

Mouse Camk2a Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14780b

Specification

Mouse Camk2a Antibody (C-term) - Product Information

Application	WB,E
Primary Accession	P11798
Other Accession	P11275 , Q9UQM7 , NP_803126.1 , NP_033922.1
Reactivity	Mouse
Predicted	Human, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	54115
Antigen Region	322-349

Mouse Camk2a Antibody (C-term) - Additional Information

Gene ID 12322

Other Names

Calcium/calmodulin-dependent protein kinase type II subunit alpha, CaM kinase II subunit alpha, CaMK-II subunit alpha, Camk2a

Target/Specificity

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.

Dilution

WB~~1:1000

Format

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.

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

Mouse Camk2a Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse Camk2a Antibody (C-term) - Protein Information

Name Camk2a

Function Calcium/calmodulin-dependent protein kinase that functions autonomously after $\text{Ca}(2+)$ /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

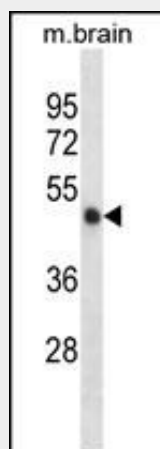
Tissue Location

[Isoform Alpha CaMKII]: Expressed in brain.

Mouse Camk2a 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](#)

Mouse Camk2a Antibody (C-term) - 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).

Mouse Camk2a Antibody (C-term) - 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).

Mouse Camk2a Antibody (C-term) - 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)
Guettg, 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)