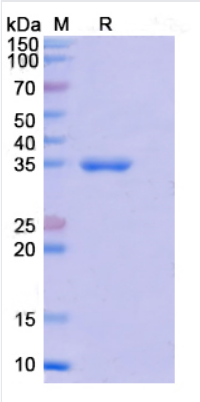
TYMS Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	TYMS, Recombinant Protein
Full Product Name	Recombinant Human TYMS, N-His
Product Gene Name	TYMS recombinant protein
Product Synonym Names	TS; Thymidylate synthase; TSase; TYMS
Host	E coli
Form/Format	Lyophilized from a solution in PBS pH7.4, 0.02% NLS, 1mM EDTA, 4% Trehalose, 1% Mannitol.
Purity/Purification	>90% as determined by SDS-PAGE
Preparation and Storage	Use a manual defrost freezer and avoid repeated freeze thaw cycles. Store at 2 to 8 degree C for one week. Store at -20 to -80 degree C for twelve months from the date of receipt.
Molecular Weight	Calculated MW: 26kDa/31kDa/35kDa Observed MW: 36kDa
Sequence Positions	Gln36-Val313
OMIM	188350
3D Structure	ModBase 3D Structure for P04818
Species	Human
Reconstitution	Reconstitute in sterile water for a stock solution.
Product Categories/Family for TYMS recombinant protein	Recombinant Proteins
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for TYMS recombinant protein	SDS-PAGE (SDS), Western Blot (WB), ELISA (EIA), Immunogen
Related Product Information for TYMS recombinant protein	MBS1572984 is a recombinant protein targeting TYMS. Also known as Recombinant Human TYMS, N-His. Host: E coli.
Other Notes	Small volumes of TYMS recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



SDS-Page of TYMS recombinant protein
SDS PAGE for recombinant Human TYMS protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TYMS. It may not necessarily be applicable to this product.

NCBI GI #	136611
NCBI GeneID	7298
NCBI Accession #	P04818.3
UniProt Primary Accession #	P04818
UniProt Secondary Accession #	Q8WYK3; Q8WYK4
UniProt Related Accession #	P04818
NCBI Official Full Name	Thymidylate synthase
NCBI Official Synonym Full Names	thymidylate synthetase
NCBI Official Symbol	TYMS
NCBI Official Synonym Symbols	TS; TMS; HST422
UniProt Protein Name	Thymidylate synthase
Protein Family	TYMS opposite strand protein
UniProt Gene Name	TYMS
UniProt Synonym Gene Names	TS; TS; TSase
UniProt Entry Name	TYSY_HUMAN
NCBI Protein Information	thymidylate synthase; TSase
NCBI Summary for TYMS	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 occuring antisense transcript rTSalpha (GeneID:55556) vary inversely when cell-growth progresses from late-log to plateau phase. [provided by RefSeq, Jul 2008]

UniProt Comments for TYMS	TYMS: an enzyme in the thymidylate synthase family. Polymorphisms serve as prognostic markers for determining modality of treatment in certain cancers. Genotyping helps predict toxicity to 5-FU-based chemotherapy in patients with colorectal cancer and the response to platinum-based chemotherapy in advanced NSCLC. A common polymorphism is a determinant of red blood cell folate and homocysteine concentrations. Homodimer. Protein type: Nucleotide Metabolism - pyrimidine; Cofactor and Vitamin Metabolism - one carbon pool by folate; DNA repair, damage; EC 2.1.1.45; Mitochondrial; Methyltransferase Chromosomal Location of Human Ortholog: 18p11.32 Cellular Component: nucleoplasm; mitochondrion; mitochondrial matrix; cytoplasm; mitochondrial inner membrane; nucleolus; nucleus; cytosol Molecular Function: mRNA binding; protein homodimerization activity; nucleotide binding; drug binding; cofactor binding; thymidylate synthase activity; folic acid binding Biological Process: immortalization of host cell by virus; methylation; tetrahydrofolate metabolic process; circadian rhythm; uracil metabolic process; developmental growth; response to organophosphorus; response to toxin; response to glucocorticoid stimulus; dTTP biosynthetic process; response to vitamin A; pyrimidine base metabolic process; response to folic acid; nucleobase, nucleoside, nucleotide and nucleic acid metabolic process; aging; response to drug; organ regeneration; nucleobase, nucleoside and nucleotide metabolic process; dTMP biosynthetic process; deoxyribonucleoside monophosphate biosynthetic process; G1/S-specific transcription in mitotic cell cycle; response to ethanol; response to cytokine stimulus; cartilage development; pyrimidine nucleoside biosynthetic process; dUMP metabolic process; mitotic cell cycle; response to progesterone stimulus; G1/S transition of mitotic cell cycle
Research Articles on TYMS	**1.** the TYMS polymorphisms may be useful tools to predict which advanced NSCLC patients could benefit more from platinum-based chemotherapy regimens.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/recombinant-protein/tyms/1572984