

Phospho-CaMKIV pThr196 + pThr200 Antibody

Lot Number: RE2210521

Product Data Sheet

Tested Species Reactivity

Human (Hu)
Mouse (Ms)
Rat (Rt)

Tested Applications

Western Blot (WB)

Dilution *

1:500-1:1000

* Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own experiment using appropriate negative and positive controls.

Details

Catalog Number:	PA5-37504
Size:	100 µl
Class:	Polyclonal
Type:	Antibody
Clone:	
Host / Isotype:	Rabbit / IgG
Immunogen:	Peptide sequence around phosphorylation site of threonine 200 (M-K-T(p)-V-C) derived from Human CaMK4 or threonine 196 (M-K-T(p)-V-C) derived from Mouse CaMK4.

Form Information

Form:	Liquid
Concentration:	1 mg/ml
Purification:	Affinity chromatography
Storage Buffer:	PBS, pH 7.4, with 50% glycerol
Preservative:	0.02% sodium azide
Storage Conditions:	-20°C

Product Specific Information

A suggested positive control for Western blot is K562 cells.

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General Information

CaM kinase IV (CaMKIV), in a calcium and calmodulin dependent manner, is implicated in phosphorylating numerous transcription factors including the CCAAT enhancer binding protein (C/EBP), serum response factor (SRF), and cyclic AMP response element binding protein (CBP). The nuclear localization of this protein is consistent with its role in mediating calcium-dependent gene expression. CaMKIV is particularly abundant in testis, T-cells, and neurons but is also found in other tissues to varying degrees. In neurons, CaMKIV is thought to play an important role in synaptic plasticity via its gene regulatory effects. In T-cells, this protein plays an important role in calcium signaling which could affect the transcription regulatory protein, nuclear factor of activated T-cells (NFAT). CaMKIV is encoded, along with caldesmon, by the CaMKIV gene. It has been found that, in testes, CaMKIV is expressed in germ cells and found to be associated with chromatin. The association of CaMKIV with chromatin suggests a potential role in chromatin remodeling during nuclear condensation in spermatids.

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