

Product datasheet for PH300297

MTHFD1 (NM_005956) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	MTHFD1 MS Standard C13 and N15-labeled recombinant protein (NP_005947)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC200297
Predicted MW:	101.5 kDa
Protein Sequence:	>RC200297 protein sequence Red=Cloning site Green=Tags(s)

MAPAEILNGKEISAQIRARLKNQVTQLKEQVPGFTPRLAILQVGNRDDSPLYINVKLKAAEEIGIKATHI
KLPRTTTESEVMKYITSLNEDSTVHGFLVQLPLDSENSINTEEVINAIAPKDVGLTSLNAGRLARGDL
NDCFIPCTPKGCLELIKETGVPIAGRHAVVGRSKIVGAPMHDLLLWNNATVTTCHSKTAHLDEEVNKGD
ILVVATGQPEMVKGWIKPGAIVIDCGINYPDDKKPNGRKYVVDVAYDEAKERASFITPVPGGVPMTV
AMLQSTVESAKRFLEKFKPGKMMIQYNNLNLKTPVPSDIDISRSCKPKPIGKLAREIGLLSEVELYGE
TKAKVLLSALERLKHDPDGKYVVVTGITPTPLGEGKSTTTIGLVQALGAHLYQNVFACVRQPSQGPFTGI
KGAAGGGYSQVPMEEFNHLTGDIHAITAANNLVAAAIDARIFHELQTDKALFNRLVPSVNGVRRFS
DIQIRRLKRLGIEKTDPTTLTDEEINRFARLDIDPETITWQRVLDNDRFLRKITIGQAPTEKGHTRTAQ
FDISVASEIMAVLALTTSLDEMRERLGMVASSKKGEPVSAEDLGVSGALTVLMKDAIKPNLMQTLLEG
PVFVHAGPFANI AHGNSSIIADQIALKLVGPEGFVYTEAGFGADIGMEKFFNIKCRYSGLCPHVVLVAT
VRALKMHGGGPTVTAGLPLPKAYIQENLELVEKGFNLKKQIENARMFGIPVVAVNAFKTDTSELDLI
SRLSREHGAFDAYKCTHWAEGGKALALAQAVQRAAQAPSSFQLLYDLKLPVEDKIRIIAQKIYGADDIE
LLPEAQHKAEVYTKQFGNLPICMAKTHLSLHNPEQKGVPTGFILPDIRASVAGFLYPLVGTMTSTM
PGLPTRPCFYDIDLDPETEQVNGLF

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.



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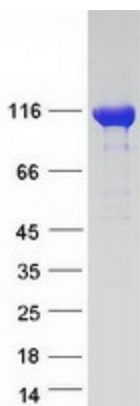
RefSeq: [NP_005947](#)
RefSeq Size: 3466
RefSeq ORF: 2805
Synonyms: CIMAH; MTHFC; MTHFD
Locus ID: 4522
UniProt ID: [P11586](#), [A0A384N5Y3](#)
Cytogenetics: 14q23.3

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]

Protein Families: Druggable Genome, Stem cell - Pluripotency

Protein Pathways: 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]).