OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RR206318

Mtrr (NM_001039003) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mtrr (NM_001039003) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mtrr
Synonyms:	MSR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RR206318 representing NM_001039003
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGAAGGTTTTTGTTACTGTATGCTACACAGCGAGGGCAGGCAAAGGCCATAGCTGAAGAAATAAGTG
AGCAGGCTCTGTCACACGGGTTTTCCGCAGATCTTCACTGCGTCAGTGAGTCAGAAAAGAGCTCTCTAAG
TATTCCTGCTGTGTCCCCAGAATATTTGGAGGTCTATCTTCAGGAGTCTCTTGGCCAGGATGAAAACCAA
GCATCTGTGCCACCATCAGTCGATCCAATTTTTCAAGTTCCAATTTCAAAAGCTGTTGAGCTGACTACAA
ACGATGCCATAAAGACCACTCTGCTGTTGGAATTGGACATCTCAAAAGTAGAGTTTTCCCATCAACCTGG
AGATTCCTTCAATGTGATCTGTCCAAACAGTGGTTCTGAAGTAGAAGACTTGCTGCAAAGGCTGCAGCTG
GCTGACAAACAAGCACACCGGGTCATCCTGAAAATTAAGATGGACACCAAGAAGAAAGGAGCTTCTCTGC
CCCAGCATGTGCCTGAGGGGAGTTCTCTCCAGTTCATCTTCACCTGGTGTCTTGAAATACGAGCAGTTCC
TAAAAAGGCTTTTTTGAGGGCCCTTTCGGATTACACCAGCGATGCCACTGAAAAGCGGAGGCTTCAGGAG
CTCTGCAGTAAGCAGGGAGCAGCTGATTACAACCGCTTCATCCGAGATGCCAGTGTCTGCCTGCTAGACC
TCCTGCTTACCTTCCCATCCTGCCAGCCTCCGCTCAACCTCCTGCTGGAGCACCTTCCTAAACTCCAGCC
TCGACCATACTCGTGCGCAAGCTCCAGCTTACTCCATCCAGACAAGCTTCACTTTGTGTTTAACATCGTA
GAGCTTCCGTCGAACACCACTGCAGCCTCACTGCGGAAGGGAGTGTGCACAGGCTGGCTAGCCACATTGG
TTGCTCCATTTCTTCAGCCAAACACAGAAGTTTTGACTGCAGACCATAGTGATGCTCTGGCTCCTGAGAT
ACTTATCTCTCCTCGGGCAACAAATTCCTTCCACTTACCAGATGACCTGTCGGCCCCCATCATAATGGTG
GGTCCAGGAACTGGTGTAGCCCCCTTTGTTGGCTTCCTGCAGCACAGAGAAAAACTCCAAGAACAACACC
CAGACGGAAACTTTGGAGCAATGTGGCTGTTTTTTGGCTGCAGACATAAGGACAGAGACTATTTGTTCAG
GGAGGAGCTCAGGCATTTCCTCAAGACTGGGGTCTTGACTCACCTGAAGGTCTCATTCTCAAGAGATGCT
GCGCCTGAGGAAGAGGAGGAGGCCCCAGCAAAGTATGTGCAAGACAACCTCCAGCATCACAGCCAGCAGG
TGGCCAGGACCCTCCTTCAGGAGAATGGCTACATTTACGTGTGTGGAGACGCCAAGAATATGGCTAAGGA
TGTACACGACGCCCTTGTAGAAATCATAAGCAAAGAAGCTGGAGTTGACAAACTAGAAGCAATGAAGACA
CTGGCAACCTTAAAGCAAGAAAAGCGGTATCTGCAGGATATCTGGTCG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

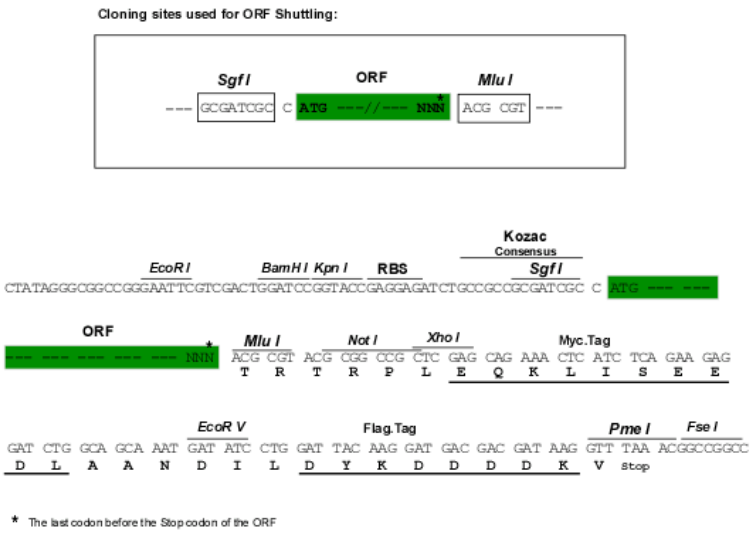
>RR206318 representing NM_001039003
Red=Cloning site Green=Tags(s)

MRRFLLLYATQRGQAKAIAEEISEQALSHGFSADLHCVSESEKSSLSIPAVSPEYLEVYLQESLGQDENQ
ASVPPSVDPIFQVPISKAVELTTNDAIKTTLLLELDISKVEFSHQPGDSFNVICPNSGSEVEDLLQRLQL
ADKQAHRVILKIKMDTKKKGASLPQHVPEGSSLQFIFTWCLEIRAVPKKAFLRALSDYTSDATEKRRLQE
LCSKQGAADYNRFIRDASVCLLDLLLTFPSCQPPLNLLLEHLPKLQPRPYSCASSSLLHPDKLHFVFNIV
ELPSNTTAASLRKGVCTGWLATLVAPFLQPNTEVLTADHSDALAPEILISPRATNSFHLPDDLSAPIIMV
GPGTGVAPFVGFLQHREKLQEQHPDGNFGAMWLFFGCRHKDRDYLFREELRHFLKTGVLTHLKVSFSRDA
APEEEEEAPAKYVQDNLQHHSQQVARTLLQENGYIYVCGDAKNMAKDVHDALVEIISKEAGVDKLEAMKT
LATLKQEKRYLQDIWS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001039003

ORF Size: 1518 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_001039003.1, NP_001034092.1

RefSeq Size: 2387 bp

RefSeq ORF: 1521 bp

Locus ID: 290947

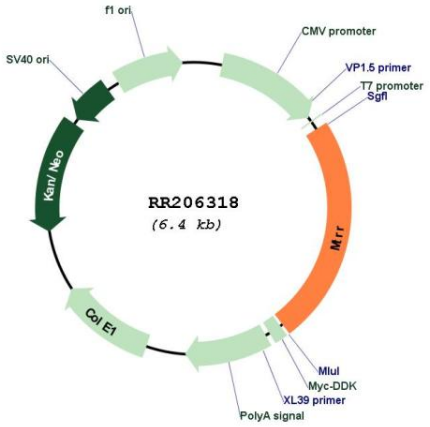
UniProt ID: Q498R1

Cytogenetics: 1p11

MW: 56.5 kDa

Gene Summary: Involved in the reductive regeneration of cob(I)alamin (vitamin B12) cofactor required for the maintenance of methionine synthase in a functional state. Necessary for utilization of methylgroups from the folate cycle, thereby affecting transgenerational epigenetic inheritance. Folate pathway donates methyl groups necessary for cellular methylation and affects different pathways such as DNA methylation, possibly explaining the transgenerational epigenetic inheritance effects.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RR206318