

Datasheet for ABIN7146448
anti-CAMK2D antibody (AA 1-260)



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2 Images

Overview

Quantity:	100 µL
Target:	CAMK2D
Binding Specificity:	AA 1-260
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CAMK2D antibody is un-conjugated
Application:	ELISA, Immunohistochemistry (IHC)

Product Details

Immunogen:	Recombinant Human Calcium/calmodulin-dependent protein kinase type II subunit delta protein (1-260AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	Antigen Affinity Purified

Target Details

Target:	CAMK2D
Alternative Name:	CAMK2D (CAMK2D Products)
Background:	Background: Calcium/calmodulin-dependent protein kinase involved in the regulation of Ca(2+)

Target Details

homeostasis 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 transport. Targets also transcription factors and signaling molecules to regulate heart function. In its activated form, is involved in the pathogenesis of dilated cardiomyopathy and heart failure. 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. Is essential for left ventricular remodeling responses to myocardial infarction. In pathological myocardial remodeling acts downstream of the beta adrenergic receptor signaling cascade to regulate key proteins involved in ECC. Regulates Ca^{2+} influx to myocytes by binding and phosphorylating the L-type Ca^{2+} channel subunit beta-2 CACNB2. In addition to Ca^{2+} channels, can target and regulate the cardiac sarcolemmal Na^{+} channel Nav1.5/SCN5A and the K^{+} channel Kv4.3/KCND3, which contribute to arrhythmogenesis in heart failure. Phosphorylates phospholamban (PLN/PLB), an endogenous inhibitor of SERCA2A/ATP2A2, contributing to the enhancement of SR Ca^{2+} uptake that may be important in frequency-dependent acceleration of relaxation (FDAR) and maintenance of contractile function during acidosis. May participate in the modulation of skeletal muscle function in response to exercise, by regulating SR Ca^{2+} transport through phosphorylation of PLN/PLB and triadin, a ryanodine receptor-coupling factor.

Aliases: Calcium / calmodulin dependent protein kinase 2 delta antibody, Calcium / calmodulin dependent protein kinase II delta antibody, calcium/calmodulin-dependent protein kinase (CaM kinase) II delta antibody, calcium/calmodulin-dependent protein kinase type II delta chain antibody, Calcium/calmodulin-dependent protein kinase type II subunit delta antibody, CAM kinase 2 delta antibody, CAM kinase II delta antibody, CaM kinase II delta subunit antibody, CaM kinase II subunit delta antibody, CaM-kinase II delta chain antibody, CAMK 2d antibody, CaMK-II delta subunit antibody, CaMK-II subunit delta antibody, CAMK2D antibody, CAMKD antibody, CAMKI antibody, KCC2D_HUMAN antibody, RATCAMKI antibody

UniProt: [Q13557](#)

Pathways: [WNT Signaling](#), [Interferon-gamma Pathway](#), [Myometrial Relaxation and Contraction](#), [Smooth Muscle Cell Migration](#)

Application Details

Application Notes: Recommended dilution: IHC:1:20-1:200,

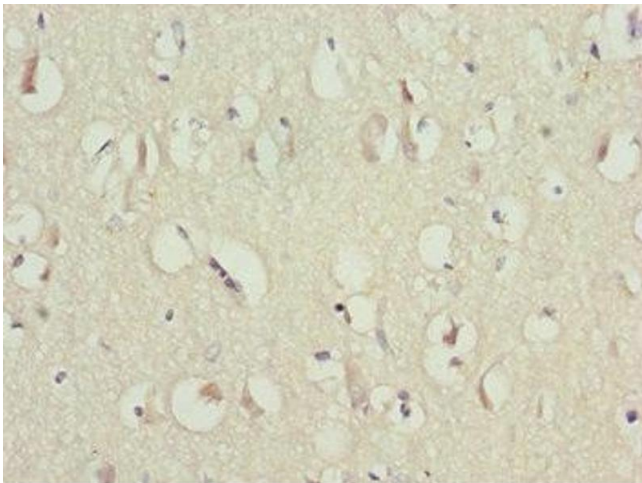
Application Details

Restrictions: For Research Use only

Handling

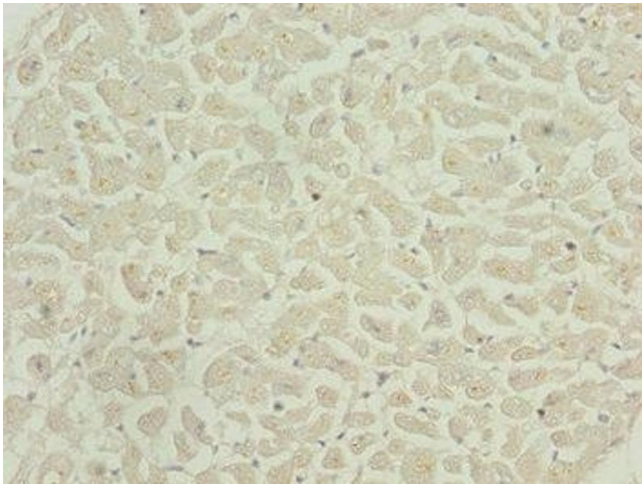
Format:	Liquid
Buffer:	PBS with 0.02 % sodium azide, 50 % glycerol, pH 7.3.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



Immunohistochemistry

Image 1. Immunohistochemistry of paraffin-embedded human brain tissue using ABIN7146448 at dilution of 1:100



Immunohistochemistry

Image 2. Immunohistochemistry of paraffin-embedded human heart tissue using ABIN7146448 at dilution of 1:100