

CaMKIa Polyclonal Antibody

Catalog No: YT0628

Reactivity: Human; Mouse; Rat

Applications: WB;IHC;IF;ELISA

Target: CaMKla

Fields: >>Calcium signaling pathway;>>Oxytocin signaling pathway;>>Aldosterone

synthesis and secretion;>>Glioma

Gene Name: CAMK1

Protein Name: Calcium/calmodulin-dependent protein kinase type 1

Q14012

Q91YS8

Human Gene Id: 8536

Human Swiss Prot

No:

Mouse Gene ld: 52163

Mouse Swiss Prot

No:

Rat Gene Id: 171503

Rat Swiss Prot No: Q63450

Immunogen: The antiserum was produced against synthesized peptide derived from human

CaMK1-alpha. AA range:143-192

Specificity: CaMKIa Polyclonal Antibody detects endogenous levels of CaMKIa protein.

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. ELISA: 1:20000.. IF 1:50-200

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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: 45kD

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 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

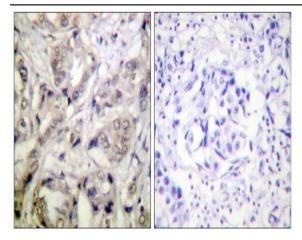
Subcellular Location : Cytoplasm . Nucleus . Predominantly cytoplasmic. .

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

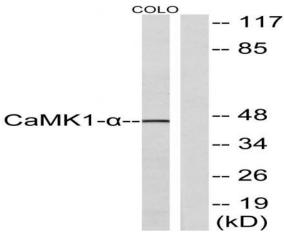
cortex.

Products Images

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Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using CaMK1-alpha Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from COLO cells, using CaMK1-alpha Antibody. The lane on the right is blocked with the synthesized peptide.