

**Anti-CaMK2 beta Antibody**  
Catalog # AP54064**Specification****Anti-CaMK2 beta Antibody - Product Information**

Application	<b>WB, IF</b>
Primary Accession	<a href="#">O13555</a>
Other Accession	<a href="#">O13554</a>
Reactivity	<b>Human, Mouse, Rat</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Calculated MW	<b>62607</b>

**Anti-CaMK2 beta Antibody - Additional Information****Gene ID** 818**Other Names**

CAMK2G; CAMK; CAMK-II; CAMKG; Calcium/calmodulin-dependent protein kinase type II subunit gamma; CaM kinase II subunit gamma; CaMK-II subunit gamma; CAMK2B; CAM2; CAMK2; CAMKB; Calcium/calmodulin-dependent protein kinase type II subunit beta; CaM kinase II subunit beta; CaMK-II subunit beta

**Target/Specificity**

Recognizes endogenous levels of CaMK2 beta protein.

**Dilution**

WB~~1/500 - 1/1000

IF~~1/50 - 1/200

**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 beta Antibody - Protein Information****Name** CAMK2G**Synonyms** CAMK, CAMK-II, CAMKG**Function**

Calcium/calmodulin-dependent protein kinase that functions autonomously after Ca(2+)/calmodulin-binding and autophosphorylation, and is involved in sarcoplasmic reticulum Ca(2+) transport in skeletal muscle and may function in dendritic spine and synapse formation and neuronal plasticity (PubMed:<a href="http://www.uniprot.org/citations/16690701">

target="\_blank">16690701</a>). In slow-twitch muscles, is involved in regulation of sarcoplasmic reticulum (SR) Ca(2+) transport and in fast-twitch muscle participates in the control of Ca(2+) release from the SR through phosphorylation of the ryanodine receptor-coupling factor triadin (PubMed:<a href="http://www.uniprot.org/citations/16690701" target="\_blank">16690701</a>). In the central nervous system, it is involved in the regulation of neurite formation and arborization (PubMed:<a href="http://www.uniprot.org/citations/30184290" target="\_blank">30184290</a>). It may participate in the promotion of dendritic spine and synapse formation and maintenance of synaptic plasticity which enables long-term potentiation (LTP) and hippocampus-dependent learning. In response to interferon-gamma (IFN-gamma) stimulation, catalyzes phosphorylation of STAT1, stimulating the JAK-STAT signaling pathway (By similarity).

#### Cellular Location

Sarcoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side

#### Tissue Location

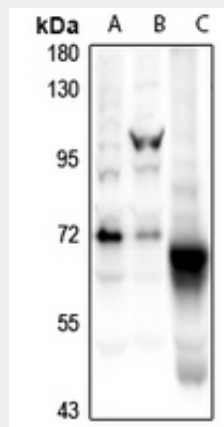
Expressed in skeletal muscle.

### Anti-CaMK2 beta Antibody - Protocols

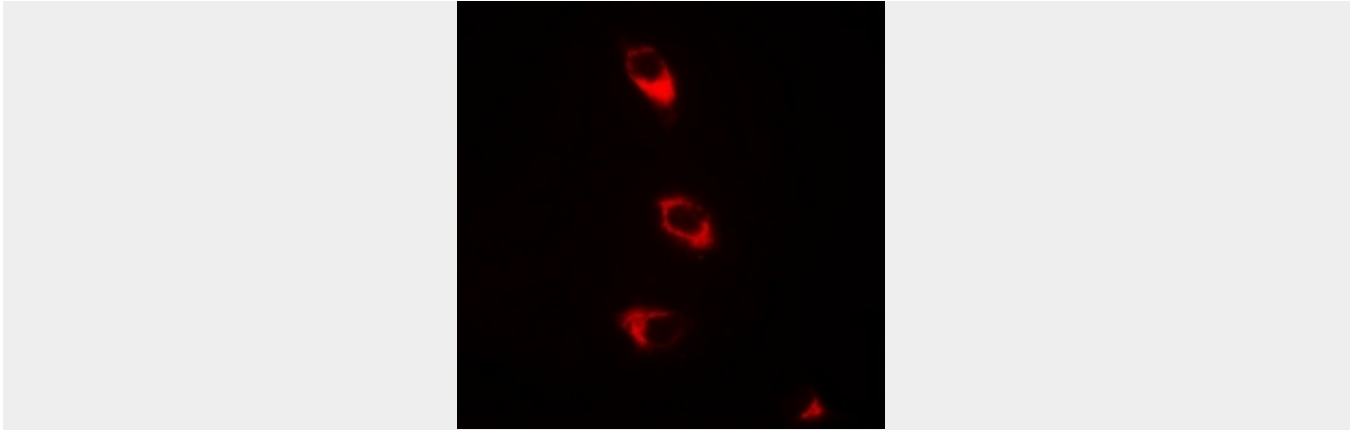
Provided below are standard protocols that you may find useful for product applications.

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

### Anti-CaMK2 beta Antibody - Images



Western blot analysis of CaMK2 beta expression in Myla2059 (A), A2780 (B), rat brain (C) whole cell lysates.



Immunofluorescent analysis of CaMK2 beta staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a Alexa Fluor 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

#### **Anti-CaMK2 beta Antibody - Background**

Rabbit polyclonal antibody to CaMK2 beta