

## Product datasheet for **TP300297**

### **MTHFD1 (NM\_005956) Human Recombinant Protein**

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 1, methenyltetrahydrofolate cyclohydrolase, formyltetrahydrofolate synthetase (MTHFD1), 20 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC200297 protein sequence <b>Red</b> =Cloning site <b>Green</b> =Tags(s)

MAPAEILNGKEISAIQIRARLKNQVTQLKEQVPGFTPLAILQVGNRDDSPLYINVKLKAAEEIGIKATHI  
KLPRTTTESEVMKYITSLNEDSTVHGLVQLPLDSENSINTEEVINAIPEKDVDGLTSINAGRLARGDL  
NDCFIPCTPKGCLELIKETGVPIAGRHAVVGRSKIVGAPMHDLLLWNNATVTTCHSKTAHLDEEVNKGD  
ILVVATGQPEMVKGWIKPGAIVIDCGINYVPDDKKPNGRKKVGDVAYDEAKERASFITVPPGGVGPMTV  
AMLMQSTVESAKRFLEKFKPGKWMIQYNNLNKTPVPSDIDSRCKPKPIGKLAREIGLLSEEVLYGE  
TKAKVLLSALERLKHDPDGKYVVTGITPTPLGEGKSTTTIGLVQALGAHLYQNVFACVRQPSQGPTFGI  
KGGAAAGGGYSQVIPMEEFNLHLTGDIHAITAANNLVAAAIDARIFHELTQTDKALFNRLVPSVNGVRRFS  
DIQIRRLKRLGIEKTDPTTLTDEEINRFARLDIDPETITWQRVLDTNDRFLRKITIGQAPTEKGHTRTAQ  
FDISVASEIMAVLALTTSLDMRERLGMVWASSKKGEPVSAEDLGVSGALTVLMKDAIKPNLMQTLEGT  
PVFVHAGPFANIAHGNSSIIADQIALKLVGPEGFVTEAGFGADIGMEKFFNIKCRYSGLCPHWVVLVAT  
VRALKMHGGGPTVTAGLPLPKAYIQENLELVEKGFSLKKQIENARMFGIPVVAVNAFKTDTSELDLI  
SRLSREHGAFDAVKCTHWAEGGKALALAQAVQRAAQAPSSFQLLYDLKLPVEDKIRIIAQKIYGADDIE  
LLPEAQHKAEVYTKQGFGLNLPICMAKTHLSLSHNPEQKGVPTGFILPIRDIRASVGAGFLYPLVGTMTSTM  
PGLPTRPCFYDIDLDPETEQVNGLF

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

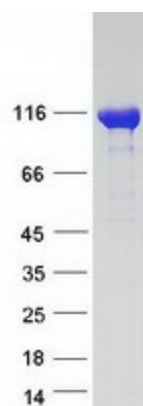
Tag:	C-Myc/DDK
Predicted MW:	101.4 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol



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<b>Preparation:</b>	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Storage:</b>	Store at -80°C.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<a href="#">NP_005947</a>
<b>Locus ID:</b>	4522
<b>UniProt ID:</b>	<a href="#">P11586</a>
<b>RefSeq Size:</b>	3466
<b>Cytogenetics:</b>	14q23.3
<b>RefSeq ORF:</b>	2805
<b>Synonyms:</b>	CIMAH; MTHFC; MTHFD
<b>Summary:</b>	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]
<b>Protein Families:</b>	Druggable Genome, Stem cell - Pluripotency
<b>Protein Pathways:</b>	Glyoxylate and dicarboxylate metabolism, Metabolic pathways, One carbon pool by folate

### Product images:



Coomassie blue staining of purified MTHFD1 protein (Cat# TP300297). The protein was produced from HEK293T cells transfected with MTHFD1 cDNA clone (Cat# [RC200297]) using MegaTran 2.0 (Cat# [TT210002]).