

## Product datasheet for **TA801677BM**

### Thymidylate Synthase (TYMS) Mouse Monoclonal Antibody (HRP conjugated) [Clone ID: OTI3F1]

#### Product data:

|                         |   |
|-------------------------|---|
| Product Type:           | Primary Antibodies  |
| Clone Name:             | OTI3F1  |
| 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.   |
| Concentration:          | 0.5 mg/ml   |
| Purification:           | Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)   |
| Conjugation:            | HRP   |
| 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><br><a href="#">Entrez Gene 22171 Mouse</a> <a href="#">Entrez Gene 29261 Rat</a> <a href="#">Entrez Gene 7298 Human</a><br><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

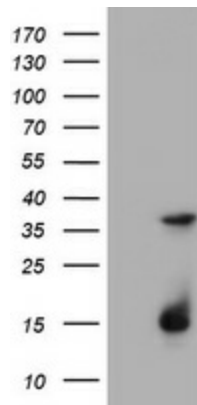
**Protein Families:**

Druggable Genome

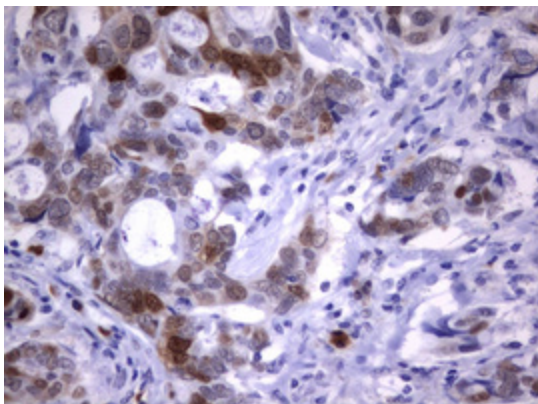
**Protein Pathways:**

Metabolic pathways, One carbon pool by folate, Pyrimidine metabolism

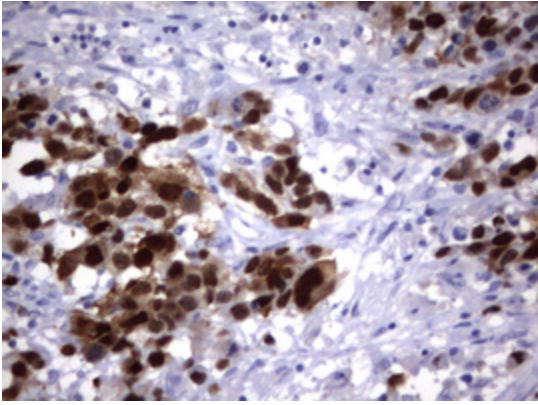
**Product images:**



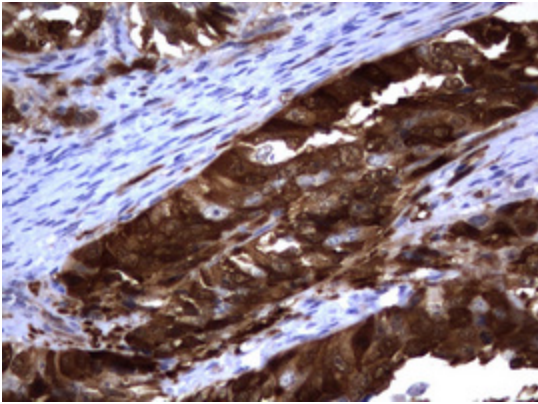
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY TYMS ([RC204814], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TYMS. Positive lysates [LY420700] (100ug) and [LC420700]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



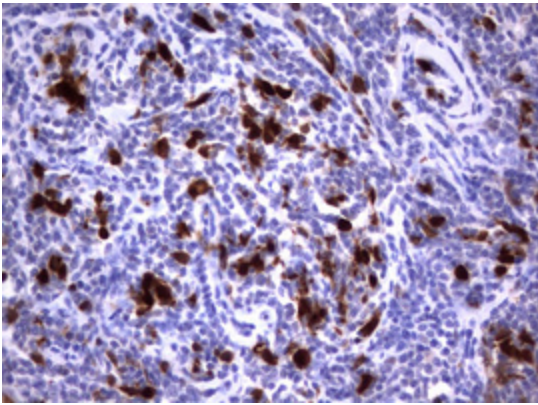
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human breast tissue using anti-TYMS mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min, [TA801677])



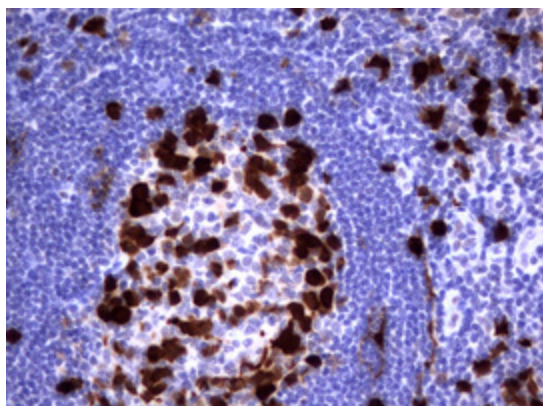
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human ovary tissue using anti-TYMS mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min, [TA801677])



Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human endometrium tissue using anti-TYMS mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min, [TA801677])



Immunohistochemical staining of paraffin-embedded Human Lymphoma tissue using anti-TYMS mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min, [TA801677])



Immunohistochemical staining of paraffin-embedded Human tonsil within the normal limits using anti-TYMS mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min, [TA801677])