

TPK1 Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9142A

Specification

TPK1 Antibody (N-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	Q9H3S4
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	27265
Antigen Region	34-61

TPK1 Antibody (N-term) - Additional Information

Gene ID 27010

Other Names

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

Target/Specificity

This TPK1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 34-61 amino acids from the N-terminal region of human TPK1.

Dilution

WB~~1:1000

IHC-P~~1:50~100

E~~Use at an assay dependent concentration.

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

TPK1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

TPK1 Antibody (N-term) - 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](#)). By producing thiamine pyrophosphate, a cofactor of the mitochondrial pyruvate dehydrogenase indirectly regulates pyruvate oxidation and lipogenesis (PubMed:[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](#), PubMed:[38547260](#)).

Tissue Location

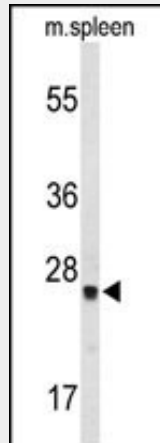
Detected in heart, kidney, testis, small intestine and peripheral blood leukocytes, and at very low levels in a variety of tissues.

TPK1 Antibody (N-term) - Protocols

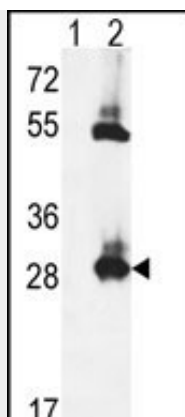
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

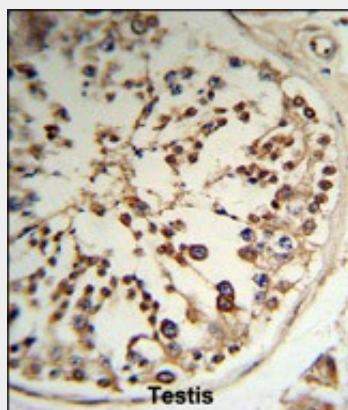
TPK1 Antibody (N-term) - Images



Western blot analysis of TPK1 Antibody (N-term) (Cat. #AP9142a) in mouse spleen tissue lysates (35ug/lane). TPK1 (arrow) was detected using the purified Pab.



Western blot analysis of TPK1 (arrow) using rabbit polyclonal TPK1 Antibody (N-term) (Cat. #AP9142a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the TPK1 gene.



Formalin-fixed and paraffin-embedded human testis tissue reacted with TPK1 Antibody (N-term), 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.

TPK1 Antibody (N-term) - Background

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

TPK1 Antibody (N-term) - References

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

TPK1 Antibody (N-term) - Citations

- [Impairment of Thiamine Transport at the GUT-BBB-AXIS Contributes to Wernicke's Encephalopathy.](#)