

## Product datasheet for **MR210099**

### Mtrr (NM\_172480) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Mtrr (NM_172480) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mtrr
Synonyms:	4732420G08; MSR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>MR210099 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGAAGGTTTTTGTACTTTATGCTACACAGCGAGGACAGGCAAAGGCCATAGCAGAAGAAATAAGTG  
 AGCAGGCTGTGTACACGGGTTTTCCGCAGATCTTCACTGTATCAGTGAGTCGGAAAAGTATGATCTGAA  
 AACAGAAACTGGCCCTCTGGTGATGGTTGTATCTACCACGGGTACAGGAGACCCACCTGACACAGCCCGG  
 AAGTTTGTAAAGAAATACACAACAAGACTCCCCACGGACTATTTTGTCCACCTGCGGTATGGATTAT  
 TGGGCTTGGGTGACTCAGAATACACATACTTCTGCAATGGAGGGAAAGTAATTGATAAACGACTTCAGGA  
 GCTTGGAGCCAGCGTTTCTACGACACCGGACATGCCGATGACTGTGTCGGTTTAGAGCTTGTGGTAGAG  
 CCGTGGATTGATGGACTCTGGGCTGCTCTACAAAGCACTTAAAGTCACTGGAGGACAAGAAAACATGA  
 GTGACACACTCTCGCGAGCATCAGATGCCCCCTTGGAGCACTGCCATGAAGCCGGAGTTGTTGCACATCCA  
 GTCACAATTTGAACTGCTGAGATTAGAGGACGTGGGGGAGAGGGATTCTGAGCTTCGGGAACAAAATGAG  
 ACAAACAGGGGTACGAGGGTCGGATCGAAGACTTTGACTCCTCGCTTGTGCACTCGGTCCCCCACTCT  
 CCCAGAGCTCTCTAAGTATTCCTGCTGTGCCCCAGAGTATTTGGAGGTCATCTCAAGAGTCTCTTGG  
 CCAGGAGGAAAACCAAGCATCTGTGCCTTCCAGGGATCCAAGTTTCAAGTTCCAATTTCAAAGGCCATT  
 CGTCTGACTACAAATGATGCCGTAAGAGCACTCTGCTGTTGAACTGGACATTTCAAAAATAGAGTTTT  
 CCCATCAACCTGGAGACTCCTTCAATGTGACCTGTCCAACAGTGATCGTGAGGTAGAAGAACTGCTCCA  
 AAGGCTGCAGCTGGCTGATAAACGAGCGCACCGTGTATCTTGAATAAAGACGGACACTAAGAAGAAA  
 GGAGCTGCCCTGCCTGCGCATGTGCCTGAGGGCGTCTCTCCAGTTCATCTCACCTGGTGTCTTGAAA  
 TACGAGCAGTTCCTAAAAAGCCTTTTTTCGGGCCCTTGGGAGCACACCAGCAGTGCCACTGAAAAGCG  
 GAGGCTGCAGGAGCTGTGCAGTAAACAAGGAGCCGCTGATTACAACCGCTTTATCCGAGATGCCAGCGTC  
 TGCTGCTGGACCTCCTGCTCACCTTCCCGTCTGCCAGCCTCCGCTCAGCCTCCTGCTGGAGCACCTTC  
 CTAAACTCAGCCTCGACCGTACTCATGTGCAAGCTCCAGCTTACGCCACCCAGACAAGCTTCACTTCGT  
 GTTTAACATCGTGGAGTCCCACCGAGCACCACTGCAGCCTCCCGCGGAAGGGAGTGTGCACGGGCTGG  
 CTAGCCACATTGGTTGCTCCATTCCTCAGCCAAACACAGACGTTTGAATGCAGACAGTGGGGACACTC  
 TGGCTCCTGAGATACGTATCTCTCCTCGGGCAACAAATGCTTCCACTTACCAGAGGACCCGTCGGCCCC  
 CATCATAATGGTGGTCCAGGAACTGGCGTAGCCCCCTTGTGGCTTCTCCAGCACAGAGAAAACTT  
 CAAGAACAACACCCAGATGGGAAATTTGGAGCAATGTGGCTGTTCTTTGGCTGCAGACACAAGGACAGAG  
 ACTACTTGTTCAGGGAGGAGCTCAGGCATTTCTCAAGACTGGGGTCTTACTCATCTGAAGGTCTCGTT  
 TTCAAGAGACGCTGCCCTGACGGGGAGGAGGCCCCAGCAAAGTATGTGCAAGACAACCTCCAGCGGCAC  
 AGCCAGCAGGTGGCCAGGACCCTCCTCAGGAGAATGGCTACATTTACGTGTGTGGAGACGCCAAGAATA  
 TGGCCAAGGACGTGAACGACACCCTCATAGGAATCATAAGCAATGAAGCTGGTGTGACAACTAGAAGC  
 AATGAAGACGCTGGCAACGTTAAAGCAAGAGAAAACGATATCTGCAGGACATCTGGTCC

