



## Mouse anti Thymidylate Synthase Monoclonal Antibody

Alternative Name(s): Thymidylate Synthase; TS

### Order Information

- **Description:** Thymidylate Synthase
- **Catalogue:** 606-360
- **Lot:** See label
- **Size:** 100ug/200ul
- **Host:** Mouse
- **Clone:** TS106
- **Application:** IHC(P)
- **Reactivity:** Hu

### **ANTIGEN PREPARATION**

A recombinant protein of human Thymidylate synthase

### **BACKGROUND**

Thymidylate synthase (TS) is a key enzyme in the de novo synthesis of 2'-deoxythymidine-5'-monophosphate (dTMP). TS catalyzes the methylation of 2'-deoxyuridine-5'-monophosphate (dUMP) to dTMP for which 5,10-methylene-tetrahydrofolate (CH<sub>2</sub>-THF) is the methyl donor.. TS plays a crucial role in the early stages of DNA biosynthesis. With inhibition of TS, an imbalance of deoxynucleotides and increased levels of dUMP arise. Both cause DNA damage The enzyme has been of interest as a target for cancer chemotherapeutic agents. It is considered to be the primary site of action for 5-fluorouracil, 5-fluoro-2-prime-deoxyuridine, and some folate analogs. Expression of this gene and that of a naturally occurring antisense transcript, mitochondrial enolase superfamily member 1, vary inversely when cell-growth progresses from late-log to plateau phase. Polymorphisms in this gene may be associated with etiology of neoplasia, including breast cancer, and response to chemotherapy. TS presents a novel biomarker for diagnosis and prognosis in patients with pancreatic cancer.

### **PURIFICATION**

The Mouse IgG is purified by Affinity Purification

### **FORMULATION**

This affinity purified antibody is supplied in sterile Phosphatebuffered saline (pH7.2) containing antibody stabilizer

### **SPECIFICITY**

This antibody recognizes human Thymidylate Synthase protein. The other species are not tested.

### **STORAGE**

The antibodies are stable for 24 months from date of receipt when stored at -20oC to -70oC. The antibodies can be stored at 2oC-8oC for three month without detectable loss of activity. Avoid repeated freezing-thawing cycles.

### **APPLICATIONS/SUGGESTED WORKING DILUTIONS\***

- Western Blot: 0.1-1 µg/ml
- ELISA: 0.01-0.1 µg/ml
- Immunoprecipitation: 2-5 µg/ml
- IHC: 2-10 µg/ml
- Flow cytometry: Not tested
- Molecular Weight: 30.0
- Positive Control: Kidney Tissue
- Cellular Location: Cell Membrane

\*Optimal dilutions should be determined by researchers for the specific applications.

### **FOR RESEARCH USE ONLY.**

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1 408-573-1898 (Tel). 1 408-573-1858 (Fax). [www.abbomax.com](http://www.abbomax.com) [info@abbomax.com](mailto:info@abbomax.com)

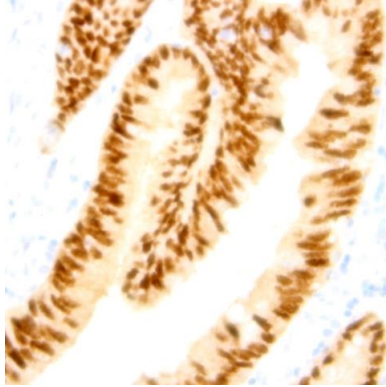


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## DATA ATTACHMENTS



Immunohistochemistry: Human colon carcinoma (FFPE) stained with Mouse anti-Thymidylate Synthase (TS) (Cat# 606-360) at 1:200 for 10 min @ RT. Staining of formalin-fixed tissue requires boiling tissue sections in 10 mM Citrate Buffer, pH 6.0 for 10 min followed by cooling at RT for 20 min.

## REFERENCES

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