

Product datasheet for **MG210099**

Mtrr (NM_172480) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mtrr (NM_172480) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Mtrr
Synonyms:	4732420G08; MSR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG210099 representing NM_172480
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGAAGGTTTTTGTACTTTATGCTACACAGCGAGGACAGGCAAAGGCCATAGCAGAAGAAATAAGT
 AGCAGGCTGTGTACACGGGTTTTCCGCAGATCTTCACTGTATCAGTGAGTCGGAAAAGTATGATCTGAA
 AACAGAAACTGGCCCTCTGGTGATGTTGTATCTACCACGGGTACAGGAGACCCACCTGACACAGCCCGG
 AAGTTTGTAAAGAAATACACAACAAGACTCCCCACGGACTATTTTGTCTCACCTGCGGTATGGATTAT
 TGGGCTTGGGTGACTCAGAATACACATACTTCTGCAATGGAGGGAAAGTAATTGATAAACGACTTCAGGA
 GCTTGGAGCCCAGCGTTTCTACGACACCGGACATGCCGATGACTGTGTCGGTTTAGAGCTTGTGGTAGAG
 CCGTGGATTGATGGACTCTGGGCTGCTCTACAAAGCACTTAAAGTCACTGGAGGACAAGAAAACATGA
 GTGACACACTCTCGCGAGCATCAGATGCCCCCTTGAGCACTGCCATGAAGCCGGAGTTGTTGCACATCCA
 GTCACAATTTGAACTGCTGAGATTAGAGGACGTGGGGGAGAGGGATTCTGAGCTTCGGGAACAAAATGAG
 ACAAACAGGGGTACGAGGGTCCGATCGAAGACTTTGACTCCTCGCTTGTGCACTCGGTCCCCCACTCT
 CCCAGAGCTCTCTAAGTATTCCTGCTGTGCCCCAGAGTATTTGGAGGTCCATCTTCAAGAGTCTCTTGG
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 CGTCTGACTACAAATGATGCCGTAAGAGCACTCTGCTGTTGAACTGGACATTTCAAAAATAGAGTTTT
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 AAGGCTGCAGCTGGCTGATAAACGAGCGCACCGTGTATCTTGAATAAAGACGGACACTAAGAAGAAA
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 TACGAGCAGTTCCTAAAAAGCCTTTTTTCGGGGCCCTTGGGAGCACACCAGCAGTGCCACTGAAAAGCG
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 GTTTAACATCGTGGAGTCCCACCGAGCACCCTGCAGCCTCCCGCGGAAGGGAGTGTGCACGGGCTGG
 CTAGCCACATTGGTTGCTCCATTCCTCAGCCAAACACAGACGTTTGAATGCAGACAGTGGGGACACTC
 TGGCTCCTGAGATACGTATCTCCTCGGGCAACAAATGCTTCCACTTACCAGAGGACCCGTCGGCCCC
 CATCATAATGGTGGTCCAGGAACTGGCGTAGCCCCCTTGTGGCTTCTCCAGCACAGAGAAAACTT
 CAAGAACAACACCCAGATGGGAAATTTGGAGCAATGTGGCTGTTCTTTGGCTGCAGACACAAGGACAGAG
 ACTACTTGTTCAGGGAGGAGCTCAGGCATTTCTCAAGACTGGGGTCTTGACTCATCTGAAGGTCTCGTT
 TTCAAGAGACGCTGCCCTGACGGGGAGGAGGCCCCAGCAAAGTATGTGCAAGACAACCTCCAGCGGCAC
 AGCCAGCAGGTGGCCAGGACCCTCCTCAGGAGAATGGCTACATTTACGTGTGTGGAGACGCCAAGAATA
 TGGCCAAGGACGTGAACGACACCCTCATAGGAATCATAAGCAATGAAGCTGGTGTGACAACTAGAAGC
 AATGAAGACGCTGGCAACGTTAAAGCAAGAGAAACGATATCTGCAGGACATCTGGTCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG210099 representing NM_172480
 Red=Cloning site Green=Tags(s)

