

## Recombinant Human TYMS protein, MYC/DDK-tagged

Cat. No. TYMS-684H    Lot. No. (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human TYMS fused with MYC/DDK tag at C-terminal was expressed in HEK293.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>      | 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. |
| <b>Form</b>             | 25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Molecular Mass</b>   | 35.5 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Purity</b>           | > 80% as determined by SDS-PAGE and Coomassie blue staining                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Concentration</b>    | >50 ug/mL as determined by microplate BCA method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

## GENE INFORMATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | TYMS thymidylate synthetase [ Homo sapiens ]                                                                                                                                                                                                                                                                                                                                                       |
| <b>Official Symbol</b>     | TYMS                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Synonyms</b>            | TYMS; thymidylate synthetase; TS; thymidylate synthase; HsT422; TMS; Tsase; TSase; HST422; MGC88736;                                                                                                                                                                                                                                                                                               |
| <b>Gene ID</b>             | 7298                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>mRNA Refseq</b>         | NM_001071                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Protein Refseq</b>      | NP_001062                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>MIM</b>                 | 188350                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>UniProt ID</b>          | P04818                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Chromosome Location</b> | 18p11.31-p11.21                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Pathway</b>             | 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; |
| <b>Function</b>            | cofactor binding; folic acid binding; methyltransferase activity; nucleotide binding; thymidylate synthase activity; thymidylate synthase activity; transferase activity;                                                                                                                                                                                                                          |

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA