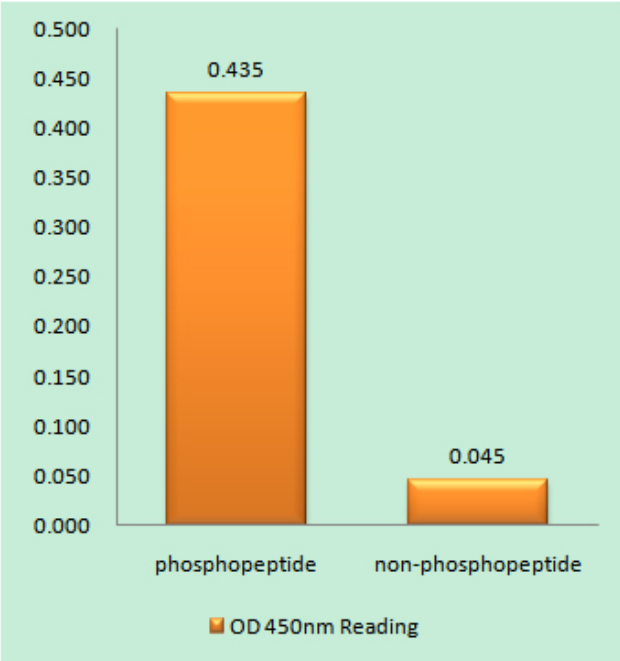
CaMKIα (phospho Thr177) Polyclonal Antibody

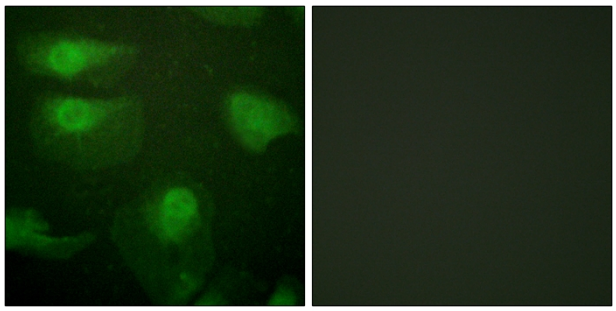
Catalog No	YP-Ab-14524
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	CAMK1
Protein Name	Calcium/calmodulin-dependent protein kinase type 1
Immunogen	The antiserum was produced against synthesized peptide derived from human CaMK1-alpha around the phosphorylation site of Thr177. AA range:143-192
Specificity	Phospho-CaMKIα (T177) Polyclonal Antibody detects endogenous levels of CaMKIα 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
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/5000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	CAMK1; Calcium/calmodulin-dependent protein kinase type 1; CaM kinase I; CaM-KI; CaM kinase I alpha; CaMKI-alpha
Observed Band	41kD
Cell Pathway	Cytoplasm . Nucleus . Predominantly cytoplasmic. .
Tissue Specificity	Widely expressed. Expressed in cells of the zona glomerulosa of the adrenal cortex.
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 releaves 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

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],
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

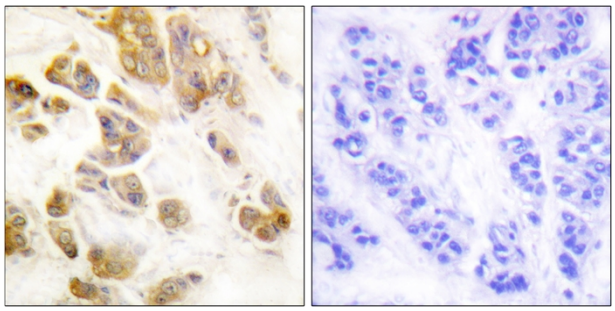
Products Images



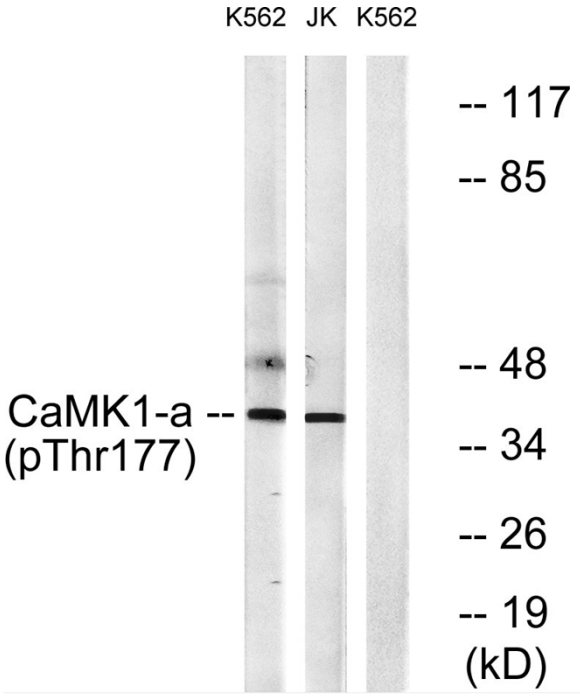
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using CaMK1-alpha (Phospho-Thr177) Antibody



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.