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CAMKK2 Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AM1907b

Product Information

Application	WB, E
Primary Accession	Q96RR4
Other Accession	NP_705719.2, NP_757364.1
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine, Rabbit, Chicken
Host	Mouse
Clonality	Monoclonal
Isotype	IgM,k
Clone Names	239CT7.5.3
Calculated MW	64746

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 polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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 is for research use only and not for use in diagnostic or therapeutic procedures.

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

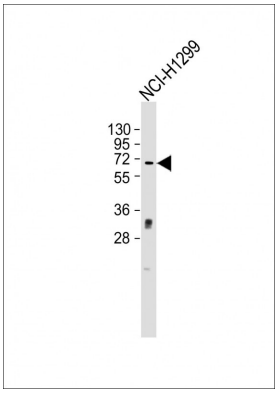
Background

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.

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)

Images



Anti-CAMKK2 Antibody at 1:2000 dilution + NCI-H1299 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Mouse IgM, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 65 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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