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# Anti-Thymidine Kinase 1 (Phospho-S13) Antibody

Catalog # AP61147

## Product Information

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|---|---|
| **Application** | WB, IHC, IF/IC |
| **Primary Accession** | P04183 |
| **Reactivity** | Human, Mouse, Rat, Bovine |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 25469 |

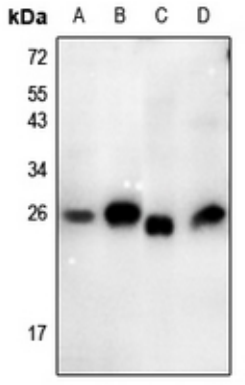
## Additional Information

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|---|---|
| **Gene ID** | 7083 |
| **Other Names** | Thymidine kinase cytosolic |
| **Target/Specificity** | KLH-conjugated synthetic phosphopeptide corresponding to residues surrounding S13 of human Thymidine Kinase 1 protein. The exact sequence is proprietary. |
| **Dilution** | WB~~WB (1/500 - 1/1000), IHC (1/50 - 1/200) IHC~~WB (1/500 - 1/1000), IHC (1/50 - 1/200) IF/IC~~N/A |
| **Format** | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide. |
| **Storage** | Store at -20 °C.Stable for 12 months from date of receipt |

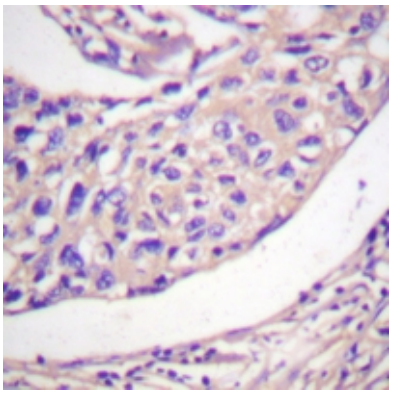
## Protein Information

| | |
|---|---|
| **Name** | TK1 ( HGNC:11830) |
| **Function** | Cell-cycle-regulated enzyme of importance in nucleotide metabolism (PubMed:9575153). Catalyzes the first enzymatic step in the salvage pathway converting thymidine into thymidine monophosphate (PubMed: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:22385435). |
| **Cellular Location** | Cytoplasm. |

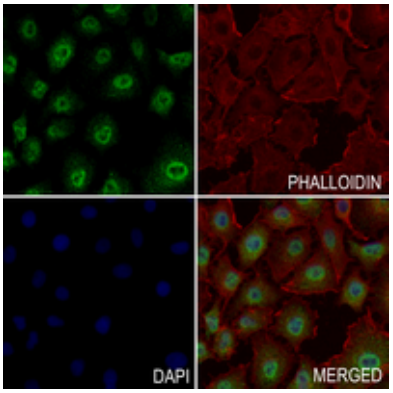
## Images



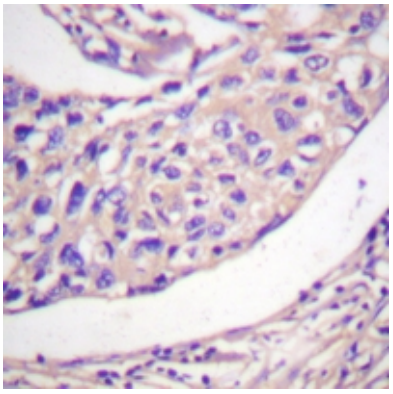

Western blot analysis of Thymidine Kinase 1 (Phospho-S13) expression in A375 (A), HCT116 (B), Myla2059 (C), Jurkat (D) whole cell lysates. (Predicted band size: 25 kD; Observed band size: 25 kD)



Immunohistochemical analysis of Thymidine Kinase 1 (Phospho-S13) 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 (Phospho-S13) staining in A549 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 hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



Immunohistochemical analysis of Thymidine Kinase 1 (pS13) 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.

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