

## Product datasheet for **AM50180PU-S**

### Thymidylate Synthase (TYMS) Mouse Monoclonal Antibody [Clone ID: SPM453]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	SPM453
Applications:	FC, IF, IHC, IP, WB
Recommended Dilution:	<b>ELISA:</b> Use BSA free Antibody for coating. <b>Flow Cytometry:</b> 0.5-1 µg/million cells. <b>Immunofluorescence:</b> 0.5-1 µg/ml. <b>Western Blotting:</b> 0.25-0.5 µg/ml. <b>Immunoprecipitation:</b> 0.5-1 µg/500 µg protein lysate. <b>Immunohistochemistry on Frozen and Formalin-Fixed Sections:</b> 0.5-1 µg/ml for 30 minutes at RT. Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10mM Citrate Buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes. <b>Positive Control:</b> 5-FU-resistant colon carcinoma cell lines (NCI H630R10, NCI H630R1); 5-FU-resistant breast cancer cell lines, MCF-Ad5 and MCF-Ad10. Colorectal, gastric, head & neck, and breast carcinomas.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Recombinant human thymidylate synthase.
Specificity:	It recognizes a protein of 36kDa, identified as Thymidylate Synthase (TS) (EC 2.1.1.45). <b>Cellular Localization:</b> Cytoplasmic.
Formulation:	10mM PBS State: Purified State: Liquid purified IgG fraction from Bioreactor Concentrate Stabilizer: 0.05% BSA Preservative: 0.05% Sodium Azide
Concentration:	lot specific
Purification:	Protein A/G Chromatography
Conjugation:	Unconjugated



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<b>Storage:</b>	Store undiluted at 2-8°C.
<b>Stability:</b>	Shelf life: one year from despatch.
<b>Predicted Protein Size:</b>	36 kDa
<b>Gene Name:</b>	thymidylate synthetase
<b>Database Link:</b>	<a href="#">Entrez Gene 7298 Human P04818</a>
<b>Background:</b>	TS 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 is associated with response to 5-fluorouracil (5-FU) in human colorectal, gastric, head and neck, and breast carcinomas.
<b>Synonyms:</b>	TYMS, TSase, OK/SW-cl.29