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# TYSY Antibody (Center) Blocking Peptide

**Synthetic peptide**
**Catalog # BP6682c**

## Specification

### TYSY Antibody (Center) Blocking Peptide - Product Information

Primary Accession P04818

### TYSY Antibody (Center) Blocking Peptide - Additional Information

**Gene ID** 7298

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

**Target/Specificity**
The synthetic peptide sequence used to generate the antibody <a href=/products/AP6682c>AP6682c</a> was selected from the Center region of human TYSY. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

### TYSY Antibody (Center) Blocking Peptide - 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

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## TYSY Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

## TYSY Antibody (Center) Blocking Peptide - Images

## TYSY Antibody (Center) Blocking Peptide - 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 (Center) Blocking Peptide - References

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