

TK1 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP2866c**Specification**

TK1 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [P04183](#)**TK1 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 7083**Other Names**

Thymidine kinase, cytosolic, TK1

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP2866c](/products/AP2866c) was selected from the Center region of human TK1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

TK1 Antibody (Center) Blocking Peptide - 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: [22385435](http://www.uniprot.org/citations/22385435)).

Cellular Location

Cytoplasm.

TK1 Antibody (Center) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

TK1 Antibody (Center) Blocking Peptide - Images

TK1 Antibody (Center) Blocking Peptide - Background

TK1 catalyzes the activity: $\text{ATP} + \text{thymidine} = \text{ADP} + \text{thymidine 5'-phosphate}$.

TK1 Antibody (Center) Blocking Peptide - References

Bradshaw H.D. Jr., Deininger P.L. Mol. Cell. Biol. 4:2316-2320(1984) Flemington E., Bradshaw H.D. Jr., Traina-Dorge V., Slagel V., Deininger P.L. Gene 52:267-277(1987) Kreidberg J.A., Kelly T.J. Mol. Cell. Biol. 6:2903-2909(1986)