

CaMKIV Polyclonal Antibody

Catalog No :	YT0627
Reactivity :	Human;Mouse;Rat
Applications :	WB;IHC;IF;ELISA
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
Human Gene Id :	814
Human Swiss Prot No :	Q16566
Mouse Swiss Prot No :	P08414
Rat Gene Id :	25050
Rat Swiss Prot No :	P13234
Immunogen :	The antiserum was produced against synthesized peptide derived from human CaMK4. AA range:166-215
Specificity :	CaMKIV Polyclonal Antibody detects endogenous levels of CaMKIV protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:5000. Not

yet tested in other applications.

Purification : The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Concentration : 1 mg/ml

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

Observed Band : 60kD

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

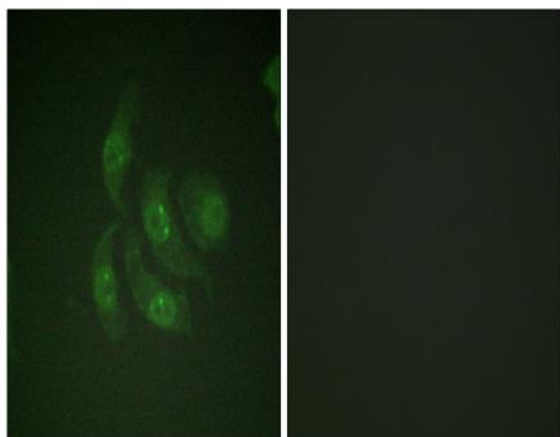
Background : The product of this gene belongs to the serine/threonine protein kinase family, and to the Ca(2+)/calmodulin-dependent protein kinase subfamily. This enzyme is a multifunctional serine/threonine protein kinase with limited tissue distribution, that has been implicated in transcriptional 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 release 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

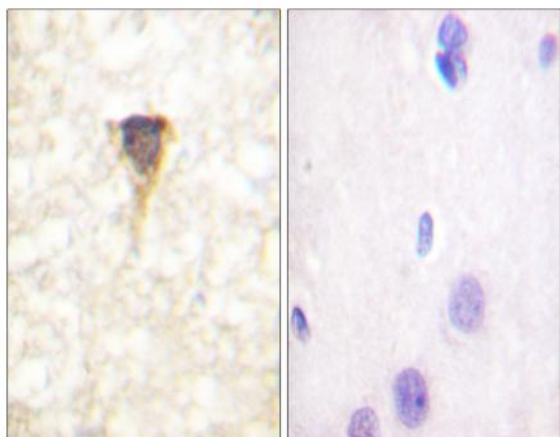
Subcellular Location : Cytoplasm. Nucleus. Localized in hippocampal neuron nuclei. In spermatids, associated with chromatin and nuclear matrix (By similarity). .

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

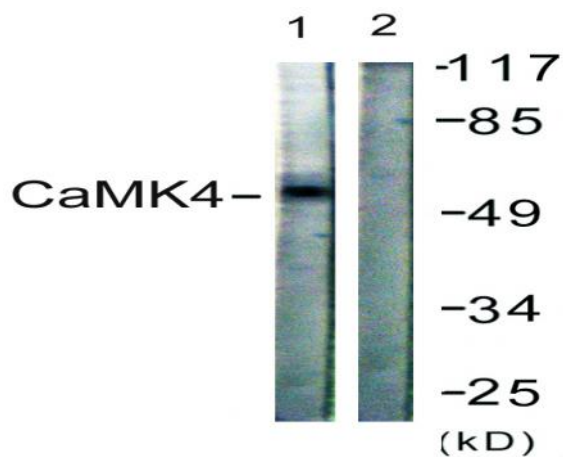
Products Images



Immunofluorescence analysis of HepG2 cells, using CaMK4 Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using CaMK4 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from K562 cells, treated with H₂O₂ 100uM 30', using CaMK4 Antibody. The lane on the right is blocked with the synthesized peptide.