

## Product datasheet for RC200297L3V

## OriGene Technologies, Inc.

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## MTHFD1 (NM\_005956) Human Tagged ORF Clone Lentiviral Particle

**Product data:** 

**Product Type:** Lentiviral Particles

**Product Name:** MTHFD1 (NM\_005956) Human Tagged ORF Clone Lentiviral Particle

Symbol: MTHFD1

Synonyms: CIMAH; MTHFC; MTHFD

Mammalian Cell

Selection:

Puromycin

**Vector:** pLenti-C-Myc-DDK-P2A-Puro (PS100092)

 Tag:
 Myc-DDK

 ACCN:
 NM\_005956

**ORF Size:** 2805 bp

**ORF Nucleotide** 

Sequence:

ucleotide The ORF insert of this clone is exactly the same as(RC200297).

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.

**RefSeg:** NM 005956.2, NP 005947.2

 RefSeq Size:
 3466 bp

 RefSeq ORF:
 2808 bp

 Locus ID:
 4522

 UniProt ID:
 P11586

 Cytogenetics:
 14q23.3

**Domains:** FTHFS, THF\_DHG\_CYH

**Protein Families:** Druggable Genome, Stem cell - Pluripotency



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**Protein Pathways:** Glyoxylate and dicarboxylate metabolism, Metabolic pathways, One carbon pool by folate

MW: 101.5 kDa

**Gene Summary:** This gene encodes a protein that possesses three distinct enzymatic activities, 5,10-

methylenetetrahydrofolate dehydrogenase, 5,10-methenyltetrahydrofolate cyclohydrolase and 10-formyltetrahydrofolate synthetase. Each of these activities catalyzes one of three sequential reactions in the interconversion of 1-carbon derivatives of tetrahydrofolate, which are substrates for methionine, thymidylate, and de novo purine syntheses. The trifunctional

enzymatic activities are conferred by two major domains, an aminoterminal portion

containing the dehydrogenase and cyclohydrolase activities and a larger synthetase domain.

[provided by RefSeq, Jul 2008]