

**TTK Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP17197a****Specification**

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**TTK Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [P33981](#)**TTK Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 7272**Other Names**

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

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**TTK Antibody (N-term) Blocking Peptide - 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](http://www.uniprot.org/citations/18243099), PubMed: [28441529](http://www.uniprot.org/citations/28441529), PubMed: [29162720](http://www.uniprot.org/citations/29162720)).

Phosphorylates MAD1L1 to promote the mitotic spindle assembly checkpoint (PubMed: [18243099](http://www.uniprot.org/citations/18243099), PubMed: [29162720](http://www.uniprot.org/citations/29162720)).

Phosphorylates CDCA8/Borealin leading to enhanced AURKB activity at the kinetochore (PubMed: [18243099](http://www.uniprot.org/citations/18243099)).

Phosphorylates SKA3 at 'Ser-34' leading to dissociation of the SKA complex from microtubules and destabilization of microtubule-kinetochore attachments (PubMed: [28441529](http://www.uniprot.org/citations/28441529)).

Phosphorylates KNL1, KNTC1 and autophosphorylates (PubMed: [29162720](#)).

[28441529](http://www.uniprot.org/citations/28441529)).  
Phosphorylates MCRS1 which enhances recruitment of KIF2A to the minus end of spindle microtubules and promotes chromosome alignment (PubMed:[30785839](http://www.uniprot.org/citations/30785839)).

**Tissue Location**

Present in rapidly proliferating cell lines.

**TTK Antibody (N-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**TTK Antibody (N-term) Blocking Peptide - Images****TTK Antibody (N-term) Blocking Peptide - Background**

This gene encodes a dual specificity protein kinase with the ability to phosphorylate tyrosine, serine and threonine. Associated with cell proliferation, this protein is essential for chromosome alignment at the centromere during mitosis and is required for centrosome duplication. It has been found to be a critical mitotic checkpoint protein for accurate segregation of chromosomes during mitosis. Tumorigenesis may occur when this protein fails to degrade and produces excess centrosomes resulting in aberrant mitotic spindles. Alternative splicing results in multiple transcript variants.

**TTK Antibody (N-term) Blocking Peptide - References**

Cui, Y., et al. J. Biol. Chem. 285(43):32988-32998(2010) Maciejowski, J., et al. J. Cell Biol. 190(1):89-100(2010) Santaguida, S., et al. J. Cell Biol. 190(1):73-87(2010) Hewitt, L., et al. J. Cell Biol. 190(1):25-34(2010) Lan, W., et al. J. Cell Biol. 190(1):21-24(2010)