

Thymidylate Synthase (Clone TS106) Mouse Monoclonal Antibody

Specificity: Human. Others-not known

Immunogen: Recombinant human thymidylate synthase

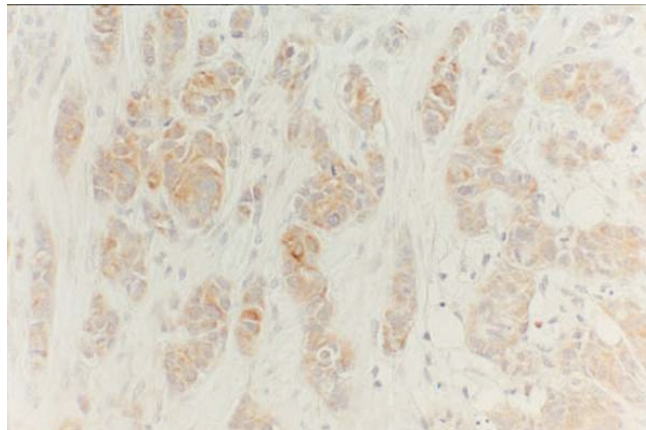
Ig Class: Mouse IgG1

Storage: Store vial at 4°C. When stored at 2-8°C, this antibody is stable for 24 months

Staining procedures: Use formalin-fixed and paraffin-embedded sections. *Retrieval conditions:* Pretreatment of deparaffinized tissue with heat-induced epitope retrieval is recommended. *Detection methods:* Polymer anti-mouse/rabbit Ig detection system. *Working dilution:* 1:100-200; *Positive Control:* 5-FU resistance cancer. *Cellular Localization:* Cytoplasmic. *Intended Use:* In vitro diagnosis (IVD).

Description: 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.

Supplied As: Purified antibody with 0.2% BSA and 15mM sodium azide.



Formalin-fixed, paraffin-embedded human colon carcinoma stained with anti-thymidylate synthase single peroxidase-conjugate and DAB chromogen. Note the cytoplasmic staining of tumor cells

Cat. #Z2199 (1.0 ml)