

For Research Use Only

# PPP4C Recombinant monoclonal antibody

Catalog Number: 86600-3-RR



## Basic Information

<b>Catalog Number:</b> 86600-3-RR	<b>GenBank Accession Number:</b> BC001416	<b>Purification Method:</b> Protein A purification
<b>Source:</b> Rabbit	<b>GeneID (NCBI):</b> 5531	<b>CloneNo.:</b> 251478E5
<b>Isotype:</b> IgG	<b>UNIPROT ID:</b> P60510	<b>Recommended Dilutions:</b> WB: 1:5000-1:50000 IHC: 1:500-1:2000
<b>Immunogen Catalog Number:</b> AG0356	<b>Full Name:</b> protein phosphatase 4 (formerly X), catalytic subunit	
	<b>Calculated MW:</b> 35 kDa	
	<b>Observed MW:</b> 35 kDa	

## Applications

### Tested Applications:

WB, IHC, ELISA

### Species Specificity:

human, mouse

**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: HeLa cells, mouse kidney tissue

IHC: human colon cancer tissue, rat kidney tissue

## 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.

## 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

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

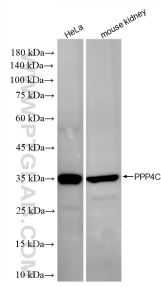
T: 4006900926

E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

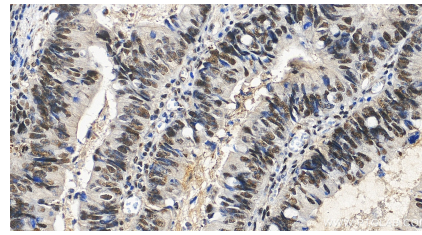
W: [ptgcn.com](http://ptgcn.com)

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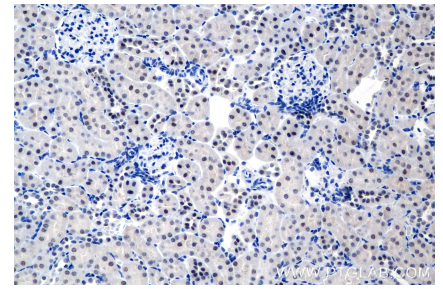
## Selected Validation Data



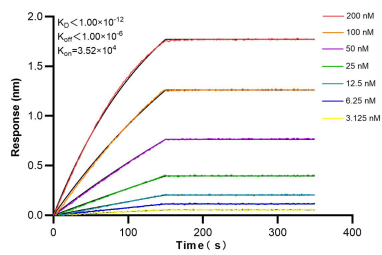
Various lysates were subjected to SDS PAGE followed by western blot with 86600-3-RR (PPP4C antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 86600-3-RR (PPP4C antibody) at dilution of 1:1000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded rat kidney tissue slide using 86600-3-RR (PPP4C antibody) at dilution of 1:1000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Biolayer interferometry (BLI) kinetic assays of 86600-3-RR against Human PPP4C were performed. The affinity constant is below 1 pM.