

Product datasheet for **RG205749**

MTHFS (NM_006441) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: MTHFS (NM_006441) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: MTHFS
Synonyms: HsT19268; NEDMEHM
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG205749 representing NM_006441
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCGGCAGCGGTGAGCAGCGCCAAGCGTAGCCTGCGGGGAGAGCTGAAGCAGCGTCTGCGGGCGA
TGAGTGCCGAGGAGCGGCTACGCCAGTCCCGCTACTGAGCCAGAAGGTGATTGCCACAGTGAGTATCA
AAAGTCCAAAAGAATTTCCATCTTTCTGAGCATGCAAGATGAAATTGAGACAGAAGATCATCAAGGAC
ATTTTCCAACGAGGCAAAATCTGCTTCATCCCTCGGTACCGTTCAGAGCAATCACATGGATATGGTGA
GAATAGAATCACCAGAGGAAATTTCTTTACTTCCAAAACATCCTGGAATATCCCTCAGCCTGGTGAGGG
TGATGTTGCGGAGGAGGCCTTGTCCACAGGGGACTTGATCTCATCTTCATGCCAGGCCTTGGGTTTGAC
AAACATGGCAACCGACTGGGAGGGGCAAGGGCTACTATGATGCCTATCTGAAGCGCTGTTTGCAGCATC
AGGAAGTGAAGCCCTACACCCTGGCGTTGGCTTCAAAGAACAGATTTGCCTCCAGGTCCAGTGAATGA
AAACGACATGAAGGTAGATGAAGTCCTTACGAAGACTCGTCAACAGCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG205749 representing NM_006441
Red=Cloning site Green=Tags(s)

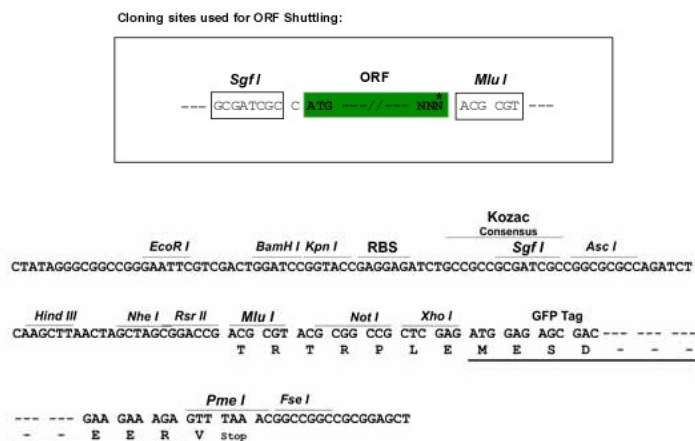
MAAAVSSAKRSLRGELKQRLRAMSAEERLRQSRVLSQKVIAHSEYQKSKRISIFLSMQDEIETEEIISK
IFQRGKICFIPRYRFQSNHMDMVRIESPEEISLLPKTSWNIPQPGEVDVREEALSTGGLDLIFMPGLGFD
KHGNRLGRGKGYDAYLKRCLQHQEVKPYTLALAFKEQICLQVPVNDMKVDEVLYEDSSTA

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



[View online »](#)

Cloning Scheme:


ACCN: NM_006441

ORF Size: 609 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_006441.1](#), [NP_006432.1](#)

RefSeq Size: 857 bp

RefSeq ORF: 612 bp

Locus ID: 10588

UniProt ID: [P49914](#)

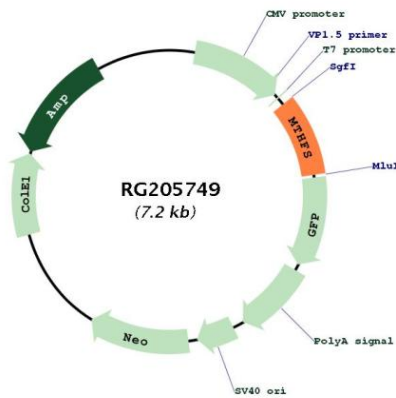
Cytogenetics: 15q25.1

Domains: 5-FTHF_cyc-lig

Protein Pathways: Metabolic pathways, One carbon pool by folate

Gene Summary: 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]

Product images:



Circular map for RG205749