

# TPK1 Polyclonal antibody

Catalog Number: 10942-1-AP

Featured Product

10 Publications

## Basic Information

## Catalog Number:

10942-1-AP

## Size:

150ul, Concentration: 133 µg/ml by Bradford method using BSA as the standard;

## Source:

Rabbit

## Isotype:

IgG

## Immunogen Catalog Number:

AG1404

## GenBank Accession Number:

BC014552

## GeneID (NCBI):

27010

## Full Name:

thiamin pyrophosphokinase 1

## Calculated MW:

28 kDa

## Observed MW:

28 kDa

## Purification Method:

Antigen affinity purification

## Recommended Dilutions:

WB 1:1000-1:8000

IP 0.5-4.0 µg for IP and 1:500-1:1000 for WB

IHC 1:50-1:500

## Applications

## Tested Applications:

IHC, IP, WB, ELISA

## Cited Applications:

WB

## Species Specificity:

human, mouse, rat

## Cited Species:

human, rat, mouse

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Positive Controls:

**WB**: SH-SY5Y cells, HEK-293 cells, human small intestine tissue, mouse testis tissue, L02 cells, mouse small intestine tissue, mouse kidney tissue, rat small intestine tissue

**IP**: mouse kidney tissue,

**IHC**: human kidney tissue, human colon cancer tissue

## Background Information

TPK1(Thiamin pyrophosphokinase 1) is also named as PP20(placental protein 20) and belongs to the thiamine pyrophosphokinase family. It is a cellular enzyme involved in the regulation of thiamine metabolism and catalyzes the conversion of thiamine, a form of vitamin B1, to thiamine pyrophosphate (TDP, or TPP). There is no difference in TPK1 expression in cultured fibroblasts from normal subjects or from patients with thiamine-responsive megaloblastic anemia(PMID:11342111). It can exist as a dimer(PMID:21552434). Defects in TPK1 are the cause of thiamine metabolism dysfunction syndrome type 5, episodic encephalopathy type (THMD5).

## Notable Publications

Author	Pubmed ID	Journal	Application
Qiujian Yu	30231926	Biol Res	WB
Rohiverth Guarecuco	33036978	Sci Adv	WB
Gaganpreet S Tiwana	25788274	Oncotarget	WB

## Storage

## Storage:

Store at -20°C. Stable for one year after shipment.

## Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

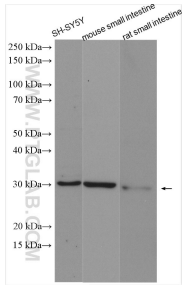
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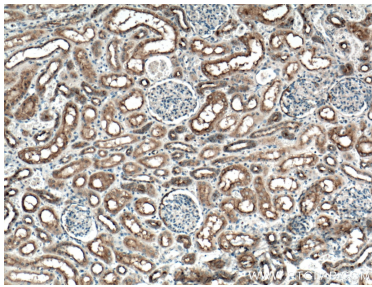
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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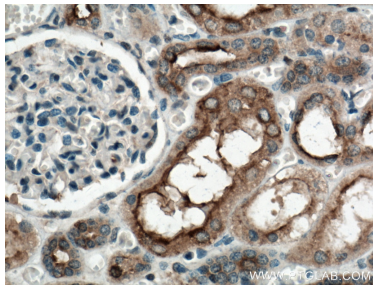
Selected Validation Data



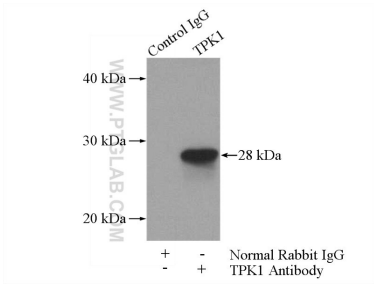
Various lysates were subjected to SDS PAGE followed by western blot with 10942-1-AP (TPK1 antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 10942-1-AP (TPK1 antibody) at dilution of 1:200 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 10942-1-AP (TPK1 antibody) at dilution of 1:200 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



IP Result of anti-TPK1 (IP:10942-1-AP, 4ug; Detection:10942-1-AP 1:500) with mouse kidney tissue lysate 4000ug.