

For Research Use Only

# PPP1CA Monoclonal antibody

Catalog Number: 67070-1-Ig

Featured Product

8 Publications



## Basic Information

Catalog Number:

67070-1-Ig

Concentration:

1000  $\mu$ g/ml

Source:

Mouse

Isotype:

IgG1

Immunogen Catalog Number:

AG28451

GenBank Accession Number:

BC001888

GeneID (NCBI):

5499

UNIPROT ID:

P62136

Full Name:

protein phosphatase 1, catalytic subunit, alpha isoform

Calculated MW:

330 aa, 38 kDa

Observed MW:

37 kDa

Purification Method:

Protein A purification

CloneNo.:

1C10A2

Recommended Dilutions:

WB 1:5000-1:50000

## Applications

Tested Applications:

WB, ELISA

Cited Applications:

WB, IP

Species Specificity:

Human, mouse, rat, pig, zebrafish, rabbit

Cited Species:

human, mouse, rat

Positive Controls:

WB: HeLa cells, fetal human brain tissue, pig brain tissue, zebrafish tissue, T-47D cells, Jurkat cells, HEK-293 cells, rabbit brain tissue, rat brain tissue, mouse brain tissue

## Background Information

Protein phosphatase associates with over 200 regulatory proteins to form highly specific holoenzymes which dephosphorylate hundreds of biological targets. Type 1 protein phosphatase (PP1), a serine/threonine phosphatase, is essential for cell division and participates in the regulation of glycogen metabolism, muscle contractility, and protein synthesis. Four isoforms of PP1 have been characterized: PP1 $\alpha$ , PP1 $\delta$ , PP1 $\gamma$  1 and PP1 $\gamma$  2 (PMID: 9835651). It has been illustrated that PP1 dephosphorylates Rb and cdc25 during mitosis (PMID: 8384581, PMID: 1392080). A cell cycle-dependent phosphorylation at Thr320 of PP1 $\alpha$  by cdc2 kinase inhibits PP1 $\alpha$  activity (PMID: 9122166).

## Notable Publications

| Author        | Pubmed ID | Journal         | Application |
|---------------|-----------|-----------------|-------------|
| Xiaozhen Gu   | 33080273  | Neurotoxicology | WB          |
| Jiatian Lin   | 33101466  | Exp Ther Med    | WB          |
| Xiaoyi Xu 许潇依 | 35501151  | J Neurosci      | 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:

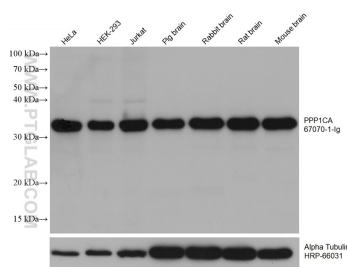
T: 4006900926

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

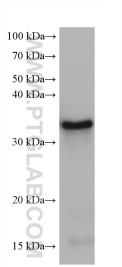
W: [ptgcn.com](http://ptgcn.com)

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# Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 67070-1-Ig (PPP1CA antibody) at dilution of 1:2600 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated Alpha Tubulin Monoclonal antibody (HRP-66031) as loading control.



zebrafish tissue were subjected to SDS PAGE followed by western blot with 67070-1-Ig (PPP1CA antibody) at dilution of 1:2600 incubated at room temperature for 1.5 hours.