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Anti-CaMK2 beta Antibody
Catalog # AP54064

Specification

Anti-CaMK2 beta Antibody - Product Information

Application	**WB, IF**
Primary Accession	Q13555
Other Accession	Q13554
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**62607**

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). 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:16690701). In the central nervous system, it is involved in the regulation of neurite formation and arborization (PubMed:30184290). 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

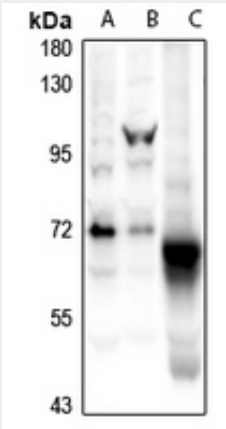
Tissue Location
Expressed in skeletal muscle.

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 Cytomety
- 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.

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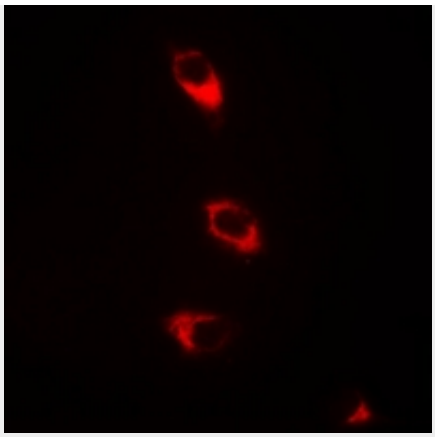

Immunofluorescent analysis of CaMK2 beta staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified 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