

# TYSY Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP6682b

#### **Product Information**

**Application** WB, IHC-P, FC, IF, E

Primary Accession
Reactivity
Human
Host
Clonality
Polyclonal
Isotype
Rabbit IgG
Calculated MW
Antigen Region
P04818
Human
Rabbit
Rabbit
265-294

#### **Additional Information**

**Gene ID** 7298

Other Names Thymidylate synthase, TS, TSase, TYMS, TS

**Target/Specificity** This TYSY antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 265-294 amino acids from the

C-terminal region of human TYSY.

**Dilution** WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 IF~~1:10~50 E~~Use at an assay

dependent concentration.

**Format** Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This

antibody is purified through a protein A column, followed by peptide affinity

purification.

**Storage** Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store

at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** TYSY Antibody (C-term) is for research use only and not for use in diagnostic

or therapeutic procedures.

## **Protein Information**

Name TYMS ( HGNC:12441)

**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

etriylerietetrariyurorolate (Crizri4rolate) as a 1- carbori dorlor and reductari

and contributes to the de novo mitochondrial thymidylate biosynthesis pathway.

**Cellular Location** 

Nucleus. Cytoplasm. Mitochondrion. Mitochondrion matrix. Mitochondrion inner membrane

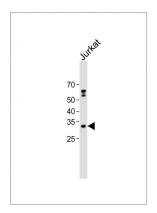
## **Background**

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.

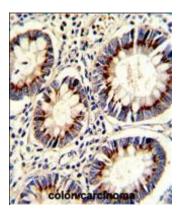
## References

Ren, D.N., J Surg Oncol (2009) Schiffer, C.A., Biochemistry 34 (50), 16279-16287 (1995)

## **Images**

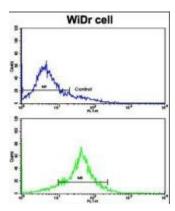


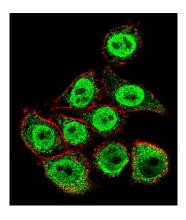
All lanes: Anti-TYSY Antibody (C-term) at 1:1000 dilution + Jurkat whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 33 KDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human colon carcinoma with TYSY Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Flow cytometric analysis of WiDr cells using TYSY Antibody (C-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.





Confocal immunofluorescent analysis of TYSY Antibody (C-term)(Cat#AP6682b) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments have been labeled with Alexa Fluor? 555 phalloidin (red).

## **Citations**

• DNA methylation-regulated miR-193a-3p dictates resistance of hepatocellular carcinoma to 5-fluorouracil via repression of SRSF2 expression.

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