

**CAMKK2 Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP7117b****Specification**

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**CAMKK2 Antibody (C-term) - Product Information**

Application	<b>WB, IHC-P,E</b>
Primary Accession	<a href="#">O96RR4</a>
Other Accession	<a href="#">O88831</a> , <a href="#">O8C078</a>
Reactivity	<b>Human</b>
Predicted	<b>Mouse, Rat</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>
Antigen Region	<b>483-512</b>

**CAMKK2 Antibody (C-term) - 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 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 483-512 amino acids from the C-terminal region of human CAMKK2.

**Dilution**

WB~~1:1000

IHC-P~~1:50

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) 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 (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**CAMKK2 Antibody (C-term) - 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 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 promoter 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

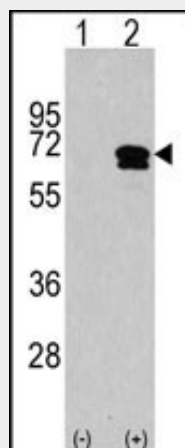
Ubiquitously expressed with higher levels in the brain. Intermediate levels are detected in spleen, prostate, thyroid and leukocytes. The lowest level is in lung

## CAMKK2 Antibody (C-term) - 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 (C-term) - Images



Western blot analysis of CAMKK2 (arrow) using rabbit polyclonal CAMKK2 Antibody (C-term)(Cat.#AP7117b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the CAMKK2 gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human brain tissue reacted with CAMKK2 antibody (C-term)(Cat.#AP711b), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

#### **CAMKK2 Antibody (C-term) - Background**

CAMKK2 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. 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. CAMKK2 appears to be involved in hippocampal activation of CREB1.

#### **CAMKK2 Antibody (C-term) - References**

Hsu, L.S., et al., J. Biol. Chem. 276(33):31113-31123 (2001).  
Hsu, L.S., et al., J. Biomed. Sci. 5(2):141-149 (1998).  
Anderson, K.A., et al., J. Biol. Chem. 273(48):31880-31889 (1998).  
Ishikawa, Y., et al., FEBS Lett. 550 (1-3), 57-63 (2000).

#### **CAMKK2 Antibody (C-term) - Citations**

- [Ca<sup>2+</sup>/Calmodulin-Dependent Protein Kinase Kinases \(CaMKKs\) Effects on AMP-Activated Protein Kinase \(AMPK\) Regulation of Chicken Sperm Functions.](#)
- [Cyclic AMP Mimics the Anti-ageing Effects of Calorie Restriction by Up-Regulating Sirtuin.](#)
- [Differential gene expression in the bovine corpus luteum during transition from early phase to midphase and its potential role in acquisition of luteolytic sensitivity to prostaglandin F<sub>2</sub> alpha.](#)