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Datasheet for ABIN967861

anti-CAN antibody (AA 247-449)

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Overview

Quantity:	50 µg
Target:	CAN
Binding Specificity:	AA 247-449
Reactivity:	Human, Mouse, Rat, Chicken, Frog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CAN antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF)

Product Details

Immunogen:	Human Calcineurin aa. 247-449
Clone:	29-Calcineurin
Isotype:	IgG2a
Cross-Reactivity:	Rat (Rattus), Mouse (Murine), Chicken, Frog
Characteristics:	<ol style="list-style-type: none">1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.2. Please refer to us for technical protocols.3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

Product Details

Purification: The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target: CAN

Alternative Name: Calcineurin ([CAN Products](#))

Background: Calcineurin is a Ca²⁺/calmodulin-dependent protein phosphatase. The active enzyme is a heterodimer of a large calmodulin-binding catalytic subunit A (61 kDa) and a smaller Ca²⁺ binding subunit B (19 kDa). Regions corresponding to the calmodulin-binding site, an autoinhibitory domain, and a putative subunit B binding site have been identified within the large subunit A. The activity of calcineurin is sensitive to immunosuppressants such as cyclosporin A (CsA) and tacrolimus (FK506). The study of FK506-mediated inhibition of nitric oxide formation has revealed that nitric oxide synthase (NOS) is a calcineurin substrate. Calcineurin dephosphorylates NOS and enhances its catalytic activity. Therefore, Calcineurin is an essential mediator for efficient T cell antigen receptor (TCR)-mediated T cell activation.

Molecular Weight: 61 kDa

Application Details

Comment: Related Products: ABIN968545, ABIN967389

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 250 µg/mL

Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

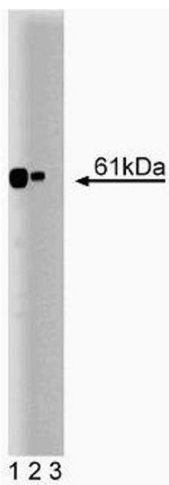
Storage: -20 °C

Storage Comment: Store undiluted at -20°C.

Publications

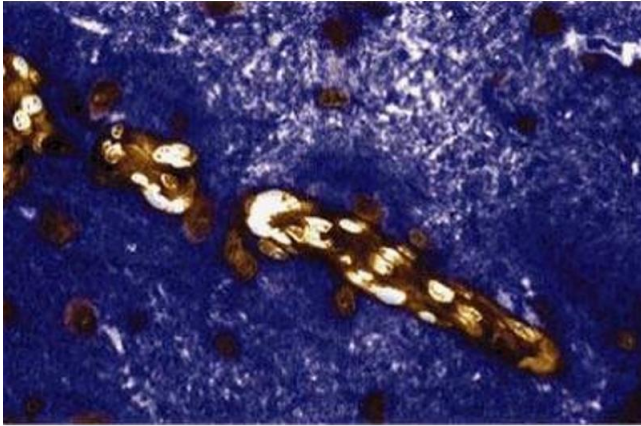
- Product cited in: Vega, Rothermel, Weinheimer, Kovacs, Naseem, Bassel-Duby, Williams, Olson: "Dual roles of modulatory calcineurin-interacting protein 1 in cardiac hypertrophy." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 100, Issue 2, pp. 669-74, (2003) ([PubMed](#)).
- Jicha, Weaver, Lane, Vianna, Kress, Rockwood, Davies: "cAMP-dependent protein kinase phosphorylations on tau in Alzheimer's disease." in: **The Journal of neuroscience : the official journal of the Society for Neuroscience**, Vol. 19, Issue 17, pp. 7486-94, (1999) ([PubMed](#)).
- Liang, Venema, Wang, Ju, Venema, Marrero: "Regulation of angiotensin II-induced phosphorylation of STAT3 in vascular smooth muscle cells." in: **The Journal of biological chemistry**, Vol. 274, Issue 28, pp. 19846-51, (1999) ([PubMed](#)).
- Sík, Hájos, Gulácsi, Mody, Freund: "The absence of a major Ca²⁺ signaling pathway in GABAergic neurons of the hippocampus." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 95, Issue 6, pp. 3245-50, (1998) ([PubMed](#)).
- Verin, Cooke, Herenyiova, Patterson, Garcia: "Role of Ca²⁺/calmodulin-dependent phosphatase 2B in thrombin-induced endothelial cell contractile responses." in: **The American journal of physiology**, Vol. 275, Issue 4 Pt 1, pp. L788-99, (1998) ([PubMed](#)).

Images



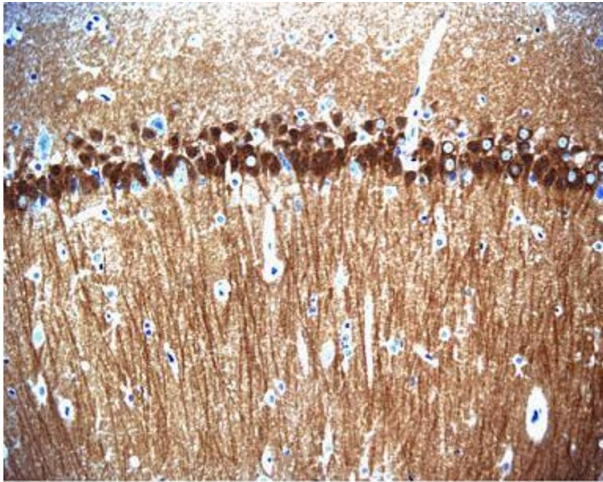
Western Blotting

Image 1. Western blot analysis of Calcineurin on a rat cerebrum lysate. Lane 1: 1:250, lane 2: 1:500, lane 1: 1:1000 dilution of the mouse anti-Calcineurin antibody.



Immunohistochemistry

Image 2. Immunohistochemical staining of a rabbit brain section.



Immunohistochemistry (Paraffin-embedded Sections)

Image 3. Immunohistochemical staining of pyramidal cells in the rat hippocampus, formalin-fixed paraffin-embedded tissue section with no pre-treatment (20X magnification).

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN967861.