

**CaMKIV (phospho Thr200) Polyclonal Antibody**

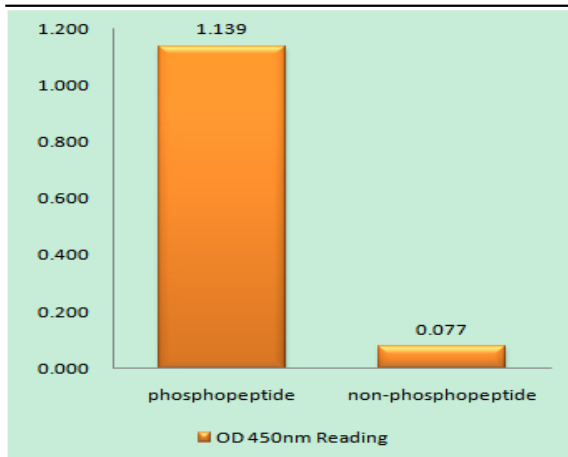
<b>Catalog No :</b>	YP0043
<b>Reactivity :</b>	Human;Mouse;Rat
<b>Applications :</b>	WB;IHC;IF;ELISA
<b>Target :</b>	CaMKIV
<b>Fields :</b>	>>Calcium signaling pathway;>>cAMP signaling pathway;>>Longevity regulating pathway;>>Apelin signaling pathway;>>Osteoclast differentiation;>>Long-term potentiation;>>Neurotrophin 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 around the phosphorylation site of Thr196/200. AA range:166-215
<b>Specificity :</b>	Phospho-CaMKIV (T200) Polyclonal Antibody detects endogenous levels of CaMKIV protein only when phosphorylated at T200.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG

---

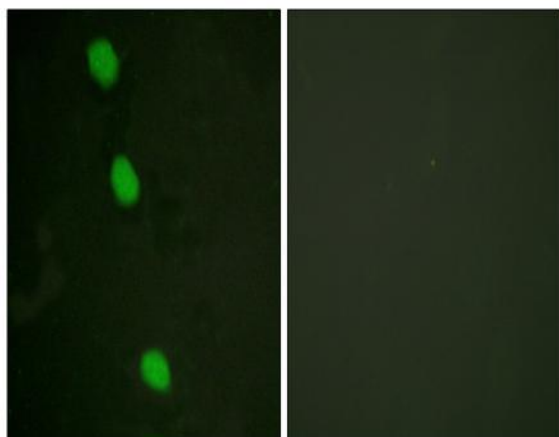
<b>Dilution :</b>	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:40000. Not yet tested in other applications.
<b>Purification :</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Concentration :</b>	1 mg/ml
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Observed Band :</b>	60kD
<b>Cell Pathway :</b>	Calcium;Long-term potentiation;Neurotrophin;
<b>Background :</b>	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],
<b>Function :</b>	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
<b>Subcellular Location :</b>	Cytoplasm. Nucleus. Localized in hippocampal neuron nuclei. In spermatids, associated with chromatin and nuclear matrix (By similarity). .
<b>Expression :</b>	Expressed in brain, thymus, CD4 T-cells, testis and epithelial ovarian cancer tissue.

---

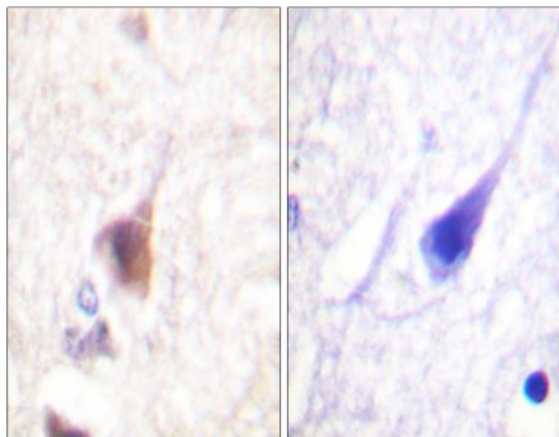
## Products Images



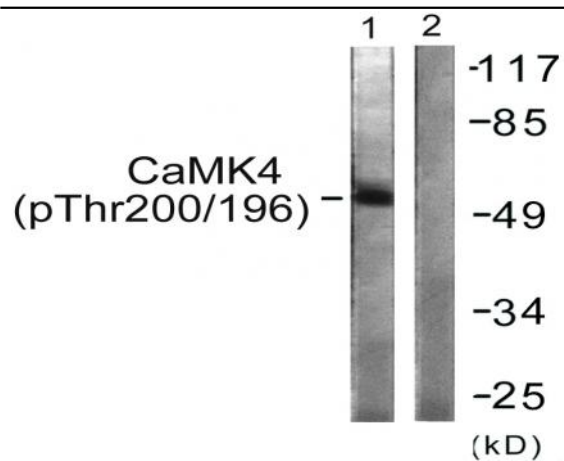
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using CaMK4 (Phospho-Thr196/200) Antibody



Immunofluorescence analysis of HeLa cells, using CaMK4 (Phospho-Thr196/200) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human brain, using CaMK4 (Phospho-Thr196/200) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from K562 cells treated with H<sub>2</sub>O<sub>2</sub> 100uM 30', using CaMK4 (Phospho-Thr196/200) Antibody. The lane on the right is blocked with the phospho peptide.