

Product name:	CaMKII β / γ / δ Rabbit Polyclonal Antibody
Cat number:	ABN07889
Conjugate:	Unconjugated
Size:	100 μ L
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human CaMK2-beta/gamma/delta. AA range:253-302
Reactivity:	Human,Mouse,Rat,Pig
Applications:	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:5000-1:10000
Molecular Weight:	50+65kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

The product of this gene belongs to the serine/threonine protein kinase family and to the Ca(2+)/calmodulin-dependent protein kinase subfamily. Calcium signaling is crucial for several aspects of plasticity at glutamatergic synapses. In mammalian cells, the enzyme is composed of four different chains: alpha, beta, gamma, and delta. The product of this gene is a beta chain. It is possible that distinct isoforms of this chain have different cellular localizations and interact differently with calmodulin. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2014], alternative products: The variable region of the CAMK2B protein is encoded by at least 7 exons (V1 to V7). Alternative splicing within this region gives rise to CAMK2B isoforms, catalytic activity: ATP + a protein = ADP + a phosphoprotein., enzyme regulation: Autophosphorylation of CAMK2 plays an important role in the regulation of the kinase activity., 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., 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 SYNGAP1 and CAMK2N2 (By similarity). Interacts with MPDZ., tissue specificity: Widely expressed. Expressed in adult and fetal brain. Expression is slightly lower in fetal brain.,