

CaMKIa Rabbit pAb

CatalogNo: YT0628

Key Features

Host Species

Rabbit

Reactivity

· Human, Mouse, Rat

Applications
• WB,IHC,IF,ELISA

MW

45kD (Observed)

IsotypeIgG

Recommended Dilution Ratios

WB 1:500-1:2000 IHC 1:100-1:300 ELISA 1:20000 IF 1:50-200

Storage

Storage* -15°C to -25°C/1 year(Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen The antiserum was produced against synthesized peptide derived from human CaMK1-

alpha. AA range:143-192

Specificity CaMKlα Polyclonal Antibody detects endogenous levels of CaMKlα protein.

| Target Information

Gene name

CAMK1

Protein Name

Calcium/calmodulin-dependent protein kinase type 1

Organism	Gene ID	UniProt ID
Human	<u>8536;</u>	<u>Q14012;</u>
Mouse	<u>52163;</u>	<u>Q91YS8;</u>
Rat	<u>171503;</u>	<u>Q63450</u> ;

Cellular Localization

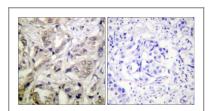
Cytoplasm . Nucleus . Predominantly cytoplasmic. .

Tissue specificity Widely expressed. Expressed in cells of the zona glomerulosa of the adrenal cortex.

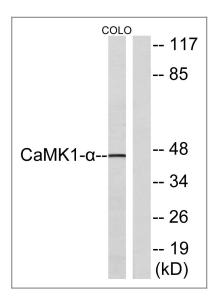
Function

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 similarity). Recognizes the substrate consensus sequence [MVLIF]-x-Rx(2)-[ST]-x(3)-[MVLIF]. Phosphorylates EIF4G3/eIF4GII. In vitro phosphorylates CREB1, ATF1, CTFR. MYL9. SYN1/synapsin I and SYNII/synapsin II..similarity:Belongs to the protein kinase superfamily..similarity:Belongs to the protein kinase superfamily, CAMK Ser/Thr protein kinase family. CaMK subfamily., similarity: Contains 1 protein kinase domain., subcellular location: Predominantly cytoplasmic., subunit: Monomer. Interacts with XPO1., tissue specificity: Ubiquitous.,

Validation Data



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.

| Contact information

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Please scan the QR code to access additional product information:

CaMKIα Rabbit pAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Antibody | ELISA Kits | Protein | Reagents