

# CaMKII alpha Rabbit mAb

Catalog # AP75183

### **Product Information**

**Application** WB

Primary Accession Q9UQM7

**Reactivity** Human, Mouse, Rat

**Host** Rabbit

**Clonality** Monoclonal Antibody

Calculated MW 54088

## **Additional Information**

Gene ID 815

Other Names CAMK2A

**Dilution** WB~~1/500-1/1000

Format 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and

0.05% BSA.

#### **Protein Information**

Name CAMK2A

Synonyms CAMKA, KIAA0968

**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 (PubMed:14722083). 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 (PubMed:28130356). Also regulates the migration of developing neurons (PubMed:29100089). Phosphorylates the

transcription factor FOXO3 to activate its transcriptional activity

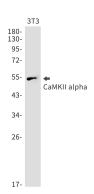
(PubMed:<u>23805378</u>). Phosphorylates the transcription factor ETS1 in response to calcium signaling, thereby decreasing ETS1 affinity for DNA (By similarity). In response to interferon-gamma (IFN-gamma) stimulation, catalyzes phosphorylation of STAT1, stimulating the JAK- STAT signaling pathway (PubMed:<u>11972023</u>). In response to interferon- beta (IFN-beta) stimulation, stimulates the JAK-STAT signaling pathway (PubMed:<u>35568036</u>). Acts as a negative regulator of 2- arachidonoylglycerol (2-AG)-mediated synaptic

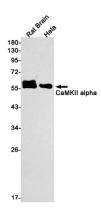
signaling via modulation of DAGLA activity (By similarity).

**Cellular Location** Synapse {ECO:0000250 | UniProtKB:P11275}. Postsynaptic density

{ECO:0000250 | UniProtKB:P11275}. Cell projection, dendritic spine. Cell projection, dendrite. Note=Postsynaptic lipid rafts {ECO:0000250 | UniProtKB:P11275}

## **Images**





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