

## Product datasheet for **RC226798**

### MTHFD2 (MTHFD2L) (NM\_001144978) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MTHFD2 (MTHFD2L) (NM_001144978) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MTHFD2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC226798 representing NM_001144978 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACGGTGCCGGTCCGCGGCTTCTCGCTGCTCCGCGGCCCTTGCCGAGCGCCGGCCTTGGCAGAA  
GCACAGCACCCCTCCGTAAGGGCACCCGGGAGAGCCCGGGAGTGCCTTCCGGGGCTTTCGGAGCAGCGGTG  
GAGACATGAAGCCATTATTATATCAGGAACCGAAATGGCCAAGCATATCCAGAAAGAAATACAGCGAGGT  
GTGGAATCATGGGTTCCCTTGGAAACAGAAGACCTCACCTCAGTATAATTTTAGTGGGAGATAACCCAG  
CAAGCCATACATATGTCAGGAATAAGATAAGAGCTGCCTCTGCTGTAGGATTTGTAGTGAGCTCATTCT  
AAAACCTAAGGATGTTTCTCAGGAAGAAGCTTTTGGACGTAAGTCAATTGAATATGGACCAAGAGTC  
AGCGGTATATTAGTTCAGTTACCACTACCAGACCAGTTCGATGAGCGAACAATATGCAATGGAATTGCC  
CAGAAAAAGATGTAGATGGATTTTCAATATTGGAAGATTGTGCCTTGATCAGCATTCTCTCAT  
ACCTGCCACTGCCAGTGTGTTTGGAAAATAATAAAAAGAACAGGAATTCAAACATTTGGAAAAATGTG  
GTTGTGGCTGGAAGATCCAAGAAGCTAGGGATGCCTATTGCCATGCTTTTACACACTGATGGAGAGCATG  
AACGGCCAGGAGGTGATGCAACTGTGACAATAGCTCACAGATACACCCCAAGAGCAACTGAAGATTCA  
TACGAGCTGGCAGATATTATCATAGTTGCTGCAGGATTCCAAAGTTGATTACGCTGATATGGTTAAA  
GAAGGTGCTGTAATTGATGTGGTATCAACTATGTCCACGATCCAGTGACAGGAAAGACAAAATTAG  
TTGGAGATGTGGACTTCGAAGCTGTTAAAAGAAAGCTGGCTTTTCACTCCAGTTCAGGAGGTGTGGG  
ACCCATGACAGTGCAATGCTTCTGAAGAACACCCCTTCTGGCAGCTAAAAAATCATTAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC226798 representing NM\_001144978  
Red=Cloning site Green=Tags(s)

MTVPVVRGFSLLRGRGRAPALGRSTAPSVRAPGEPGSAFRGRFRSSGVRHEAIIISGTEMAKHIQKEIQRG  
 VESWVSLGNRRPHLSIILVGDNPASHTYVRNKIRAASAVGICSELILKPKDVSQEELLDVTDQLNMDPRV  
 SGILVQLPLPDHVDERTICNGIAPEKDVDFHIINIGRLCLDQHSLIPATASAVWEIIKRTGIQTFGKNV  
 VVAGRSKNVGMPIAMLLHTDGEHERPGGDATVTIAHRYTPKEQLKIHTQLADIIIVAAGIPKLITSDMVK  
 EGAAVIDVGINYVHPVTGKTKLVGDVDFEAVKKKAGFITPVPGGVGPMTVAMLLKNTLLAAKKIY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8031\\_d06.zip](https://cdn.origene.com/chromatograms/mk8031_d06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001144978

**ORF Size:** 1041 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\\_001144978.2](#)

**RefSeq ORF:** 1044 bp

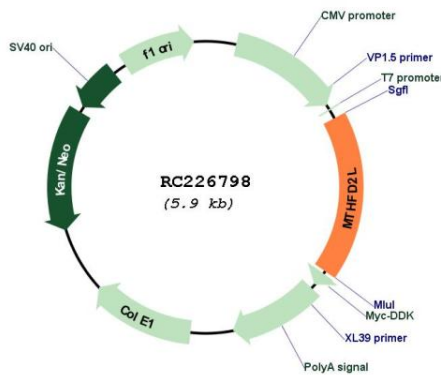
**Locus ID:** 441024

**UniProt ID:** [Q9H903](#)

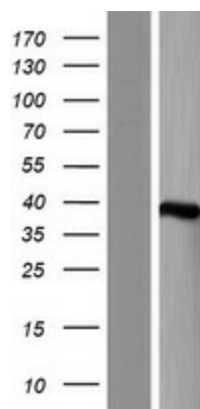
**Cytogenetics:** 4q13.3

**MW:** 37.1 kDa

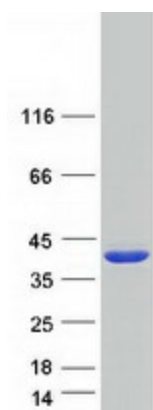
**Product images:**



Circular map for RC226798



Western blot validation of overexpression lysate (Cat# [LY428620]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC226798 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MTHFD2L protein (Cat# [TP326798]). The protein was produced from HEK293T cells transfected with MTHFD2L cDNA clone (Cat# RC226798) using MegaTran 2.0 (Cat# [TT210002]).