

Calcineurin (PPP3CA) Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8463a

Specification

Calcineurin (PPP3CA) Antibody (N-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	Q08209
Other Accession	P63329 , P63328 , P48452
Reactivity	Human, Mouse
Predicted	Bovine, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Calculated MW	58688
Antigen Region	21-51

Calcineurin (PPP3CA) Antibody (N-term) - Additional Information

Gene ID 5530

Other Names

Serine/threonine-protein phosphatase 2B catalytic subunit alpha isoform, CAM-PRP catalytic subunit, Calmodulin-dependent calcineurin A subunit alpha isoform, PPP3CA, CALNA, CNA

Target/Specificity

This Calcineurin (PPP3CA) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 21-51 amino acids from the N-terminal region of human Calcineurin (PPP3CA).

Dilution

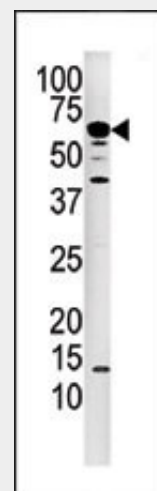
WB~~1:1000
IHC-P~~1:50~100

Format

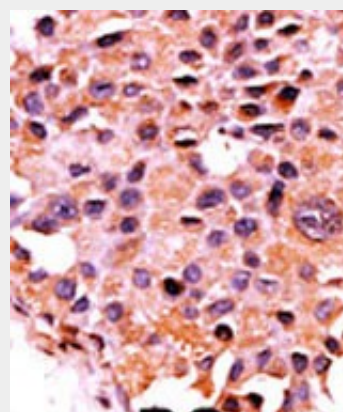
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2



Western blot analysis of anti-PPP3CA Pab (Cat. #AP8463a) in mouse kidney tissue lysate. PPP3CA (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Calcineurin (PPP3CA) Antibody (N-term) - Background

weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Calcineurin (PPP3CA) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Calcineurin (PPP3CA) Antibody (N-term) - Protein Information

Name PPP3CA ([HGNC:9314](#))

Synonyms CALNA, CNA

Function

Calcium-dependent, calmodulin-stimulated protein phosphatase which plays an essential role in the transduction of intracellular Ca(2+)-mediated signals (PubMed:[15671020](http://www.uniprot.org/citations/15671020)), PubMed:[18838687](http://www.uniprot.org/citations/18838687)), PubMed:[19154138](http://www.uniprot.org/citations/19154138)), PubMed:[23468591](http://www.uniprot.org/citations/23468591)), PubMed:[17498738](http://www.uniprot.org/citations/17498738)), PubMed:[17502104](http://www.uniprot.org/citations/17502104)), PubMed:[23468591](http://www.uniprot.org/citations/23468591)), PubMed:[27974827](http://www.uniprot.org/citations/27974827)), PubMed:[22343722](http://www.uniprot.org/citations/22343722)). Many of the substrates contain a PxIxIT motif and/or a LxVP motif (PubMed:[17498738](http://www.uniprot.org/citations/17498738)), PubMed:[17502104](http://www.uniprot.org/citations/17502104)), PubMed:[23468591](http://www.uniprot.org/citations/23468591)), PubMed:[27974827](http://www.uniprot.org/citations/27974827)), PubMed:[22343722](http://www.uniprot.org/citations/22343722)). In response to increased Ca(2+) levels, dephosphorylates and activates phosphatase SSH1 which results in cofilin dephosphorylation (PubMed:[15671020](http://www.uniprot.org/citations/15671020)). In response to increased Ca(2+) levels

PPP3CA is a calcium-dependent, calmodulin-stimulated protein phosphatase. This subunit may have a role in the calmodulin activation of calcineurin. PPP3CA dephosphorylates HSPB1 and SSH1.

Calcineurin (PPP3CA) Antibody (N-term) - References

Rodriguez, A., et al., J. Biol. Chem. 280(11):9980-9984 (2005). Shirane, M., et al., Nat. Cell Biol. 5(1):28-37 (2003). Bengoechea-Alonso, M.T., et al., Nitric Oxide 8(1):65-74 (2003). Huai, Q., et al., Proc. Natl. Acad. Sci. U.S.A. 99(19):12037-12042 (2002). Bennasser, Y., et al., Virology 303(1):174-180 (2002).

following mitochondrial depolarization, dephosphorylates DNM1L inducing DNM1L translocation to the mitochondrion (PubMed:18838687). Dephosphorylates heat shock protein HSPB1 (By similarity). Dephosphorylates and activates transcription factor NFATC1 (PubMed:19154138). In response to increased Ca(2+) levels, regulates NFAT-mediated transcription probably by dephosphorylating NFAT and promoting its nuclear translocation (PubMed:26248042). Dephosphorylates and inactivates transcription factor ELK1 (PubMed:19154138). Dephosphorylates DARPP32 (PubMed:19154138). May dephosphorylate CRTC2 at 'Ser-171' resulting in CRTC2 dissociation from 14-3-3 proteins (PubMed:30611118). Dephosphorylates transcription factor TFEB at 'Ser-211' following Coxsackievirus B3 infection, promoting nuclear translocation (PubMed:33691586).

Cellular Location

Cytoplasm. Cell membrane; Peripheral membrane protein. Cell membrane, sarcolemma {ECO:0000250|UniProtKB:P63329}. Cytoplasm, myofibril, sarcomere, Z line {ECO:0000250|UniProtKB:P63329}. Cell projection, dendritic spine. Note=Colocalizes with ACTN1 and MYOZ2 at the Z line in heart and skeletal muscle (By similarity). Recruited to the cell membrane by scaffold protein AKAP5 following L-type Ca(2+)- channel activation (PubMed:22343722). {ECO:0000250|UniProtKB:P63329, ECO:0000269|PubMed:22343722}

Tissue Location

Expressed in keratinocytes (at protein

level).

Calcineurin (PPP3CA) Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)