



# Recombinant Human Thymidylate synthase (TYMS)

<b>Product Code</b>	CSB-EP025393HU-B
<b>Storage</b>	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
<b>Uniprot No.</b>	P04818
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	≥85% (SDS-PAGE)
<b>Sequence</b>	PVAGSELPRRPLPPAAQERDAEPRPPHGELQYLGQIQHILRCGVRKDDRTGT GTL SVFGM QARYSLRDEFPLLTTRVFWKGVLEELLWFIKGSTNAKELSSKGVKIWDANGS RDFLDSL GFSTREEGDLGPVYGFQWRHFGAEYRDMESDYSGQGV DQLQRVIDTIKTNP DDRRIMCA WNPRDLPLMALPPCHALCQFYVNSELSQLYQRSGDMGLGV PFNIASYALL TYMIAHIT GLKPGDFIHTLGDAHIYLNHIEPLKIQLRPRPFKLRILRKVEKIDDFKAEDFQ IEGY NPHPTIKMEMAV
<b>Source</b>	E.coli
<b>Target Names</b>	TYMS
<b>Protein Names</b>	Recommended name: Thymidylate synthase Short name= TS Short name= TSase EC= 2.1.1.45
<b>Expression Region</b>	2-313
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	Tag type will be determined during the manufacturing process.
<b>Protein Length</b>	Full Length of Mature Protein
<b>Target Details</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>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final



concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

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**Shelf Life**

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.