

Product datasheet for **SC109461**

MTRR (NM_002454) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MTRR (NM_002454) Human Untagged Clone
Tag:	Tag Free
Symbol:	MTRR
Synonyms:	cbIE; MSR
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC109461 sequence for NM_002454 edited (data generated by NextGen Sequencing)

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ATGAGGAGGTTTCTGTTACTATATGCTACACAGCAGGGACAGGCCAAAGGCCATCGCAGAAGAAATATGTG
AGCAAGCTGTGGTACATGGATTTTCTGCAGATCTTCACTGTATTAGTGAATCCGATAAGTATGACCTAAA
AACCGAAACAGCTCCTCTTGTGTTGTGGTTTCTACCACGGGCACCGGAGACCCACCCGACACAGCCCGC
AAGTTTGTAAAGGAAATACAGAACCAAACACTGCCGGTTGATTTCTTTGCTCACCTGCGGTATGGGTAC
TGGGTCTCGGTGATTGAAATACACCTACTTTTGAATGGGGGAAGATAATTGATAAACGACTTCAAGA
GCTTGGAGCCCGCATTCTATGACACTGGACATGCAGATGACTGTAGGTTTAGAAGTTGTGGTTGAG
CCGTGGATTGCTGGACTTGGCCAGCCCTCAGAAAGCATTTTAGGTCAAGCAGAGGACAAGAGGAGATAA
GTGGCGCACTCCCGGTGGCATCACCTGCATCCTCGAGGACAGACCTTGTGAAGTCAGAGCTGCTACACAT
TGAATCTCAAGTCGAGCTTCTGAGATTCGATGATTCAGGAAGAAAGGATTCTGAGGTTTTGAAGCAAAT
GCAGTGAACAGCAACCAATCCAATGTTGTAATTGAAGACTTTGAGTCTCACTTACCCGTTCCGTACCCC
CACTCTACAAGCCTCTGTAATTTCTGGTTTACCCCAAGAAATTTACAGGTACATCTCGAGGAGTC
TCTTGGCCAGGAGAAAGCAAGTATCTGTGACTTCAGCAGATCCAGTTTTTCAAGTGCCAAATTTCAAAG
GCAGTTCAACTTACTACGAATGATGCCATAAAAAACCACTCTGCTGGTAGAATTGGACATTTCAAATACAG
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GGCTGGCTGGCCTTGTGGTTGCTTCAAGTCTTTCAGCCAAACATACATGCATCCCATGAAGACAGCGGGA
AAGCCCTGGCTCCTAAGATATCCATCTCTCCTCGAACACAAATTTTCCACTTACCAGATGACCCCTC
AATCCCATCATAATGGTGGTCCAGGAACCGGCATAGCCCGTTTATTGGGTTCTACAACATAGAGAG
AACTCCAAGAACAACCCAGATGGAATTTTGGAGCAATGTGGTTGTTTTTGGCTGCAGGCATAAGG
ATAGGGATTATCTATTCAGAAAAGAGCTCAGACATTTCTTAAGCATGGGATCTTAACATCTAAAGGT
TTCTTCTCAAGAGATGCTCCTGTTGGGAGGAGGAAGCCCAAGTATGTGAAGACAACATCCAG
CTTCATGGCCAGCAGGTGGCGAGAATCCTCCTCCAGGAGAACGGCCATATTTATGTGTGGAGATGCAA
AGAATATGGCCAAGGATGTACATGATGCCCTTGTGCAAATAATAAGCAAAGAGGTTGGAGTTGAAAACT
AGAAGCAATGAAAACCTGGCCACTTTAAAAGAAGAAAAACGCTACCTTCAGGATATTTGGTCA
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Clone variation with respect to NM_002454.2

