For Research Use Only

TPK1 Polyclonal antibody

Catalog Number:10942-1-AP Featured Product 10 Publications

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Basic Information

Catalog Number:
10942-1-AP

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

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 exsit 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

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
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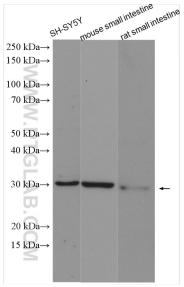
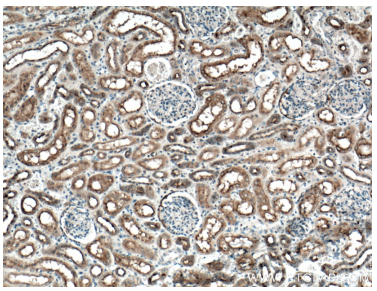
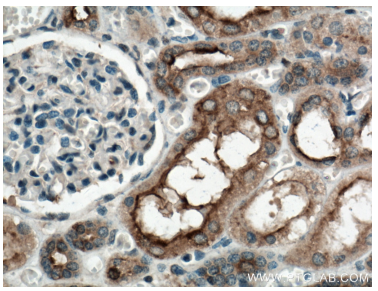
Selected Validation Data



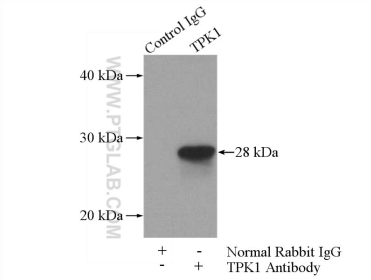
Various lysates were subjected to SDS PAGE followed by western blot with 10942-1-AP (TPK1 antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



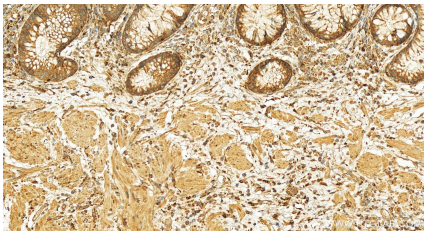
Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 10942-1-AP (TPK1 antibody) at dilution of 1:200 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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).