

Product datasheet for **AM05335SU-N**

Thymidylate Synthase (TYMS) Mouse Monoclonal Antibody [Clone ID: TS106]

Product data:

Product Type:	Primary Antibodies
Clone Name:	TS106
Applications:	IF, IHC, WB
Recommended Dilution:	Western Blot. Immunofluorescence. Immunohistochemistry on Frozen Sections. Immunohistochemistry on Formalin-Fixed, Paraffin-Embedded Sections: 1/50 Pretreatment of deparaffinized tissue with heat-induced epitope retrieval is recommended. Use Polymer anti Mouse/Rabbit IgG as a detection system. <i>Positive Control:</i> 5-FU-resistant colon carcinoma or carcinoma cell lines (NCI H630R10, NCI630R1).
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Recombinant Human Thymidylate Synthase.
Specificity:	Recognizes Thymidylate synthase (TS). Cellular Localization: Cytoplasmic.
Formulation:	State: Supernatant State: Liquid Tissue Culture Supernatant with 0.2% BSA and 15mM Sodium Azide.
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C.
Stability:	Shelf life: one year from despatch.
Gene Name:	thymidylate synthetase
Database Link:	Entrez Gene 5395 Human Entrez Gene 7298 Human P04818



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Background:

TS (EC:2.1.1.45), a cytosolic enzyme, is a dimer of two identical monomers of about 36kDa. The enzyme provides the sole intracellular de novo source of thymidylate and plays a crucial role in DNA replication and repair. TS catalyzes the methylation of deoxyuridine monophosphate (dUMP) and its conversion to deoxythymidine monophosphate (dTMP). Therefore, TS is primarily active in proliferating and metabolic active cells. TS is a central target of the widely used antineoplastic agent 5-Fluorouracil (5-FU) and thus also of the Xeloda, which is enzymatically activated to 5-FU. TS is inactivated by a covalent complex formation with 5-FdUMP and methylenetetrahydrofolate. Literature indicates that expression of TS is associated with response to 5-fluorouracil (5-FU) in human breast, colorectal, gastric, head, and neck carcinomas with low TS expression predicting better response to 5-FU and survival.

Synonyms:

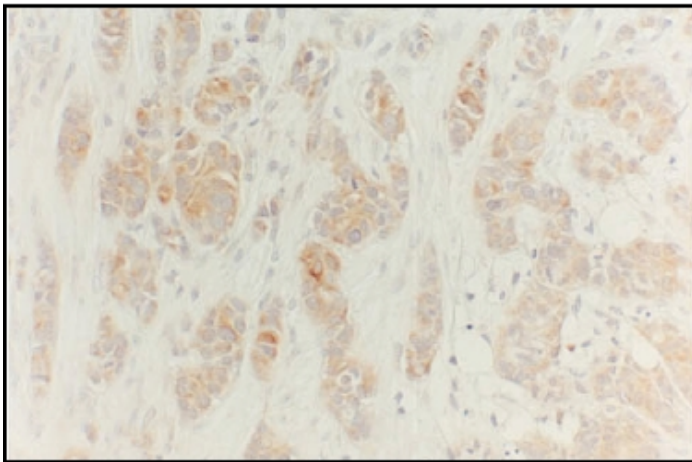
TYMS, TSase, OK/SW-cl.29

Protein Families:

Druggable Genome

Protein Pathways:

Mismatch repair

Product images:

Formalin-Fixed, Paraffin-Embedded Human colon carcinoma stained with Thymidylate Synthase antibody Cat.-No. AM05335SU-N using peroxidase conjugate and DAB chromogen. Note the cytoplasmic staining of tumor cells.