

## CaMKIIo Polyclonal Antibody

Catalog No: YT5063

**Reactivity:** Human; Mouse; Rat

**Applications:** WB;IHC;IF;ELISA

Target: CaMKIIδ

**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;>>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

Gene Name: CAMK2D

**Protein Name:** Calcium/calmodulin-dependent protein kinase type II subunit delta

Human Gene Id: 817

**Human Swiss Prot** 

Q13557

No:

Mouse Gene ld: 108058

**Mouse Swiss Prot** 

Q6PHZ2

No:

Rat Gene ld: 24246

Rat Swiss Prot No: P15791

**Immunogen :** Synthesized peptide derived from the Internal region of human CaMKIIδ.

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Specificity: CaMKIIō Polyclonal Antibody detects endogenous levels of CaMKIIō protein.

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

Source: Polyclonal, Rabbit, IgG

**Dilution:** WB 1:500 - 1:2000. IHC: 1:100-300 ELISA: 1:40000.. IF 1:50-200

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

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

Observed Band: 56kD

**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 delta chain. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Distinct isoforms of this chain have different expression patterns.[provided by RefSeq, Nov 2008],

**Function :** 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., miscellaneous: Expression of CAMK2D is

significantly increased in patients suffering from dilated cardiomyopathy..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.,tissue

specificity:Expressed in cardiac muscle and skeletal mus

Subcellular Location:

Cell membrane, sarcolemma; Peripheral membrane protein; Cytoplasmic side. Sarcoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic

side.



## **Expression:**

Expressed in cardiac muscle and skeletal muscle. Isoform Delta 3, isoform Delta 2, isoform Delta 8 and isoform Delta 9 are expressed in cardiac muscle. Isoform Delta 11 is expressed in skeletal muscle.





Immunohistochemical analysis of paraffin-embedded mouse-brain, antibody was diluted at 1:100