

## CaMKI $\alpha$ (Phospho Thr177) Rabbit pAb

CatalogNo: YP0913

Orthogonal Validated 

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 41kD (Observed)

#### Isotype

- IgG

### Recommended Dilution Ratios

**WB 1:500-1:2000****IHC 1:100-1:300****IF 1:200-1:1000****ELISA 1:5000****Not yet tested in other applications.**

### 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

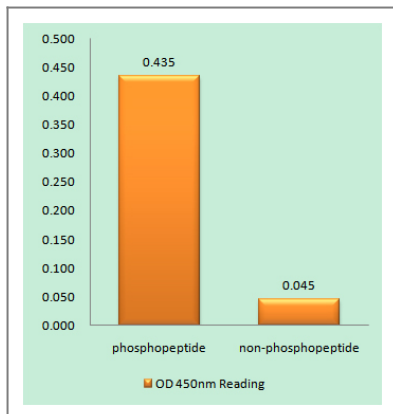
**Immunogen**The antiserum was produced against synthesized peptide derived from human CaMK1- $\alpha$  around the phosphorylation site of Thr177. AA range: 143-192

**Specificity** Phospho-CaMKI $\alpha$  (T177) Polyclonal Antibody detects endogenous levels of CaMKI $\alpha$  protein only when phosphorylated at T177. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):LStAC

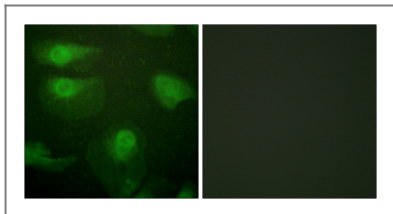
## Target Information

Gene name	CAMK1		
Protein Name	Calcium/calmodulin-dependent protein kinase type 1		
	Organism	Gene ID	UniProt ID
	Human	<a href="#">8536</a> ;	<a href="#">Q14012</a> ;
	Mouse	<a href="#">52163</a> ;	<a href="#">Q91YS8</a> ;
	Rat	<a href="#">171503</a> ;	<a href="#">Q63450</a> ;
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.,		

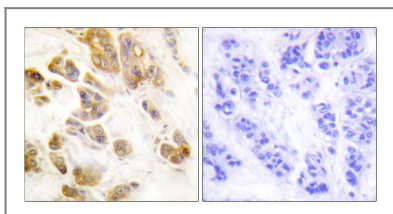
## Validation Data



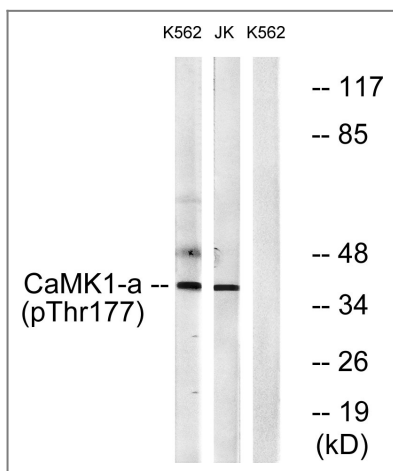
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using CaMK1-alpha (Phospho-Thr177) Antibody



Immunofluorescence analysis of HeLa cells, using CaMK1-alpha (Phospho-Thr177) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using CaMK1-alpha (Phospho-Thr177) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from K562 cells treated with insulin 0.01U/ml 15' and Jurkat cells treated with insulin 0.01U/ml 15', using CaMK1-alpha (Phospho-Thr177) Antibody. The lane on the right is blocked with the phospho peptide.

## Contact information

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Please scan the QR code to access additional product information:  
**CaMK1α (Phospho Thr177) Rabbit pAb**