**ACGCGT**ACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR210099 protein sequence  
Red=Cloning site Green=Tags(s)

MRRFLLL YATQRGQAKAIAEEISEQAVSHGFSADLHCISESEKYDLKTETGPLVMVSTTGTGDPPTAR  
 KFVKEIHNKTLPTDYFAHLRYGLLGLDSEYTYFCNGGKVIDKRLQELGAQRFYDTGHADDCVGLLELVE  
 PWIDGLWAALTKHFKSLGGQENMSDTLSRASDAPLSTAMKPELLHIQSQFELLRLLEDVGERDSELREQNE  
 TNRGQQGRIEDFDSSLVHSPPLSQSSLSIPAVPPEYLEVHLQESLQEEENQASVPSGDPSPFQVPI SKAI  
 RLTTNDAVKSTLLELDISKIEFSHQPGDSFNVTCPNSDREVEELLQRLQLADKRAHRVILKIKITDTKKK  
 GAALPAHVPEGRSLQFILTWCLEIRAVPKKAFLRALAEHTSSATEKRRLQELCSKQGAADYNRFIRDASV  
 CLLDLLLTFPSCQPPLSLLLEHLPKLQPRPYSCASSLRHPDKLHFVFNIVEFPPSTTAASPRKGVCTGW  
 LATLVAPFLQPNLDVSNADSGDTLAP EIRISPRATNAFHLPEDPSAPIIMVGP GTG VAPFVGFLQHREKL  
 QEQHPDGKFGAMWLF FGRHKDRDYL FREELRHFLKTGVLTHLKVSFSRDAAPDGE EAPAKYVQDNLQRH  
 SQQVARTLLQENGYIYVCGDAKNMAKD VNDTLIGIISNEAGVDKLEAMKTLATLKQEKRYLQDIWS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_172480

**ORF Size:** 2091 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 Size:** 3692 bp

**RefSeq ORF:** 2091 bp

**Locus ID:** 210009

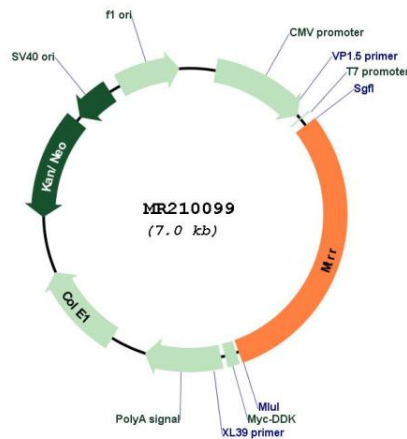
**UniProt ID:** [Q8C1A3](#)

**Cytogenetics:** 13 35.54 cM

**MW:** 77.6 kDa

**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]

**Product images:**



Circular map for MR210099