

Product datasheet for **RR207658**

Cyp27a1 (NM_178847) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cyp27a1 (NM_178847) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cyp27a1
Synonyms:	Cyp27; P450C27
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RR207658 representing NM_178847
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCTGTGTTGAGCCGATGAGACTGAGATGGGCGCTTCTGGACACTCGTGTGATGGGCCATGGCCTCT
 GCCACAAGGGCCAGAGCCAAGGCCGCGATCCCTGCAGCCCTCCGGGATCACGAGAGCACGGAGGGTCC
 AGGAACAGGTCAAGACCGACCGCCTGCGGAGTCTGGCGGAGCTTCCGGGACCCGGAACGCTACGCTTT
 TTATTCCAGTATTTCTACGAGGCTATGTGCTGCACTTGCACGAGCTCCAGGCGCTGAACAAGGCCAAGT
 ACGGCCAATGTGGACAACCACCTTTGGGACTCGACCAATGTGAATCTGGCTAGCGCCCGCTCTTGGA
 GCAAGTGTGAGACAGGAGGGCAAGTACCCATAAGAGACAGCATGGAGCAGTGAAGGAGCACCGAGAC
 CACAAAGGCCCTCCTATGGGATCTTCATCACACAAGGACAGCAGTGGTACCATCTGCGTCATAGTTGA
 ATCAGCGGATGCTGAAGCCTGCTGAGGCAGCCCTCTACACAGATGCCTTAAACGAGGTATCAGTGACTT
 TATTGCCCGGCTGGACCAGGTGCGGACAGAGAGTGCATCAGGGGATCAGGTGCCAGATGTGGCACATCTT
 CTCTACCACCTTGCCCTTGAAGCCATCTGCTATATCCTGTTTGAAGAAAGGGTGGCTGCCTGGAGCCCT
 CCATCCCTGAGGACACCGCCACCTTCATCAGATCTGTTGGACTCATGTTCAAGAAGTCACTATATGTCAC
 TTTCTTCCCAAGTGGTCTCGGCCCTGCTGCCCTTTTGAAGCGATACATGAATAACTGGGATAACATT
 TTCTCCTTCGGGGAGAAGATGATTCATCAAAAAGTCCAGGAGATAGAAGCCAGCTACAGGCGGCTGGGC
 CAGATGGGGTCCAGGTATCTGGCTACCTGCACTTCTGCTGACTAAGGAATTGCTCAGTCCCAAGAGAC
 TGTCCGACCTTTCTGAGCTGATCTTGGCTGGGTAGACACGACATCCAATACACTGACCTGGGCCCTG
 TATCACCTTCAAAGAACCAGAGATCCAGGAAGCCTTGCACAAGGAAGTACTGGTGTGGTACCTTCG
 GGAAGGTGCCCCAGAACAAGGACTTTGCCCATGCCCCCTGCTAAAAGCTGTGATTAAGGAGACCTGCG
 CCTCTACCCTGTGGTTCCCAAAAAGTCCCGGATCATCACAGAAAAGGAAACTGAAATTAATGGCTTCCTC
 TTCCTAAGAATACACAGTTTGTGTTATGCCACTACGTGGTGTCCCGAGATCCCAGTGTCTTTCCTGAGC
 CCGAGAGCTTCCAGCCTCACCGATGGCTGAGGAAGAGAGAGGACGATAACTCCGGGATCCAACACCCATT
 TGGCTCTGTGCCCTTGGCTATGGGGTTCGGTCTGCCTGGTGCAGGATTGCAGAAGTGGAGATGCAA
 CTCCTGCTGTCAAGGCTGATACAAAAGTATGAGGTGGTCTGTCTCCCGGATGGGAGAAGTGAAGTCTG
 TGTCGCCGATCGTCTGGTTCAGCAAGAAGGTGAGCCTACGCTTCTGCAGAGACAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR207658 representing NM_178847
 Red=Cloning site Green=Tags(s)

MAVLSRMRLRWALLDTRVMGHGLCPQGARAKAAIPAALRDHESTEGPGTGQDRPRLRSLAELPGPGLRF
 LFQLFLRGYVHLHELQALNKAKYGPMTTTFGTRTNVNLASAPLLEQVMRQEGKYPIRDSMEQWKEHRD
 HKGLSYGIFITQGGQWYHLRHSLNQRMLKPAEAALYTDALNEVISDFIARLDQVRTEASAGDQVPDVAHL
 LYHLALEAICYILFEKRVGCLPSIPEDTATFIRSVGLMFKNSVYVTFLPKWSRPLLFWKRYMNNWDNI
 FSFGEKMIHQKVEIEAQLQAAGPDGVQVSGYLHFLTKELLSPQETVGTPELILAGVDTSNTLTWAL
 YHLSKNPEIQEALHKEVTGVVFPKVPQNKDFAHMPLLKAVIKETLRLYPVVPTNSRIITEKETEINGFL
 FPKNTQFVLCYVVS RDPSVFPPEPESFQPHRWLRKREDDNSGIQHPFGSVFPFGYGVRSCLGRRIAELEMQ
 LLLSRLIQKYEVVLSPGMGEVKSVSRIIVLPSKVSRLRFLQRQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_178847

ORF Size: 1599 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](#)

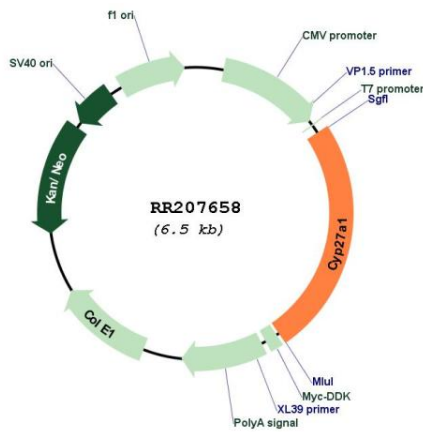
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_178847.3, NP_849178.2](#)
RefSeq Size: 2150 bp
RefSeq ORF: 1602 bp
Locus ID: 301517
UniProt ID: [P17178](#)
Cytogenetics: 9q33
MW: 60.7 kDa
Gene Summary: mitochondrial enzyme with both vitamin D3 25-hydroxylase and cholesterol 26-hydroxylase activities [RGD, Feb 2006]

Product images:



Circular map for RR207658