

## Product datasheet

# Anti-Thymidylate Synthase antibody [TYMS/1884] ab224649

5 Images

### Overview

|                            |   |
|----------------------------|---|
| <b>Product name</b>        | Anti-Thymidylate Synthase antibody [TYMS/1884]  |
| <b>Description</b>         | Mouse monoclonal [TYMS/1884] to Thymidylate Synthase  |
| <b>Host species</b>        | Mouse   |
| <b>Tested applications</b> | <b>Suitable for:</b> Protein Array, IHC-P, ICC, Flow Cyt, WB  |
| <b>Species reactivity</b>  | <b>Reacts with:</b> Human   |
| <b>Immunogen</b>           | Recombinant fragment within Human Thymidylate Synthase aa 60-174. The exact sequence is proprietary.<br>Database link: <a href="#">P04818</a>   |
| <b>Positive control</b>    | IHC-P: Human tonsil tissue; ICC: Ramos cells; Flow Cyt: MOLT-4 cells; WB: HeLa whole cell lysate.   |
| <b>General notes</b>       | <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p> |

### Properties

|                             |   |
|-----------------------------|---|
| <b>Form</b>                 | Liquid  |
| <b>Storage instructions</b> | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. |
| <b>Storage buffer</b>       | pH: 7.2<br>Preservative: 0.05% Sodium azide<br>Constituents: 0.05% BSA, PBS   |
| <b>Purity</b>               | Protein A/G purified  |
| <b>Purification notes</b>   | ab224649 was purified from Bioreactor concentrate by Protein A/G.   |
| <b>Clonality</b>            | Monoclonal  |

|                         |           |
|-------------------------|-----------|
| <b>Clone number</b>     | TYMS/1884 |
| <b>Isotype</b>          | IgG2a     |
| <b>Light chain type</b> | kappa     |

## Applications

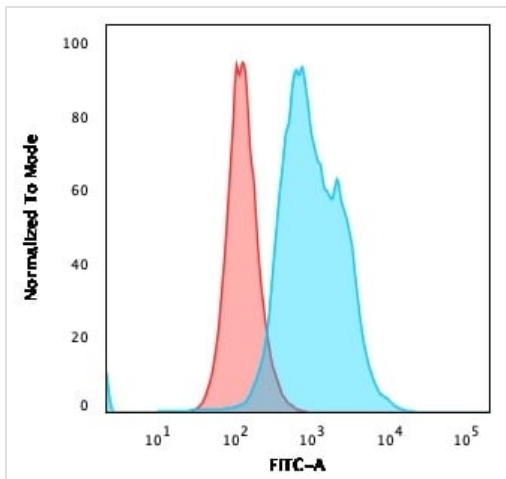
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab224649 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application          | Abreviews | Notes  |
|----------------------|-----------|--|
| <b>Protein Array</b> |           | Use at an assay dependent concentration.   |
| <b>IHC-P</b>         |           | Use a concentration of 1 - 2 µg/ml. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.<br>Primary incubation for 30 minutes at room temperature. |
| <b>ICC</b>           |           | Use a concentration of 1 - 2 µg/ml.  |
| <b>Flow Cyt</b>      |           | Use 1-2µg for 10 <sup>6</sup> cells.   |
| <b>WB</b>            |           | Use a concentration of 1 - 2 µg/ml. Predicted molecular weight: 36 kDa.  |

## Target

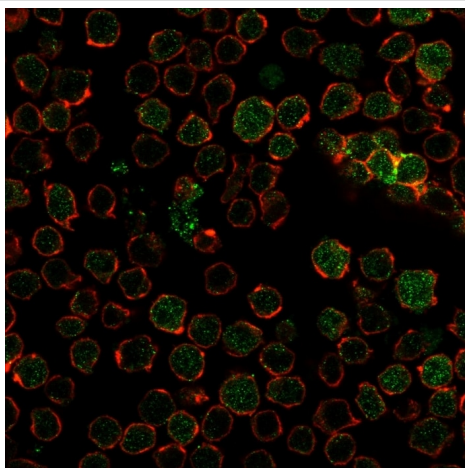
|                              |  |
|------------------------------|--|
| <b>Function</b>              | Contributes to the de novo mitochondrial thymidylate biosynthesis pathway.             |
| <b>Pathway</b>               | Pyrimidine metabolism; dTTP biosynthesis.  |
| <b>Sequence similarities</b> | Belongs to the thymidylate synthase family.  |
| <b>Cellular localization</b> | Nucleus. Cytoplasm. Mitochondrion. Mitochondrion matrix. Mitochondrion inner membrane. |

