

CaMKI α Rabbit pAb

CatalogNo: YT0628

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, IHC, IF, ELISA

MW

- 45kD (Observed)

Isotype

- IgG

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.

Recommended Dilution Ratios

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

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen The antiserum was produced against synthesized peptide derived from human CaMK1-alpha. AA range:143-192**Specificity** CaMKI α Polyclonal Antibody detects endogenous levels of CaMKI α 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 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 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

| Contact information

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