

**CAMKK2 Antibody**  
**Mouse Monoclonal Antibody (Mab)**  
**Catalog # AM1907b****Specification**

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**CAMKK2 Antibody - Product Information**

Application	WB,E
Primary Accession	<a href="#">Q96RR4</a>
Other Accession	<a href="#">NP_705719.2</a> , <a href="#">NP_757364.1</a>
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgM,k
Calculated MW	64746

**CAMKK2 Antibody - Additional Information****Gene ID** 10645**Other Names**

Calcium/calmodulin-dependent protein kinase kinase 2, CaM-KK 2, CaM-kinase kinase 2, CaMKK 2, Calcium/calmodulin-dependent protein kinase kinase beta, CaM-KK beta, CaM-kinase kinase beta, CaMKK beta, CAMKK2, CAMKKB, KIAA0787

**Target/Specificity**

This CAMKK2 monoclonal antibody is generated from mouse immunized with CAMKK2 recombinant protein.

**Dilution**

WB~~1:500~1000

E~~Use at an assay dependent concentration.

**Format**

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Euglobin precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

CAMKK2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**CAMKK2 Antibody - Protein Information****Name** CAMKK2**Synonyms** CAMKKB, KIAA0787

**Function** Calcium/calmodulin-dependent protein kinase belonging to a proposed calcium-triggered signaling cascade involved in a number of cellular processes. Isoform 1, isoform 2 and isoform 3 phosphorylate CAMK1 and CAMK4. Isoform 3 phosphorylates CAMK1D. Isoform 4, isoform 5 and isoform 6 lacking part of the calmodulin-binding domain are inactive. Efficiently phosphorylates 5'-AMP-activated protein kinase (AMPK) trimer, including that consisting of PRKAA1, PRKAB1 and PRKAG1. This phosphorylation is stimulated in response to  $\text{Ca}^{2+}$  signals (By similarity). Seems to be involved in hippocampal activation of CREB1 (By similarity). May play a role in neurite growth. Isoform 3 may promote neurite elongation, while isoform 1 may promote neurite branching.

#### Cellular Location

Nucleus. Cytoplasm. Cell projection, neuron projection. Note=Predominantly nuclear in unstimulated cells, relocalizes into cytoplasm and neurites after forskolin induction.

#### Tissue Location

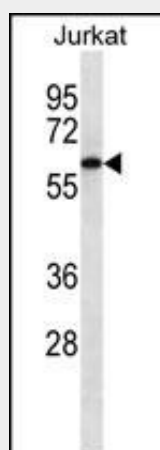
Ubiquitously expressed with higher levels in the brain. Intermediate levels are detected in spleen, prostate, thyroid and leukocytes. The lowest level is in lung

### CAMKK2 Antibody - Protocols

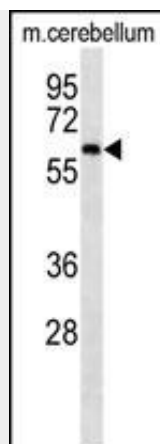
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### CAMKK2 Antibody - Images



CAMKK2 (Cat. #AM1907b) western blot analysis in Jurkat cell line lysates (35 $\mu$ g/lane). This demonstrates the CAMKK2 antibody detected the CAMKK2 protein (arrow).



CAMKK2 (Cat. #AM1907b) western blot analysis in mouse cerebellum tissue lysates (35µg/lane). This demonstrates the CAMKK2 antibody detected the CAMKK2 protein (arrow).

### **CAMKK2 Antibody - Background**

The product of this gene belongs to the Serine/Threonine protein kinase family, and to the Ca(2+)/calmodulin-dependent protein kinase subfamily. This protein plays a role in the calcium/calmodulin-dependent (CaM) kinase cascade by phosphorylating the downstream kinases CaMK1 and CaMK4. Seven transcript variants encoding six distinct isoforms have been identified for this gene. Additional splice variants have been described but their full-length nature has not been determined. The identified isoforms exhibit a distinct ability to undergo autophosphorylation and to phosphorylate the downstream kinases.

### **CAMKK2 Antibody - References**

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :  
Fogarty, S., et al. Biochem. J. 426(1):109-118(2010)  
Kimura, T., et al. J. Biol. Chem. 285(7):4387-4397(2010)  
Schmitt, J.M., et al. Mol. Cell. Biochem. 335 (1-2), 155-171 (2010) :  
Junker, J.P., et al. Proc. Natl. Acad. Sci. U.S.A. 106(34):14361-14366(2009)