

For Research Use Only

# TPK1 Polyclonal antibody

Catalog Number: 10942-1-AP

Featured Product

10 Publications



## Basic Information

### Catalog Number:

10942-1-AP

### Size:

500 ug/ml

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG1404

### GenBank Accession Number:

BC014552

### GeneID (NCBI):

27010

### UNIPROT ID:

Q9H3S4

### 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 ug for 1.0-3.0 mg of total protein lysate

IHC 1:200-1:800

## Applications

### Tested Applications:

WB, IHC, IP, ELISA

### Cited Applications:

WB

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat

**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
Qiu Jian 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

For technical support and original validation data for this product please contact:

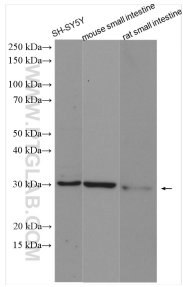
T: 4006900926

E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

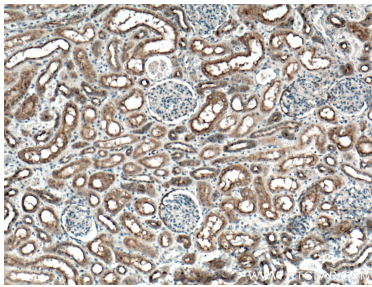
W: [ptgcn.com](http://ptgcn.com)

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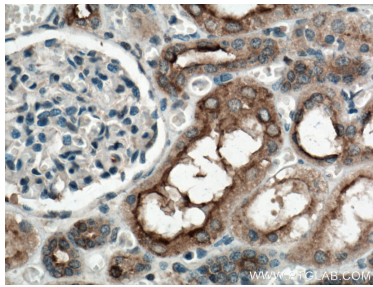
Selected Validation Data



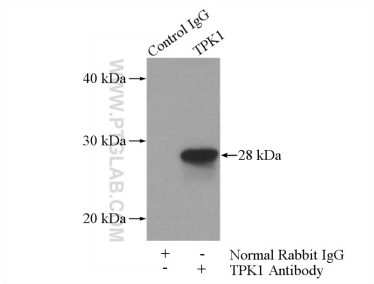
Various lysates were subjected to SDS PAGE followed by western blot with 10942-1-AP (TPK1 antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



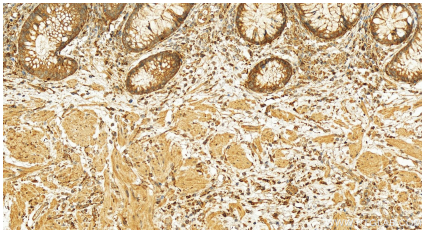
Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 10942-1-AP (TPK1 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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.



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 10942-1-AP (TPK1 antibody) at dilution of 1:400 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).