

## Product datasheet for **RC209042**

### Cytochrome P450 17A1 (CYP17A1) (NM\_000102) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cytochrome P450 17A1 (CYP17A1) (NM_000102) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cytochrome P450 17A1
Synonyms:	CPT7; CYP17; P450C17; S17AH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC209042 representing NM\_000102  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTGGGAGCTCGTGGCTCTCTTGTGCTTACCCTAGCTTATTTGTTTTGGCCCAAGAGAAGGTGCCTG  
 GTGCCAAGTACCCCAAGAGCCTCCTGTCCCTGCCCTGGTGGCAGCCTGCCATTCTCCCAGACATGG  
 CCATATGCATAACAACCTTCTTCAAGCTGCAGAAAAATATGGCCCATCTATTCTGTTCTGATGGGCACC  
 AAGACTACAGTGATTGTGCGGCCACCACCAGCTGGCCAAGGAGGTGCTTATTAAGAAGGGCAAGGACTTCT  
 CTGGGCGGCCCTCAAATGGCAACTCTAGACATCGCGTCCAACAACCGTAAGGGTATCGCCTTCGCTGACTC  
 TGGCGCACACTGGCAGCTGCATCGAAGGCTGGCGATGGCCACCTTTGCCCTGTTCAAGGATGGCGATCAG  
 AAGCTGGAGAAGATCATTGTGAGGAAATCAGTACATTGTGTGATATGCTGGCCACCCACAACGGACAGT  
 CCATAGACATCTCTTTCTGTCTTCGTGGCGGTAACCAATGTCATCTCCTTGATCTGCTCAATACCTC  
 CTACAAGAAATGGGACCCTGAGTTGAATGTCATACAGAATTACAATGAAGGCATCATAGACAACCTGAGC  
 AAAGACAGCCTGGTGGACCTAGTCCCCTGGTTGAAGATTTTCCCAACAAAACCTGGAAAAATTAAGA  
 GCCATGTTAAAATACGAAATGATCTGCTGAATAAAATACTTGAATAATACAAGGAGAAATCCCGGAGTGA  
 CTCTATACCAACATGCTGGACACACTGATGCAAGCCAAGATGAACTCAGATAATGGCAATGCTGGCCCA  
 GATCAAGACTCAGAGCTGCTTTCAGATAACCACATTCTCACCACCATAGGGGACATCTTTGGGGCTGGCG  
 TGGAGACCACCACCTCTGTGGTTAAATGGACCTGGCCTTCTGCTGCACAATCCTCAGGTGAAGAAGAA  
 GCTCTACGAGGAGATTGACCAGAATGTGGGTTTCAGCCGCACACCAACTATCAGTGACCGTAACCGTCTC  
 CTCCTGCTGGAGGCCACCATCCGAGAGGTGCTTCGCCTCAGGCCCGTGGCCCTATGCTCATCCCCACA  
 AGGCCAACGTTGACTCCAGCATCGGTGAGTTTGTGTTGGACAAGGGCACAGAAGTTATCATCAATCTGTG  
 GCGCTGCATCACAATGAGAAGGAGTGGCACCAGCCGGATCAGTTCATGCCTGAGCGTTTCTTGAATCCA  
 GCGGGGACCCAGCTCATCTCACCCTCAGTAAGCTATTTGCCCTTCGGAGCAGGACCTCGCTCCTGTATAG  
 GTGAGATCCTGGCCCGCCAGGAGCTTCTCCTCATCATGGCCTGGCTGCTGCAGAGGTTTCGACCTGGAAGT  
 GCCAGATGATGGGAGCTGCCCTCCCTGGAAGGCATCCCCAAGGTGGTCTTTCTGATCGACTCTTTCAA  
 GTGAAGATCAAGGTGCGCCAGGCTGGAGGAAGCCAGGCTGAGGGTAGCACC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC209042 representing NM\_000102  
 Red=Cloning site Green=Tags(s)

