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Thymidylate Synthase (5-FU Resistance Marker) Antibody - With BSA and Azide
Mouse Monoclonal Antibody [Clone SPM453]
Catalog # AH10787

Specification

Thymidylate Synthase (5-FU Resistance Marker) Antibody - With BSA and Azide - Product Information

Application	**,14,3,4,**
Primary Accession	P04818
Other Accession	7298, 369762
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse / IgG1, kappa**
Calculated MW	**36kDa KDa**

Thymidylate Synthase (5-FU Resistance Marker) Antibody - With BSA and Azide - Additional Information

Gene ID 7298

Other Names
Thymidylate synthase, TS, TSase, 2.1.1.45, TYMS, TS

Format
200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA at 1.0mg/ml.

Storage
Store at 2 to 8°C.Antibody is stable for 24 months.

Precautions
Thymidylate Synthase (5-FU Resistance Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Thymidylate Synthase (5-FU Resistance Marker) Antibody - With BSA and Azide - 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.

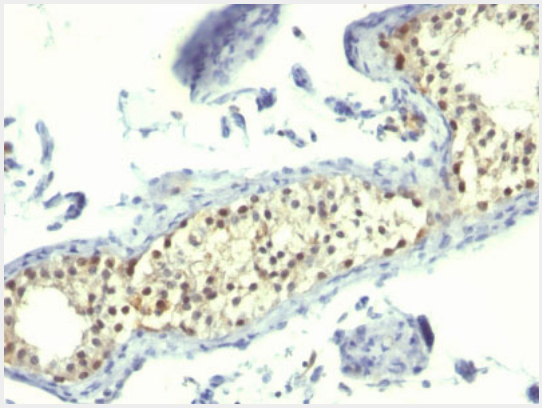
Cellular Location
Nucleus. Cytoplasm. Mitochondrion. Mitochondrion matrix. Mitochondrion inner membrane

Thymidylate Synthase (5-FU Resistance Marker) Antibody - With BSA and Azide - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Thymidylate Synthase (5-FU Resistance Marker) Antibody - With BSA and Azide - Images



Formalin-fixed, paraffin-embedded human Testicular Carcinoma stained with Thymidylate Synthase Monoclonal Antibody (SPM453).

Thymidylate Synthase (5-FU Resistance Marker) Antibody - With BSA and Azide - Background

It recognizes a protein of 36kDa, identified as Thymidylate Synthase (TS) (EC 2.1.1.45). TS converts deoxyuridine monophosphate (dUMP) to deoxythymidine monophosphate (dTMP), which is essential for DNA biosynthesis. TS is also a critical target for the fluoropyrimidines, an important group of antineoplastic drugs that are widely used in the treatment of solid tumors. Both 5-FU and fluorodeoxyuridine are converted in tumor cells to FdUMP which inactivates TS by formation of a ternary covalent complex in the presence of the folate cofactor 5,10-methylenetetrahydrofolate. Expression of TS protein is associated with response to 5-fluorouracil (5-FU) in human colorectal, gastric, head and neck, and breast carcinomas.

Thymidylate Synthase (5-FU Resistance Marker) Antibody - With BSA and Azide - References

Johnston PG, et. al. Cancer Research, 1991, 51(24):6668-76. | Johnston PG, et. al. Cancer Research, 1992, 52(16):4306-12