MRRFLLL YATQRGQAKIAEEISEQAVSHGFSADLHCISESEKYDLKTETGPLVMVSTTGTGDPPTAR
 KFKVEIHNKTLPTDYFAHLRYGLLGLDSEYTYFCNGGKVIDKRLQELGAQRFYDTGHADDCVGLLELVE
 PWIDGLWAALTKHFKSLGGQENMSDTLSRASDAPLSTAMKPELLHIQSQFELLRLLEDVGERDSELREQNE
 TNRGQQGRIEDFSSLVHSPPLSQSSL SIPAVPPEYLEVHLQESLQEEENQASVPSGDPSPFQVPI SKAI
 RLTTNDAVKSTLLLELDISKIEFSHQPGDSFNVTCPNSDREVEELLQRLQLADKRAHRVILKIKTDTKKK
 GAALPAHVPEGRSLQFILTWCLEIRAVPKKAFLRALAEHTSSATEKRRLQELCSKQGAADYNRFIRDASV
 CLLDLLLLTFPSCQPPLSLLLHLPKLQPRPYSCASSLRHPDKLHFVFNIVEFPPSTTAASPRKGVCTGW
 LATLVAPFLQPNTDVSNADSGDTLAP EIRISPRATNAFHLPEDPSAPIIMVGP GTG VAPFVGFLQHREKL
 QE QHPDGKFGAMWLF FGCGRHKDRDYL FREELRHFLKTGVLTHLKVSFSRDAAPD GEEAPAKYVQDNLQRH
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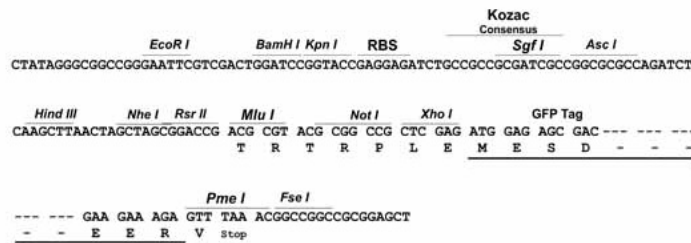
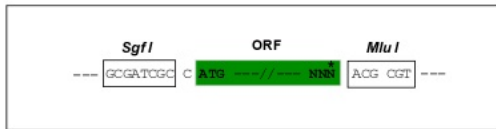
TRTRPLE - GFP Tag - V

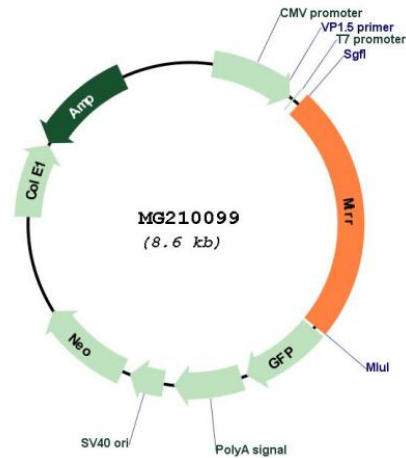
Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:


ACCN: NM_172480

ORF Size: 2088 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_172480.1](#), [NP_766068.1](#)

RefSeq Size: 3693 bp

RefSeq ORF: 2091 bp

Locus ID: 210009

UniProt ID: [Q8C1A3](#)

Cytogenetics: 13 35.54 cM

Gene Summary: Methionine is an essential amino acid required for protein synthesis and one-carbon metabolism. Its synthesis is catalyzed by the enzyme methionine synthase. Methionine synthase eventually becomes inactive due to the oxidation of its cob(I)alamin cofactor. The protein encoded by this gene regenerates a functional methionine synthase via reductive methylation. It is a member of the ferredoxin-NADP(+) reductase (FNR) family of electron transferases. Mutations in a similar gene in human have been associated with cblE complementation type homocystinuria-megaloblastic anemia and susceptibility to folate-sensitive neural tube defects. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, May 2015]