

Mouse Thymidylate Synthase Monoclonal Antibody | anti-TYMS antibody

Thymidylate Synthase (5-FU Resistance Marker)

CATALOG # AAA214828	HOST Mouse	REACTIVITY Human. Others not known.	APPLICATIONS Immunohistochemistry
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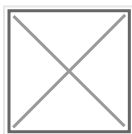
PRODUCT SYNONYMS

Thymidylate Synthase; Monoclonal Antibody; 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. Others not known.
Clonality	Monoclonal
Isotype	IgG2c, kappa
Clone Number	TYMS/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 at 1.0mg/ml
Form/Format	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA at 1.0mg/ml.
Sequence Length	279
Applicable Applications for anti-TYMS antibody	IHC (Immunohistochemistry)
Immunogen	Recombinant human thymidylate synthase protein fragment (around aa 60-174) (exact sequence is proprietary)
Positive Control	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.
Cellular Localization	Nuclear & Cytoplasmic
Chromosome Location	18p11.32
Preparation and Storage	Antibody with azide - store at 2 to 8 degree C. Antibody without azide - store at -20 to -80 degree C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

IMAGES



Application Data

Analysis of Protein Array containing more than 19,000 full-length human proteins using Thymidylate Synthase (TYMS) Mouse Monoclonal Antibody (TYMS/1884). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt™ are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.



WB (Western Blot)

Western Blot Analysis of human HeLa Cell Lysate using Thymidylate Synthase Mouse Monoclonal Antibody (TYMS/1884).



SDS-PAGE

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



IHC (Immunohistochemistry)

Formalin-fixed, paraffin-embedded human Tonsil stained with Thymidylate Synthase Mouse Monoclonal Antibody (TYMS/1884).

ADDITIONAL INFORMATION

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

NCBI GI #	4507751
NCBI GeneID	7298
NCBI Accession #	NP_001062.1
NCBI GenBank Nucleotide #	NM_001071.3
UniProt Accession #	P04818; Q8WYK3; Q8WYK4
Molecular Weight	36kDa
NCBI Official Full Name	thymidylate synthase isoform 1
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.

