

Product datasheet

Anti-CAIN antibody ab3349

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Overview

Product name	Anti-CAIN antibody
Description	Rabbit polyclonal to CAIN
Host species	Rabbit
Tested applications	Suitable for: ELISA, IP, WB, ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Fusion protein (His-tag) corresponding to Rat CAIN aa 1881-2173.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Constituent: 99% PBS
Purity	Whole antiserum
Primary antibody notes	Calcineurin is a widely distributed Ser/Thr, calcium and calmodulin-dependent protein phosphatase. It mediates the immunosuppressive actions of drugs such as FK506 and cyclosporin, and has also been implicated in a number of calcium-sensitive pathways in the nervous system. Calcineurin has been found to be associated with other proteins, such as calmodulin, FKBP12, the ryanodine receptor, inositol 1,4,5-trisphosphate, and a recently identified protein, calcineurin inhibitor (CAIN). CAIN has been shown to bind calcineurin through its C-terminal tail. Recent studies have shown CAIN to bind to both amphiphysin 1 and calcineurin simultaneously and therefore acts as a physiological inhibitor of calcineurin. The binding of CAIN to amphiphysin 1 does not affect the interaction of amphiphysin 1 with other endocytic proteins. CAIN, like calcineurin, is highly expressed in neurons and other tissues.
Clonality	Polyclonal
Isotype	IgG

Applications

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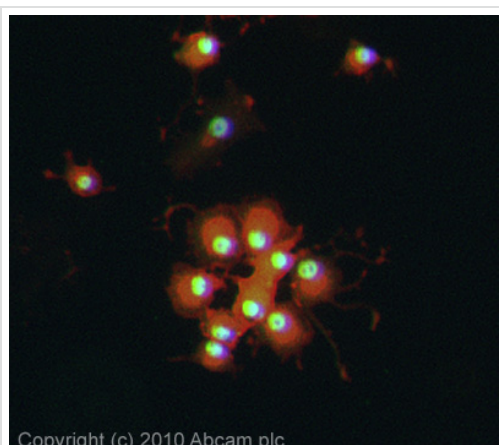
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA		1/15000.
IP		Use at an assay dependent concentration. Immunoprecipitation of CAIN from rat brain tissues shows an interaction between CAIN and amphiphysin 1, adaptin, and dynamin 1.
WB	★★★★★	1/1000. By Western blot, this antibody detects an ~240 kDa protein representing cain from rat liver extract.
ICC/IF		Use at an assay dependent concentration.

Target

Function	May be required for replication-independent chromatin assembly. May serve as a negative regulator of T-cell receptor (TCR) signaling via inhibition of calcineurin. Inhibition of activated calcineurin is dependent on both PKC and calcium signals.
Tissue specificity	Widely expressed in different tissues.
Sequence similarities	Contains 6 TPR repeats.
Post-translational modifications	Activated through PKC-mediated hyperphosphorylation.
Cellular localization	Nucleus.

Images



Immunocytochemistry/ Immunofluorescence - Anti-CAIN antibody (ab3349)

ICC/IF image of ab3349 stained PC12 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab3349, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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