

For Research Use Only

# PDK4 Polyclonal antibody

Catalog Number: 12949-1-AP

Featured Product

83 Publications



## Basic Information

### Catalog Number:

12949-1-AP

### Size:

150ul, Concentration: 600 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG3629

### GenBank Accession Number:

BC040239

### GeneID (NCBI):

5166

### UNIPROT ID:

Q16654

### Full Name:

pyruvate dehydrogenase kinase, isozyme 4

### Calculated MW:

411 aa, 46 kDa

### Observed MW:

46 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:2000-1:12000

IHC: 1:250-1:1000

IF/ICC: 1:200-1:800

## Applications

### Tested Applications:

WB, IHC, IF/ICC, ELISA

### Cited Applications:

WB, IHC, IF, ELISA

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat, pig, bovine, goat

**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**: mouse liver tissue, NCI-H1299 cells, mouse heart tissue, mouse skeletal muscle tissue, mouse kidney tissue, rat heart tissue

**IHC**: human lung cancer tissue, human pancreas cancer tissue, mouse heart tissue, mouse skeletal muscle tissue, rat heart tissue

**IF/ICC**: HepG2 cells,

## Background Information

Pyruvate dehydrogenase kinase isoform4 (PDK4) is also named as PDHK4 and belongs to the PDK/BCKDK protein kinase family. It is upregulated by starvation in many tissues of the body during starvation. This causes inactivation of the pyruvate dehydrogenase complex which blocks pyruvate oxidation and conserves lactate and alanine for gluconeogenesis. Enhanced PDK4 expression may be caused by the increase in free fatty acids that occurs during starvation. Free fatty acids can activate peroxisome proliferator-activated receptor  $\alpha$  (PPAR $\alpha$ ), and activation of PPAR $\alpha$  can promote PDK4 expression (PMID: 11554740).

## Notable Publications

Author	Pubmed ID	Journal	Application
Kosuke Tanaka	32881962	PLoS One	IHC
Yuezhu Zhang	31491605	Ecotoxicol Environ Saf	WB
Xiaoxin Zhang	33204328	Theranostics	WB

## Storage

### Storage:

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

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

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

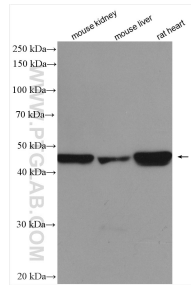
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

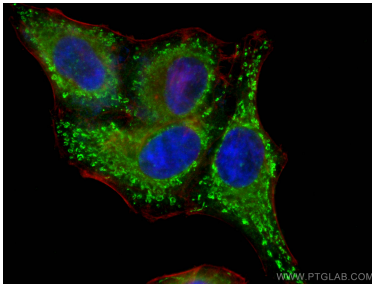
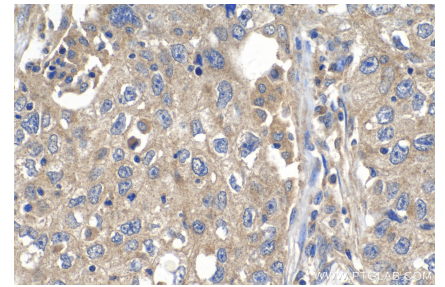
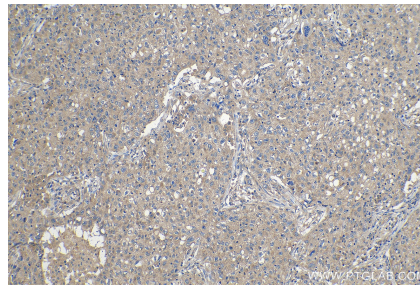
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 12949-1-AP (PDK4 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using PDK4 antibody (12949-1-AP) at dilution of 1:400 and CoraLite® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-phalloidin (red).