CaMKII Mouse mAb

Catalog No.: A30085

Basic Information

Observed MW
50 kDa

Calculated MW
54 kDa

Category
Monoclonal Antibodies

Applications
WB, IF-F, IHC-P, ELISA

Cross Reactivity
Human, Mouse, Rat

Clone No.
AMC0969

Background

The product of this gene belongs to the serine/threonine protein kinases family, and to the Ca(2+)/calmodulin-dependent protein kinases subfamily. Calcium signaling is crucial for several aspects of plasticity at glutamatergic synapses. This calcium calmodulin-dependent protein kinase is composed of four different chains: alpha, beta, gamma, and delta. The alpha chain encoded by this gene is required for hippocampal long-term potentiation (LTP) and spatial learning. In addition to its calcium-calmodulin (CaM)-dependent activity, this protein can undergo autophosphorylation, resulting in CaM-independent activity. Several transcript variants encoding distinct isoforms have been identified for this gene.

Recommended Dilutions

WB	1:100000 - 1:500000
IF-F	1:400 - 1:2000
IHC-P	1:1000 - 1:4000
ELISA	Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements. For high-ratio antibody dilutions (≥1:10000)，a sequential dilution method is strongly recommended to ensure measurement accuracy.

Immunogen Information

Gene ID
815

Swiss-Prot
Q9UQM7

Immunogen
This information is considered to be commercially sensitive.

Synonyms
CAMKA; MRD53; MRT63; CaMKIIalpha; CaMKIINalpha; CAM2; CAMK2; CAMKB; MRD54; CaMKIIbeta; CAMKD; CAMK; CAMKG; MRD59; CAMK-II; Phospho-Camk2-T286

Contact

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Product Information

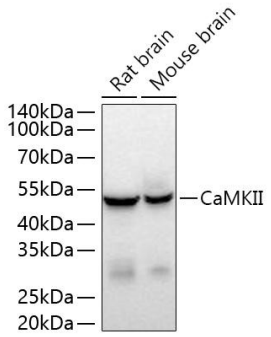
Source
Mouse

Isotype
IgG

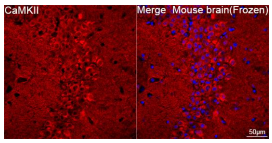
Purity
Affinity purification

Storage
Store at -20℃. Avoid freeze / thaw cycles.
Buffer: PBS with 0.09% sodium azide,0.05% BSA,50% glycerol,pH7.3

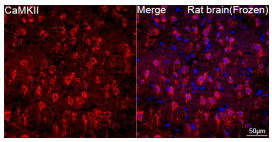
Validation Data



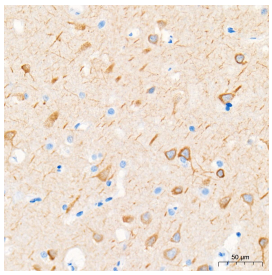
Western blot analysis of various lysates using CaMKII Mouse mAb (A30085) at 1: 500000 dilution incubated overnight at 4°C.
Secondary antibody: HRP-conjugated Goat anti-Mouse IgG (H+L) (AS003) at 1: 10000 dilution.
Lysates/proteins: 25 µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 60 s.



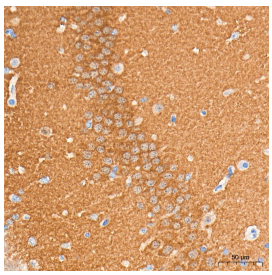
Confocal imaging of frozen sections of Mouse brain tissue using CaMKII Mouse mAb (A30085, dilution 1:1000) followed by a further incubation with Cy3-conjugated Goat anti-Mouse IgG (H+L) (AS008, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Microwave antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IF staining. Objective: 40x.



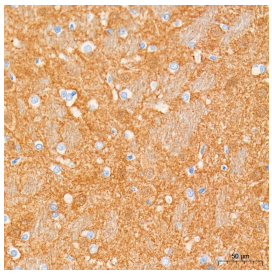
Confocal imaging of frozen sections of Rat brain tissue using CaMKII Mouse mAb (A30085, dilution 1:1000) followed by a further incubation with Cy3-conjugated Goat anti-Mouse IgG (H+L) (AS008, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Microwave antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IF staining. Objective: 40x.



Immunohistochemistry analysis of paraffin-embedded Human brain tissue using CaMKII Mouse mAb (A30085) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Mouse brain tissue using CaMKII Mouse mAb (A30085) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Rat brain tissue using CaMKII Mouse mAb (A30085) at a dilution of 1:2000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.