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RAT Camk2a Antibody (ascites)

Mouse Monoclonal Antibody (Mab)
Catalog # AM2002a

Specification

RAT Camk2a Antibody (ascites) - Product Information

Application	**WB,E**
Primary Accession	P11275
Other Accession	P11798, NP_037052.1
Reactivity	**Rat**
Predicted	**Mouse**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgM**
Calculated MW	**54115**

RAT Camk2a Antibody (ascites) - Additional Information

Gene ID 25400

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

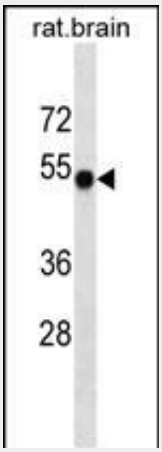
Target/Specificity
Purified His-tagged Camk2a protein(Fragment) was used to produced this monoclonal antibody.

Dilution
WB~~1:1000~8000

Format
Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.

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
RAT Camk2a Antibody (ascites) is for research use only and not for use in



RAT Camk2a Antibody (Cat. #AM2002a) western blot analysis in rat brain tissue lysates (35µg/lane).This demonstrates the Camk2a antibody detected the Camk2a protein (arrow).

RAT Camk2a Antibody (ascites) - 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).

RAT Camk2a Antibody (ascites) - 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)

diagnostic or therapeutic procedures.

RAT Camk2a Antibody (ascites) - Protein Information

Name Camk2a

Function
Calcium/calmodulin-dependent protein kinase that functions autonomously after Ca(2+)/calmodulin-binding and autophosphorylation, and is involved in synaptic plasticity, neurotransmitter release and long-term potentiation. Member of the NMDAR signaling complex in excitatory synapses, it regulates NMDAR-dependent potentiation of the AMPAR and therefore excitatory synaptic transmission (PubMed:15312654). Regulates dendritic spine development. Also regulates the migration of developing neurons. Phosphorylates the transcription factor FOXO3 to activate its transcriptional activity (By similarity). Acts as a negative regulator of 2-arachidonoylglycerol (2-AG)-mediated synaptic signaling via modulation of DAGLA activity (By similarity).

Cellular Location
Cell junction, synapse. Cell junction, synapse, postsynaptic density. Cell projection, dendritic spine {ECO:0000250|UniProtKB:Q9UQM7}. Cell projection, dendrite {ECO:0000250|UniProtKB:Q9UQM7}. Note=Postsynaptic lipid rafts

RAT Camk2a Antibody (ascites) - 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