

Anti-CaMK2 beta Antibody

Catalog # AP54064

Product Information

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

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

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: 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).

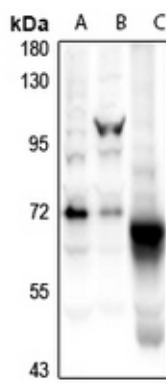
Cellular Location Sarcoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side

Tissue Location Expressed in skeletal muscle.

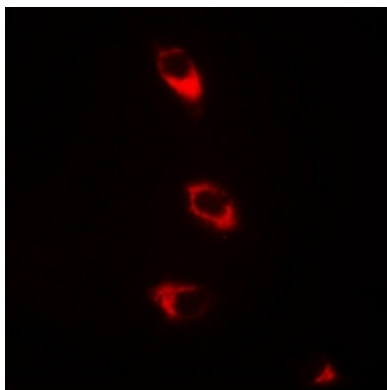
Background

Rabbit polyclonal antibody to CaMK2 beta

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.

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