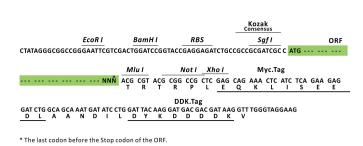


Product datasheet for RC202143L3

MTHFD2 (NM_006636) Human Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids Product Name: MTHFD2 (NM_006636) Human Tagged Lenti ORF Clone Tag: Myc-DDK Symbol: MTHFD2 NMDMC Synonyms: **Mammalian Cell** Puromycin Selection: Vector: pLenti-C-Myc-DDK-P2A-Puro (PS100092) E. coli Selection: Chloramphenicol (34 ug/mL) The ORF insert of this clone is exactly the same as(RC202143). **ORF** Nucleotide Sequence: **Restriction Sites:** Sgfl-Mlul **Cloning Scheme:** Cloning sites used for ORF Shuttling: ORF Sqf I Mlu I



--- GCG ATC GC C ATG --- //--- NNN ACG CGT ---

ACCN: ORF Size: NM_006636 1050 bp

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	MTHFD2 (NM_006636) Human Tagged Lenti ORF Clone – RC202143L3
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <u>custsupport@origene.com</u> or by calling 301.340.3188 option 3 for pricing and delivery.
	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. <u>More info</u>
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 Me	 ethod: 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:	<u>NM 006636.3</u>
RefSeq Size:	2208 bp
RefSeq ORF:	1053 bp
Locus ID:	10797
UniProt ID:	<u>P13995</u>
Cytogenetics:	2p13.1
Domains:	THF_DHG_CYH
Protein Families:	Druggable Genome
Protein Pathways	Glyoxylate and dicarboxylate metabolism, Metabolic pathways, One carbon pool by folate
MW:	37.9 kDa

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Gene Summary: This gene encodes a nuclear-encoded mitochondrial bifunctional enzyme with methylenetetrahydrofolate dehydrogenase and methenyltetrahydrofolate cyclohydrolase activities. The enzyme functions as a homodimer and is unique in its absolute requirement for magnesium and inorganic phosphate. Formation of the enzyme-magnesium complex allows binding of NAD. Alternative splicing results in two different transcripts, one proteincoding and the other not protein-coding. This gene has a pseudogene on chromosome 7. [provided by RefSeq, Mar 2009]

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