## Images



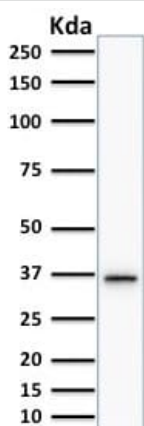
Flow Cytometry - Anti-Thymidylate Synthase antibody [TYMS/1884] (ab224649)

Flow Cytometry analysis of PFA-fixed MOLT-4 (human lymphoblastic leukemia cell line) cells labeling Thymidylate Synthase with ab224649 at 2  $\mu\text{g}/10^6$  cells followed by goat anti-Mouse IgG-CF488 (Blue); Isotype Control (Red).



Immunocytochemistry - Anti-Thymidylate Synthase antibody [TYMS/1884] (ab224649)

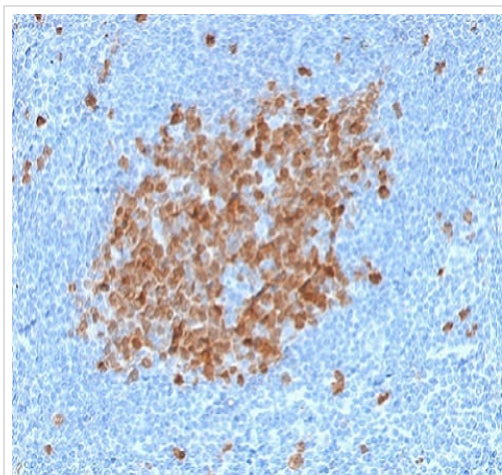
Flow Cytometry analysis of PFA-fixed Ramos (human Burkitt's lymphoma cell line) cells labeling Thymidylate Synthase with ab224649 at 2  $\mu\text{g}/\text{mL}$  followed by Goat anti-Mouse IgG-CF488 (Green). Membrane is labeled with Phalloidin (Red).



Western blot - Anti-Thymidylate Synthase antibody [TYMS/1884] (ab224649)

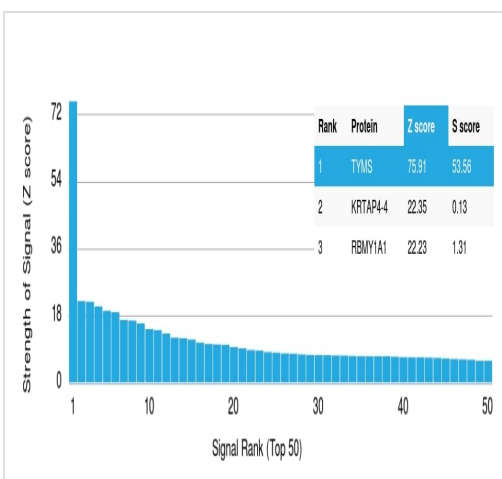
Anti-Thymidylate Synthase antibody [TYMS/1884] (ab224649) at 2  $\mu\text{g}/\text{ml}$  + HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate

**Predicted band size: 36 kDa**



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thymidylate Synthase antibody [TYMS/1884] (ab224649)

Formalin-fixed, paraffin-embedded human tonsil tissue stained for Thymidylate Synthase using ab224649 at 2 µg/ml in immunohistochemical analysis.



Protein Array - Anti-Thymidylate Synthase antibody [TYMS/1884] (ab224649)

ab224649 was tested in protein array against over 19000 different full-length human proteins.

**Z- and S- Score:** The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt™ are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target.

A MAb is specific to its intended target if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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