

# **Product datasheet for TA801701M**

#### OriGene Technologies, Inc.

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### Thymidylate Synthase (TYMS) Mouse Monoclonal Antibody [Clone ID: OTI2C3]

### **Product data:**

**Product Type:** Primary Antibodies

Clone Name: OTI2C3
Applications: IHC, WB

**Reactivity:** WB 1:2000, IHC 1:150 Human, Mouse, Rat

Host: Mouse Isotype: IgG2a

Clonality: Monoclonal

Immunogen: Full length human recombinant protein of human TYMS (NP\_001062) produced in E.coli.

**Formulation:** PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.

Concentration: 1 mg/ml

**Purification:** Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography

(protein A/G)

Conjugation: Unconjugated

**Storage:** Store at -20°C as received.

**Stability:** Stable for 12 months from date of receipt.

Predicted Protein Size: 35.5 kDa

**Gene Name:** thymidylate synthetase

Database Link: NP 001062

Entrez Gene 22171 MouseEntrez Gene 29261 RatEntrez Gene 7298 Human

P04818





### Background:

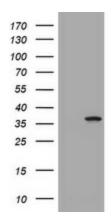
Thymidylate synthase catalyzes the methylation of deoxyuridylate to deoxythymidylate using 5,10-methylenetetrahydrofolate (methylene-THF) as a cofactor. This function maintains the dTMP (thymidine-5-prime monophosphate) pool critical for DNA replication and repair. The enzyme has been of interest as 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 occuring antisense transcript rTSalpha (GenelD:55556) vary inversely when cell-growth progresses from late-log to plateau phase. [provided by RefSeq, Jul 2008]

**Synonyms:** HST422; TMS; TS

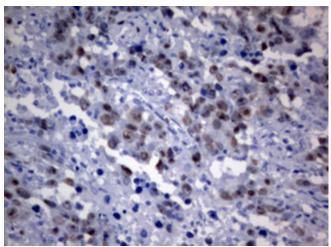
**Protein Families:** Druggable Genome

**Protein Pathways:** Metabolic pathways, One carbon pool by folate, Pyrimidine metabolism

# **Product images:**

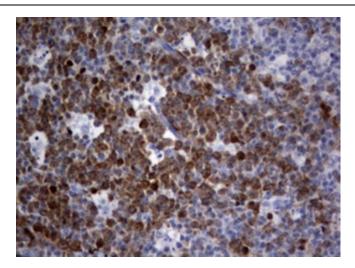


HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY TYMS ([RC204814], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TYMS. Positive lysates [LY420700] (100ug) and [LC420700] (20ug) can be purchased separately from OriGene.



Immunohistochemical staining of paraffinembedded Adenocarcinoma of Human ovary tissue using anti-TYMS mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.





Immunohistochemical staining of paraffinembedded Human tonsil within the normal limits using anti-TYMS mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.