGCCCACTCCTCTCCAGTGATTGGAAATATCCTACAGATAGGTAT
 TAAGGACATCAGCAAATCCTTAACCAATCTCTCAAAGGCTATGGCCCTGTGTTCACTCTGTATTTTGGC
 CTGAAACCCATAGTGGTCTGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGT
 TTTCTGGAAGAGGCATTTTCCCACTGGCTGAAAGAGCTAACAGAGGATTTGGAATTGTTTTAGCAATGG
 AAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTTGGGATGGGAAGAGGAGC
 ATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCACCT
 GTGATCCCACTTTCATCCTGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTT
 TGATTATAAAGATCAGCAATTTCTTAACCTAATGAAAAGTTGAATGAAAACATCAAGATTTTGAGCAGC
 CCTGGATCCAGATCTGCAATAATTTTCTCCTATCATTGATTACTTCCCGGGAACCTCACAACAAAATTAC
 TTA AAAACGTTGCTTTTATGAAAAGTTATATTTGGAAAAAGTAAAAGAACCAAGAATCAATGGACAT
 GAACAACCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAACCACTCT
 GAATTTACTATTGAAAGCTTGGAAAACACTGCAGTTGACTTGTGGAGCTGGGACAGAGACGACAAGCA
 CAACCTGAGATATGCTCTCTTCTCCTGCTGAAGCACCCAGAGGTCACAGCTAAAGTCCAGGAAGAGAT
 TGAACGTGTGATTGGCAGAAACCGAGCCCTGCATGCAAGACAGGAGCCACATGCCCTACACAGATGCT
 GTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCAACAGCCTGCCCATGCAGTGCCTGTGACA
 TAAATTCAGAAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGACTTCTGTGTACATGA
 CAACAAAGAATTTCCAACCCAGAGATGTTTGACCTCATCACTTCTGGATGAAGGTGGCAATTTTAAG
 AAAAGTAAATACTTCATGCCTTCTCAGCAGGAAAACGGATTTGTGTGGAGAAGCCCTGCCGGCATGG
 AGCTGTTTTTATTCTGACCTCCATTTACAGAACTTTAACCTGAAATCTCTGGTTGACCCAAAGAACCT
 TGACACCACTCCAGTTGTCAATGGATTTGCCTCTGTGCCGCCCTTCTACCAGCTGTCTTATTCTGTCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220997 representing NM_000771
 Red=Cloning site Green=Tags(s)

MDSLVLVLCVLSCLLLSLWRQSSGRGKLPVGNILQIGIKDISKSLTNLSKVYGPVFTLYFG
 LKPIVVLHGYEAVKEALIDLGEFSGRGIFPLAERANRFGIVFNGKKWKEIRRFSLMTRLNFMGKRS
 IEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIIFHKRFDYKDQQLNLMKLNENIKILSS
 PWIQCNNFSPIIDYFPGTHNKLKLVAFMKSYLEKVKHEHQSMDMNPQDFIDCFMKMEKEKHNQPS
 EFTIESLENTAVDLFGAGTETTSTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTD
 VVHEVQRYIDLPLSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHDNKEFPNPEMFDPHHFLDEGGNFK
 KSKYFMPFSAGKRICVGEALAGMELFLFTSILQNFNLKSLVDPKNLDTTPVVNGFASVPPFYQLCFIPV

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6124_g06.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_000771

ORF Size: 1470 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

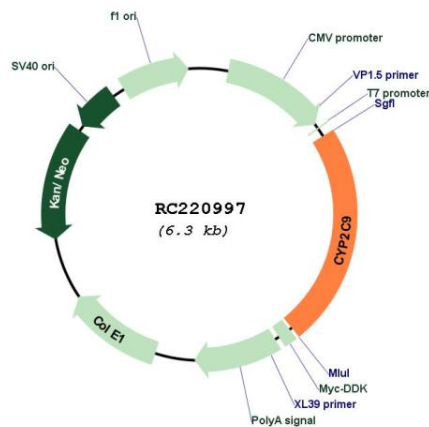
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

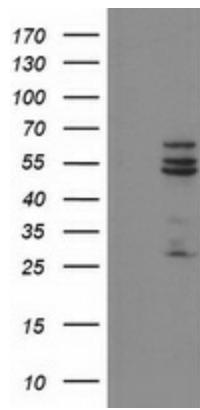
- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid 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_000771.4
RefSeq Size:	1835 bp
RefSeq ORF:	1473 bp
Locus ID:	1559
UniProt ID:	P11712
Cytogenetics:	10q23.33
Domains:	p450
Protein Families:	Druggable Genome, P450
Protein Pathways:	Arachidonic acid metabolism, Drug metabolism - cytochrome P450, Linoleic acid metabolism, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Retinol metabolism
MW:	55.4 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 its expression is induced by rifampin. The enzyme is known to metabolize many xenobiotics, including phenytoin, tolbutamide, ibuprofen and S-warfarin. Studies identifying individuals who are poor metabolizers of phenytoin and tolbutamide suggest that this gene is polymorphic. The gene is located within a cluster of cytochrome P450 genes on chromosome 10q24. [provided by RefSeq, Jul 2008]

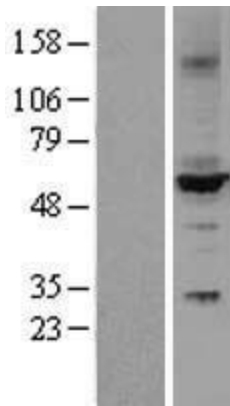
Product images:



Circular map for RC220997



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CYP2C9 (Cat# RC220997, 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-CYP2C9(Cat# [TA503796]). Positive lysates [LY400262] (100ug) and [LC400262] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400262]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220997 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CYP2C9 protein (Cat# [TP320997]). The protein was produced from HEK293T cells transfected with CYP2C9 cDNA clone (Cat# RC220997) using MegaTran 2.0 (Cat# [TT210002]).