

TPK1 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP9142a**Specification**

TPK1 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q9H3S4](#)**TPK1 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 27010**Other Names**

Thiamin pyrophosphokinase 1, hTPK1, Placental protein 20, PP20, Thiamine pyrophosphokinase 1, TPK1

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP9142a](/products/AP9142a) was selected from the N-term region of human TPK1. 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.

TPK1 Antibody (N-term) Blocking Peptide - Protein Information**Name** TPK1 {ECO:0000303|PubMed:11342111, ECO:0000312|HGNC:HGNC:17358}**Function**

Catalyzes the phosphorylation of thiamine to thiamine pyrophosphate (TPP) utilizing UTP and therefore links the biosynthesis of TPP to pyrimidines metabolism (PubMed:[38547260](http://www.uniprot.org/citations/38547260)). By producing thiamine pyrophosphate, a cofactor of the mitochondrial pyruvate dehydrogenase indirectly regulates pyruvate oxidation and lipogenesis (PubMed:[38547260](http://www.uniprot.org/citations/38547260)). Although it can also catalyze thiamine phosphorylation using ATP and CTP in vitro, it does so with significantly lower efficiency and without physiological relevance evidence (PubMed:[11342111](http://www.uniprot.org/citations/11342111), PubMed:[38547260](http://www.uniprot.org/citations/38547260)).

Tissue Location

Detected in heart, kidney, testis, small intestine and peripheral blood leukocytes, and at very low levels in a variety of tissues.

TPK1 Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

TPK1 Antibody (N-term) Blocking Peptide - Images**TPK1 Antibody (N-term) Blocking Peptide - Background**

TPK1 is a protein, that exists as a homodimer, which catalyzes the conversion of thiamine to thiamine pyrophosphate.

TPK1 Antibody (N-term) Blocking Peptide - References

Bohn,H. et.al., Arch. Gynecol. 236 (4), 235-242 (1985)