

Product datasheet for **RC239695**

MTR (NM_001291940) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MTR (NM_001291940) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MTR
Synonyms:	cbIG; HMAG; MS
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

ORF Nucleotide
Sequence:

>RC239695 representing NM_001291940
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGGAGCCCAGGTGTTGGATGTCAACATGGATGATGGCATGCTAGATGGTCCAAGTGAATGACCAGAT
TTTGCAACTTAATTGCTTCCGAGCCAGACATCGCAAAGGTACCTTTGTGATCGACTCCTCCAATTTTGC
TGTGATTGAAGCTGGGTTAAAGTGTGCCAAGGGAAGTGCATTGTCAATAGCATTAGTCTGAAGGAAGGA
GAGGACGACTTCTGGAGAAGGCCAGGAAGATTAAGTATGGAGCTGCTATGGTGGTATGGCTTTTGT
ATGAAGAAGGACAGGCAACAGAAACAGACACAAAAATCAGAGTGTGCACCCGGGCTACCATCTGCTTGT
GAAAAAAGTGGGCTTTAATCCAATGACATTATTTTTGACCCTAATATCCTAACCATGGGACTGGAATG
GAGGAACACAACCTGTATGCCATTAATTTATCCATGCAACAAAAGTCATTAAGAAACATTACCTGGAG
CCAGAATAAGTGGAGGCTTTCCAATGTCTTCTCCTCCGAGGAATGGAAGCCATTCGAGAAGCAAT
GCATGGGGTTTTCTTTACCATGCAATCAAGTCTGGCATGGACATGGGGATAGTGAATGTGGAAACCTC
CCTGTGTATGATGATATCCATAAGGAATCTGTCAGCTCTGTGAAGATCTCATCTGGAATAAGACCCCTG
AGGCCACTGAGAAGCTCTTACGTTATGCCAGACTCAAGGCACAGGAGGGAAGAAAGTCATTGACTGTA
TGAGTGGAGAAATGGCCCTGTGCAAGAAGCCCTTGTAGTATGCCCTTGTGAAGGGCATTGAAAAACATATT
ATTGAGGATACTGAGGAAGCCAGGTTAAACCAAAAAAATATCCCGACCTCTCAATATAATTGAAGGAC
CCCTGATGAATGGAATGAAAATGTTGGTGATCTTTTTGGAGCTGGAAAAATGTTTCTACCTCAGGTTAT
AAAGTCAGCCCGGTTATGAAGAAGGCTGTTGGCCACCTTATCCCTTTCATGGAAAAAGAAAGAGAAGAA
ACCAGAGTGCTTAACGGCACAGTAGAAGAAGAGGACCCCTACCAGGGCACCATCGTGGCCACTGTGTA
AAGGCGACGTGCACGACATAGCAAGAACATAGTTGGAGTAGTCTTGGCTGCAATAATTTCCGAGTTAT
TGATTTAGGAGTCATGACTCCATGTGATAAGATACTGAAAGCTGCTCTTGACCACAAAGCAGATAAATT
GGCCTGTGAGGACTCATCACTCCTTCCCTGGATGAAATGATTTTTGTTGCCAAGGAAATGGAGAGATTAG
CTATAAGGATTCCATTGTTGATTGGAGGAGCAACCACTTCAAAAACCCACACAGCAGTAAAAATAGCTCC
GAGATACAGTGCACCTGTAATCCATGTCTGGACGCGTCCAAGAGTGTGGTGGTGTGTTCCAGCTGTTA
GATGAAAATCTAAAGGATGAATACTTTGAGGAAATCATGGAAGAATATGAAGATATTAGACAGGACCATT
ATGAGTCTCTCAAGGAGAGGAGATACTTACCCTAAGTCAAGCCAGAAAAAGTGGTTTCCAATGGATTG
GCTGTCTGAACCTCACCCAGTGAAGCCACGTTTATTGGGACCCAGGTCTTTGAAGACTATGACCTGCAG
AAGCTGGTGGACTACATTGACTGGAAGCCTTTCTTTGATGTCTGGCAGCTCCGGGGCAAGTACCCGAATC
GAGGCTTTCCCAAGATATTTAACGACAAAACAGTAGGTGGAGAGGCCAGGAAGGTCTACGATGATGCCCA
CAATATGCTGAACACACTGATTAGTCAAAGAAACTCCGGGCCCGGGGTGTGGTTGGGTTCTGGCCAGCA
CAGAGTATCCAAGACGACATTACCTGTACGCAGAGGCTGCTGTGCCCCAGGCTGCAGAGCCCATAGCCA
CCTTCTATGGGTTAAGGCAACAGGCTGAGAAGGACTCTGCCAGCACGGAGCCATACTACTGCCTCTCAGA
CTTCATCGCTCCCTTGCACTTCTGGCATCCGTGACTACCTGGGCTGTTTGCCGTTGCCTGCTTTGGGGTA
GAAGAGCTGAGCAAGGCCTATGAGGATGATGGTGACGACTACAGCAGCATCATGGTCAAGGCGCTGGGGG
ACCGGCTGGCAGAGGCCCTTTCAGAGAAGCTCCATGAAAGAGTTCGCCGAGAAGTGTGGGCTACTGTGG
CAGTGAGCAGCTGGACGTCGCAGACCTGCGCAGGCTGCGGTACAAGGGCATCCGCCCGGCTCCTGGCTAC
CCCAGCCAGCCGACCACACCGAGAAGCTCACCATGTGGAGACTCGCAGACATCGAGCAGTCTACAGGCA
TTAGGTTAACAGAATCATTAGCAATGGCACCTGCTTCAGCAGTCTCAGGCCTCTACTTCTCCAATTTGAA
GTCCAATATTTTGTGTGGGAAGATTTCCAAGGATCAGGTTGAGGATTATGCATTGAGGAAGAACATA
TCTGTGGCTGAGGTTGAGAAATGGCTTGGACCCATTTTGGGATATGATACAGAC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA

