

## CaMKIIβ/γ/δ (Phospho Thr287) Monoclonal Antibody(4H2)

Catalog No: YM3517

**Reactivity:** Human;Rat;Mouse

**Applications:** IHC;IF

**Target**: CaMKIIβ/γ/δ

**Fields:** >>ErbB signaling pathway;>>Calcium signaling pathway;>>cAMP signaling

pathway;>>HIF-1 signaling pathway;>>Oocyte

meiosis;>>Necroptosis;>>Adrenergic signaling in cardiomyocytes;>>Wnt signaling pathway;>>Axon guidance;>>Circadian entrainment;>>Long-term

potentiation;>>Neurotrophin signaling pathway;>>Cholinergic

synapse;>>Dopaminergic synapse;>>Olfactory transduction;>>Inflammatory mediator regulation of TRP channels;>>Insulin secretion;>>GnRH signaling pathway;>>Melanogenesis;>>Oxytocin signaling pathway;>>Glucagon signaling pathway;>>Aldosterone synthesis and secretion;>>Cushing syndrome;>>Gastric acid secretion;>>Parkinson disease;>>Pathways of neurodegeneration - multiple

diseases;>>Amphetamine addiction;>>Tuberculosis;>>Pathways in

cancer;>>Proteoglycans in cancer;>>Glioma;>>Diabetic cardiomyopathy;>>Lipid

and atherosclerosis

**Human Gene Id:** 816/817/818

**Human Swiss Prot** 

Q13554/Q13555/Q13557

No:

**Immunogen :** Synthetic Peptide of CaMKIIβ/γ/δ (Phospho Thr287)

**Specificity:** CaMKIIβ/γ/δ (Phospho Thr287) protein detects endogenous levels of

CaMKIIβ/γ/δ (Phospho Thr287)

**Formulation :** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

**Source:** Monoclonal, Mouse

**Dilution :** IHC 1:100-200. IF 1:50-200

**Purification:** The antibody was affinity-purified from mouse ascites by affinity-

chromatography using specific immunogen.



Concentration: 1 mg/ml

**Storage Stability:** -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 50kD

**Cell Pathway:** ErbB\_HER;Calcium;Oocyte meiosis;WNT;WNT-T CELLLong-term

potentiation; Neurotrophin; Olfactory transduction; GnRH; Melanogenesis; Glioma;

**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],

**Function:** 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

Subcellular Location : Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Sarcoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side. Cell junction, synapse. In slow-twitch muscle, evenly

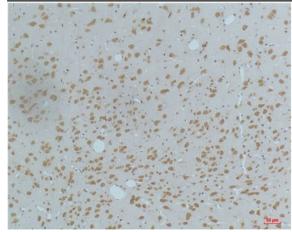
distributed between longitudinal SR and junctional SR.

**Expression:** Widely expressed. Expressed in adult and fetal brain. Expression is slightly lower

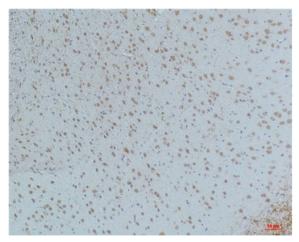
in fetal brain. Expressed in skeletal muscle.

## **Products Images**





Immunohistochemical analysis of paraffin-embedded Rat Brain Tissue using CaMKII $\beta$ /  $\gamma$ / $\delta$  (Phospho Thr287) (mAb diluted at 1:200.



Immunohistochemical analysis of paraffin-embedded Mouse Brain Tissue using CaMKII $\beta$ /  $\gamma$  / $\delta$  (Phospho Thr287) Mouse mAb diluted at 1:200.