

CAMKIV Antibody

Rabbit mAb

Catalog # AP91680

Product Information

Application	WB, IHC, IF, FC, ICC, IP, IHF
Primary Accession	Q16566
Reactivity	Human
Clonality	Monoclonal
Other Names	CAM kinase 4; CAM kinase GR; CAM kinase IV; CAM kinase-GR; CaMK 4; CAMK GR; CaMK IV; Camk4; CaMKGR; IV; KCC4_HUMAN;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	51926

Additional Information

Dilution	WB 1:1000~1:5000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:60 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human CAMKIV
Description	Calcium/calmodulin-dependent protein kinase belonging to a proposed calcium-triggered signaling cascade. May be involved in transcriptional regulation. May be involved in regulation of microtubule dynamics. In vitro, phosphorylates CREB1, CREBBP, PRM2, MEF2A, MEF2D and STMN1/OP18.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	CAMK4
Synonyms	CAMK, CAMK-GR, CAMKIV
Function	Calcium/calmodulin-dependent protein kinase that operates in the calcium-triggered CaMKK-CaMK4 signaling cascade and regulates, mainly by phosphorylation, the activity of several transcription activators, such as CREB1, MEF2D, JUN and RORA, which play pivotal roles in immune response, inflammation, and memory consolidation. In the thymus, regulates the CD4(+)/CD8(+) double positive thymocytes selection threshold during T-cell ontogeny. In CD4 memory T-cells, is required to link T-cell antigen receptor (TCR) signaling to the production of IL2, IFNG and IL4 (through the regulation of CREB and MEF2). Regulates the differentiation and survival phases of osteoclasts and dendritic cells (DCs). Mediates DCs survival by linking TLR4 and the regulation of temporal expression of BCL2. Phosphorylates the transcription activator CREB1 on 'Ser-133' in hippocampal neuron nuclei and

contribute to memory consolidation and long term potentiation (LTP) in the hippocampus. Can activate the MAP kinases MAPK1/ERK2, MAPK8/JNK1 and MAPK14/p38 and stimulate transcription through the phosphorylation of ELK1 and ATF2. Can also phosphorylate in vitro CREBBP, PRM2, MEF2A and STMN1/OP18.

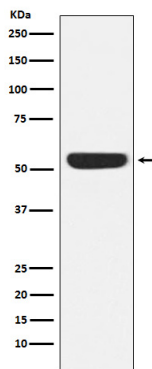
Cellular Location

Cytoplasm. Nucleus. Note=Localized in hippocampal neuron nuclei. In spermatids, associated with chromatin and nuclear matrix (By similarity).

Tissue Location

Expressed in brain, thymus, CD4 T-cells, testis and epithelial ovarian cancer tissue.

Images



Western blot analysis of CAMKIV expression in Jurkat cell lysate.

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