

CaMK1 α (phospho Thr177) Polyclonal Antibody

Catalog No :	YP0913
Reactivity :	Human;Mouse;Rat
Applications :	WB;IHC;IF;ELISA
Target :	CaMK1 α
Fields :	>>Calcium signaling pathway;>>Oxytocin signaling pathway;>>Aldosterone synthesis and secretion;>>Glioma
Gene Name :	CAMK1
Protein Name :	Calcium/calmodulin-dependent protein kinase type 1
Human Gene Id :	8536
Human Swiss Prot No :	Q14012
Mouse Gene Id :	52163
Mouse Swiss Prot No :	Q91YS8
Rat Gene Id :	171503
Rat Swiss Prot No :	Q63450
Immunogen :	The antiserum was produced against synthesized peptide derived from human CaMK1- α around the phosphorylation site of Thr177. AA range:143-192
Specificity :	Phospho-CaMK1 α (T177) Polyclonal Antibody detects endogenous levels of CaMK1 α protein only when phosphorylated at T177.
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 : 41kD

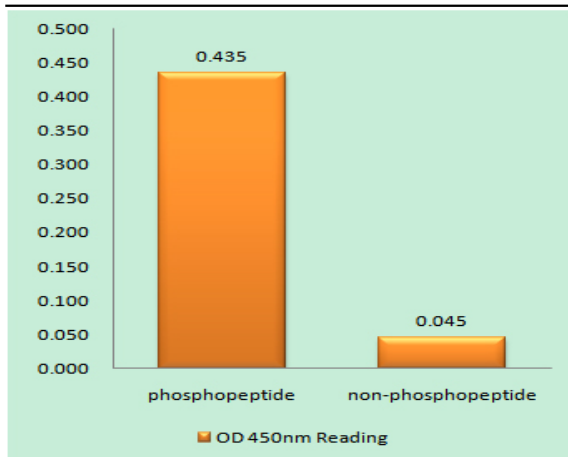
Background : Calcium/calmodulin-dependent protein kinase I is expressed in many tissues and is a component of a calmodulin-dependent protein kinase cascade. Calcium/calmodulin directly activates calcium/calmodulin-dependent protein kinase I by binding to the enzyme and indirectly promotes the phosphorylation and synergistic activation of the enzyme by calcium/calmodulin-dependent protein kinase I kinase. [provided by RefSeq, Jul 2008],

Function : catalytic activity:ATP + a protein = ADP + a phosphoprotein.,domain:The autoinhibitory domain overlaps with the calmodulin binding region and interacts in the inactive folded state with the catalytic domain as a pseudosubstrate.,enzyme regulation:Activated by Ca(2+)/calmodulin. Binding of calmodulin results in a conformational change that generates functional binding sites for both, substrate and ATP, and thus releases intrasteric autoinhibition. Must be phosphorylated to be maximally active. Phosphorylated by CAMKK1 or CAMKK2.,function:Calcium/calmodulin-dependent protein kinase belonging to a proposed calcium-triggered signaling cascade involved in a number of cellular processes like transcriptional regulation, hormone production, translational regulation, regulation of actin filament organization and neurite outgrowth. Involved in calcium-dependent activation of the ERK pathway (By si

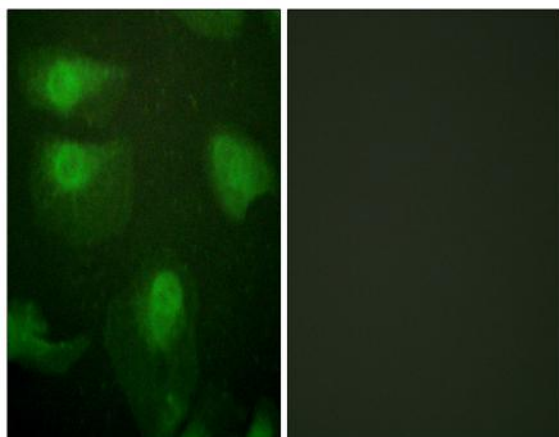
Subcellular Location : Cytoplasm . Nucleus . Predominantly cytoplasmic. .

Expression : Widely expressed. Expressed in cells of the zona glomerulosa of the adrenal cortex.

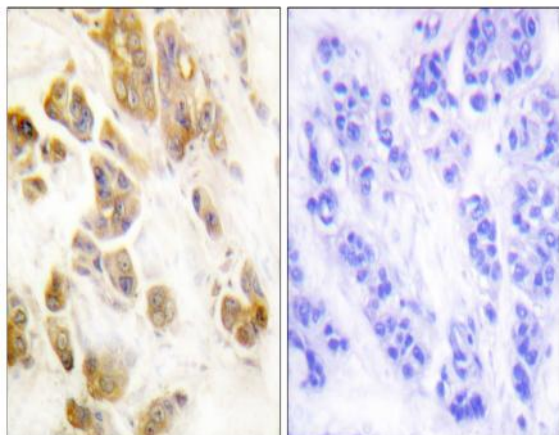
Products Images



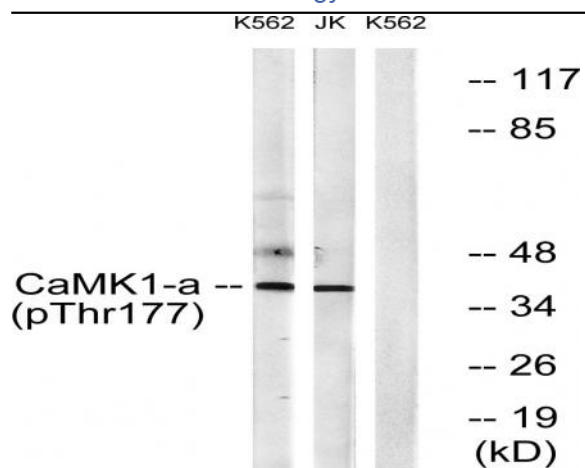
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using CaMK1-alpha (Phospho-Thr177) Antibody



Immunofluorescence analysis of HeLa cells, using CaMK1-alpha (Phospho-Thr177) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using CaMK1-alpha (Phospho-Thr177) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from K562 cells treated with insulin 0.01U/ml 15' and Jurkat cells treated with insulin 0.01U/ml 15', using CaMK1-alpha (Phospho-Thr177) Antibody. The lane on the right is blocked with the phospho peptide.