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TYMS Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant TYMS.
Catalog # AT4425a

Product Information

Application	WB, IHC, IF, E
Primary Accession	P04818
Other Accession	BC013919
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 Kappa
Clone Names	3A1
Calculated MW	35716

Additional Information

Gene ID	7298
Other Names	Thymidylate synthase, TS, TSase, TYMS, TS
Target/Specificity	TYMS (AAH13919, 111 a.a. ~ 210 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IHC~~1:100~500 IF~~1:50~200 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	TYMS Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

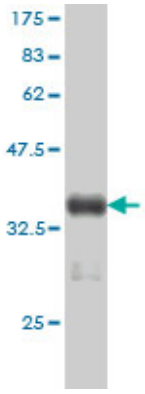
Background

Thymidylate synthase catalyzes the methylation of deoxyuridylate to deoxythymidylate using 5,10-methylenetetrahydrofolate (methylene-THF) as a cofactor. This function maintains the dTMP (thymidine-5-prime monophosphate) pool critical for DNA replication and repair. The enzyme has been of interest as a target for cancer chemotherapeutic agents. It is considered to be the primary site of action for 5-fluorouracil, 5-fluoro-2-prime-deoxyuridine, and some folate analogs. Expression of this gene and that of a naturally occuring antisense transcript rTSalpha (GeneID:55556) vary inversely when cell-growth progresses from late-log to plateau phase.

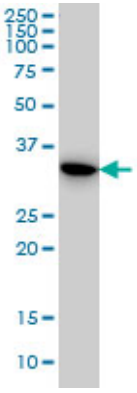
References

Variants in the dihydropyrimidine dehydrogenase, methylenetetrahydrofolate reductase and thymidylate synthase genes predict early toxicity of 5-fluorouracil in colorectal cancer patients. Kristensen MH, et al. J Int Med Res, 2010 May-Jun. PMID 20819423.Genetic polymorphisms associated with 5-Fluorouracil-induced neurotoxicity. Kim SR, et al. Chemotherapy, 2010. PMID 20714149.Association of genetic variation in cystathionine-beta-synthase and arsenic metabolism. Porter KE, et al. Environ Res, 2010 Aug. PMID 20670920.Value of gene polymorphisms as markers of 5-FU therapy response in stage III colon carcinoma: a pilot study. Fari?a-Sarasqueta A, et al. Cancer Chemother Pharmacol, 2010 Jul 28. PMID 20665215.Polymorphisms of thymidylate synthase gene 5'- and 3'-untranslated region and risk of gastric cancer in Koreans. Yim DJ, et al. Anticancer Res, 2010 Jun. PMID 20651387.

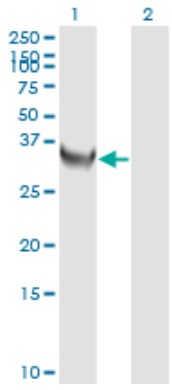
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (36.52 KDa) .



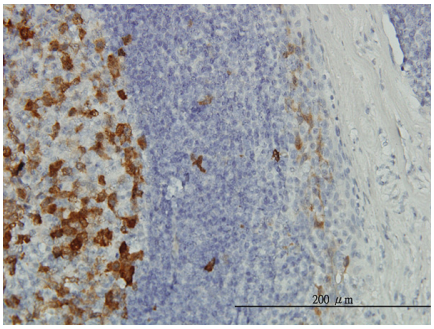
TYMS monoclonal antibody (M01), clone 3A1 Western Blot analysis of TYMS expression in HeLa ((Cat # AT4425a)

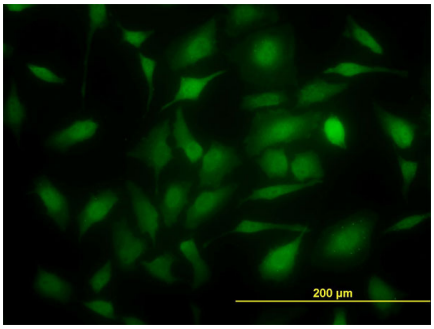


Western Blot analysis of TYMS expression in transfected 293T cell line by TYMS monoclonal antibody (M01), clone 3A1.

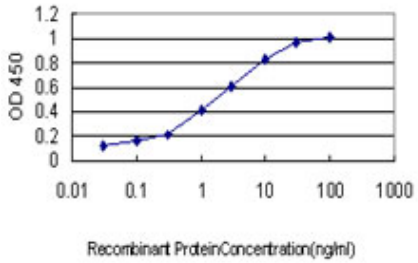
Lane 1: TYMS transfected lysate(35.7 KDa).
Lane 2: Non-transfected lysate.

Immunoperoxidase of monoclonal antibody to TYMS on formalin-fixed paraffin-embedded human tonsil. [antibody concentration 3 ug/ml]





Immunofluorescence of monoclonal antibody to TYMS on HeLa cell. [antibody concentration 20 ug/ml]



Detection limit for recombinant GST tagged TYMS is approximately 0.03ng/ml as a capture antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.