

# Mouse Camk2a Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP14780b

## Product Information

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<b>Application</b>	WB, E
<b>Primary Accession</b>	<a href="#">P11798</a>
<b>Other Accession</b>	<a href="#">P11275</a> , <a href="#">Q9UQM7</a> , <a href="#">NP_803126.1</a> , <a href="#">NP_033922.1</a>
<b>Reactivity</b>	Mouse
<b>Predicted</b>	Human, Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB35395
<b>Calculated MW</b>	54115
<b>Antigen Region</b>	322-349

## Additional Information

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<b>Gene ID</b>	12322
<b>Other Names</b>	Calcium/calmodulin-dependent protein kinase type II subunit alpha, CaM kinase II subunit alpha, CaMK-II subunit alpha, Camk2a
<b>Target/Specificity</b>	This Mouse Camk2a antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 322-349 amino acids from the C-terminal region of mouse Camk2a.
<b>Dilution</b>	WB~~1:1000 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
<b>Storage</b>	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.
<b>Precautions</b>	Mouse Camk2a Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	Camk2a
<b>Function</b>	Calcium/calmodulin-dependent protein kinase that functions autonomously after Ca(2+)/calmodulin-binding and autophosphorylation, and is involved in

various processes, such as synaptic plasticity, neurotransmitter release and long-term potentiation (By similarity). Member of the NMDAR signaling complex in excitatory synapses, it regulates NMDAR-dependent potentiation of the AMPAR and therefore excitatory synaptic transmission (By similarity). Regulates dendritic spine development (By similarity). Also regulates the migration of developing neurons (By similarity). Phosphorylates the transcription factor FOXO3 to activate its transcriptional activity (PubMed:[23805378](#)). Phosphorylates the transcription factor ETS1 in response to calcium signaling, thereby decreasing ETS1 affinity for DNA (PubMed:[15994560](#)). In response to interferon-gamma (IFN-gamma) stimulation, catalyzes phosphorylation of STAT1, stimulating the JAK- STAT signaling pathway (By similarity). In response to interferon-beta (IFN-beta) stimulation, stimulates the JAK-STAT signaling pathway (By similarity). Acts as a negative regulator of 2-arachidonoylglycerol (2- AG)-mediated synaptic signaling via modulation of DAGLA activity (PubMed:[23502535](#)).

**Cellular Location** [Isoform Alpha KAP]: Cytoplasm

**Tissue Location** [Isoform Alpha CaMKII]: Expressed in brain.

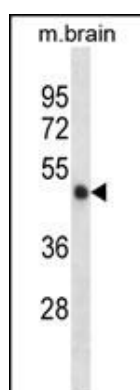
## Background

CaM-kinase II (CAMK2) is a prominent kinase in the central nervous system that may function in long-term potentiation and neurotransmitter release. Member of the NMDAR signaling complex in excitatory synapses it may regulate NMDAR-dependent potentiation of the AMPAR and synaptic plasticity (By similarity).

## References

Hund, T.J., et al. J. Clin. Invest. 120(10):3508-3519(2010)  
Xu, L., et al. Circ. Res. 107(3):398-407(2010)  
Guetg, N., et al. Proc. Natl. Acad. Sci. U.S.A. 107(31):13924-13929(2010)  
Blaich, A., et al. Proc. Natl. Acad. Sci. U.S.A. 107(22):10285-10289(2010)  
Jenkins, M.A., et al. J. Neurosci. 30(15):5125-5135(2010)

## Images



Mouse Camk2a Antibody (C-term) (Cat. #AP14780b) western blot analysis in mouse brain tissue lysates (35ug/lane). This demonstrates the Camk2a antibody detected the Camk2a protein (arrow).

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