

Product datasheet for **TP304814**

Thymidylate Synthase (TYMS) (NM_001071) Human Recombinant Protein

Product data:

Product Type: Recombinant Proteins

Description: Recombinant protein of human thymidylate synthetase (TYMS), 20 µg

Species: Human

Expression Host: HEK293T

Expression cDNA Clone or AA Sequence: >RC204814 representing NM_001071

Red=Cloning site **Green**=Tags(s)

MPVAGSELPRRPLPPAAQERDAEPRPPHGELQYLGQIQHILRCGVRKDDRTGTGTLVFGMQARYSLRDE
FPLLTTRKRVFWKGVLEELLWFIKGSTNAKELSSKGVKIWDANGSRDFLDSLGFSTREEGLGPVYGFQWR
HFGAEYRDMESDYSQGQVDQLQRVIDTIKTNPDDRRRIIMCAWNPRDLPLMALPPCHALCQFYVNSELSC
QLYQRSGDMGLGVPFNIAASYALLTYMIAHITGLKPGDFIHTLGDAHIYLNHIEPLKIQLQREPRPFPKLR
ILRKVEKIDDFKAEDFQIEGYNPHPTIKMEMAV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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



[View online »](#)

UniProt ID: [P04818, Q53Y97](#)

RefSeq Size: 1536

Cytogenetics: 18p11.32

RefSeq ORF: 939

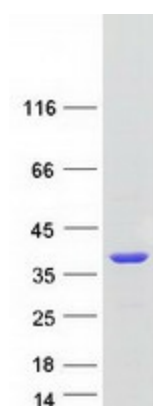
Synonyms: HST422; TMS; TS

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]).