

Mouse anti-Human Thymidylate Synthase Antibody | anti-TYMS antibody

Thymidylate Synthase (5-FU Resistance Marker)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA215240	Mouse	Human	Immunofluorescence, Flow Cytometry, Functional Assay, ELISA

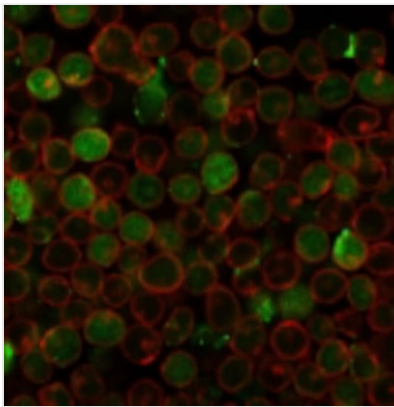
PRODUCT SYNONYMS

Thymidylate Synthase; Thymidylate Synthase (5-FU Resistance Marker); dTMP synthase; TMS; TS; TSase; TYMS protein; Tyms thymidylate synthetase; anti-TYMS antibody

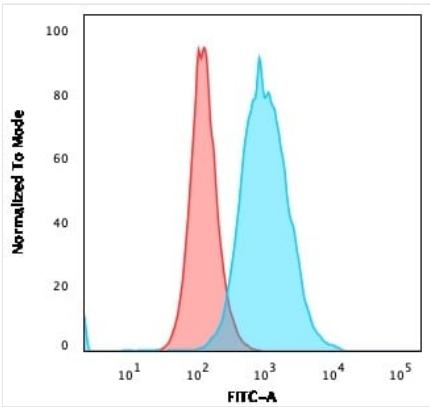
PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Isotype	IgG1, kappa
Clone Number	rTYMS/1884
Specificity	It recognizes a protein of 36kDa, identified as Thymidylate Synthase (TS) (EC 2.1.1.45). It converts deoxyuridine monophosphate (dUMP) to deoxythymidine monophosphate (dTMP), which is essential for DNA biosynthesis. TS is also a critical target for the fluoropyrimidines, an important group of antineoplastic drugs that are widely used in the treatment of solid tumors. Both 5-FU and fluorodeoxyuridine are converted in tumor cells to FdUMP which inactivates TS by formation of a ternary covalent complex in the presence of the folate cofactor 5,10-methylenetetrahydrofolate. Expression of TS protein has been reported to associate with response to 5-fluorouracil (5-FU) in human colorectal, gastric, head and neck, and breast carcinomas.
Purity/Purification	Purified Ab with BSA and Azide at 200ug/ml OR Purified Ab WITHOUT BSA and Azide at 1.0mg/ml
Form/Format	1.0mg/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05%.
Sequence Length	313
Applicable Applications for anti-TYMS antibody	IF (Immunofluorescence), FCM/FACS (Flow Cytometry), ELISA
Positive Control	MOLT4; Ramos, 5-FU-resistant colon carcinoma cell lines (NCI H630R10, NCI H630R1); 5-FU-resistant breast cancer cell lines, MCF-Ad5 and MCF-Ad10. Testicular carcinomas.
Immunogen	Recombinant human thymidylate synthase protein fragment (around aa 60-174) (exact sequence is proprietary)
Cellular Localization	Nuclear & Cytoplasmic
Hu-chromosome Location	18p11.32
Antibody Type	Recombinant Mouse Monoclonal Antibody
Preparation and Storage	Antibody with azide: store at 2 to 8 degree C. Non-hazardous. No MSDS required.

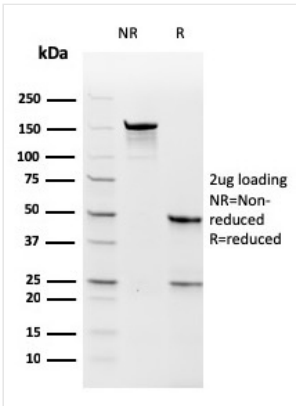
IMAGES



IF (Immunofluorescence)



FCM/FACS (Flow Cytometry)
Flow Cytometric Analysis of PFA-fixed MOLT4 cells. TYMS Recombinant Mouse Monoclonal Antibody (rTYMS/1884) followed by goat anti-Mouse IgG-CF488 (Blue); Isotype Control (Red).



SDS-PAGE
SDS-PAGE Analysis Purified TYMS Recombinant Mouse Monoclonal Antibody (rTYMS/1884).
Confirmation of Purity and Integrity of Antibody.

ADDITIONAL INFORMATION

References	1. Johnston PG, et. al. Journal of the National Cancer Institute, 1997, 89(4):308-13. 2. Pestalozzi BC, et. al. Journal of Clinical Oncology, 1997, 15(5):1923-31
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NCBI AND UNIPROT INFORMATION

NCBI GI #	136611
NCBI GeneID	7298
UniProt Accession #	P04818
Molecular Weight	36kDa
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
UniProt Entry Name	TYSY_HUMAN

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/mouse-tyms-human-antibody/thymidylate-synthase/215240>