

For Research Use Only

PPP4C Polyclonal antibody

Catalog Number: 10262-1-AP

7 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, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

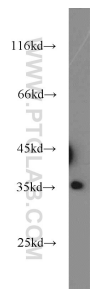
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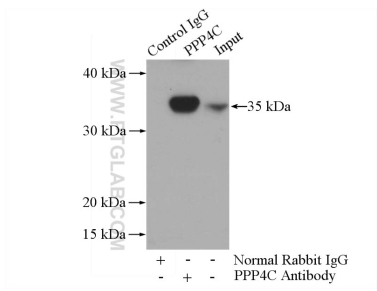
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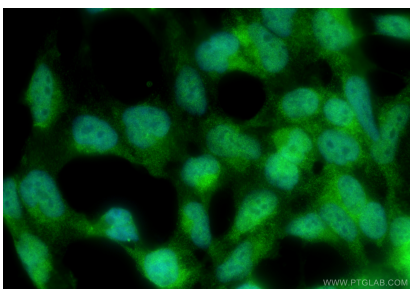
Selected Validation Data



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).