

Product Datasheet

Thymidylate Synthase Antibody (orb639548)

Description	Thymidylate synthase converts deoxyuridine monophosphate (dUMP) to deoxythymidine monophosphate (dTMP), which is essential for DNA biosynthesis. Thymidylate synthase is also a critical target for the fluoropyrimidines, an important group of anti-neoplastic 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 thymidylate synthase by formation of a ternary covalent complex in the presence of the folate cofactor 5,10-methylenetetrahydrofolate. Expression of thymidylate synthase protein is associated with response to 5-fluorouracil (5-FU) in human colorectal, gastric, head and neck, and breast carcinomas.
Species/Host	Mouse
Reactivity	Human
Conjugation	Unconjugated
Tested Applications	IF, IHC-P, WB
Immunogen	A recombinant human protein from within amino acids 60-174 was used as the immunogen for this Thymidylate synthase antibody.
Preservatives	0.2 mg/ml in 1X PBS with 0.1 mg/ml rAlbumin (US sourced) and 0.05% sodium azide
Storage	Store the Thymidylate synthase antibody at 2-8°C (with azide) or aliquot and store at -20°C or colder (without azide).
Note	For research use only
Application notes	Optimal dilution of the antibody should be determined by the researcher.
Formula	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide
Isotype	Mouse IgG2c, kappa
Clonality	Monoclonal

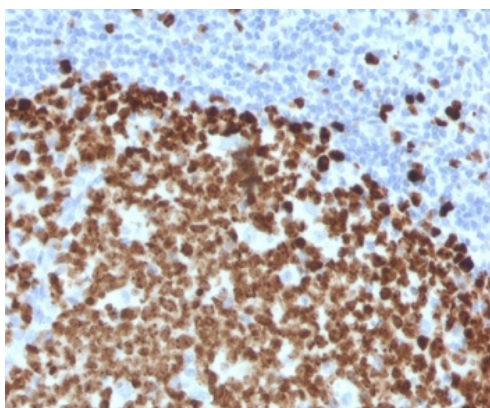
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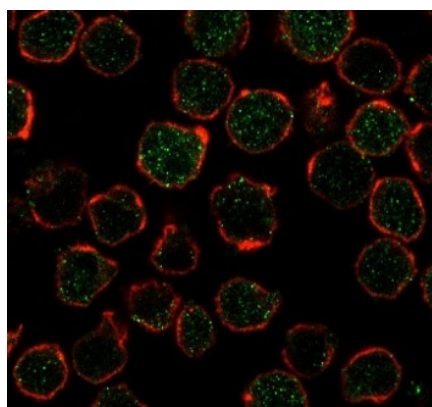
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Clone Number	TYSY9-2
Antibody Type	Primary Antibody
Purity	Protein G purified monoclonal antibody
Hazard Information	This Thymidylate Synthase antibody is available for research use only.
Entrez	7298
Dilution Range	Western blot: 1-2ug/ml, Immunofluorescence: 1-2ug/ml, Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT, Prediluted IHC only format: incubate for 30 min at RT (1)
Expiration Date	12 months from date of receipt.



IHC testing of FFPE human tonsil and Thymidylate Synthase antibody (clone TYSY9-2). HIER: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 minutes.



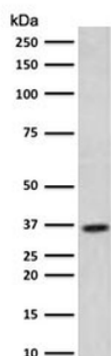
Immunofluorescent staining of PFA-fixed human Ramos cells with Thymidylate Synthase antibody cocktail (green, clone TYSY9-2) and Phalloidin (red).

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Western blot testing of human HeLa cell lysate with Thymidylate Synthase antibody (clone TYSY9-2). Predicted molecular weight ~36 kDa.

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