

For Research Use Only

# PPP3CA Polyclonal antibody

Catalog Number: 13422-1-AP **13 Publications**



## Basic Information

<b>Catalog Number:</b> 13422-1-AP	<b>GenBank Accession Number:</b> BC025714	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 750 ug/ml	<b>GeneID (NCBI):</b> 5530	<b>Recommended Dilutions:</b> WB 1:1000-1:8000
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q08209	IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
<b>Isotype:</b> IgG	<b>Full Name:</b> protein phosphatase 3 (formerly 2B), catalytic subunit, alpha isoform	IHC 1:50-1:500
<b>Immunogen Catalog Number:</b> AG4203	<b>Calculated MW:</b> 59 kDa	IF/ICC 1:20-1:200
	<b>Observed MW:</b> 59 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, IP, ELISA

**Cited Applications:**  
WB, IF

**Species Specificity:**  
human, mouse

**Cited Species:**  
human, mouse, pig, chicken

**Positive Controls:**  
WB : mouse skeletal muscle tissue, RAW 264.7 cells, mouse heart tissue, SH-SY5Y cells

IP : mouse brain tissue,

IHC : human colon cancer tissue, human cervical cancer tissue

IF/ICC : SH-SY5Y cells,

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Background Information

PPP3CA, also called calcineurin A  $\alpha$ , is the only serine/threonine protein phosphatase under the control of Ca<sup>2+</sup>/calmodulin, and plays a critical role in the coupling of Ca<sup>2+</sup> signals to cellular responses. Ca<sup>2+</sup> signaling plays a central role in hypertrophic growth of cardiac and skeletal muscle in response to mechanical load and a variety of signals. Therefore, PPP3CA plays an important role in muscle differentiation, especially in muscle fiber type conversion. It is also involved in osteoclast regulation, regulating bone formation through an effect on osteoblast differentiation.

## Notable Publications

Author	Pubmed ID	Journal	Application
Armagan Caner	34580765	J Membr Biol	WB
Xiju He	28526717	Proc Natl Acad Sci U S A	WB
Yuetao Wen	28299629	Neurochem Res	WB,IF

## Storage

**Storage:**  
Store at -20°C. Stable for one year after shipment.

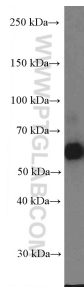
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

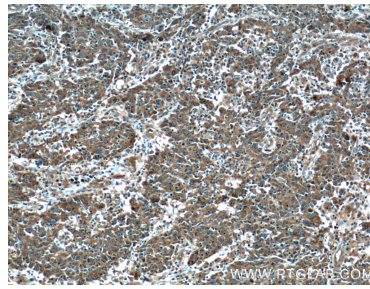
For technical support and original validation data for this product please contact:  
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

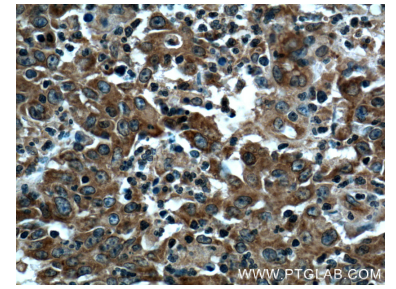
## Selected Validation Data



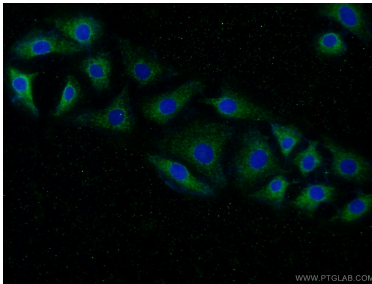
mouse skeletal muscle tissue were subjected to SDS PAGE followed by western blot with 13422-1-AP (PPP3CA Antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



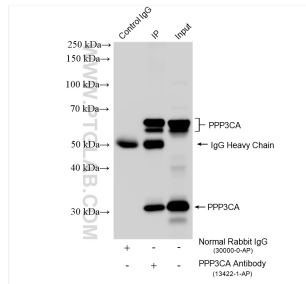
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 13422-1-AP (PPP3CA Antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



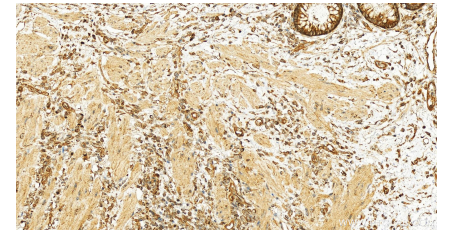
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 13422-1-AP (PPP3CA Antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed SH-SY5Y cells using 13422-1-AP (PPP3CA antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



IP result of anti-PPP3CA (IP:13422-1-AP, 4ug; Detection:13422-1-AP 1:5000) with mouse brain tissue lysate 1840 ug.



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 13422-1-AP (PPP3CA antibody) at dilution of 1:200 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).