BOSTER BIOLOGICAL TECHNOLOGY
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Anti-CaMKII delta CAMK2D Rabbit Monoclonal Antibody

Catalog Number: M02611

About CAMK2D

Calcium/calmodulin-dependent protein kinase involved in the regulation of Ca(2+) homeostatis and excitation-contraction coupling (ECC) in heart by targeting ion channels, transporters and accessory proteins involved in Ca(2+) influx into the myocyte, Ca(2+) release from the sarcoplasmic reticulum (SR), SR Ca(2+) uptake and Na(+) and K(+) channel transportation. Targets also transcription factors and signaling molecules to regulate heart function. Contributes to cardiac decompensation and heart failure by regulating SR Ca(2+) release via direct phosphorylation of RYR2 Ca(2+) channel on 'Ser- 2808'. In the nucleus, phosphorylates the MEF2 repressor HDAC4, promoting its nuclear export and binding to 14-3-3 protein, and expression of MEF2 and genes involved in the hypertrophic program.

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Overview

Product Name	Anti-CaMKII delta CAMK2D Rabbit Monoclonal Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CaMKII delta CAMK2D Rabbit Monoclonal Antibody catalog # M02611. Tested in WB, IHC, ICC/IF applications. This antibody reacts with Human, Mouse, Rat.
Application	IF, IHC, ICC, WB
Clonality	Monoclonal ABBF-3
Formulation	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q13557

Technical Details

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Immunogen	A synthesized peptide derived from human CaMKII delta
Isotype	Rabbit IgG
Form	Liquid
Concentration	0.5mg/ml
Purification	Affinity-chromatography
Suggested Dilutions	WB, 1:500-2000 IHC, 1:50-200

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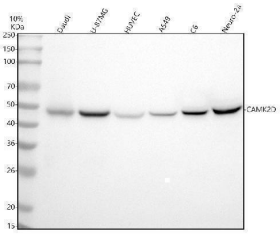
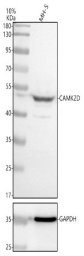
Anti-CaMKII delta CAMK2D Rabbit Monoclonal Antibody (M02611) Images



Western blot analysis of CaMKII delta/CAMK2D using anti-CaMKII delta/CAMK2D antibody (M02611). 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 30 ug of sample under reducing conditions. Lane 1: human Daudi whole cell lysates, Lane 2: human U-87MG whole cell lysates, Lane 3: human HUVEC whole cell lysates, Lane 4: human A549 whole cell lysates, Lane 5: rat C6 whole cell lysates, Lane 6: mouse Neuro-2a whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-CaMKII delta/CAMK2D antigen affinity purified monoclonal antibody (M02611) at 1:500 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 1:500 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 CaMKII delta/CAMK2D at approximately 50 kDa. The expected band size for CaMKII delta/CAMK2D is at 56 kDa.



Western blot analysis of CAMK2D using anti-CAMK2D antibody (M02611). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: mouse MH-S whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-CAMK2D antigen affinity purified monoclonal antibody (M02611) at a dilution of 1:1000 overnight at 4°C, then washed with TBS-0.1%Tween-20 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for CAMK2D at approximately 50 kDa. The expected band size for CAMK2D is at 50-56 kDa.

Western blot analysis of CAMK2D using anti-CAMK2D antibody (M02611). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: mouse RAW264.7 whole cell lysates, Lane 2: mouse lung tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat

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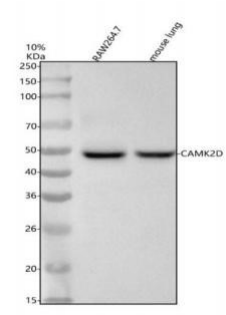
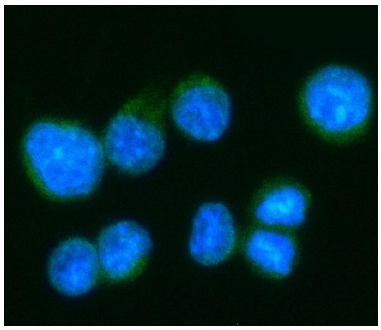


milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CAMK2D antigen affinity purified monoclonal antibody (M02611) at a dilution of 1:1000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for CAMK2D at approximately 50 kDa. The expected band size for CAMK2D is at 56 kDa.



ICC/IF analysis of CAMK2D using anti- CAMK2D antibody (M02611). CAMK2D was detected in an immunocytochemical section of mouse MH-S cells. The cells were blocked with 10% goat serum. And then incubated with rabbit anti-CAMK2D Antibody (M02611) at a dilution of 1:50 overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Anti-CaMKII delta CAMK2D Rabbit Monoclonal Antibody

For Research Use Only. Not for use in diagnostic procedures.