

Product datasheet for **MG220211**

Mthfs (NM_026829) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Mthfs (NM_026829) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Mthfs
Synonyms: 1110034I12Rik; 2310020H23Rik; AI119695
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG220211 representing NM_026829
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCGCGGTCACGGTAAACAGTGCCAAGCGGGCCTGCGGGCCGAGCTGAAGCAGCGCTTGAGGGCCT
 TGAGCGCGGAGGAACGGCTGCGCCAGTCTCTCCTCCTCACGCAGAAGGTGATTGCCACAATCAGTATCA
 GAATTCAAAAGAATTTCCATCTTTCTAAGCATGCAAGATGAAGTTGAGACGGAAGTAAATCATCAAGGAC
 ATTTTCAAACAAGGCAAAATCTGCTTCATCCCTCGGTACCAATTCAGAGCAATCACATGGACATGGTGA
 GGTTAACGTCATCTGAAGAAATTGCTTTACTTCCAAGACATCTTGAATATTCATCAGCCTGGTGAGGG
 AGATGTTGCGGAGGAGGCTTATCCACTGGTGGACTTGACCTCATCTTCCTTCTGGCCTCGGGTTGAC
 AAAGATGGCAACCGGCTGGGCGGGGTAAGGGTACTATGACACCTACCTGAAGCGCTGTGTACAGCATC
 AGGAAGTGAAGCCCTACACCATGGCTTTGGCTTTAAAGAGCAGATCTGTCCCAGATCCCAGTGGATGA
 GCATGACATGAAGGTAGATGAAGTCCTTTATGAAGATCCCCAGCATCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG220211 representing NM_026829
 Red=Cloning site Green=Tags(s)

MAAVTVNSAKRGLRAELKQRLRALSAEERLRQSLLLTQKVIAHNQYQNSKRISIFLSMQDEVETEVIKID
 IFKQKICFIPRYQFQSNHMDMVRLTSSEEIALLPKTSWNIHQPEGDVREEALSTGGLDLIFLPLGLGFD
 KDGNRLLGRGKYDYTLKRCVQHQEVKPYTMALAFKEQICPQIPVDEHDMKVDEVLVEDSPAS

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



Cloning Scheme:



Plasmid Map:



ACCN: NM_026829

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_026829.2](#), [NP_081105.1](#)

RefSeq Size: 768 bp

RefSeq ORF: 612 bp

Locus ID: 107885

UniProt ID: [Q9D110](#)

Cytogenetics: 9 E3.1

Gene Summary: Contributes to tetrahydrofolate metabolism. Helps regulate carbon flow through the folate-dependent one-carbon metabolic network that supplies carbon for the biosynthesis of purines, thymidine and amino acids. Catalyzes the irreversible conversion of 5-formyltetrahydrofolate (5-CHO-H(4)PteGlu) to yield 5,10-methenyltetrahydrofolate (By similarity).[UniProtKB/Swiss-Prot Function]