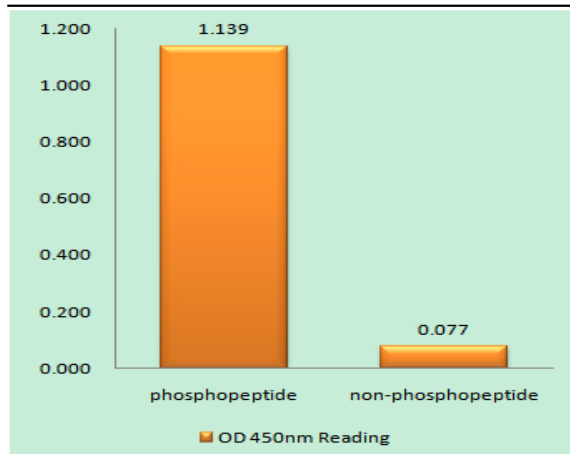


CaMKIV (phospho Thr200) Polyclonal Antibody

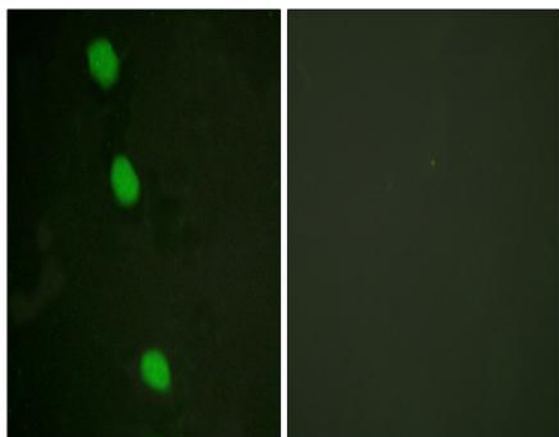
Catalog No :	YP0043
Reactivity :	Human;Mouse;Rat
Applications :	WB;IHC;IF;ELISA
Target :	CaMKIV
Fields :	>>Calcium signaling pathway;>>cAMP signaling pathway;>>Longevity regulating pathway;>>Apelin signaling pathway;>>Osteoclast differentiation;>>Long-term potentiation;>>Neurotrophin signaling pathway;>>Cholinergic 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 around the phosphorylation site of Thr196/200. AA range:166-215
Specificity :	Phospho-CaMKIV (T200) Polyclonal Antibody detects endogenous levels of CaMKIV protein only when phosphorylated at T200.
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: 1:40000. 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.

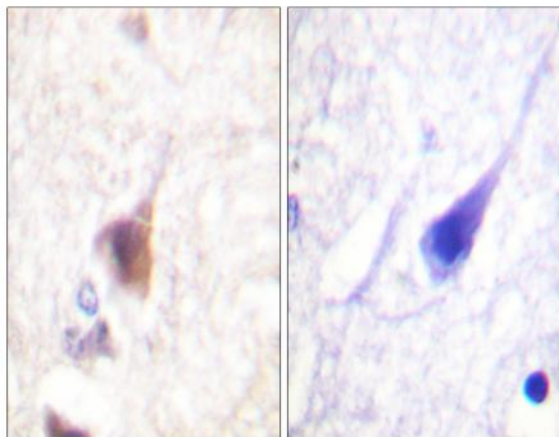
Products Images



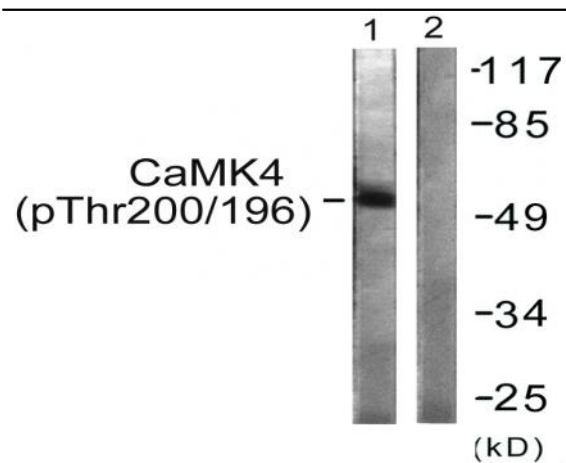
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using CaMK4 (Phospho-Thr196/200) Antibody



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 H₂O₂ 100uM 30', using CaMK4 (Phospho-Thr196/200) Antibody. The lane on the right is blocked with the phospho peptide.