

Datasheet for 600-401-873

CaM Kinase II Antibody

Overview

Description:	Anti-CaM Kinase II (RABBIT) Antibody - 600-401-873
Item No.:	600-401-873
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Mouse
Host Species:	Rabbit

Product Details

Background:	CaM Kinase II (also known as CAMK2 and calcium/calmodulin-dependent protein kinase type II alpha chain) is a prominent kinase in the central nervous system that may function in the long-term potentiation of neurotransmitter release. CaM Kinase II autophosphorylates itself at Thr-286 which allows the kinase to switch from a calmodulin-dependent to a calmodulin-independent state. CaM Kinase II is composed of four different chains: alpha, beta, gamma, and delta. The different isoforms assemble into homo- or heteromultimeric holoenzymes composed of 8 to 12 subunits. This kinase is expressed in brain tissue. Alternative splicing occurs for this gene product.
Synonyms:	rabbit anti-CaM Kinase II Antibody, Calcium/calmodulin dependent protein kinase II alpha antibody, CaM kinase II alpha antibody, CaM kinase II α chain antibody, CaM kinase II alpha subunit antibody, CAMK2A, CAMKA
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	CAMK2A
Reactivity:	Mouse
Immunogen Type:	Conjugated Peptide

Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an N-terminus region of Human CaM Kinase II protein.
Purity/Specificity:	This affinity purified antibody is directed against human CaM Kinase II protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest reactivity with this protein from human, mouse, rat, and orangutan based on 100% homology for the immunogen sequence. Cross reactivity with CaM Kinase II protein from zebrafish and rabbit may occur as this sequence only varies by one amino acid residue (94% homology). Cross reactivity with CaM Kinase II homologues from other sources has not been determined.
Relevant Links:	<ul style="list-style-type: none">• NCBI - NP_741960.1• UniProtKB - Q9UQM7• GenelD - 815

Application Details

Tested Applications:	ELISA, WB
Application Note:	This affinity purified antibody has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band ~ 54 kDa in size corresponding to CaM Kinase II by western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:4,000 - 1:20,000
WB:	1:1,000 - 1:3,000

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.57 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

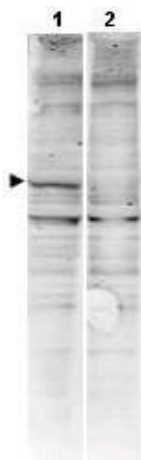
Shipping & Handling

Shipping Condition:	Dry Ice
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Storage Condition: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiration: Expiration date is one (1) year from date of receipt.

Images



Western Blot

Western blot using Rockland's Affinity Purified anti-CaM Kinase II antibody shows detection of a band ~54 kDa corresponding to human alpha CaM Kinase II (arrowhead lane 1). Specific reactivity with this band is blocked when the antibody is pre-incubated with the immunizing peptide (lane 2). Approximately 35 µg of a mouse brain whole cell lysate (p/n W10-000-T004) was separated by 4-20% SDS-PAGE and transferred onto nitrocellulose. CaM Kinase II was similarly detected on lysates from rat brain (not shown). After blocking the membrane was probed with the primary antibody diluted to 1:1,500 for 2h at room temperature followed by washes and reaction with a 1:10,000 dilution of IRDye™800 conjugated Gt-a-Rabbit IgG [H&L] MX (p/n 611-132-122) for 45 min at room temperature. IRDye™800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.