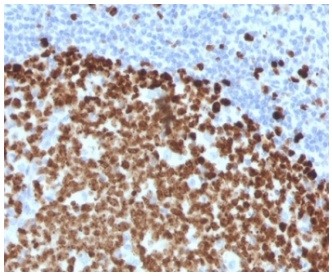
Thymidylate Synthase Antibody [clone TYSY9-2] (V7622)

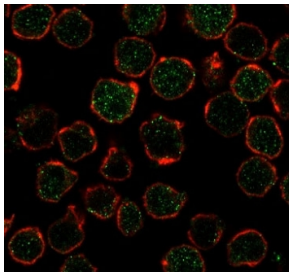
Catalog No.	Formulation	Size
V7622-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7622-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7622SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7622IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

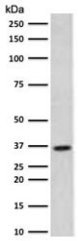
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2c, kappa
Clone Name	TYSY9-2
Purity	Protein G purified monoclonal antibody
Gene ID	7298
Localization	Cytoplasmic, nuclear
Applications	Western blot: 1-2ug/ml Immunofluorescence: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Prediluted IHC only format: incubate for 30 min at RT (1)
Limitations	This Thymidylate Synthase antibody is available for research use only.



IHC testing of FFPE human tonsil and Thymidylate Synthase antibody (clone TYSY9-2). HIER: boil tissue sections in pH 9 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).



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

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.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the Thymidylate synthase antibody to be titered up or down for optimal performance.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

A recombinant human protein from within amino acids 60-174 was used as the immunogen for this Thymidylate synthase antibody.

Storage

Store the Thymidylate synthase antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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