

Product datasheet for **MG224092**

Cyp7a1 (NM_007824) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cyp7a1 (NM_007824) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cyp7a1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG224092 representing NM_007824
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGATGAGCATTCTTTGATCTGGGGATTGCTGTGGTAGTGAGCTGTTGCATATGGTTTATCATTGGAA
 TAAGGAGAAGGAAAGTAGGTGAACCTCCTTTGGACAACGGTTGATTCCATACCTGGGCTGTGCTCTGAA
 GTTCGGATCCAATCCTCTTGAATTCCTAAGAGCAAAGCAAAGGAAACATGGCCACGTTTTTACCTGCAAA
 CTGATGGGGAAATATGTCCACTTCATCACAAACTCCCTGTACACCACAAAGTCTTATGTCACGGAAAAAT
 ATTTTGACTGGAAAAATTTTATTACACTACTTCTGCGAAGGCATTTGGACACAGAAGCATAGACCCAAG
 TGATGGAAATACCACGGAAAACATAAACAGACTTTTAAACAAAACCTCCAGGGAGATGCTCTGTGTTCA
 CTCTCTGAAGCCATGATGCAAAACCTCCAATCTGTCATGAGACCTCCGGGCTTCTCTAAATCAAAGAGCG
 CTGTCTGGGTACGGAAGGGATGTATGCCTTCTGCTACCGAGTGTGTTGAAGCCGGATATCTAACGCT
 GTTTGGCAAAGATATTTCAAAGACAGACACACAAAGAGCATTTATTCAAACAACCTTGACAGCTTCAA
 CAATTTGACCAAGTATTTCCGGCACTAGTGGCGGGCGTCCCTATTCACCTGTTTCAAGACCGCACATAAAG
 CCCGGAAAGGCTGGCTGAGAGCTTGAAGCACAAGAACCTGTACATGAGGGACCAGGTCTCTGAAGTGT
 CCGTCTACGCATGTTTCTCAACGACACACTCTCCACCTTTGATGACATGGAGAAGGCTAAGACGCACCTT
 GTGATCCTCTGGGCATCTCAAGCAAACACCATTCTGCAACCTTCTGGAGCTTATTTCAAATGATCAGGA
 GCCCTGAAGCAATGAAAGCAGCCTCTGAAGAAGTGAATGGATCATTACAGAGTGTGGCCAAGAGCTCAG
 CTCTGGAGGGAATGCCATTTACTTGGATCAAGAGCAACTAAACAACCTGCCAGTACTAGATAGCATCATC
 AAGGAGGCTCTGGGCTCTCCAGTGCATCCTTGAATATCCGGACAGCTAAGGAGGACTTCACTCTACACC
 TTGAGGATGGTTCTATAACATTCGAAAAGATGACATCATAGCTCTTTACCCACAGTTAATGCACCTTGA
 TCCTGAAATCTACCCAGACCCTTTGACTTTTAAATACGACCGGTACCTTGATGAAAGTGGGAAAGCAAAG
 ACCACCTTCTATAGAAATGGAAACAAGCTGAAAGTATTTCTACATGCCCTTTGGATCAGGAGCTACAAT
 GTCCTGGAAGACTATTTGCTGTCCAAGAAATCAAGCAATTTTGTATTCTGATGCTGTCTTACTTTGAACT
 GGAGCTTGTAGAGAGCCACCAAGTGTCCCTCTAGATCAGTCCCGGGCAGGCTTGGGAAATTTGCCA
 CCACTAAATGATATTGAGTTTAAATATAAACTGAAACAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG224092 representing NM_007824
 Red=Cloning site Green=Tags(s)

MMSISLIWGIIVVSSCIWFIIGIRRRKVGEPPLDNGLIPYLGALKFGSNPLEFLRAKQRKHGHVFTCK
 LMGKYVHFITNSLSYHKVLCHGKYFDWKKFHYTTSAKAFGHRSIDPSDGNTTENINKTFNKTLQGDALCS
 LSEAMQNLQSVMRPPLPKSKSAVWVTEGMYAFCYRVMFEAGYLTLFGKDISKTDTRAFIQNNLDSFK
 QFDQVFPALVAGVPIHLFKTAHKARERLAESLKHKNLYMRDQVSELIRLRMFLNDTLSTFDDMEKAKTHL
 VILWASQANTIPATFWSLFQMIRSPEAMKAASEEVNGLQSAGQELSSGGNAIYLDQEQLNNLPVLDSII
 KEALRLSSASLNIRTAKEDFTLHLEDGSYNIRKDDIIALYPQLMHLDPYIPDPLTFKYDRYLDESGKAK
 TTFYRNGNKLKYFMPFGSGATICPGRFLFAVQEIQQFLILMLSYFELELVESHTKCPPLDQSRAGLGILP
 PLNDIEFKYKLLKH

TRTRPLE - GFP Tag - V

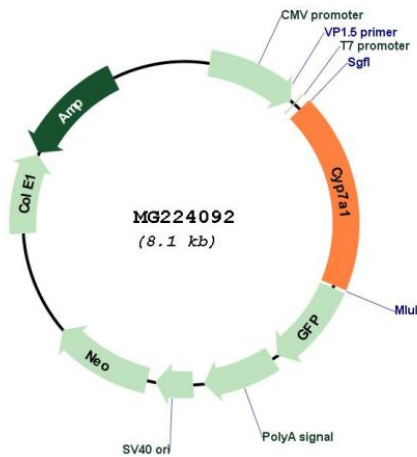
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_007824

ORF Size: 1509 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_007824.2](#), [NP_031850.2](#)

RefSeq Size: 4172 bp

RefSeq ORF: 1512 bp

Locus ID: 13122

UniProt ID: [Q64505](#)

Cytogenetics: 4 A1

Gene Summary: Catalyzes a rate-limiting step in cholesterol catabolism and bile acid biosynthesis by introducing a hydrophilic moiety at position 7 of cholesterol. Important for cholesterol homeostasis.[UniProtKB/Swiss-Prot Function]