

## Product datasheet for **MR209788**

### **Mthfr (NM\_010840) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Mthfr (NM_010840) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mthfr
Synonyms:	A1323986
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>MR209788 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGTGAACGAGGCCAGAGGAAGTGGCAGTCCCAACCCGCGATCTGAGGGCAGCAGCAGTGGCAGCGAGA  
GTTCCAAGGACAGTTCAAGATGTTCCACCCAGCCTGGACCCAGAGCGGCACGAGAGACTCCGGGAGAA  
GATGAGGCGCAGAATGGACTCTGGTGACAAGTGGTTCTCCTGGAGTTCTTCCCCCTCGAACTGCTGAG  
GGAGCTGTAACTCATCTCCAGGTTTGACCGGATGGCAGCAGGGGGCCCCCTTTCGTAGATGTTACCT  
GGCACCAGCTGGAGACCCTGGCTCAGACAAGGAGACCTCCTCCATGATGATCGCCAGCAGCAGTAA  
CTACTGCGGCTTGAAACCATCTGCATATGACCTGCTGCCAGCAGCGCCCGGAGGAGATCACAGGCCAT  
CTGCACAGAGCCAAGCAGCTGGGCTGAAGAACATAATGGCGCTGAGGGGAGACCCTGTAGGTGACCACT  
GGGAAGCAGAGGAAGGAGGCTTCAGCTATGCCACAGACCTGGTGAAGCACATCCGGACCGAGTTTGTGA  
CTATTTTGACATCTGTGTGGCAGGTTACCCAGAGGCCACCCGATGCAGAGAGCTTCGAGGATGACCTG  
AAGCATTTGAAGGAGAAGGTATCTGCAGGCGCCGACTTCAATTACTCACTCACTCTTCTTTGAGGCCAGCA  
CCTTCTTCAGCTTTGTGAAGGCCTGCACAGAGATAGGCATCTCTTGCCCTATCCTGCCTGGGATCTTCCC  
TATTCAGGGCTACACTTCCCTTCGGCAGCTTGTAAAAGTGTCAAAGCTGGAGGTGCCACAGAAGTCAAG  
GATGTAATTGAGCCCATCAAAGACAACGATGCTGCCATCCGCAACTACGGCATTGAGCTGGCTGTAAGCC  
TGTGCCGGGAGCTGCTGGACAGTGGCTTGGTGCCAGGCCCTCCACTTCTATACCCTCAACCGCAGGTTGGC  
CACCATGGAGGTGCTAAAGCACTGGGCATGTGGACCGAGGACCCAGGCGTCCCTTGCCCTGGGCTCTC  
AGTGCCCATCCCAAGCGCCGGGAGGAAGATGTCCTGCCATCTTCTGGGCTCCAGACCAAGAGCTACA  
TCTACCGCACACAGGACTGGGATGAGTTTCCTAACGCGCCGCTGGGGTAATTCTTCTCACCAGCCTTGG  
GGAGCTGAAAGACTACTACCTTCTACCTGAAAAGCAAGTCCCCAGGGAGGAGCTGCTGAAGATGTGG  
GGCAGGAGCTCACAGCGAAGAGAGTGTCTTTGAAGTCTTTGAACACTACCTCTCTGGAGAGCCGAATC  
GCCATGGCTACAGAGTAACCTGCCTGCCCTGGAACGATGAACCCCTGGCAGCGGAAACCAGCCTGATGAA  
GGAAGAGCTGCTCCGCTGAACAGGCTGGGCATCTCACCATCAACTCTCAGCCCAACATCAACGCAAAA  
CCATCCTCAGACCCTGTTGTGGCTGGGGCCCCAGTGGGGTTATGTCTTCCAGAAGGCCTACCTCGAAT  
TCTTCACTCCCCTGAACTGTGGAGGCGCTTCTGCAGGTGCTGAAGACATACGAGCTGCGGGTCAACTA  
CCACATCGTGGACGTGAAGGGAGAGAACATCACTAATGCCCTGAGCTGCAGCCCAATGCCGTGACGTGG  
GGCATCTTCCCGGTGAGAGATCATCCAGCCTACTGTGGTGGACCCATCAGCTTCATGTTCTGGAAGG  
ATGAGGCCTTTGCCCTGTGGATCGAGCAGTGGGGCAAGCTATACGAGGAGGAGTCCCATCCCGCATGAT  
CATCCAATACATCCATGACAACATTTCTGCTCAACCTGGTGGACAACGAGTTCCTCCGCTGGACAGCTGC  
CTGTGGCAGTGGTGGAGGACACGTTTGTAGCTGCTCAACAGGCATCCCACGGAGAGAGACACAGGCTC  
CA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR209788 protein sequence  
Red=Cloning site Green=Tags(s)

MVNEARGSGSPNPRSEGSSSGSESSKSSRCSTPSLDPERHERLREKMRRRMDSGDKWFSLEFFPRTAE  
 GAVNLIISRFDRMAAGGPLFVDVTWHPAGDPGSDKETSSMMIASTAVNYCGLETILHMTCCQRPPEITGH  
 LHRAKQLGLKNIMALRGDPVGDHWEAEEGGFSYATDLVKHIRTEFADYFDICVAGYPRGHPDAESFEDDL  
 KHLKEKVSAGADFIIITQLFFEASTFFSFVKACTEIGISCPILPGIFPIQGYTSLRQLVKLSKLEVPQKIK  
 DVIEPIKDNDAAIRNYGIELAVSLCRELLDSSLVPLHGYTLNREVATMEVLKQLGMWTEPPRRPLPWAL  
 SAHPKRREEDVRPIFWASRPKSYIYRTQDWDFPNRGNWSSSPAFGELKDYYLFLYKSKSPREELLKMW  
 GEELTSEESVFEVFEHYLSGEPNRHGYRVTCLPWNDPLAAETSLMKEELLRVNRLGILTINSQPINAK  
 PSSDPVVGWGPSGGYVFQKAYLEFFTSRETVEALLQVLKTYELRVNYHIVIDKGENITNAPELQPNAVTW  
 GIFPGREIIQPTVVDPIISFMFWKDEAFALWIEQWGKLYEEESPSRMIQYIHDNYFLVNLVDNEFPLDSC  
 LWQVVEDTFELLNRHPTERETQAP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_010840

**ORF Size:** 1965 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\\_010840.3](#), [NP\\_034970.2](#)

**RefSeq Size:** 6008 bp

**RefSeq ORF:** 1965 bp

**Locus ID:** 17769

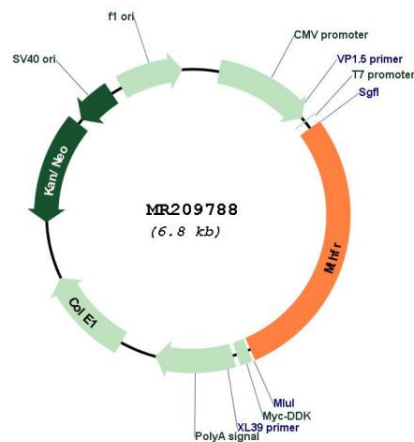
**UniProt ID:** [Q9WU20](#)

**Cytogenetics:** 4 78.67 cM

**MW:** 74.6 kDa

**Gene Summary:** Catalyzes the conversion of 5,10-methylenetetrahydrofolate to 5-methyltetrahydrofolate, a co-substrate for homocysteine remethylation to methionine.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR209788