5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_002454 unedited</p> <pre> CAAACCCATTTCGGCACGAGGGGAAGTCGCGTTGTGCAGGTTTCGTGCCCGGCTGGCGCGGC GTGGTTTCACTGTTACATGCCTTGAAGTGATGAGGAGGTTTCTGTTACTATATGCTACAC AGCAGGGACAGGCAAAGGCCATCGCAGAAGAAATATGTGAGCAAGCTGTGGTACATGGAT TTTCTGCAGATCTTCACTGTATTAGTGAATCCGATAAGTATGACCTAAAAACCGAAACAG CTCCTCTTGTGTTGTGGTTTCTACCACGGGCACCGGAGACCCACCCGACACAGCCCGCA AGTTTGTTAAGGAAATACAGAACCAAACTGCCGTTGATTTCTTTGCTCACCTGCGGT ATGGGTTACTGGGTCTCGGTGATTCAGAATACACCTACTTTTGAATGGGGGAAGATAA TTGATAAACGACTTCAAGAGCTTGGAGCCCGCATTTCTATGACACTGGACATGCAGATG ACTGTGTAGGTTTAGAAGTTGTGGTTGAGCCGTGGATTGCTGGACTCTGGCCAGCCCTCA GAAAGCATTTTAGGTCAAGCAGAGGACAAGAGGAGATAAGTGGCGCACTCCCGTGGCAT CACCTGCATCCTCGAGGACAGACCTTGTGAAGTCAGAGCTGCTACACATTGAATCTCAAG TCGAGCTTCTGAGATTCGATGATTCAGGAAGAAAGGATTCTGAGGTTTTGAAGCANAATG CAGTGAACAGCAACCAATCCAATGTTGTAATTGAAGACTTTGAGTCTCACTTACCCGTT CGGTACCCCACTCTACAAGCCTCTGAATATTCCTGGTTTACCCCAAGAAATTTTAC AGGTACATCTGCAAGAGTC </pre>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_002454 unedited</p> <pre> AAGCGCTGTTTTTCATACCTTTTTTCAAAGACAAAGCCTTCAACANANAGTTTTAAATCC CAAGCTATCAAATAAAAAACAATATATTATTAGAACAGTNGAGAAAGATTATCATAAC ATTTTGTGTTTGTGCAAATTATAACAGGGAATTAGACACTGGGAATCTAAAAATCCA AGGATACTAACTAAAGTCAGTATTTTAGGTCCAGCACACTGCTTGAGTGGTATCATGGAG ACAAATAATGTGGGAAAACCTAAAAATGTGCCAAGCAGCAGAAATAAAGGAGTGAATAA AAAAGGTTGTATCTTTCTATTAATAATGTACGTACTGGTACCTGTAATTTGAATGCAA ATGTCCAAAAATTCTGAAATTTGACTTAAAAAAGTAAATGGTGATAGATAAATCATAT GCCAGAGTGAAATTTTAAATACATTTTCATATTTCCAGCATCATAAAAATAAATCCCTCT GTAGGCAATTATCCTAAAAATTTTTTATCAGAAATATAGCTTTAGTAACAAATAACCAT TTGATAGTTACATAAACATATAACAGATATGCTCTACATGTGTAATTTAAGTACATTAAT ATGAGCATTCTTTATGGGTATACATCATANAAATAAATCATTTTCATACTTTTTTAA TGTTGGCACTGTTAGTCACAAGAATGAGCTACTCAGTCAGTCTCCCTATTTTCAGGAAGCC CTTGATGGNAAGACAGAGTCTCTGTGAAGTTCTCTGGGAGTAAAGGAAGCGCTGATAG GGACTGAAGGCTGCCCTAGCTCAGAAGAGCTCAAGGCACAGGGCATTGGGGAAGATCAC AAGCCCCAGGAAGGCGTAGATTGAAGATCCGTAATCAAATCAGGAAATTTTGTTAAT </pre>
Restriction Sites:	NotI-NotI
ACCN:	NM_002454
Insert Size:	3300 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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_002454.1, NP_002445.1</u>
RefSeq Size:	3317 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
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (1) differs in the 5' UTR compared to variant 6. Variants 1, 2, 6, 7, and 8 all encode the same protein.</p>