

## Product datasheet for **TA801701**

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

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI2C3
Applications:	IHC, WB
Recommended Dilution:	WB 1:2000, IHC 1:150
Reactivity:	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:	<a href="#">NP_001062</a> <a href="#">Entrez Gene 22171 Mouse</a> <a href="#">Entrez Gene 29261 Rat</a> <a href="#">Entrez Gene 7298 Human</a> <a href="#">P04818</a>



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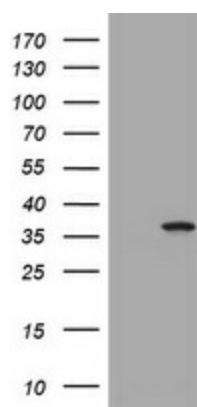
**Background:** Thymidylate synthase catalyzes the methylation of deoxyuridylate to deoxythymidylate using 5,10-methylenetetrahydrofolate (methylene-THF) as a cofactor. This function maintains the dTMP (thymidine-5-prime monophosphate) pool critical for DNA replication and repair. The enzyme has been 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 occurring 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

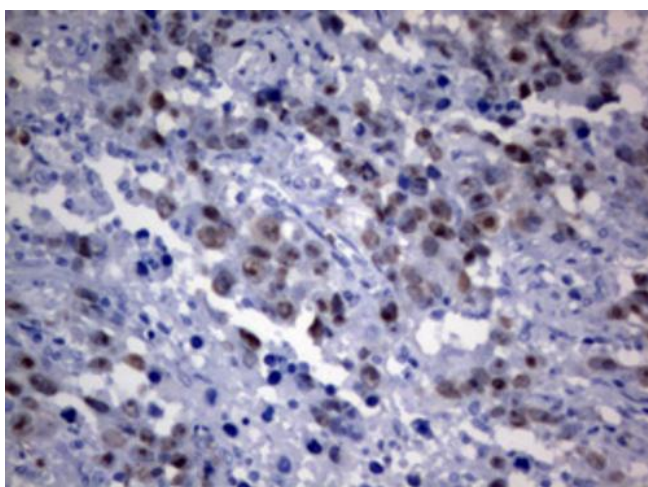
**Protein Families:** Druggable Genome

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

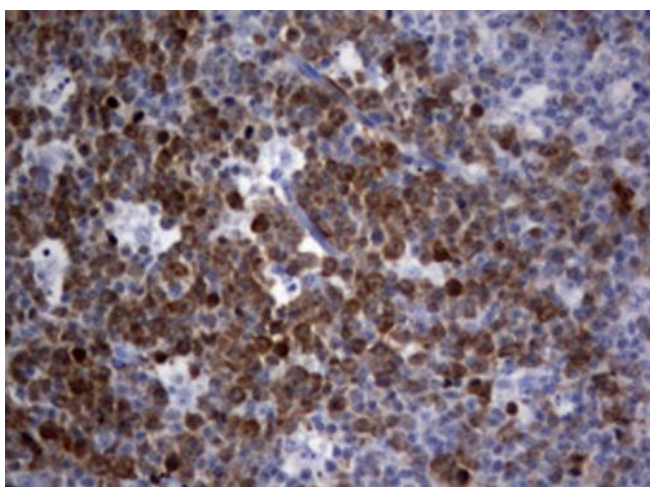
### Product images:



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 paraffin-embedded 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 paraffin-embedded 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.