

## TYSY Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP6682b

# **Specification**

# TYSY Antibody (C-term) - Product Information

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

Primary Accession
Reactivity
Host
Clonality
Isotype
Antigen Region

P04818
Human
Rabbit
Polyclonal
Rabbit IgG
Accession
P04818
Human
Rabbit
Polyclonal
Rabbit IgG
Accession

# TYSY Antibody (C-term) - 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**

IF~~1:10~50 WB~~1:1000 IHC-P~~1:50~100 FC~~1:10~50

## **Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. 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.

# TYSY Antibody (C-term) - Protein Information

Name TYMS (HGNC:12441)

**Synonyms** TS





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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 de novo mitochondrial thymidylate biosynthesis pathway.

#### **Cellular Location**

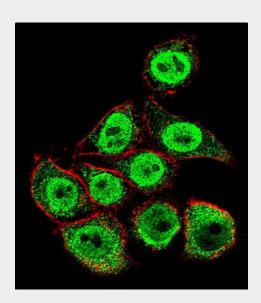
Nucleus. Cytoplasm. Mitochondrion. Mitochondrion matrix. Mitochondrion inner membrane

# TYSY Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

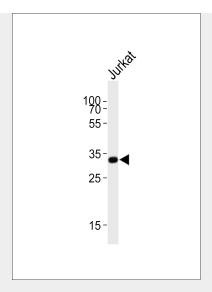
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# TYSY Antibody (C-term) - Images

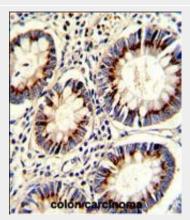


Confocal immunofluorescent analysis of TYSY Antibody (C-term)(Cat#AP6682b) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments have been labeled with Alexa Fluor? 555 phalloidin (red).

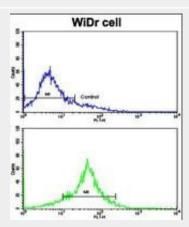




Western blot analysis of lysate from Jurkat cell line, using TYSY Antibody (C-term)(Cat. #AP6682b). AP6682b was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.



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.



# TYSY Antibody (C-term) - 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.

# TYSY Antibody (C-term) - References

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

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