

**Product Name: CaMKII $\beta$ / $\gamma$ / $\delta$  (phospho Thr287) Rabbit Polyclonal Antibody****Catalog #: APRab04356**

For research use only.

**Summary**

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

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:5000-1:10000
<b>Molecular Weight</b>	50+65kDa

**Antigen Information**

<b>Gene Name</b>	CAMK2B CAMK2B; CAM2; CAMK2; CAMKB; Calcium/calmodulin-dependent protein kinase type II
<b>Alternative Names</b>	subunit beta; CaM kinase II subunit beta; CaMK-II subunit beta; CAMK2G; CAMK; CAMK-II; CAMKG; Calcium/calmodulin-dependent protein kinase type II subunit gamma;
<b>Gene ID</b>	816/818/817
<b>SwissProt ID</b>	Q13554/Q13555/Q13557
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human CaMK2-beta/gamma/delta around the phosphorylation site of Thr287. AA range:253-302

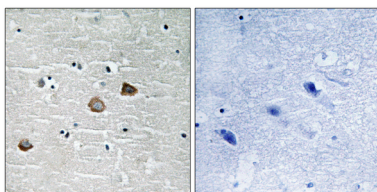
## Background

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.,

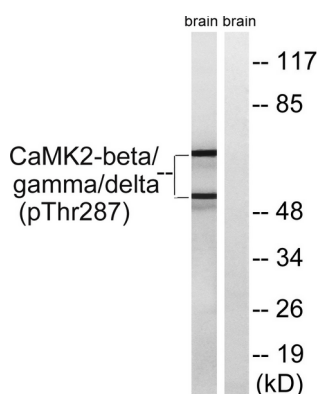
## Research Area

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

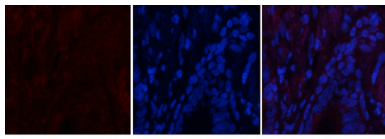
## Image Data



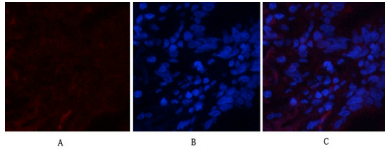
Immunohistochemistry analysis of paraffin-embedded human brain, using CaMK2-beta/gamma/delta (Phospho-Thr287) Antibody. The picture on the right is blocked with the phospho peptide.



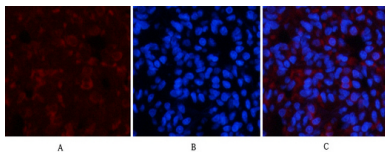
Western blot analysis of lysates from rat brain, using CaMK2-beta/gamma/delta (Phospho-Thr287) Antibody. The lane on the right is blocked with the phospho peptide.



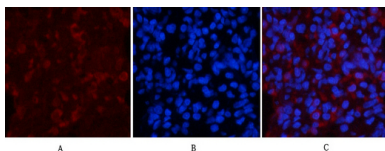
Immunofluorescence analysis of human-lung tissue. 1, CaMKII $\beta$ / $\gamma$ / $\delta$  (phospho Thr287) Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



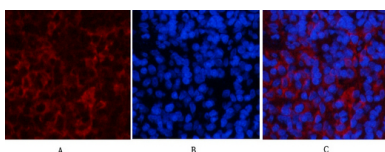
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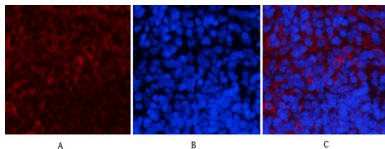
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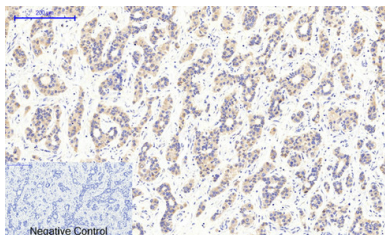
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Immunofluorescence analysis of rat-spleen tissue. 1, CaMKII $\beta$ / $\gamma$ / $\delta$  (phospho Thr287) Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



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Immunohistochemical analysis of paraffin-embedded Human-liver-cancer tissue. 1, CaMKII $\beta$ / $\gamma$ / $\delta$  (phospho Thr287) Polyclonal Antibody was diluted at 1:200 (4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.