

Product datasheet for **TP710029**

Thymidylate Synthase (TYMS) (NM_001071) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human thymidylate synthetase (TYMS), full length, with N-terminal polyhistidine tag, expressed in sf9 cells.
Species:	Human
Expression Host:	Sf9
Expression cDNA Clone or AA Sequence:	A DNA sequence from TrueORF clone, RC204814, encoding human full-length TYMS
Tag:	N-His
Predicted MW:	36 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	50 mM Tris-HCl, pH 8.0, 150 mM NaCl, 10% glycerol
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
UniProt ID:	P04818 , Q53Y97
RefSeq Size:	1536
Cytogenetics:	18p11.32
RefSeq ORF:	939
Synonyms:	HST422; TMS; TS



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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: