

PRODUCT DATA SHEET

Product: Anti-Thymidylate Synthase, clone TS 106

Cat. No.: MC-307 (100 µg)

Synonyms:

5-FU Resistance Marker

Background:

Thymidylate Synthase (TS) converts deoxyuridine monophosphate (dUMP) to deoxythymidine monophosphate (dTMP), which is essential for DNA biosynthesis. TS is a critical target for the fluoropyrimidines, an important group of antineoplastic drugs that are widely used in the treatment of solid tumors. Both 5-FU and fluorodeoxyuridine are converted in tumor cells to FdUMP which inactivates TS by formation of a ternary covalent complex in the presence of the folate cofactor 5,10-methylenetetrahydrofolate. Expression of TS protein is associated with response to 5-fluorouracil (5-FU) in human colorectal, gastric, head and neck, and breast carcinomas.

Mol. Wt. of Antigen:

36 kDa

Epitope:

Not determined

Cellular Localization:

Nuclear and cytoplasmic

Species Reactivity:

Human. Others not tested.

Positive Control:

5-FU-resistant cancer cell lines or colon carcinoma.

Ig Isotype:

Mouse IgG₁/κ

Immunogen:

Recombinant human TS enzyme.

Format:

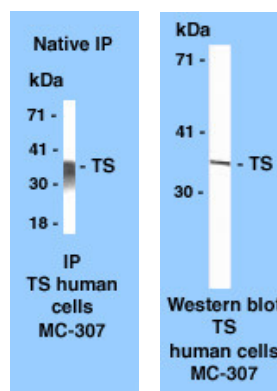
100µg of antibody at 200 µg/mL purified from ascites fluid by Protein G chromatography. Prepared in 10 mM PBS, pH 7.4, with protein stabilizer and 0.09% sodium azide.

Storage:

Store at 4 °C.

Applications and Suggested Dilutions:

- Flow cytometry
- Immunofluorescence
- Immunoprecipitation: Native verified. Use at 2 µg/mg protein lysate. Use protein G.
- Western blot: Use at 1-2 µg/mL for 2 hours at RT



The optimal dilution for a specific application should be determined by the researcher.

Limitations:

For *in vitro* research use only. Not for use in diagnostics or in humans.

Warranty:

No warranties, expressed or implied, are made regarding the use of this product. KAMIYA BIOMEDICAL COMPANY is not liable for any damage, personal injury, or economic loss caused by this product.