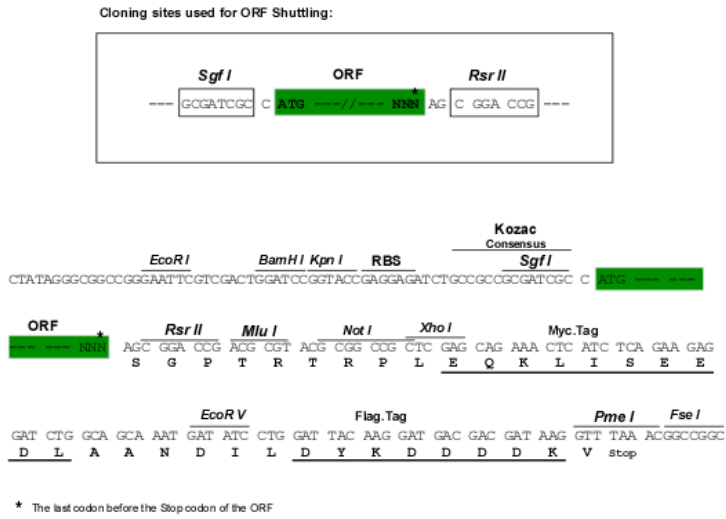
Protein Sequence: >RC239695 representing NM_001291940
Red=Cloning site Green=Tags(s)

MGAQVLDVNMDDGMLDGPMSAMTRFCNLIASEPDIKAVPLCIDSSNFAVIEAGLKCCQGKCIVNSISLKEG
EDDFLEKARKIKKYGAAMVVMFAFDEEGQATETDTKIRVCTRAYHLLVKKLGFNPNDIIFDPNLTIGTGM
EEHNL YAINFIHATKVIKETLPGARISGGLSNLSFSFRGMEAIREAMHGVFLYHAIKSGMDMGIVNAGNL
PVYDDIHKELLQLCEDLIWNKDPEATEKLLRYAQTQGTGGKKVIQTDEWRNGPVEERLEYALVKGIEKHI
IEDTEEARLNQKKYPRPLNIEGPLMNGMKIVGDLFGAGKMFLPQVIKSARVMKKAVGHILPFMEKERE
TRVLNGTVEEEDPYQGTIVLATVKGDVHDI GKNIVGVVLGCNNFRVIDLGVMTPCDKILKAALDHKADII
GLSGLITPSLDEMIFVAKEMERLAIRIPLLLIGGATTSKHTAVKIAPRYSAPVIHVLDASKSVVCSQLL
DENLKDEYFEEIMEEYEDIRQDHYESLKERRYPLSQARKSGFQMDWLSEPHVVKPTFIGTQVFEDYDLQ
KLVVDYIDWKPFDFVWQLRGKYPNRGFPKIFNDKTVGGEARKVYDDAHNMLNTLISQKLRARGVGFWPA
QSIQDDIHL YAAAVPQAAEPIATFYGLRQQA EKDSASTE PYYCL SDFIAPLHSGIRDYLG LFAVACFV
EELSKAYEDDGDYSSIMVKALGDRLAEFAEELHERVRRELWAYCGSEQLDVADLRRLRYKIRPAPGY
PSQPDHTEKLT MWRLADIEQSTGIRL TESLAMAPASAVSGLYF SNLKS KYFAVGKISKDQVEDYALRKNI
SVAEVEKWLGPILGYDTD

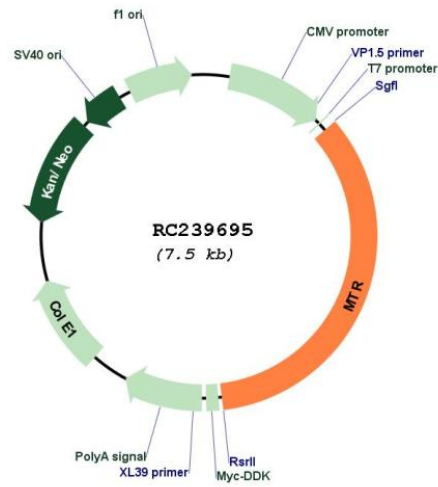
SGPTRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-RsrII

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001291940
ORF Size:	2574 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:	NM_001291940.2
RefSeq Size:	10462 bp
RefSeq ORF:	2577 bp
Locus ID:	4548
UniProt ID:	Q99707
Cytogenetics:	1q43
Protein Families:	Druggable Genome
Protein Pathways:	Cysteine and methionine metabolism, Metabolic pathways, One carbon pool by folate
MW:	96.6 kDa
Gene Summary:	This gene encodes the 5-methyltetrahydrofolate-homocysteine methyltransferase. This enzyme, also known as cobalamin-dependent methionine synthase, catalyzes the final step in methionine biosynthesis. Mutations in MTR have been identified as the underlying cause of methylcobalamin deficiency complementation group G. Alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, May 2014]