Datasheet for ABIN7317143

CAMK1 Protein

1 Image

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Overview

Quantity:	50 µg
Target:	CAMK1
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant

Product Details

Purpose:	Recombinant Human CAMK1/CaMKI-alpha Protein
Sequence:	Leu 2-Leu 370
Characteristics:	A DNA sequence encoding the human CAMK1 (NP_003647.1) (Leu 2-Leu 370) was expressed and purified, with two additional amino acids (Gly & Pro) at the N-terminus.
Purity:	> 85 % as determined by reducing SDS-PAGE.
Endotoxin Level:	Please contact us for more information.

Target Details

Target:	CAMK1
Alternative Name:	CAMK1 (CAMK1 Products)
Background:	Background: Calcium/calmodulin-dependent protein kinase or CaM kinases are serine/threonine-specific protein kinases that are primarily regulated by the Calcium/calmodulin complex. These kinases show a memory effect on activation. CaM kinases activity can outlast the intracellular calcium transient that is needed to activate it. In neurons,

Target Details

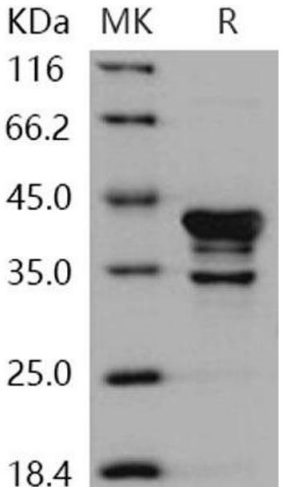
	this property is important for the induction of synaptic plasticity. Pharmacological inhibition of CaM kinases II blocks the induction of long-term potentiation. Upon activation, CaM kinases II phosphorylates postsynaptic glutamate receptors and changes the electrical properties of the synapse. Calcium/calmodulin-dependent protein kinase type 1D, also known as CaM kinase I delta, CaM kinase ID, CaMKI-like protein kinase, CKLiK and CAMK1D, is a member of the protein kinase superfamily and CaMK subfamily. It contains one protein kinase domain. CAMK1D is broadly expressed. It is highly and mostly expressed in polymorphonuclear leukocytes (neutrophilic and eosinophilic granulocytes) while little or no expression is observed in monocytes and lymphocytes. Engineered overexpression of CAMK1D in non-tumorigenic breast epithelial cells led to increased cell proliferation, and molecular and phenotypic alterations indicative of epithelial-mesenchymal transition (EMT), including loss of cell-cell adhesions and increased cell migration and invasion. CAMK1D is a potential therapeutic target with particular relevance to clinically unfavorable basal-like tumors. Synonym: Calcium/Calmodulin-Dependent Protein Kinase Type 1; CaM Kinase I; CaM-KI; CaM Kinase I Alpha; CaMKI-Alpha; CAMK1
Molecular Weight:	41.5 kDa
NCBI Accession:	NP_003647
Pathways:	Myometrial Relaxation and Contraction, Regulation of Muscle Cell Differentiation, Smooth Muscle Cell Migration

Application Details

Comment:	42 kDa
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile 50 mM Tirs, 150 mM NaCl, 10 % glycerol, pH 7.5
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.



Western Blotting
Image 1.

