

# PPP3CA Monoclonal antibody

Catalog Number: 68163-1-Ig

## Basic Information

<b>Catalog Number:</b> 68163-1-Ig	<b>GenBank Accession Number:</b> BC025714	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 150ul , Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 5530	<b>CloneNo.:</b> 2A5C1
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> Q08209	<b>Recommended Dilutions:</b> WB 1:5000-1:50000 IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate IHC 1:500-1:2000
<b>Isotype:</b> IgG2b	<b>Full Name:</b> protein phosphatase 3 (formerly 2B), catalytic subunit, alpha isoform	
<b>Immunogen Catalog Number:</b> AG32642	<b>Calculated MW:</b> 59 kDa	
	<b>Observed MW:</b> 59 kDa	

## Applications

<b>Tested Applications:</b> WB, IHC, IP, ELISA	<b>Positive Controls:</b>
<b>Species Specificity:</b> human, mouse, rat, pig, rabbit	<b>WB :</b> SH-SY5Y cells, rabbit skeletal muscle tissue, pig brain tissue, rabbit brain tissue, rat brain tissue, mouse brain tissue, rat skeletal muscle
<b>Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b>	<b>IP :</b> rat brain tissue,
	<b>IHC :</b> human thyroid cancer tissue, mouse skeletal muscle tissue, rat skeletal muscle tissue

## 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.

## Storage

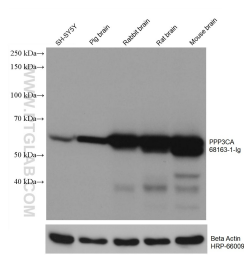
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol, pH7.3  
**Aliquoting is unnecessary for -20°C storage**

\*\*\* 20ul sizes contain 0.1% BSA

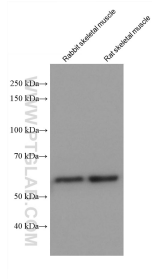
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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

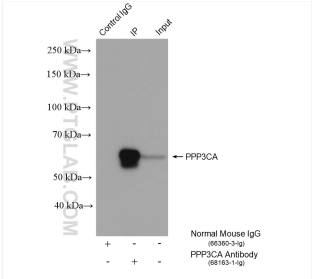
Selected Validation Data



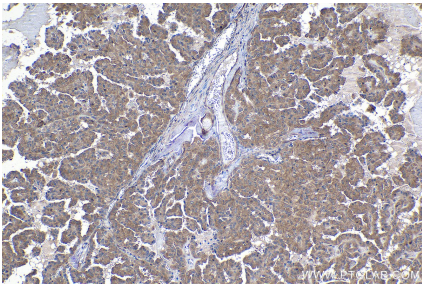
Various lysates were subjected to SDS PAGE followed by western blot with 68163-1-Ig (PPP3CA antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated Beta Actin Monoclonal antibody (HRP-66009) as loading control.



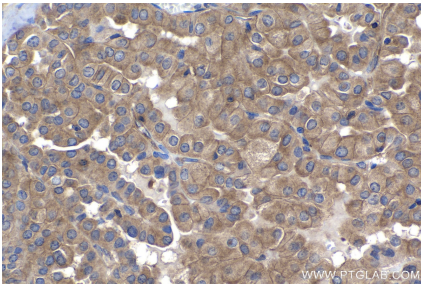
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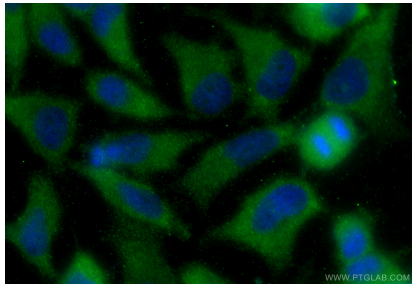
IP result of anti-PPP3CA (IP:68163-1-Ig, 5ug; Detection:68163-1-Ig 1:4000) with rat brain tissue lysate 1120 ug.



Immunohistochemical analysis of paraffin-embedded human thyroid cancer tissue slide using 68163-1-Ig (PPP3CA antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human thyroid cancer tissue slide using 68163-1-Ig (PPP3CA antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using PPP3CA antibody (68163-1-Ig, Clone: 2A5C1) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1).