MWELVALLLLTLAYLFWPKRRCPGAKYPKSLLSLPLVGSPLPFRHGHMHNFFKLLKQKYGPIYSVRMGT  
 KTTVIVGHHQLAKEVLIKKGKDFSGRPQMATLDIASNNRKGIAFADSGAHWQLHRRLAMATFALFKDGDQ  
 KLEKIIICQEISTLCDMLATHNGQSIDISFPVFAVTNVISLICFNNTSYKNGDPELNVIQNYNEGIIDNLS  
 KDSDLVDLVPWLKIFPNKLEKLSHVKIRNDLLNKILENYKEKFRSDSITNMLDTLMQAKMNSDNGNAGP  
 DQDSELLSDNHILTTIGDIFGAGVETTTSVVKWTLAFLHNPQVKKLYEEDQNVGFSRTPTISDRNRL  
 LLLLEATIREVLRRLRPVAPMLIPHKANVDSSIGEFVAVDKGTEVIINLWALHHNEKEWHQPDQFMPERFLNP  
 AGTQLISPSVSYLPPFAGPRSCIGEILARQELFLIMAWLLQRFDLEVPDDGQLPSLEGIPKVVFLIDFSK  
 VKIKVRQAWREAQEGST

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg2605\\_h01.zip](https://cdn.origene.com/chromatograms/mg2605_h01.zip)

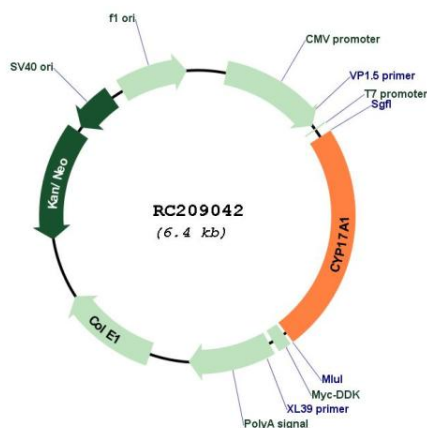
**Restriction Sites:**

Sgfl-Mlul

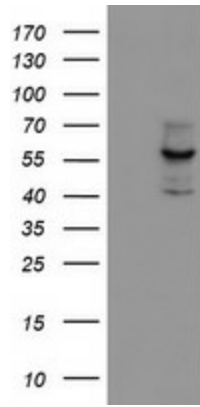


<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_000102.4</a>
<b>RefSeq Size:</b>	1755 bp
<b>RefSeq ORF:</b>	1527 bp
<b>Locus ID:</b>	1586
<b>UniProt ID:</b>	<a href="#">P05093</a>
<b>Cytogenetics:</b>	10q24.32
<b>Domains:</b>	p450
<b>Protein Families:</b>	Druggable Genome, P450
<b>Protein Pathways:</b>	C21-Steroid hormone metabolism, Metabolic pathways
<b>MW:</b>	57.2 kDa
<b>Gene Summary:</b>	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. It has both 17alpha-hydroxylase and 17,20-lyase activities and is a key enzyme in the steroidogenic pathway that produces progestins, mineralocorticoids, glucocorticoids, androgens, and estrogens. Mutations in this gene are associated with isolated steroid-17 alpha-hydroxylase deficiency, 17-alpha-hydroxylase/17,20-lyase deficiency, pseudohermaphroditism, and adrenal hyperplasia. [provided by RefSeq, Jul 2008]

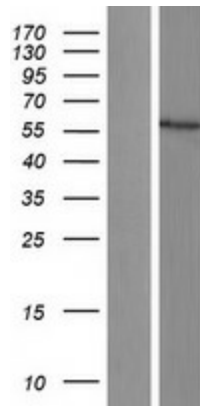
### Product images:



Circular map for RC209042



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CYP17A1 (Cat# RC209042, 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-CYP17A1 (Cat# [TA503442]). Positive lysates [LY400030] (100ug) and [LC400030] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400030]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209042 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CYP17A1 protein (Cat# [TP309042]). The protein was produced from HEK293T cells transfected with CYP17A1 cDNA clone (Cat# RC209042) using MegaTran 2.0 (Cat# [TT210002]).