

## Anti-CaM Kinase IV CAMK4 Antibody

Catalog Number: A01905

### About CAMK4

CaM Kinase IV (also known as CAM kinase-GR and CaMK IV) is a calcium/ calmodulin-dependent protein kinase belonging to a proposed calcium-triggered signaling cascade. This kinase may be involved in the transcriptional regulation of microtubule dynamics. In vitro, CaMK IV phosphorylates CREB1, CREBBP, PRM2, MEF2A, MEF2D and STMN1/OP18. CaMK IV may also be involved in spermatogenesis and may play a role in the consolidation/ retention of hippocampus-dependent long-term memory. CaMK IV must be phosphorylated to be maximally active and is phosphorylated by CAMKK1 or CAMKK2. In addition autophosphorylation of the N-terminus is required for full activation. Autophosphorylation of Ser-336 allows the kinase to switch to a Ca(2+)/calmodulin-independent state. Most likely the kinase is inactivated by the serine/ threonine protein phosphatase 2A. CaMK IV is a monomer that is located within the cytoplasm and nucleus and substantial localization occurs in certain neuronal nuclei. In spermatids CaMK IV is associated with chromatin and the nuclear matrix. CaMK IV is also specifically expressed in epithelial ovarian cancer tissue.

### Overview

Product Name	Anti-CaM Kinase IV CAMK4 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CaM Kinase IV CAMK4 Antibody (Catalog # A01905). Tested in ELISA, IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	Store vial at 4°C prior to restoration. For extended storage aliquot contents and freeze at -20°C or below. 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 date is one (1) year from date of opening. (Ship on dry ice.)
Host	Rabbit
Uniprot ID	Q16566

### Technical Details

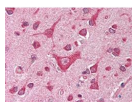
Immunogen	This antiserum was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near amino acids 300-325 of Human CaM Kinase IV protein.
Predicted Reactive Species	Bovine, Canine, Chimpanzee
Cross Reactivity	No cross reactivity with other proteins.

Isotype	Antiserum
Form	Lyophilized
Concentration	70 mg/mL by Refractometry
Purification	This antiserum is directed against human CaM Kinase IV protein. The product was delipidated, defibrinated followed by buffering and clarification. A BLAST analysis was used to suggest reactivity with this protein from human, mouse, and rat based on 100% homology for the immunogen sequence. Cross-reactivity with CaM Kinase IV homologues from other sources has not been determined.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>ELISA: 1:5,000 - 1:25,000</p> <p>IHC: 1:500</p> <p>WB: 1:500 - 1:2,000</p>

## Anti-CaM Kinase IV CAMK4 Antibody (A01905) Images



Western blot analysis of CaM Kinase IV (arrowhead) expression in rat brain extract (lane 1), Jurkat cell lysates (lane 2), specific reactivity is blocked in both lysates when antibody is preincubated with immunizing peptide (lanes 3 and 4 respectively) using rabbit anti-CaM Kinase IV polyclonal antibody (Catalog # A01905) at 1:1000.



CaM Kinase IV was detected in paraffin-embedded sections of human brain cortex tissues using rabbit anti-CaM Kinase IV polyclonal antibody (Catalog # A01905) at 1:500. No pre-treatment of sample was required. The image shows the localization of antibody as the precipitated red signal, with a hematoxylin purple nuclear counter stain.

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