

Product datasheet for **TR311361**

MTHFD2 Human shRNA Plasmid Kit (Locus ID 10797)

Product data:

Product Type:	shRNA Plasmids
Product Name:	MTHFD2 Human shRNA Plasmid Kit (Locus ID 10797)
Locus ID:	10797
Synonyms:	methylenetetrahydrofolate dehydro; methylene tetrahydrofolate dehydrogenase (NAD+ dependent), methenyltetrahydrofolate cyclohydrolase; methylene tetrahydrofolate dehydrogenase 2; NAD-dependent methylene tetrahydrofolate dehydrogenase cyclohydrolase; NMDMC
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	MTHFD2 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 10797). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	BC015062 , NM_001040409 , NM_006636 , NR_027405 , NM_006636.1 , NM_006636.2 , NM_006636.3 , NM_001040409.1 , BC015062.1 , BC017054 , BC017054.1 , BC001548 , NM_006636.4
UniProt ID:	P13995
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 protein-coding and the other not protein-coding. This gene has a pseudogene on chromosome 7. [provided by RefSeq, Mar 2009]
shRNA Design:	These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com . If you need a special design or shRNA sequence, please utilize our custom shRNA service .



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**Performance
Guaranteed:**

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).