

**Anti-Thymidine Kinase 1 Antibody**  
Rabbit polyclonal antibody to Thymidine Kinase 1  
Catalog # AP60873

## Specification

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### Anti-Thymidine Kinase 1 Antibody - Product Information

Application	WB, IF
Primary Accession	<a href="#">P04183</a>
Other Accession	<a href="#">P04184</a>
Reactivity	Human, Mouse, Rat, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	25469

### Anti-Thymidine Kinase 1 Antibody - Additional Information

Gene ID 7083

#### Other Names

Thymidine kinase cytosolic

#### Target/Specificity

Recognizes endogenous levels of Thymidine Kinase 1 protein.

#### Dilution

WB~~WB (1/500 - 1/1000), IH (1/50 - 1/100), IF/IC (1/100 - 1/500)

IF~~WB (1/500 - 1/1000), IH (1/50 - 1/100), IF/IC (1/100 - 1/500)

#### Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

#### Storage

Store at -20 °C. Stable for 12 months from date of receipt

### Anti-Thymidine Kinase 1 Antibody - Protein Information

Name TK1 ([HGNC:11830](#))

#### Function

Cell-cycle-regulated enzyme of importance in nucleotide metabolism (PubMed: [9575153](http://www.uniprot.org/citations/9575153)). Catalyzes the first enzymatic step in the salvage pathway converting thymidine into thymidine monophosphate (PubMed: [22385435](http://www.uniprot.org/citations/22385435)). Transcriptional regulation limits expression to the S phase of the cell cycle and transient expression coincides with the oscillation in the intracellular dTTP concentration (Probable). Also important for the activation of anticancer and antiviral nucleoside analog prodrugs such as 1-b-d-arabinofuranosylcytosine (AraC) and 3c- azido-3c-deoxythymidine (AZT) (PubMed:

href="http://www.uniprot.org/citations/22385435" target="\_blank">22385435</a>).

### Cellular Location

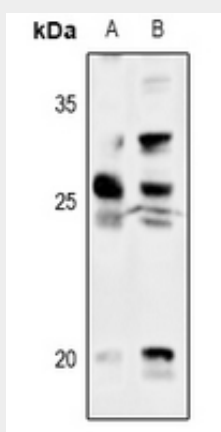
Cytoplasm.

### Anti-Thymidine Kinase 1 Antibody - Protocols

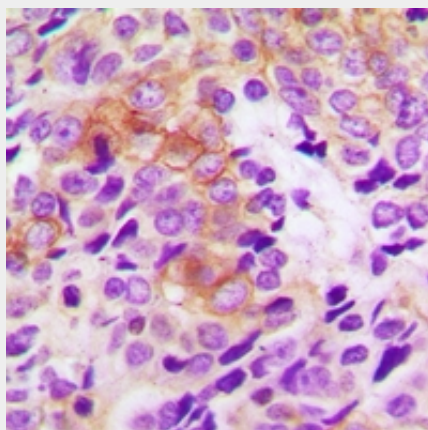
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-Thymidine Kinase 1 Antibody - Images



Western blot analysis of Thymidine Kinase 1 expression in THP1 (A), Jurkat (B) whole cell lysates.



Immunohistochemical analysis of Thymidine Kinase 1 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was

used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Thymidine Kinase 1 staining in HepG2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with Alexa Fluor 647-conjugated secondary antibody (red) in PBS at room temperature in the dark.

#### **Anti-Thymidine Kinase 1 Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human Thymidine Kinase 1. The exact sequence is proprietary.