

## Product datasheet for RC231825

### MTHFS (NM\_001199758) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** MTHFS (NM\_001199758) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** MTHFS  
**Synonyms:** HsT19268; NEDMEHM  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RC231825 representing NM\_001199758  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGCAAGATGAAATTGAGACAGAAGAGATCATCAAGGACATTTTCCAACGAGGCAAATCTGCTTCATCC  
CTCGGTACCGGTTCCAGAGCAATCACATGGATATGGTGAGAATAGAATCACCAGAGGAAATTTCTTACT  
TCCAAAACATCCTGGAATATCCCTCAGCCTGGTGAGGGTGATGTTCCGGGAGGAGCCTTGCCACAGGG  
GGACTTGATCTCATCTTCATGCCAGGCCTTGGGTTTGACAAACATGGCAACCGACTGGGGAGGGCAAGG  
GCTACTATGATGCCTATCTGAAGCGCTGTTGCAGCATCAGGAAGTGAAGCCCTACACCCTGGCGTTGGC  
TTTCAAAGAACAGATTTGCCTCCAGTCCAGTGAATGAAAACGACATGAAGGTAGATGAAGTCCTTTAC  
GAAGACTCGTCAACAGCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC231825 representing NM\_001199758  
Red=Cloning site Green=Tags(s)  
MQDEIETEEIIKIDIFQRGKICFIPRYRFQSNHMDMVRIESPEEISLLPKTSWNIPQPEGEDVREEALSTG  
GLDLIFMPGLGFDKHNRLGRGKYDAYLKRCLQHVEKPYTLALAFKEQICLQVPVNENDMKVDEVLY  
EDSSTA

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-Mlul

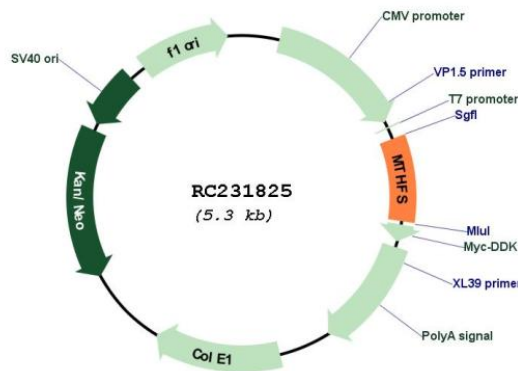


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Cloning Scheme:



Plasmid Map:



ACCN: NM\_001199758

ORF Size: 438 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_001199758.1</a></u> , <u><a href="#">NP_001186687.1</a></u>
<b>RefSeq Size:</b>	2293 bp
<b>RefSeq ORF:</b>	441 bp
<b>Locus ID:</b>	10588
<b>UniProt ID:</b>	<u><a href="#">P49914</a></u>
<b>Cytogenetics:</b>	15q25.1
<b>Protein Pathways:</b>	Metabolic pathways, One carbon pool by folate
<b>MW:</b>	17.3 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is an enzyme that catalyzes the conversion of 5-formyltetrahydrofolate to 5,10-methenyltetrahydrofolate, a precursor of reduced folates involved in 1-carbon metabolism. An increased activity of the encoded protein can result in an increased folate turnover rate and folate depletion. Three transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Jun 2011]