

## CaMKIV Polyclonal Antibody

<b>Catalog No :</b>	YT0627
<b>Reactivity :</b>	Human;Mouse;Rat
<b>Applications :</b>	WB;IHC;IF;ELISA
<b>Target :</b>	CaMKIV
<b>Fields :</b>	>>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
<b>Gene Name :</b>	CAMK4
<b>Protein Name :</b>	Calcium/calmodulin-dependent protein kinase type IV
<b>Human Gene Id :</b>	814
<b>Human Swiss Prot No :</b>	Q16566
<b>Mouse Swiss Prot No :</b>	P08414
<b>Rat Gene Id :</b>	25050
<b>Rat Swiss Prot No :</b>	P13234
<b>Immunogen :</b>	The antiserum was produced against synthesized peptide derived from human CaMK4. AA range:166-215
<b>Specificity :</b>	CaMKIV Polyclonal Antibody detects endogenous levels of CaMKIV protein.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG
<b>Dilution :</b>	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:5000. Not

yet tested in other applications.

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

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**Concentration :** 1 mg/ml

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

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**Observed Band :** 60kD

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

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**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],

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**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

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

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

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**Tag :** orthogonal

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**Sort :** 3100

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**No4 :** 1

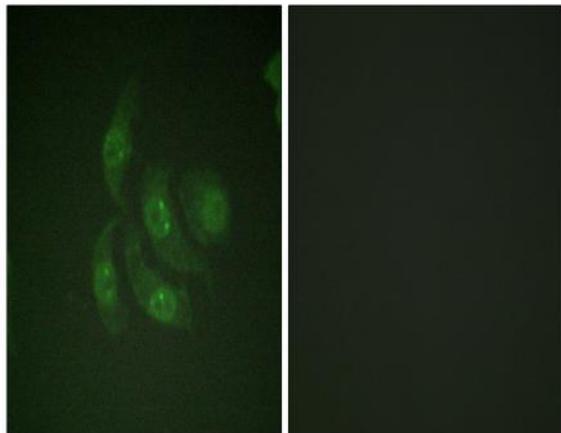
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**Host :** Rabbit

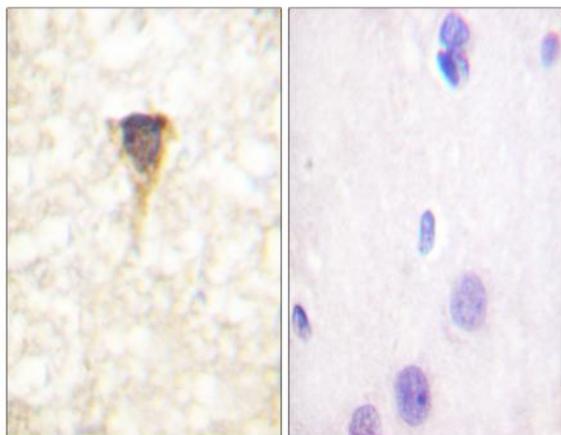
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**Modifications :** Unmodified

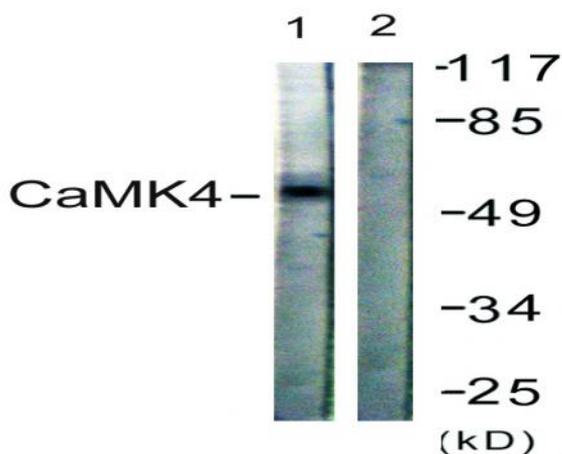
## Products Images



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 H<sub>2</sub>O<sub>2</sub> 100uM 30', using CaMK4 Antibody. The lane on the right is blocked with the synthesized peptide.