

TYSY Antibody(C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AX10003

Product Information

| | |
|-------------------|------------------------|
| Application | WB, IHC-P, IF, FC, E |
| Primary Accession | P04818 |
| Reactivity | Human |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | Rabbit IgG |
| Clone Names | RB20041 |
| Calculated MW | 35716 |
| Antigen Region | 265-294 |

Additional Information

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|--------------------|---|
| 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~~1:2000 IHC-P~~1:500 IF~~1:50 FC~~1:50 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 and contributes to the de novo mitochondrial thymidylate biosynthesis pathway.

Cellular Location

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

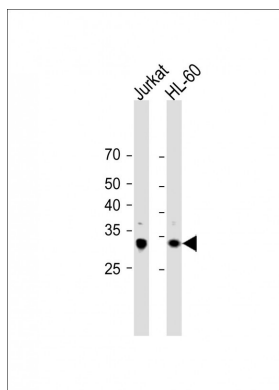
Background

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.

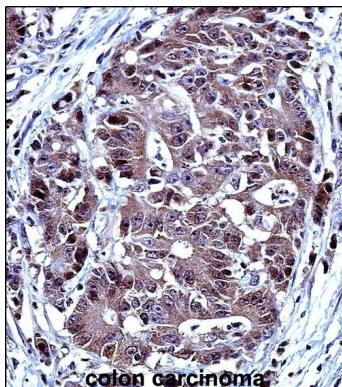
References

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

Images

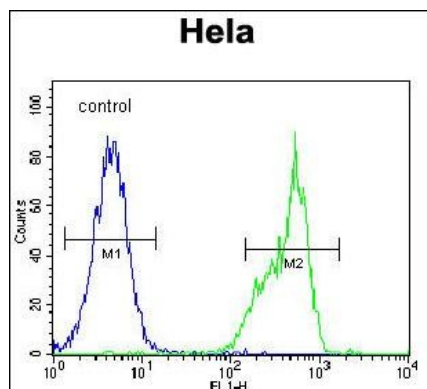
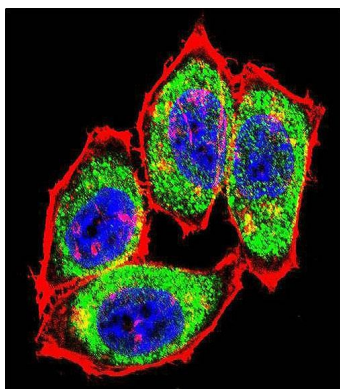


All lanes: Anti-TYSY Antibody(C-term) at 1:500 dilution
Lane 1: Jurkat whole cell lysate Lane 2: HL-60 whole cell lysate
Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 32 KDa
Blocking/Dilution buffer: 5% NFDm/TBST.



TYSY Antibody (C-term) immunohistochemistry analysis in formalin fixed and paraffin embedded human colon carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of TYSY Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Confocal immunofluorescent analysis of TYSY Antibody (C-term) 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). DAPI was used to stain the cell nuclear (blue).



TYSY Antibody (C-term) flow cytometric analysis of HeLa cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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