

Product datasheet for **TP304814L**

Thymidylate Synthase (TYMS) (NM_001071) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human thymidylate synthetase (TYMS), 1 mg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC204814 representing NM_001071 Red =Cloning site Green =Tags(s)
	<p>MPVAGSELPRRPLPPAAQERDAEPRPPHGELQYLGQIQHILRCGVRKDDRTGTGTLVFGMQARYSLRDE FPLLTTRKRVFWKGVLEELLWFIKGSTNAKELSSKGVKIWDANGSRDFLDSLGFSTREEGLGPVYGFQWR HFGAEYRDMESDYSQGQVDQLQRVIDTIKTNPDDRRRIIMCAWNPRDLPLMALPPCHALCQFYVNSELSC QLYQRSGDMGLGVPFNIAASYALLTYMIAHITGLKPGDFIHTLGDAHIYLNHIEPLKIQLQREPRPFPKLR ILRKVEKIDDFKAEDFQIEGYNPHPTIKMEMAV</p> <p>TRTRPLEQKLISEEDLAANDILDYKDDDDKV</p>
Tag:	C-Myc/DDK
Predicted MW:	35.5 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
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_001062
Locus ID:	7298



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UniProt ID: [P04818, Q53Y97](#)

RefSeq Size: 1536

Cytogenetics: 18p11.32

RefSeq ORF: 939

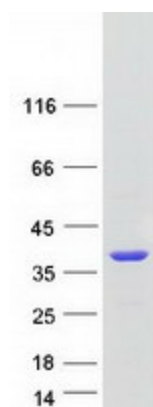
Synonyms: HST422; TMS; TS

Summary: Thymidylate synthase catalyzes the methylation of deoxyuridylate to deoxythymidylate using, 10-methylenetetrahydrofolate (methylene-THF) as a cofactor. This function maintains the dTMP (thymidine-5-prime monophosphate) pool critical for DNA replication and repair. The enzyme has been of interest as a target for cancer chemotherapeutic agents. It is considered to be the primary site of action for 5-fluorouracil, 5-fluoro-2-prime-deoxyuridine, and some folate analogs. Expression of this gene and that of a naturally occurring antisense transcript, mitochondrial enolase superfamily member 1 (GeneID:55556), vary inversely when cell-growth progresses from late-log to plateau phase. Polymorphisms in this gene may be associated with etiology of neoplasia, including breast cancer, and response to chemotherapy. [provided by RefSeq, Aug 2017]

Protein Families: Druggable Genome

Protein Pathways: Metabolic pathways, One carbon pool by folate, Pyrimidine metabolism

Product images:



Coomassie blue staining of purified TYMS protein (Cat# [TP304814]). The protein was produced from HEK293T cells transfected with TYMS cDNA clone (Cat# [RC204814]) using MegaTran 2.0 (Cat# [TT210002]).