Datasheet for ABIN7146428

anti-CAMK1 antibody (AA 166-265)

2 Images

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Overview

Quantity:	100 µg
Target:	CAMK1
Binding Specificity:	AA 166-265
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CAMK1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunofluorescence (IF)

Product Details

Immunogen:	Recombinant Human Calcium/calmodulin-dependent protein kinase type 1 protein (166-265AA)
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Purification:	>95%, Protein G purified

Target Details

Target:	CAMK1
Alternative Name:	CAMK1 (CAMK1 Products)
Background:	Background: Calcium/calmodulin-dependent protein kinase that operates in the calcium-triggered CaMKK-CaMK1 signaling cascade and, upon calcium influx, regulates transcription

Target Details

	activators activity, cell cycle, hormone production, cell differentiation, actin filament organization and neurite outgrowth. Recognizes the substrate consensus sequence [MVLIF]-x-R-x(2)-[ST]-x(3)-[MVLIF]. Regulates axonal extension and growth cone motility in hippocampal and cerebellar nerve cells. Upon NMDA receptor-mediated Ca(2+) elevation, promotes dendritic growth in hippocampal neurons and is essential in synapses for full long-term potentiation (LTP) and ERK2-dependent translational activation. Downstream of NMDA receptors, promotes the formation of spines and synapses in hippocampal neurons by phosphorylating ARHGEF7/BETAPIX on \\\'Ser-694\\\', which results in the enhancement of ARHGEF7 activity and activation of RAC1. Promotes neuronal differentiation and neurite outgrowth by activation and phosphorylation of MARK2 on \\\'Ser-91\\\', \\\'Ser-92\\\', \\\'Ser-93\\\' and \\\'Ser-294\\\'. Promotes nuclear export of HDAC5 and binding to 14-3-3 by phosphorylation of \\\'Ser-259\\\' and \\\'Ser-498\\\' in the regulation of muscle cell differentiation. Regulates NUMB-mediated endocytosis by phosphorylation of NUMB on \\\'Ser-276\\\' and \\\'Ser-295\\\'. Involved in the regulation of basal and estrogen-stimulated migration of medulloblastoma cells through ARHGEF7/BETAPIX phosphorylation (By similarity). Is required for proper activation of cyclin-D1/CDK4 complex during G1 progression in diploid fibroblasts. Plays a role in K(+) and ANG2-mediated regulation of the aldosterone synthase (CYP11B2) to produce aldosterone in the adrenal cortex. Phosphorylates EIF4G3/eIF4GII. In vitro phosphorylates CREB1, ATF1, CFTR, MYL9 and SYN1/synapsin I. Aliases: Calcium / calmodulin dependent protein kinase 1 antibody, Calcium / calmodulin dependent protein kinase I antibody, Calcium / calmodulin dependent protein kinase type 1 antibody, Calcium/calmodulin dependent protein kinase 1 antibody, Calcium/calmodulin dependent protein kinase I antibody, Calcium/calmodulin dependent protein kinase type 1 antibody, Calcium/calmodulin-dependent protein kinase type 1 antibody, CaM K1 antibody, CaM KI antibody, CaM kinase 1 alpha antibody, CAM kinase 1 antibody, CaM kinase I alpha antibody, CaM kinase I antibody, CaM-KI antibody, CaMK 1 antibody, CAMK I antibody, CaMK1 alpha antibody, CAMK1 antibody, CAMK1 PEN antibody, CaMKI alpha antibody, CaMKI-alpha antibody, KCC1A_HUMAN antibody, MGC120317 antibody, MGC120318 antibody
UniProt:	Q14012
Pathways:	Myometrial Relaxation and Contraction, Regulation of Muscle Cell Differentiation, Smooth Muscle Cell Migration

Application Details

Application Notes:	Recommended dilution: WB:1:500-1:5000, IF:1:50-1:200,

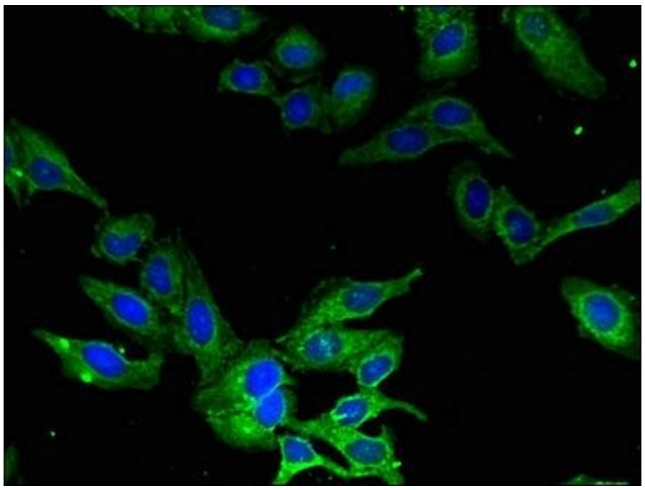
Application Details

Restrictions:	For Research Use only

Handling

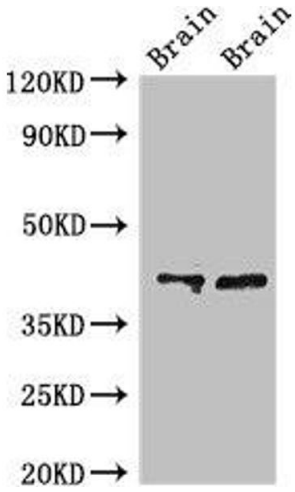
Format:	Liquid
Buffer:	Preservative: 0.03 % Proclin 300 Constituents: 50 % Glycerol, 0.01M PBS, pH 7.4
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



Immunofluorescence

Image 1. Immunofluorescent analysis of Hela cells using ABIN7146428 at dilution of 1:100 and Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG(H+L)



Western Blotting

Image 2. Western Blot Positive WB detected in: Rat brain tissue, Mouse brain tissue All lanes: CAMK1 antibody at 3 µg/mL Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 42 kDa Observed band size: 42 kDa