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Mouse Monoclonal Antibody CaMKII α conjugated to Sepharose Beads

CatalogNo: ANT8328-M

Size 200ul

Storage Store at 4 °C for frequent use

Description

This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified beads. It is useful for immunoprecipitation.

CaMKII α (ANT0000R) Rabbit mAb

Formulation: Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg ANaN3.

Host Species Reactivity Applications

Rabbit Human, Mouse, Rat, WB, IHC, IF, IP, ELISA

MW Isotype

54kD (Calculated) IgG, Kappa
54kD (Observed)

## Recommended Dilution Ratios

IP

## **Basic Information**

**Clonality** Monoclonal

**Clone Number** 

ANTOOOOR

## Immunogen Information

**Specificity** Endogenous

Gene name

CAMK2A CAMKA KIAA0968

**Protein Name** 

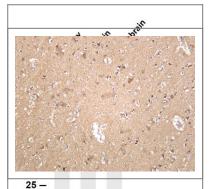
Calcium/calmodulin-dependent protein kinase type II subunit alpha (CaM kinase II subunit alpha) (CaMK-II subunit alpha) (EC 2.7.11.17)

Organism	Gene ID	UniProt ID
Human	<u>815</u> ;	<u>Q9UQM7</u> ;
Mouse	<u>12322</u> ;	<u>P11798</u> ;
Rat	<u>12322</u> ;	<u>P11275</u> ;

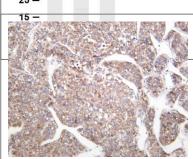
Cellular Localization Function Synapse

Function: Calcium/calmodulin-dependent protein kinase that functions autonomously after Ca(2+)/calmodulin-binding and autophosphorylation, and is involved in various processes, such as synaptic plasticity, neurotransmitter release and long-term potentiation . Member of the NMDAR signaling complex in excitatory synapses, it regulates NMDAR-dependent potentiation of the AMPAR and therefore excitatory synaptic transmission (By similarity). Regulates dendritic spine development . Also regulates the migration of developing neurons . Phosphorylates the transcription factor FOXO3 to activate its transcriptional activity . Phosphorylates the transcription factor ETS1 in response to calcium signaling, thereby decreasing ETS1 affinity for DNA (By similarity). In response to interferon-gamma (IFNgamma) stimulation, catalyzes phosphorylation of STAT1, stimulating the JAK-STAT signaling pathway . In response to interferon-beta (IFN-beta) stimulation, stimulates the JAK-STAT signaling pathway . Acts as a negative regulator of 2-arachidonoylglycerol (2-AG)mediated synaptic signaling via modulation of DAGLA activity (By similarity).

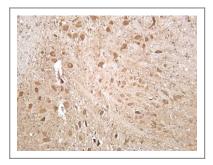
## **Validation Data**



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-CaMKII  $\alpha$  (ANT0000R) antibody. The HRPconjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: SH-SY5Y Lane 2: Rat brain Lane 3: Mouse brain Predicted band size: 54kDa Observed band size: 54kDa Human brain was stained with anti-CaMKII  $\alpha$  (ANT0000R) rabbit antibody



Human hepatocellular carcinoma was stained with anti-CaMKII  $\alpha$  (ANT0000R) rabbit antibody



Mouse brain was stained with anti-CaMKII  $\alpha$  (ANT0000R) rabbit antibody

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