Thymidylate Synthase (5-FU Resistance Marker) Antibody

Mouse Monoclonal Antibody [Clone SPM453]

Catalog No	Format	Size
7298-MSM1X-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug
7298-MSM1X-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug
7298-MSM1X-P1ABX	Purified Ab WITHOUT BSA or Azide at 1.0mg/ml	100 ug

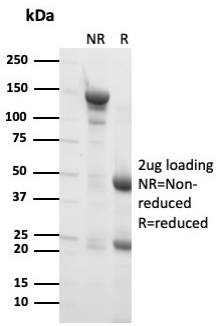
Applications	Tested Dillution	Note
Flow Cytometry (Flow)	1-2ug/million cells	
Immunofluorescence (IF)	1-3ug/ml	
Immunohistochemistry (IHC)	1-2ug/ml	30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes

Product Details

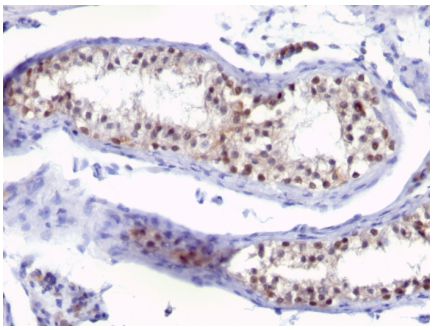
Clone	SPM453
Gene Name	TYMS
Immunogen	Recombinant full-length human TYMS protein.
Host	Mouse
Clonality	Monoclonal
Isotype / Light Chain	IgG1 / Kappa
Mol. Weight of Antigen	36kDa
Cellular Localization	Cytoplasm, Mitochondrion, Mitochondrion inner membrane, Mitochondrion matrix, Nucleus
Species Reactivity	Human
Positive Control	5-FU-resistant colon carcinoma cell lines (NCI H630R10, and breast carcinomas., gastric, head & neck, MCF-Ad5 and MCF-Ad10. Colorectal, NCI H630R1); 5-FU-resistant breast cancer cell lines

**Optimal dilution for a specific application should be determined.*

Product Images for Thymidylate Synthase (5-FU Resistance Marker) Antibody



SDS-PAGE Analysis of Purified Thymidylate synthase Mouse Monoclonal Antibody (SPM453). Confirmation of Purity and Integrity of Antibody.



Formalin-fixed, paraffin-embedded human testicular carcinoma stained with Thymidylate Synthase Mouse Monoclonal Antibody (SPM453).

Specificity & Comments

It recognizes a protein of 36kDa, identified as Thymidylate Synthase (TS) (EC 2.1.1.45). 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.

Supplied As

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.

Storage and Stability

Antibody with azide - store at 2 to 8 °C. Antibody is stable for 24 months. ,Non-hazardous. No MSDS required.

Research Areas

Cardiovascular

Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis.There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.