BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
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Anti-CaMKK/CAMKK1 Antibody

Catalog Number: PA1520

About Camkk1

CAMKK1, Calcium/calmodulin-dependent protein kinase kinase 1 is an enzyme that in humans is encoded by the CAMKK1 gene. The CAMKK1 gene is mapped to chromosome 17. The product of this gene belongs to the Serine/Threonine protein kinase family, and to the Ca (2+)/calmodulin-dependent protein kinase subfamily. This protein plays a role in the calcium/calmodulin-dependent (CaM) kinase cascade. Three transcript variants encoding two distinct isoforms have been identified for this gene.Camkk1binds calmodulin and activated Camk4 with a 6-fold increase in total activity and a 100-fold increase in Camk4 Ca (2+)-independent activity. Camkk1 catalyzed a 10-fold increase in the total activity of Camk1 and had no effect on Camk2. Cotransfection of COS-7 cells with Camkk1 and Camk4 resulted in a 14-fold increase in CRE-binding protein-dependent transcription compared with Camk4 alone, suggesting that Camkk1 enhances Camk4-mediated transcriptional regulation.

Overview

Product Name	Anti-CaMKK/CAMKK1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CaMKK/CAMKK1 Antibody catalog # PA1520. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q8VBY2

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of mouse CaMKK, different from the related human sequence by three amino acids, and from the related rat sequence by two amino acids.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG

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Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Rat, Mouse, By Heat Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat

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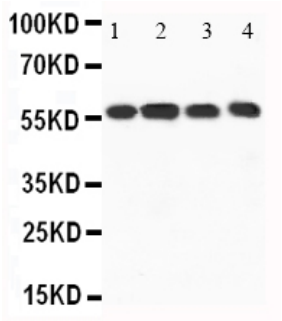
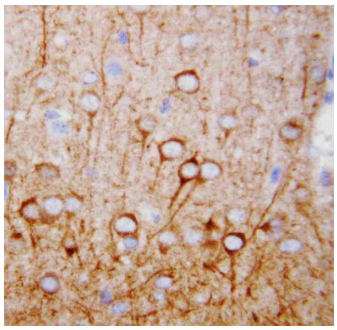
Anti-CaMKK/CAMKK1 Antibody (PA1520) Images



Anti-CaMKK antibody, PA1520, Western blotting
Lane 1: Rat Brain Tissue Lysate
Lane 2: Rat Brain Tissue Lysate
Lane 3: Mouse Brain Tissue Lysate
Lane 4: Mouse Brain Tissue Lysate



Anti-CaMKK antibody, PA1520, IHC(P)
IHC(P): Rat Brain Tissue

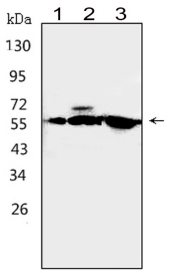


Figure 3. Western blot analysis of CAMKK1 using anti-CAMKK1 antibody (PA1520).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: rat brain tissue lysates,
Lane 2: mouse brain tissue lysates,
Lane 3: human U-87MG whole cell lysates,
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CAMKK1 antigen affinity purified polyclonal antibody (Catalog # PA1520) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for CAMKK1 at approximately 56KD. The expected band size for CAMKK1 is at 56KD.

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