

Recombinant Human TYMS protein, His-tagged

Cat. No. TYMS-685H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TYMS fused with His tag at N-terminal was expressed in Insect cells.
Species	Human
Source	Insect Cells
Description	Thymidylate synthase catalyzes the methylation of deoxyuridylate to deoxythymidylate using 5,10-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 rTSalpha (GeneID:55556) vary inversely when cell-growth progresses from late-log to plateau phase.
Form	50mM Tris-HCl pH8.0, 150mM NaCl, 10% glycerol.
Molecular Mass	36 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Storage	Store at -80 centigrade. Avoid repeated freeze-thaw cycles. Stable for at least 3 months from receipt of products under proper storage and handling conditions.

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Concentration >50 ug/mL as determined by microplate BCA method

GENE INFORMATION

Gene Name TYMS thymidylate synthetase [Homo sapiens]

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

MIM 188350

UniProt ID P04818

Chromosome Location 18p11.31-p11.21

Pathway Cell Cycle, organism-specific biosystem; Cell Cycle, Mitotic, organism-specific biosystem; E2F mediated regulation of DNA replication, organism-specific biosystem; E2F transcription factor network, organism-specific biosystem; Fluoropyrimidine Activity, organism-specific biosystem; G1/S Transition, organism-specific biosystem; G1/S-Specific Transcription, organism-specific biosystem;

Function cofactor binding; folic acid binding; methyltransferase activity; nucleotide binding;

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thymidylate synthase activity; thymidylate synthase activity; transferase activity;

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