

Recombinant Human TYMS Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. TYMS-1408H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	TYMS MS Standard C13 and N15-labeled recombinant protein (NP_001062) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	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.
Molecular Mass	35.5 kDa
AA Sequence	MPVAGSELPRRPLPPAAQERDAEPRPPHGELQYLGQIQHILRCGVRKDDRTGTGTL SVFGMQARYSLRDEFPLLTTRVFWKGVLEELLWFIKGSTNAKELSSKGVKIWDAN GSRDFLDSLGFSTREEGDLGPVYGFQWRHFGAEYRDMESDYSQGQVDQLQRVIDT

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IKTNPDDRRRIIMCAWNPRDLPLMALPPCHALCQFYVVNSELSQLYQRSGDMGLGV
 PFNIASYALLTYMIAHITGLKPGDFIHTLGDAHIYLNHIEPLKIQLQREPRPFPKLRILRK
 VEKIDDFKAEDFQIEGYNPHTIKMEMAVTRTRPLEQKLISEEDLAANDILDYKDDDD
 KV

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name TYMS thymidylate synthetase [Homo sapiens (human)]

Official Symbol TYMS

Synonyms TYMS; thymidylate synthetase; TS; thymidylate synthase; HsT422; TMS; Tsase; TSase; HST422; MGC88736;

Gene ID 7298

mRNA Refseq NM_001071

Protein Refseq NP_001062

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MIM 188350

UniProt ID P04818

SDS-PAGE



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