

Anti-Thymidylate Synthase TYMS Monoclonal Antibody

Catalog # ABO14498

Product Information

Application	WB, IHC, IF, ICC, IP, FC
Primary Accession	P04818
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse, Monkey
Clonality	Monoclonal
Format	Liquid
Description	Anti-Thymidylate Synthase TYMS Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP, Flow Cytometry applications. This antibody reacts with Human, Monkey, Mouse, Rat.

Additional Information

Gene ID	7298
Other Names	Thymidylate synthase, TS, TSase, 2.1.1.45, TYMS (HGNC:12441), TS
Calculated MW	35716
Application Details	WB 1:500-1:2000 IHC 1:50-1:200 ICC/IF 1:50-1:200 IP 1:50 FC 1:50
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: ADAA-20
Immunogen	A synthesized peptide derived from human Thymidylate Synthase Contributes to the de novo mitochondrial thymidylate biosynthesis pathway.
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name	TYMS (HGNC:12441)
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Synonyms

TS

Function

Catalyzes the reductive methylation of 2'-deoxyuridine 5'- monophosphate (dUMP) to thymidine 5'-monophosphate (dTMP), using the cosubstrate, 5,10-methylenetetrahydrofolate (CH₂H₄folate) as a 1- carbon donor and reductant and contributes to the mitochondrial and nuclear de novo thymidylate biosynthesis pathway.

Cellular Location

Nucleus. Cytoplasm Mitochondrion. Mitochondrion matrix. Mitochondrion inner membrane. Note=Localized to the nucleus during S and G2/M phases of the cell cycle. As a component of the de novo thymidylate synthesis complex, localizes specifically to replication forks during DNA synthesis (PubMed:22235121)

Images

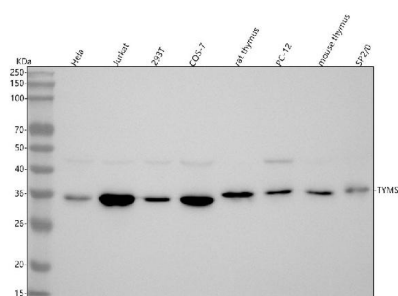


Figure 1. Western blot analysis of TYMS using anti-TYMS antibody (M04320-1).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,
Lane 2: human Jurkat whole cell lysates,
Lane 3: human 293T whole cell lysates,
Lane 4: monkey COS-7 whole cell lysates,
Lane 5: rat thymus tissue lysates,
Lane 6: rat PC-12 whole cell lysates,
Lane 7: mouse thymus tissue lysates,
Lane 8: mouse SP2/0 whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-TYMS antigen affinity purified monoclonal antibody (Catalog # M04320-1) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:500 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for TYMS at approximately 36 kDa. The expected band size for TYMS is at 36 kDa.

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