For Research Use Only

PPP4C Recombinant monoclonal antibody

Catalog Number:86600-3-RR

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Antibodies | ELISA kits | Proteins
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Basic Information

Catalog Number:
86600-3-RR

Size:
100ul , Concentration: 1000 μg/ml by Nanodrop;

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:
Protein A purification

CloneNo.:
251478E5

Recommended Dilutions:
WB: 1:5000-1:50000
IHC: 1:500-1:2000

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

*** 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
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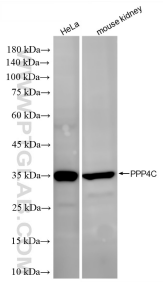
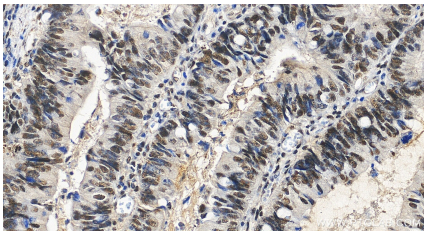
Selected Validation Data

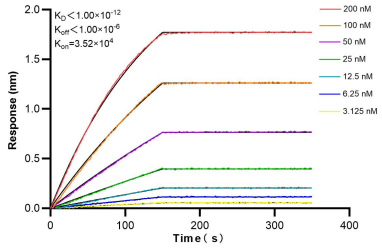


Various lysates were subjected to SDS PAGE followed by western blot with 86600-3-RR (PPP4C antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



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.