

CAMK2G (CAMK2 gamma) Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP7208a**Specification**

CAMK2G (CAMK2 gamma) Antibody (C-term) Blocking peptide - Product Information

Primary Accession [O13555](#)
Other Accession [O15378](#)

CAMK2G (CAMK2 gamma) Antibody (C-term) Blocking peptide - Additional Information

Gene ID 818

Other Names

Calcium/calmodulin-dependent protein kinase type II subunit gamma, CaM kinase II subunit gamma, CaMK-II subunit gamma, CAMK2G, CAMK, CAMK-II, CAMKG

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP7208a](/product/products/AP7208a) was selected from the C-term region of human CAMK2 delta-like . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CAMK2G (CAMK2 gamma) Antibody (C-term) Blocking peptide - 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:<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:<http://www.uniprot.org/citations/16690701> target="_blank">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.

CAMK2G (CAMK2 gamma) Antibody (C-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

CAMK2G (CAMK2 gamma) Antibody (C-term) Blocking peptide - Images**CAMK2G (CAMK2 gamma) Antibody (C-term) Blocking peptide - Background**

CaM-kinase II (CAMK2) is a prominent Ser/Thr protein kinase in the central nervous system that may function in long-term potentiation and neurotransmitter release. Likely autophosphorylation of Thr-286 allows the kinase to switch from a calmodulin-dependent to a calmodulin-independent state. CAMK2 is composed of four different chains: alpha, beta, gamma, and delta. The different isoforms assemble into homo- or heteromultimeric holoenzymes composed of 8 to 12 subunits.

CAMK2G (CAMK2 gamma) Antibody (C-term) Blocking peptide - References

Breen, M.A., et al., Biochem. Biophys. Res. Commun. 236(2):473-478 (1997). Tombes, R.M., et al., Biochim. Biophys. Acta 1355(3):281-292 (1997).