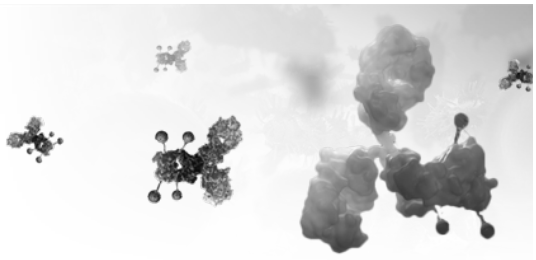

Rabbit Anti-CaMKII monoclonal antibody, clone KN22-18 (CABT-L927)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Target	CaMKII alpha
Immunogen	Recombinant protein
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Clone	KN22-18
Purification	Protein A purified.
Conjugate	Unconjugated
Applications	WB, IP, FC
Cellular Localization	Cell junction, synapse, presynaptic cell membrane.
Positive Control	SH-SY5Y, rat brain cells.
Format	Liquid
Size	100 µl
Buffer	1×TBS (pH7.4), 1% BSA, 40% Glycerol.
Preservative	0.05% Sodium Azide
Storage	Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw

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cycles.

BACKGROUND

Introduction

The Ca2+/calmodulin-dependent protein kinases (CaM kinases) comprise a structurally related subfamily of serine/threonine kinases which include CaMKI, CaMKII and CaMKIV. CaMKII is a ubiquitously expressed serine/threonine protein kinase that is activated by Ca2+and calmodulin (CaM) and has been implicated in regulation of the cell cycle and transcription. There are four CaMKII isozymes designated α, β, γ and δ, which may or may not be co-expressed in the same tissue type. CaMKIV is stimulated by Ca2+ and CaM but also requires phosphorylation by a CaMK for full activation. Stimulation of the T cell receptor CD3 signaling complex with an anti-CD3 monoclonal antibody leads to a 10-40 fold increase in CaMKIV activity. An additional kinase, CaMKK, functions to activate CaMKI through the specific phosphorylation of the regulatory Threonine residue at position 177.

Keywords

Alpha CaMKII;Calcium calmodulin dependent protein kinase II;Calcium/calmodulin dependent protein kinase II alpha B subunit;Calcium/calmodulin dependent protein kinase type II alpha chain;Calcium/calmodulin-dependent protein kinase (CaM kinase) II alpha;Calcium/calmodulin-dependent protein kinase II alpha;Calcium/calmodulin-dependent protein kinase II-alpha;Calcium/calmodulin-dependent protein kinase type II subunit alpha;Calcium/calmodulin-dependent protein kinase type IIA;CaM kinase II alpha chain;CaM kinase II alpha subunit;CaM kinase II subunit alpha;CaMK II alpha subunit;CaMK-II subunit alpha;Camk2a;CAMKA;CaMKII;CaMKIINalpha;EC 2.7.11.17;KCC2A_HUMAN;KIAA0968;MGC123320;MGC139375;MGC155201;mKIAA0968;PK2CDD;PKC
antibody

GENE INFORMATION

Entrez Gene ID

3674

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