



CaMKI α Monoclonal Antibody

Catalog No	YP-mAb-14690
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	CAMK1
Immunogen	The antiserum was produced against synthesized peptide derived from human CaMK1-alpha. AA range:143-192
Specificity	CaMKI α Monoclonal Antibody detects endogenous levels of CaMKI α protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	$\geq 90\%$
Storage Stability	-20°C/1 year
Synonyms	CaM KI;CaM kinase I;CaM kinase I alpha;CAMK1;CAMKI;CaMKI alpha;CaMKI α ; Calcium/calmodulin-dependent protein kinase type 1;CaM-KI;CaMKI-alpha
Observed Band	45kD
Calculated Molecular Weight	45kD
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 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

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

