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# Anti-Thymidylate Synthase (5-FU Resistance Marker) TYMS Monoclonal Antibody

Catalog Number: M04320

### About TYMS

This monoclonal antibody 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.

#### Overview

Product Name	Anti-Thymidylate Synthase (5-FU Resistance Marker) TYMS Monoclonal Antibody
Reactive Species	Human
Description	Boster Bio Anti-Thymidylate Synthase (5-FU Resistance Marker) TYMS Monoclonal Antibody (Catalog # M04320). Tested in Flow Cytometry, IF, IHC applications. This antibody reacts with Human.
Conjugate	Biotin
Application	Flow Cytometry, IF, IHC
Clonality	Monoclonal Clone: TS106 + TMS715
Formulation	Prepared in 10mM PBS with 0.05% BSA $\&$ 0.05% azide. Also available WITHOUT BSA at 1.0mg/ml.
Storage Instructions	Antibody with azide - store at 2 to 8°C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.
Host	Mouse
Uniprot ID	P04818

### **Technical Details**

Immunogen	Recombinant human thymidylate synthase (TS106 & TMS715)
Predicted Reactive Species	Pig, Rabbit
Cross Reactivity	Does not cross-react with primate, avian or amphibian GR.
Isotype	IgG1, kappa + IgG1, kappa
Form	Liquid



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Concentration	Purified antibody with BSA and azide at 200ug/ml
Purification	200ug/ml of antibody purified from Bioreactor Concentrate by Protein A/G.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Flow Cytometry (1-2ug/million cells) Immunofluorescence (1-2ug/ml) Immunohistochemistry (Formalin-fixed) (1-2ug/ml for 30 minutes 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&degC followed by cooling at RT for 20 minutes) Optimal dilution for a specific application should be determined.



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## Anti-Thymidylate Synthase (5-FU Resistance Marker) TYMS Monoclonal Antibody (M04320) Images



Formalin-fixed, paraffin-embedded human Testicular Carcinoma stained with Anti-Thymidylate Synthase Monoclonal Antibody (TS106 + TMS715).

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