

Product datasheet for **RC212032**

MTRR (NM_024010) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MTRR (NM_024010) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MTRR
Synonyms:	cbIE; MSR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC212032 representing NM_024010
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGGCGTGCCTCAGTGCCTGCTGGCGCAAGGTTGGTGAAGTGCCTGTGCAGTTTCACTGTTACAT
GCCTTGAAGTGATGAGGAGGTTTCTGTTACTATATGCTACACAGCAGGGACAGGCAAGGCCATCGCAGA
AGAAATATGTGAGCAAGCTGTGGTACATGGATTTTCTGCAGATCTTCACTGTATTAGTGAATCCGATAAG
TATGACCTAAAAACCGAAACAGCTCCTCTTGTGTTGTGGTTTCTACCACGGGCACCGGAGACCCACCCG
ACACAGCCCGCAAGTTTGTAAAGAAATACAGAACCAAACTGCCGGTTGATTTCTTGGCTCACCTGCG
GTATGGTTACTGGTCTCGGTGATTGAGAATACACCTACTTTTGAATGGGGGAAGATAATTGATAAA
CGACTTCAAGAGCTTGGAGCCCGCATTCTATGACACTGGACATGCAGATGACTGTGTAGGTTTAGAAC
TTGTGGTTGAGCCGTGGATTGCTGGACTCTGGCCAGCCCTCAGAAAGCATTTTAGGTCAAGCAGAGGACA
AGAGGAGATAAGTGGCGCACTCCCGGTGGCATCACCTGCATCCTTGAGGACAGACCTTGTGAAGTCAGAG
CTGCTACACATTGAATCTCAAGTCGAGCTTCTGAGATTCGATGATTTCAGGAAGAAAGGATTCTGAGGTTT
TGAAAGCAAAATGCAGTGAACAGCAACCAATCCAATGTTGTAATTGAAGACTTTGAGTCTCACTTACCCG
TTCCGTACCCCACTCTCACAAGCCTCTCTGAATATTCCTGGTTTACCCCAAGATTTTACAGGTACAT
CTGCAGGAGTCTCTTGGCCAGGAGGAAAGCCAAGTATCTGTGACTTCAGCAGATCCAGTTTTTCAAGTGC
CAATTTCAAAGGCAGTTCAACTACTACGAATGATGCCATAAAAACCACTCTGCTGGTAGAATTGGACAT
TTCAAATACAGACTTTTCTATCAGCCTGGAGATGCCTTCAGCGTGATCTGCCCTAACAGTGATTCTGAG
GTACAAAGCCTACTCAAAGACTGCAGCTTGAAGATAAAAGAGAGCACTGCGTCTTTTAAAAATAAAGG
CAGACACAAAGAAGAAAGGAGCTACCTTACCCAGCATATACCTGCGGGATGTTCTCTCCAGTTCAATTT
TACCTGGTGTCTTGAATCCGAGCAATTCCTAAAAAGGCATTTTTCGAGGCCCTTGTGGACTATACCAAT
GACAGTGTGAAAAGCGCAGGCTACAGGAGCTGTGCAGTAAACAAGGGGAGCCGATTATAGCCGTTTGTG
TACGAGATGCCTGTGCCTGCTTGTGGATCTCCTCCTCGCTTTCCTTCTTGGCCAGCCACCACTCAGTCT
CCTGCTCGAACATCTTCTAAACTTCAACCCAGACCATATTCGTGTGCAAGCTCAAGTTTATTTACCCCA
GGAAAGCTCCATTTTGTCTTCAACATTGTGGAATTTCTGTCTACTGCCACAACAGAGTTCTGCGGAAGG
GAGTATGTACAGGCTGGCTGGCCTTGTGGTTGCTTCAGTTCTTTCAGCCAAACATACATGCATCCCATGA
AGACAGCGGAAAGCCCTGGCTCCTAAGATATCCATCTCTCCTCGAACAAACAATTTCTTCCACTTACCA
GATGACCCCTCAATCCCATCATAATGGTGGTCCAGGAACCGGCATAGCCCGTTTATTGGGTTCTAC
AACATAGAGAGAACTCCAAGAACAACCCAGATGGAAATTTTGGAGCAATGTGTTGTTTTTGGCTG
CAGGCATAAGGATAGGATTATCTATTCAGAAAAGAGCTCAGACATTTCTTAAGCATGGGATCTTAACT
CATCTAAAGTTTCTTCTCAAGAGATGCTCCTGTTGGGGAGGAGGAAGCCCAAGATGTGCAAG
ACAACATCCAGCTTATGGCCAGCAGGTGGCAAGAATCTCCTCCAGGAGAACCGCCATATTTATGTGTG
TGGAGATGCAAAGAATATGGCCAAGGATGTACATGATGCCCTTGTGCAAATAATAAGCAAAGAGGTTGGA
GTTGAAAACTAGAAGCAATGAAAACCTGGCCACTTTAAAAGAAGAAAAACGCTACCTCAGGATATT
GGTCA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC212032 representing NM_024010
Red=Cloning site Green=Tags(s)

