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# CAMKK2 Antibody (C-term)

**Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP7117b**

## Specification

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

| | |
|---|---|
| Application | **WB, IHC-P,E** |
| Primary Accession | Q96RR4 |
| Other Accession | O88831, Q8C078 |
| Reactivity | **Human** |
| Predicted | **Mouse, Rat** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Antigen Region | **483-512** |

### 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

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**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.

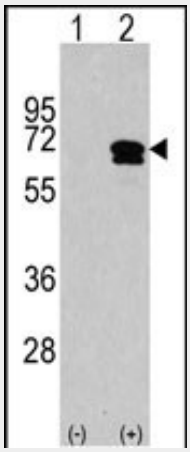
**Tissue Location**
Ubiquitously expressed with higher levels in the brain. Intermediate levels are detected in spleen, prostate, thyroid and leukocytes. The lowest level is in lung

## 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 Cytomety
- 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).

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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**

- Ca2+/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 F2 alpha.