

For Research Use Only

PPP3CA Polyclonal antibody

Catalog Number: 13422-1-AP

18 Publications



Basic Information

Catalog Number:

13422-1-AP

Size:

150ul, Concentration: 750 ug/ml by Nanodrop and 500 ug/ml by Bradford method using BSA as the standard;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG4203

GenBank Accession Number:

BC025714

GeneID (NCBI):

5530

UNIPROT ID:

Q08209

Full Name:

protein phosphatase 3 (formerly 2B), catalytic subunit, alpha isoform

Calculated MW:

59 kDa

Observed MW:

59 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB: 1:1000-1:8000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:50-1:500

IF/ICC: 1:50-1:500

FC (Intra): 0.25 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IHC, IF/ICC, FC (Intra), IP, ELISA

Cited Applications:

WB, IF

Species Specificity:

human, mouse

Cited Species:

human, mouse, pig, monkey, chicken

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: 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,

FC (Intra): HeLa cells,

Background Information

PPP3CA, also called calcineurin Aα, 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.

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, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

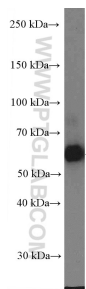
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

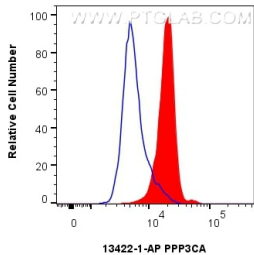
E: proteintech@ptglab.com
W: ptglab.com

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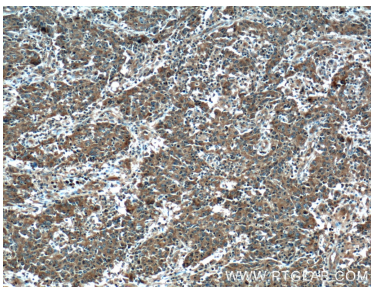
Selected Validation Data



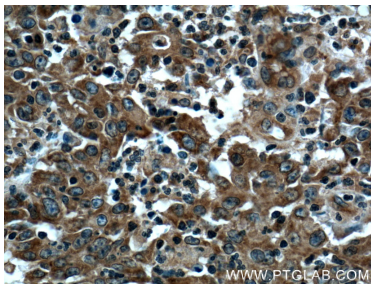
mouse skeletal muscle tissue were subjected to SDS PAGE followed by western blot with 13422-1-AP (PPP3CA Antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



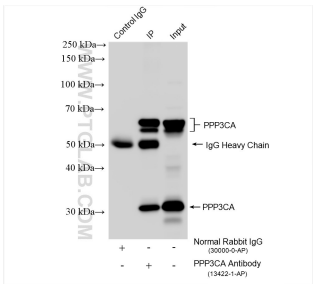
1x10⁶ HeLa cells were intracellularly stained with 0.25 ug PPP3CA Polyclonal antibody (13422-1-AP) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.25 ug Rabbit IgG control Rabbit PolyAb (30000-0-AP) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



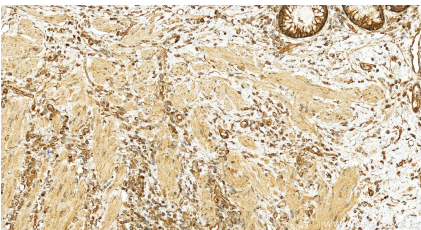
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 13422-1-AP (PPP3CA Antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



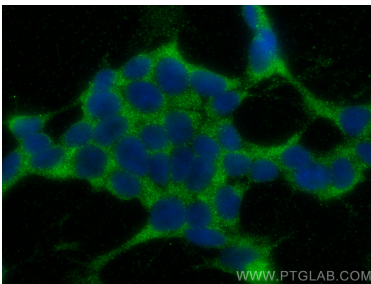
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 13422-1-AP (PPP3CA Antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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).



Immunofluorescent analysis of (-20°C Ethanol) fixed SH-SY5Y cells using PPP3CA antibody (13422-1-AP) at dilution of 1:200 and Multi-rAb CoraLite® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002).