

CaMKIV Monoclonal Antibody

Catalog No: YM1018

Reactivity: Human; Mouse; Rat; Chicken; Dog; Pig

Applications: WB

Target: CaMKIV

Fields: >>Calcium signaling pathway;>>cAMP signaling pathway;>>Longevity

regulating pathway;>>Apelin signaling pathway;>>Osteoclast differentiation;>>Long-term potentiation;>>Neurotrophin signaling

pathway;>>Cholinergic synapse;>>Oxytocin signaling pathway;>>Aldosterone synthesis and secretion;>>Amphetamine addiction;>>Alcoholism;>>Glioma

Gene Name: CAMK4

Protein Name: Calcium/calmodulin-dependent protein kinase type IV

Q16566

P08414

Human Gene Id: 814

Human Swiss Prot

No:

Mouse Swiss Prot

No:

Rat Gene ld: 25050

Rat Swiss Prot No: P13234

Immunogen: Purified recombinant human CaMKIV protein fragments expressed in E.coli.

Specificity: CaMKIV Monoclonal Antibody detects endogenous levels of CaMKIV protein.

Formulation : Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Monoclonal, Mouse

Dilution: WB 1:1000 - 1:2000. Not yet tested in other applications.

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Purification : Affinity purification

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight: 52kD

Cell Pathway: Calcium;Long-term potentiation;Neurotrophin;

Background : The product of this gene belongs to the serine/threonine protein kinase family,

and to the Ca(2+)/calmodulin-dependent protein kinase subfamily. This enzyme is a multifunctional serine/threonine protein kinase with limited tissue distribution, that has been implicated in transcriptional regulation in lymphocytes, neurons and

male germ cells. [provided by RefSeq, Jul 2008],

Function : catalytic activity:ATP + a protein = ADP + a phosphoprotein.,enzyme

regulation:Activated by Ca(2+)/calmodulin. Binding of calmodulin may releave

intrasteric autoinhibition. Must be phosphorylated to be maximally active.

Phosphorylated by CAMKK1 or CAMKK2. Autophosphorylation of the N-terminus is required for full activation. In part, activity is independent on Ca(2+)/calmodulin and autophosphorylation of Ser-336 allows to switch to a Ca(2+)/calmodulin-independent state (By similarity). Probably inactivated by serine/threonine protein

phosphatase 2A., function: 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. May be involved in spermatogenesis. May play a role i

Subcellular Location:

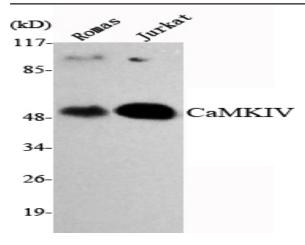
Cytoplasm. Nucleus. Localized in hippocampal neuron nuclei. In spermatids,

associated with chromatin and nuclear matrix (By similarity). .

Expression: Expressed in brain, thymus, CD4 T-cells, testis and epithelial ovarian cancer

tissue.

Products Images



Western Blot analysis using CaMKIV Monoclonal Antibody against Romas, Jurkat cell lysate.