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CAMKK2 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP7117a

Specification

CAMKK2 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q96RR4

CAMKK2 Antibody (N-term) Blocking Peptide - 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
The synthetic peptide sequence used to generate the antibody AP7117a was selected from the N-term region of human CAMKK2. 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.

CAMKK2 Antibody (N-term) Blocking Peptide - 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 (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

CAMKK2 Antibody (N-term) Blocking Peptide - Images

CAMKK2 Antibody (N-term) Blocking Peptide - 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 (N-term) Blocking Peptide - 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 (2003) (): ().