

# CAMK2G Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO1916a

## Product Information

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<b>Application</b>	WB, E
<b>Primary Accession</b>	<a href="#">Q13555</a>
<b>Reactivity</b>	Human
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone Names</b>	6A4A10
<b>Isotype</b>	IgG1
<b>Calculated MW</b>	62607
<b>Description</b>	The product of this gene is one of the four subunits of an enzyme which 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 gamma chain. Many alternatively spliced transcripts encoding different isoforms have been described but the full-length nature of all the variants has not been determined.
<b>Immunogen</b>	Purified recombinant fragment of human CAMK2G (AA: 322-481) expressed in E. Coli.
<b>Formulation</b>	Purified antibody in PBS with 0.05% sodium azide.

## Additional Information

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<b>Gene ID</b>	818
<b>Other Names</b>	Calcium/calmodulin-dependent protein kinase type II subunit gamma, CaM kinase II subunit gamma, CaMK-II subunit gamma, 2.7.11.17, CAMK2G, CAMK, CAMK-II, CAMKG
<b>Dilution</b>	WB~~1/500 - 1/2000 E~~1/10000
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	CAMK2G Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	CAMK2G
<b>Synonyms</b>	CAMK, CAMK-II, CAMKG
<b>Function</b>	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="#">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="#">16690701</a> ). In the central nervous system, it is involved in the regulation of neurite formation and arborization (PubMed: <a href="#">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).
<b>Cellular Location</b>	Sarcoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side
<b>Tissue Location</b>	Expressed in skeletal muscle.

## Background

This gene encodes a member of the intermediate filament protein family and is expressed primarily in nerve cells. ; ;

## References

1. Blood. 2012 Dec 6;120(24):4829-39.
2. Diabetologia. 2002 Apr;45(4):580-3.

## Images

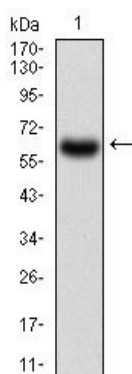
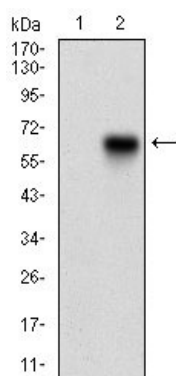


Figure 1: Western blot analysis using CAMK2G mAb against human CAMK2G (AA: 322-481) recombinant protein. (Expected MW is 44 kDa)

Figure 2: Western blot analysis using CAMK2G mAb against HEK293 (1) and CAMK2G (AA: 322-481)-hIgGFc transfected HEK293 (2) cell lysate.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.