MGAASVRAGARLVEVALCSFTVTTCLEVMRRFLLLYATQQGQAKIAEEICEQAVVHGFSADLHCISESDK
 YDLKTETAPLVVVVSTTGDPDPDARKFVKEIQNQLPVDFFAHLRYGLLGLGDSEYTYFCNNGKIIDK
 RLQELGARHFYDTGHADDCVLELVVEPWIAGLWPALRKHFRRSSRQEEISGALPVASPLRDLVKSE
 LLHIESQVELLRFDDSGRDKSEVLKQNAVNSNQSNVVIEDFESSLTRSVPLSQASLNIPGLPPEYLQVH
 LQESLGQEEESQSVTSADPVFQVPI SKAVQLTTNDAIKTTLLVELDISNTDFSYQPGDAFSVICPNSDSE
 VQSLQLRQLLEDKREHCVLLKIKADTKKKGATLPQHIPAGCSLQFIFTWCLEIRAIPKKAFLRALVDYTS
 DSAEKRRLLQELCSKQGAADYSRFVRDACACLLDLLAFSPCQPPLSLLLEHLPKLPQRPYSCASSSLFHP
 GKLFHFVNI VEF LSTATTEVLRKGVCTGWLALLVASVLQPNIHASHEDSGKALAPKISISPRTTNSFHLP
 DDPISPIIMVGPGTGIAPFIGFLQHREKLQEHPDGNFGAMWLF GCRHKDRDYLF R KELRHFLKHGILT
 HLKVSFSRDAPVGE E EAPAKYVQDN IQLHGQQVARILLQENGH IYVCGDAKNMAKDVHDALVQIISKEVG
 VEKLEAMKTLATLKEEKRYLQDIWS

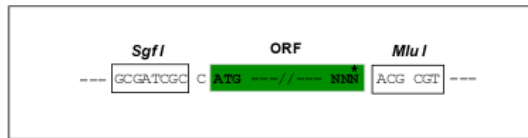
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6164_f08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_024010

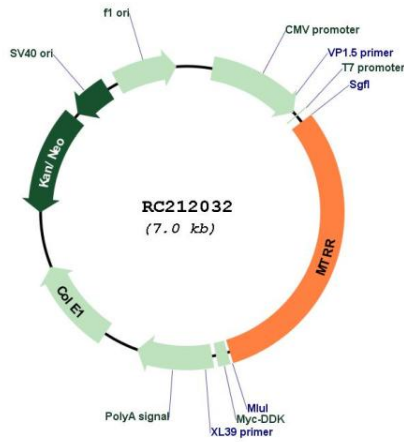
ORF Size: 2175 bp

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](#)

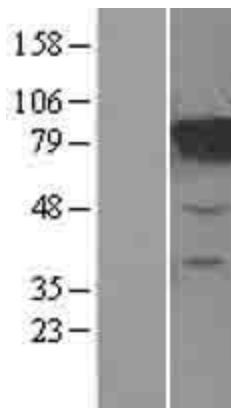
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<ol style="list-style-type: none">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:	<u>NM_024010.2</u>
RefSeq Size:	3291 bp
RefSeq ORF:	2097 bp
Locus ID:	4552
UniProt ID:	<u>Q9UBK8</u>
Cytogenetics:	5p15.31
Domains:	flavodoxin, NAD_binding_1, FAD_binding_1
Protein Families:	Druggable Genome
MW:	80.2 kDa
Gene Summary:	This gene encodes a member of the ferredoxin-NADP(+) reductase (FNR) family of electron transferases. This protein functions in the synthesis of methionine by regenerating methionine synthase to a functional state. Because methionine synthesis requires methyl-group transfer by a folate donor, activity of the encoded enzyme is important for folate metabolism and cellular methylation. Mutations in this gene can cause homocystinuria-megaloblastic anemia, cbl E type. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, Dec 2015]

Product images:



Circular map for RC212032



Western blot validation of overexpression lysate (Cat# [LY402971]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212032 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).