CaMKIα Rabbit pAb

CatalogNo: YT0628

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,IHC,IF,ELISA

MW
- 45kD (Observed)

Isotype
- IgG

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	CaMKIα Polyclonal Antibody detects endogenous levels of CaMKIα protein.

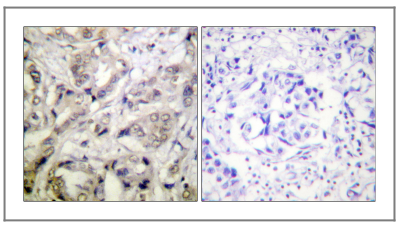
Target Information

Gene name	CAMK1
Protein Name	Calcium/calmodulin-dependent protein kinase type 1

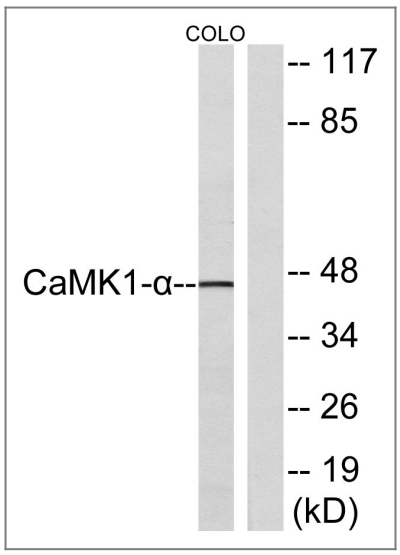
Organism	Gene ID	UniProt ID
Human	8536;	Q14012;
Mouse	52163;	Q91YS8;
Rat	171503;	Q63450;

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-R-x(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:
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