

For Research Use Only

# PPP4C Polyclonal antibody

Catalog Number: 10262-1-AP

6 Publications



## Basic Information

### Catalog Number:

10262-1-AP

### Size:

150ul, Concentration: 400 ug/ml by Nanodrop and 273 ug/ml by Bradford method using BSA as the standard;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG0356

### GenBank Accession Number:

BC001416

### GeneID (NCBI):

5531

### UNIPROT ID:

P60510

### Full Name:

protein phosphatase 4 (formerly X), catalytic subunit

### Calculated MW:

35 kDa

### Observed MW:

35 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:500-1:2000

IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IF/ICC 1:200-1:800

## Applications

### Tested Applications:

WB, IF/ICC, IP, ELISA

### Cited Applications:

WB, IF, IP

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse

### Positive Controls:

WB : HEK-293 cells, Jurkat cells, mouse kidney tissue

IP : mouse kidney tissue,

IF/ICC : HEK-293 cells,

## Background Information

The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions. The serine/threonine protein phosphatases (PP) are intimately involved in this process. Serine/threonine protein phosphatase X (PPX; also called protein phosphatase 4 (PP4)) are specifically associated with nuclear factor-kappa B (NF-kappa B) p50, c-Rel, and RelA, which are pleiotropic transcription factors that play central roles in the immune and inflammatory responses, as well as apoptosis. Overexpression of PPX stimulated the DNA-binding activity of c-Rel and activated NF-kappa B-mediated transcription. Although the mechanism by which PPX activates Rel/NF-kappa B-mediated transcription is unclear, PPX appeared to act on Rel/NF-kappa B proteins directly through augmentation of c-Rel activity. It is also possible that PPX may dephosphorylate and subsequently activate other c-Rel-associated transcription factors or other kinases regulating I kappaB (e.g. I kappa B kinases or MEKK1). These data suggest that PPX is an activator, but not an inhibitor, of c-Rel/NF-kappa B, which is in contrast to other protein phosphatases.

## Notable Publications

Author	Pubmed ID	Journal	Application
Yue Zheng	35845072	Front Cardiovasc Med	
Sabrina Klemz	34301769	Genes Dev	IP
Chen Lu L	18634786	FEBS Lett	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

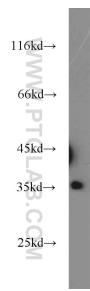
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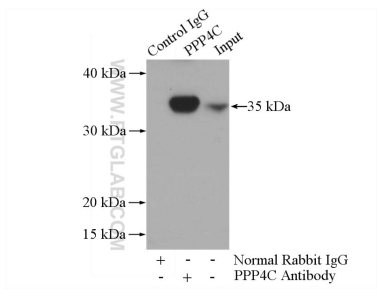
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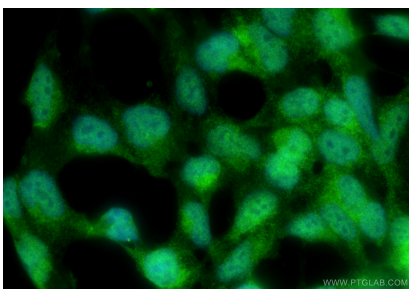
Selected Validation Data



HEK-293 cells were subjected to SDS PAGE followed by western blot with 10262-1-AP (PPP4C antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



IP result of anti-PPP4C (IP:10262-1-AP, 4ug; Detection:10262-1-AP 1:1000) with mouse kidney tissue lysate 4000ug.



Immunofluorescent analysis of (4% PFA) fixed HEK-293 cells using PPP4C antibody (10262-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).