

Datasheet for 612-401-C71**CaM Kinase II phospho T286 Antibody****Overview**

Description:	Anti-CaM Kinase II pT286 (RABBIT) Antibody - 612-401-C71
Item No.:	612-401-C71
Size:	100 µL
Applications:	WB
Reactivity:	Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	CaM Kinase II antibody reacts with Ca ²⁺ /Calmodulin-Dependent Protein Kinase II (CaM Kinase II) which is a multi-functional calcium and calmodulin-dependent protein kinase that mediates cellular responses to a wide variety of intercellular signals. CaM Kinase II has been shown to regulate diverse cellular functions including synaptic plasticity, neurotransmitter synthesis and release, gene expression, ion channel function, carbohydrate metabolism, cytoskeletal function, and Ca ²⁺ -homeostasis. Phosphorylation of Thr286 on the kinase produces an autonomously active form of CaM Kinase II. Autophosphorylation of Thr305 inhibits the activity CaM Kinase II. Phosphorylation at this site appears to reduce the association of CaM Kinase II with the PSD and reduce LTP and learning. Anti-CaM Kinase II antibody is ideal for investigators involved in Cell Signaling, Neuroscience, Signal Transduction research.
Synonyms:	Calcium/calmodulin-dependent protein kinase (CaM kinase) II alpha, Camk2a protein
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Camk2A/B
Reactivity:	Mouse, Rat
PTM Specificity:	Phosphorylation

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-CaM Kinase II pT286 Antibody was produced by repeated immunizations with synthetic phospho-peptide corresponding to amino acid residues surrounding Thr286.
Purity/Specificity:	Anti-CaM Kinase II pT286 Antibody is directed against CaM Kinase II protein phosphorylated at T286. The antibody was prepared from monospecific antiserum by immunoaffinity chromatography using phospho peptide coupled to agarose beads followed by solid phase adsorption(s) against non-phospho peptide and non-specific peptide to remove any unwanted reactivities. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum. This antibody is specific for phosphorylated CaM Kinase II. Minimal reactivity occurs against non-phosphorylated CaM Kinase II. Reactivity is completely blocked by treatment with lambda-phosphatase. Reactivity against CaM Kinase II occurs from rat sources. However, reactivity is also expected against human, mouse, and Xenopus.
Relevant Links:	• NCBI - NP_037052.1 • UniProtKB - P11275 • GeneID - 25400

Application Details

Tested Applications:	WB
Application Note:	Anti-CaM Kinase II pT286 antibody is tested for use in ELISA and Western Blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band of approximately 50 kDa in size corresponding to alpha CaM Kinase II and 60 kDa corresponding to beta CaM Kinase II proteins phosphorylated at Thr286.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000
WB:	1:1000

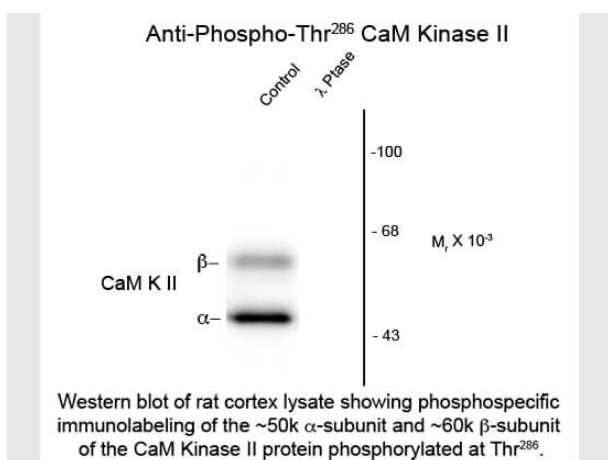
Formulation

Physical State:	Liquid
Concentration:	Titred value sufficient to run approximately 10 mini blots. Sufficient to run approximately 10 miniblots
Buffer:	0.01 M HEPES, 0.15 M Sodium Chloride, pH 7.5
Stabilizer:	0.1 mg/ml Bovine Serum Albumin (BSA) - IgG and Protease free, 50% (v/v) Glycerol

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. This product is stable at 4° C as an undiluted liquid. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot

Western Blot of Rabbit anti- CaM Kinase II Thr286 Antibody. Lane 1: rat brain lysate. Lane 2: rat brain lysate incubated in λ-Ptase (1200 units for 30 min). Load: 10 µg per lane. Primary antibody: CaM Kinase II Thr286 antibody at 1:400 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~50kDa α- and the ~60kDa for β-CaM Kinase II phosphorylated at Thr286. Other band(s): none.

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.