

For Research Use Only

PDK4 Polyclonal antibody

Catalog Number: 12949-1-AP

Featured Product

72 Publications



Basic Information

Catalog Number:

12949-1-AP

Size:

600 ug/ml

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, 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 α (PPAR α), and activation of PPAR α 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 pH 7.3.

Aliquoting is unnecessary for -20°C storage

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

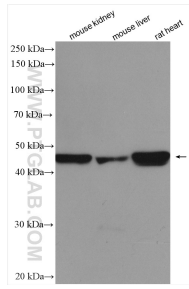
T: 4006900926

E: Proteintech-CN@ptglab.com

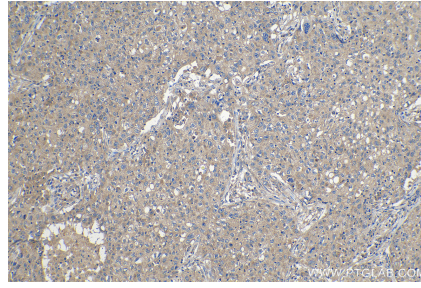
W: ptgcn.com

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

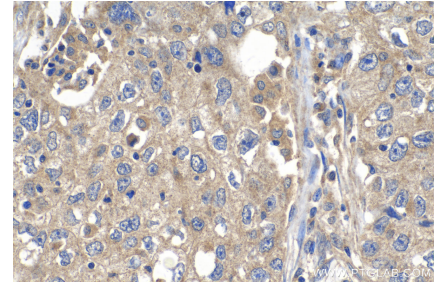
Selected Validation Data



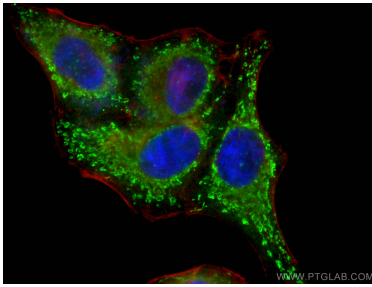
Various lysates were subjected to SDS PAGE followed by western blot with 12949-1-AP (PDK4 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 12949-1-AP (PDK4 antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 12949-1-AP (PDK4 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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).