

**TTK (MPS1) Antibody (N-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP8103a****Specification**

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**TTK (MPS1) Antibody (N-term) - Product Information**

Application	WB, IHC-P,E
Primary Accession	<a href="#">P33981</a>
Other Accession	<a href="#">Q4R945</a>
Reactivity	Human
Predicted	Monkey
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	97072
Antigen Region	2-32

**TTK (MPS1) Antibody (N-term) - Additional Information****Gene ID** 7272**Other Names**

Dual specificity protein kinase TTK, Phosphotyrosine picked threonine-protein kinase, PYT, TTK, MPS1, MPS1L1

**Target/Specificity**

This TTK (MPS1) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 2-32 amino acids from the N-terminal region of human TTK (MPS1).

**Dilution**

WB~~1:1000  
IHC-P~~1:50~100

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

TTK (MPS1) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**TTK (MPS1) Antibody (N-term) - Protein Information****Name** TTK

**Synonyms** MPS1, MPS1L1

**Function** Involved in mitotic spindle assembly checkpoint signaling, a process that delays anaphase until chromosomes are bioriented on the spindle, and in the repair of incorrect mitotic kinetochore-spindle microtubule attachments (PubMed:[18243099](#), PubMed:[28441529](#), PubMed:[29162720](#)). Phosphorylates MAD1L1 to promote the mitotic spindle assembly checkpoint (PubMed:[18243099](#), PubMed:[29162720](#)). Phosphorylates CDCA8/Borealin leading to enhanced AURKB activity at the kinetochore (PubMed:[18243099](#)). Phosphorylates SKA3 at 'Ser-34' leading to dissociation of the SKA complex from microtubules and destabilization of microtubule-kinetochore attachments (PubMed:[28441529](#)). Phosphorylates KNL1, KNTC1 and autophosphorylates (PubMed:[28441529](#)).

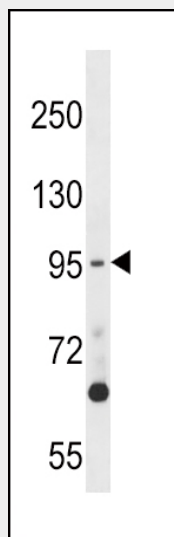
**Tissue Location**

Present in rapidly proliferating cell lines.

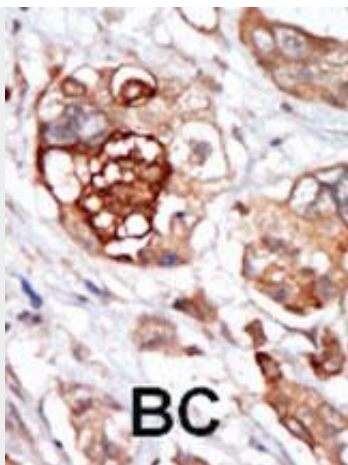
**TTK (MPS1) Antibody (N-term) - Protocols**

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](#)

**TTK (MPS1) Antibody (N-term) - Images**

TTK Antibody (M1) (Cat. #AP8103a) western blot analysis in 293 cell line lysates (35ug/lane). This demonstrates the TTK antibody detected the TTK protein (arrow).



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

#### **TTK (MPS1) Antibody (N-term) - Background**

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the  $\gamma$  phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The STE group (homologs of yeast Sterile 7, 11, 20 kinases) consists of 50 kinases related to the mitogen-activated protein kinase (MAPK) cascade families (Ste7/MAP2K, Ste11/MAP3K, and Ste20/MAP4K). MAP kinase cascades, consisting of a MAPK and one or more upstream regulatory kinases (MAPKKs) have been best characterized in the yeast pheromone response pathway. Pheromones bind to Ste cell surface receptors and activate yeast MAPK pathway.

#### **TTK (MPS1) Antibody (N-term) - References**

Mills, G.B., et al., J. Biol. Chem. 267(22):16000-16006 (1992).  
Lindberg, R.A., et al., Unpublished.