

Product Name: CaMKII α / δ (phospho Thr286) Rabbit Polyclonal Antibody**Catalog #: APRab04355**

For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat,Other
Conjugation	Unconjugated
Modification	Phosphorylated
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:5000-1:20000
Molecular Weight	54kDa

Antigen Information

Gene Name	CAMK2A/CAMK2D CAMK2A; CAMKA; KIAA0968; Calcium/calmodulin-dependent protein kinase type II subunit
Alternative Names	alpha; CaM kinase II subunit alpha; CaMK-II subunit alpha; CAMK2D; CAMKD; Calcium/calmodulin-dependent protein kinase type II subunit delta; CaM kinase II
Gene ID	815/817
SwissProt ID	Q9UQM7/Q13557
Immunogen	The antiserum was produced against synthesized peptide derived from human CaMK2 around the phosphorylation site of Thr286. AA range:256-305

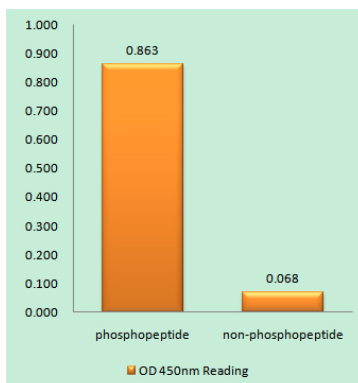
Background

The product of this gene belongs to the serine/threonine protein kinases family, and to the Ca(2+)/calmodulin-dependent protein kinases subfamily. Calcium signaling is crucial for several aspects of plasticity at glutamatergic synapses. This calcium calmodulin-dependent protein kinase is composed of four different chains: alpha, beta, gamma, and delta. The alpha chain encoded by this gene is required for hippocampal long-term potentiation (LTP) and spatial learning. In addition to its calcium-calmodulin (CaM)-dependent activity, this protein can undergo autophosphorylation, resulting in CaM-independent activity. Two transcript variants encoding distinct isoforms have been identified for this gene. [provided by RefSeq, Nov 2008], catalytic activity: ATP + a protein = ADP + a phosphoprotein., enzyme regulation: Autophosphorylation of Thr-286 allows the kinase to switch from a calmodulin-dependent to a calmodulin-independent state., function: CaM-kinase II (CAMK2) is a prominent kinase in the central nervous system that may function in long-term potentiation and neurotransmitter release. Member of the NMDAR signaling complex in excitatory synapses it may regulate NMDAR-dependent potentiation of the AMPAR and synaptic plasticity., 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: Postsynaptic lipid rafts., subunit: CAMK2 is composed of four different chains: alpha, beta, gamma, and delta. The different isoforms assemble into homo- or heteromultimeric holoenzymes composed of 8 to 12 subunits. Interacts with BAALC, MPDZ, SYN1, CAMK2N2 and SYNGAP1.,

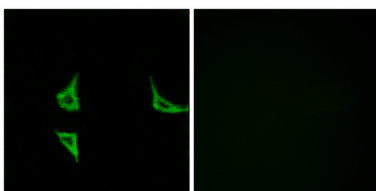
Research Area

ErbB_HER; Calcium; Oocyte meiosis; WNT; WNT-T CELL Long-term potentiation; Neurotrophin; Olfactory transduction; GnRH; Melanogenesis; Glioma;

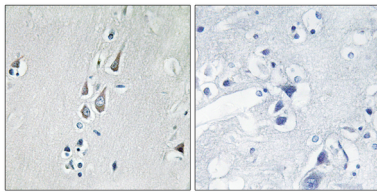
Image Data



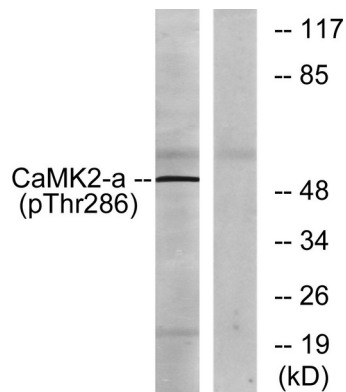
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right) , using CaMK2 (Phospho-Thr286) Antibody



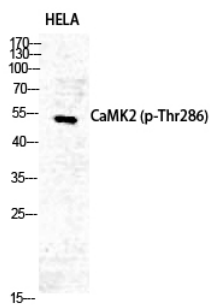
Immunofluorescence analysis of COS7 cells, using CaMK2 (Phospho-Thr286) Antibody. The picture on the right is blocked with the phosphopeptide.



Immunohistochemistry analysis of paraffin-embedded human brain, using CaMK2 (Phospho-Thr286) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from K562 cells, using CaMK2 (Phospho-Thr286) Antibody. The lane on the right is blocked with the phospho peptide.



Western Blot analysis of HELA cells using Phospho-CaMKII α/δ (T286) Polyclonal Antibody diluted at 1: 500