

PPP3CA Monoclonal antibody

Catalog Number: 68163-1-Ig

Basic Information

Catalog Number: 68163-1-Ig	GenBank Accession Number: BC025714	Purification Method: Protein A purification
Concentration: 1000 ug/ml	GeneID (NCBI): 5530	CloneNo.: 2A5C1
Source: Mouse	UNIPROT ID: Q08209	Recommended Dilutions: 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
Isotype: IgG2b	Full Name: protein phosphatase 3 (formerly 2B), catalytic subunit, alpha isoform	
Immunogen Catalog Number: AG32642	Calculated MW: 59 kDa	
	Observed MW: 59 kDa	

Applications

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

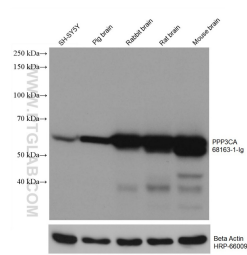
Background Information

PPP3CA, also called calcineurin A α , is the only serine/threonine protein phosphatase under the control of Ca²⁺/calmodulin, and plays a critical role in the coupling of Ca²⁺ signals to cellular responses. Ca²⁺ 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.

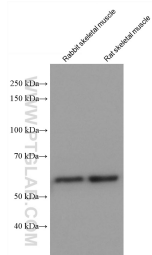
Storage

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

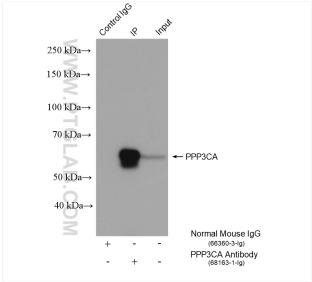
Selected Validation Data



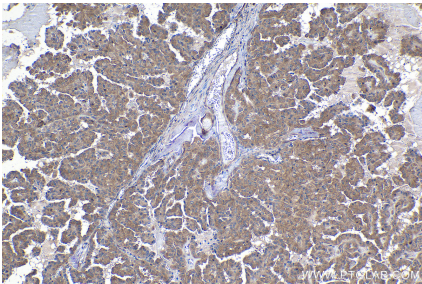
Various lysates were subjected to SDS PAGE followed by western blot with 68163-1-Ig (PPP3CA antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated Beta Actin Monoclonal antibody (HRP-66009) as loading control.



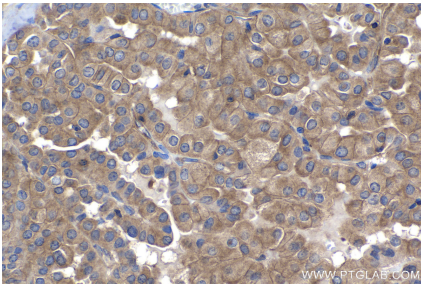
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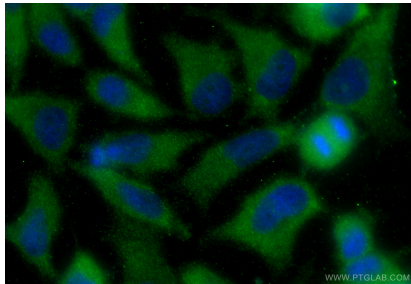
IP result of anti-PPP3CA (IP:68163-1-Ig, 5ug; Detection:68163-1-Ig 1:4000) with rat brain tissue lysate 1120 ug.



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).