

# Anti-CaMK2 gamma Antibody

Catalog # AP95716

## Product Information

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|-------------------|------------------------|
| Application       | WB, IHC, FC            |
| Primary Accession | <a href="#">Q13555</a> |
| Reactivity        | Human, Rat             |
| Host              | Mouse                  |
| Clonality         | Monoclonal             |
| Calculated MW     | 62607                  |

## Additional Information

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|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Gene ID            | 818                                                                                                                                         |
| Other Names        | CAMK; CAMK-II; CAMKG; Calcium/calmodulin-dependent protein kinase type II subunit gamma; CaM kinase II subunit gamma; CaMK-II subunit gamma |
| Target/Specificity | Recombinant fusion protein of human CaMK2 gamma expressed in E. Coli                                                                        |
| Dilution           | WB~~WB (1/500 - 1/1000) IHC~~1:100~500 FC~~FC (1/100 - 1/200)                                                                               |
| Format             | Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.                                                                    |
| Storage            | Store at -20 °C.Stable for 12 months from date of receipt                                                                                   |

## Protein Information

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| 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="#">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). |

**Cellular Location**

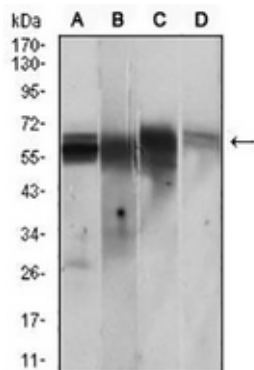
Sarcoplasmic reticulum membrane; Peripheral membrane protein;  
Cytoplasmic side

**Tissue Location**

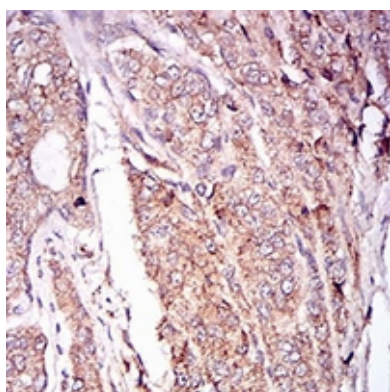
Expressed in skeletal muscle.

**Images**

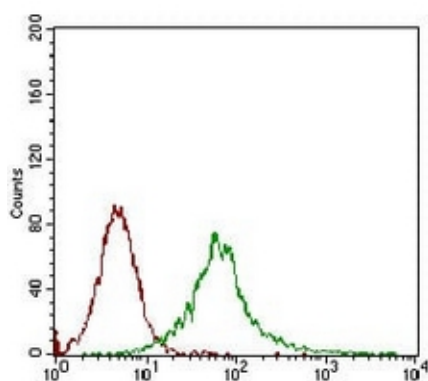
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Western blot analysis of CaMK2 gamma expression in PC12 (A), Jurkat (B), T47D (C), HepG2 (D) whole cell lysates. (Predicted band size: 63 kD; Observed band size: 55-65 kD)



Immunohistochemical analysis of CaMK2 gamma staining in human prostate cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Flow cytometric analysis of Jurkat cells using Anti-CaMK2 gamma Antibody (green) and negative control (red).

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