

**Anti-CaMK2 delta Antibody**  
**Rabbit polyclonal antibody to CaMK2 delta**  
**Catalog # AP59497**

### Specification

#### Anti-CaMK2 delta Antibody - Product Information

Application	WB
Primary Accession	<a href="#">Q13557</a>
Reactivity	Human, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	56369

#### Anti-CaMK2 delta Antibody - Additional Information

##### Gene ID 817

##### Other Names

CAMKD; Calcium/calmodulin-dependent protein kinase type II subunit delta; CaM kinase II subunit delta; CaMK-II subunit delta

##### Target/Specificity

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human CaMK2 delta. The exact sequence is proprietary.

##### Dilution

WB~~WB (1/500 - 1/1000)

##### Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

##### Storage

Store at -20 °C. Stable for 12 months from date of receipt

#### Anti-CaMK2 delta Antibody - Protein Information

##### Name CAMK2D

##### Synonyms CAMKD

##### Function

Calcium/calmodulin-dependent protein kinase involved in the regulation of Ca(2+) homeostasis and excitation-contraction coupling (ECC) in heart by targeting ion channels, transporters and accessory proteins involved in Ca(2+) influx into the myocyte, Ca(2+) release from the sarcoplasmic reticulum (SR), SR Ca(2+) uptake and Na(+) and K(+) channel transport. Targets also transcription factors and signaling molecules to regulate heart function. In its activated form, is involved in the pathogenesis of dilated cardiomyopathy and heart failure. Contributes to cardiac

decompensation and heart failure by regulating SR Ca(2+) release via direct phosphorylation of RYR2 Ca(2+) channel on 'Ser-2808'. In the nucleus, phosphorylates the MEF2 repressor HDAC4, promoting its nuclear export and binding to 14-3-3 protein, and expression of MEF2 and genes involved in the hypertrophic program (PubMed:<a href="http://www.uniprot.org/citations/17179159" target="\_blank">17179159</a>). Is essential for left ventricular remodeling responses to myocardial infarction. In pathological myocardial remodeling acts downstream of the beta adrenergic receptor signaling cascade to regulate key proteins involved in ECC. Regulates Ca(2+) influx to myocytes by binding and phosphorylating the L-type Ca(2+) channel subunit beta-2 CACNB2. In addition to Ca(2+) channels, can target and regulate the cardiac sarcolemmal Na(+) channel Nav1.5/SCN5A and the K+ channel Kv4.3/KCND3, which contribute to arrhythmogenesis in heart failure. Phosphorylates phospholamban (PLN/PLB), an endogenous inhibitor of SERCA2A/ATP2A2, contributing to the enhancement of SR Ca(2+) uptake that may be important in frequency-dependent acceleration of relaxation (FDAR) and maintenance of contractile function during acidosis (PubMed:<a href="http://www.uniprot.org/citations/16690701" target="\_blank">16690701</a>). May participate in the modulation of skeletal muscle function in response to exercise, by regulating SR Ca(2+) transport through phosphorylation of PLN/PLB and triadin, a ryanodine receptor-coupling factor. In response to interferon-gamma (IFN-gamma) stimulation, catalyzes phosphorylation of STAT1, stimulating the JAK-STAT signaling pathway (By similarity).

#### **Cellular Location**

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

#### **Tissue Location**

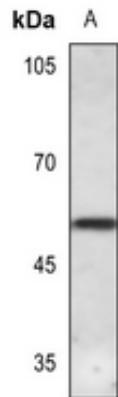
Expressed in cardiac muscle and skeletal muscle. Isoform Delta 3, isoform Delta 2, isoform Delta 8 and isoform Delta 9 are expressed in cardiac muscle. Isoform Delta 11 is expressed in skeletal muscle.

#### **Anti-CaMK2 delta Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **Anti-CaMK2 delta Antibody - Images**



Western blot analysis of CaMK2 delta expression in U2OS (A) whole cell lysates.

#### **Anti-CaMK2 delta Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human CaMK2 delta. The exact sequence is proprietary.