# Mouse anti-Human TYMS Monoclonal Antibody | anti-TYMS antibody

TYMS antibody

| CATALOG # | HOST | REACTIVITY | APPLICATIONS |
|---|---|---|---|
| **AAA48069** | **Mouse** | **Human** | **Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Western Blot, ELISA** |

## PRODUCT SYNONYMS

TYMS; Monoclonal Antibody; TYMS antibody; HST422; TMS; TS; d TMP synthase; EC 2.1.1.45; MGC88736; Thymidylate synthase; Thymidylate synthetase; Tsase; TYMS protein; Tyms thymidylate synthetase; ; anti-TYMS antibody

## PRODUCT SPECIFICATIONS

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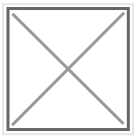
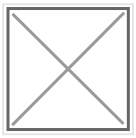
| **Host** | Mouse |
| **Reactivity** | Human |
| **Clonality** | Monoclonal |
| **Isotype** | IgG2b, k |
| **Clone Number** | AT21S5 |
| **Purity/Purification** | By protein-G affinity chromatography |
| **Form/Format** | Liquid. In phosphate-buffered saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol. |
| **Concentration** | 1mg/ml (varies by lot) |
| **Sequence Length** | 313 |
| **Applicable Applications for anti-TYMS antibody** | FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), WB (Western Blot), ELISA |
| **Antigen Species** | Human |
| **Immunogen** | Recombinant TYMS (1-313aa) purified from E. coli |
| **Clone Note** | Anti-human TYMS mAb, clone AT1S5, is derived from hybridization of mouse F0 myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human TYMS protein. |
| **Preparation and Storage** | Can be stored at 4 degree C.<br>For long term storage, aliquot and store at -20 degree C.<br>Avoid repeated freezing and thawing cycles. |

## IMAGES



**IF (Immunofluorescence)**
HeLa cells were stained with monoclonal anti-TYMS antibody (Green). Nucleus and Actin were stained by Phalloidin-TRITC (Red) or Hoechst 33342 (Blue). ICC/IF analysis of TYMS in HeLa cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human TYMS antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



**WB (Western Blot)**
The recombinant human TYMS protein (50ng) and Cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human TYMS (1:2000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system. Lane 1.: Recombinant protein Lane 2.: HeLa cell lysate Lane 3.: Jurkat cell lysate Lane 4.: MCF7 cell lysate

## ADDITIONAL INFORMATION

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| **Related Product Information for anti-TYMS antibody** | The methylation of deoxyuridine monophosphate (dUMP) to deoxythymidine monophosphate (dMTP) is an essential step for the formation of thymine nucleotides. This process is catalyzed by thymidylate synthase (TS or TYMS). TYMS is an intracellular enzyme that provides the sole de novo source of thymidylate in activity highest proliferating cells. Being the exclusive source of dTMP, TS is also an important target for anticancer agents such as 5-fluorouracil (5-FU). 5-FU acts as a TS inhibitor and is active against solid tumors such as colon, breast, head and neck. TS expression may be useful in predicting overall patient survival, but the prognostic value of TS expression continues to be a subject of investigation for different types of cancers. |
| **Product Categories/Family for anti-TYMS antibody** | Cancer |
| **References** | Shahrokni A, et al., (2009) Clin Colorectal Cancer 8 (4):231-4; Henriquez-Hernandez LA, et al., (2009) Oncol Rep 22 (6):1425-33; Colavito D, et al., (2009) Cancer Chemother Pharmacol 64 (6):1195-200 |

## NCBI AND UNIPROT INFORMATION

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|---|---|
| **NCBI GI #** | 4507751 |
| **NCBI GeneID** | 7298 |
| **NCBI Accession #** | NP_001062 |
| **NCBI GenBank Nucleotide #** | NM_001071.2 |
| **UniProt Accession #** | P04818; Q8WYK3; Q8WYK4 |
| **Molecular Weight** | 26,140 Da |
| **NCBI Official Full Name** | thymidylate synthase |
| **NCBI Official Synonym Full Names** | thymidylate synthetase |
| **NCBI Official Symbol** | TYMS |
| **NCBI Official Synonym Symbols** | TS; TMS; HST422 |
| **NCBI Protein Information** | thymidylate synthase |
| **UniProt Protein Name** | Thymidylate synthase |
| **UniProt Gene Name** | **TYMS** |
| **UniProt Synonym Gene Names** | TS; TS; TSase |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://stage.aaabiotech.com/monoclonal/tyms-antibody-clone-at21s5-flow-cytometry-immunofluorescence-immunocytochemistry-western-blot-elisa/48069