

Anti-CaMKII beta Mouse mAb

Purified Recombinant Mouse Monoclonal Antibody

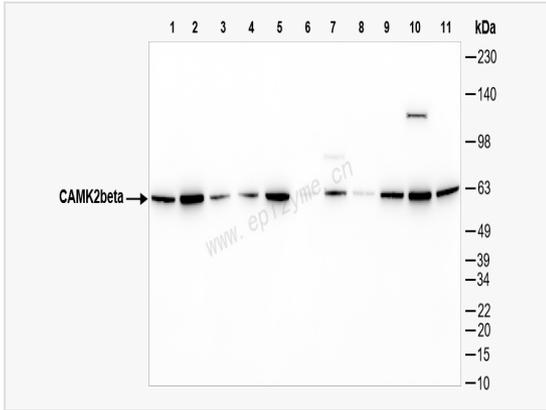
Catalog # M014819

Product Information

Application	IF (Cell)/ICC, WB, IHC-P/IF (Tissue-P), ELISA
Reactivity	Human, Mouse (Cell), Rat
Dilution	WB 1:1,000~1:2,000; IHC-P 1:100~1:300; IF 1:100~1:200
Host	Mouse
Clonality	Monoclonal
Clone No.	80R01S35
Isotype	IgG
Label	Unconjugated
Immunogen	Recombinant protein of human CaMKII beta
Format	Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-CaMKII beta Mouse mAb [80R01S35] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Synonyms	Calcium/calmodulin dependent protein kinase (CaM kinase) II beta, Calcium/calmodulin dependent protein kinase II beta, Calcium/calmodulin dependent protein kinase IIB, Calcium/calmodulin dependent protein kinase type II beta chain, calcium/calmodulin-dependent protein kinase II beta, Calcium/calmodulin-dependent protein kinase type II subunit beta, CAM 2, CaM kinase II beta chain, CaM kinase II beta subunit, CaM kinase II subunit beta, CaM-kinase II beta chain, CAM2, CAMK 2, CAMK 2B, CaMK II beta subunit, CaMK II subunit beta, CaMK-II subunit beta, CAMK2, CaMK2 beta, Camk2b, CAMKB, CaMKII beta subunit, CaMKIIB, KCC2B_HUMAN, MGC29528, Proline rich calmodulin dependent protein kinase, proline rich calmodulin-dependent protein kinase.
Calculated MW	Calculated MW: 73 kDa; Observed MW: 60 kDa
Uniprot ID	Q13554
Gene ID	816
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. Two transcript variants encoding distinct isoforms have been identified for this gene. [provided by RefSeq, Nov 2008]
Tissue Location	Widely expressed. Expressed in adult and fetal brain. Expression is slightly lower in fetal brain.



Western Blot - Anti-CaMKII beta Mouse mAb [80R01S35]

All lanes: M014819 at 1:2,000 dilution

Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Lane 2: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates

Lane 3: HCT116 (Human colorectal carcinoma epithelial cell) whole cell lysates

Lane 4: U2OS (Human osteosarcoma epithelial cell) whole cell lysates

Lane 5: Caco2 (Human colorectal adenocarcinoma epithelial cell) whole cell lysates

Lane 6: Jurkat (Human T lymphocytic leukemia cell) whole cell lysates

Lane 7: 293T (Human embryonic kidney cell) whole cell lysates

Lane 8: SCC-9 (Human tongue squamous carcinoma epithelial cell) whole cell lysates

Lane 9: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates

Lane 10: Raw264.7 (Mouse mononuclear macrophage leukemia cell) whole cell lysates

Lane 11: PC-12 (Rat adrenal pheochromocytoma epithelial cell) whole cell lysates

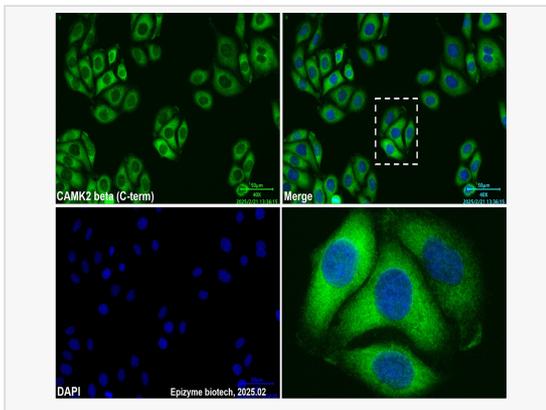
Lysates/proteins at 10 µg per lane.

Secondary antibody: Goat Anti-Mouse IgG (H+L), HRP Conjugated (Cat. No. LF101) at 1:5,000 dilution

Predicted band size: 73 kDa

Observed band size: 60 kDa

Developed using the ECL technique (Cat. No. SQ201).



Immunofluorescence - Anti-CaMKII beta Mouse mAb [80R01S35]

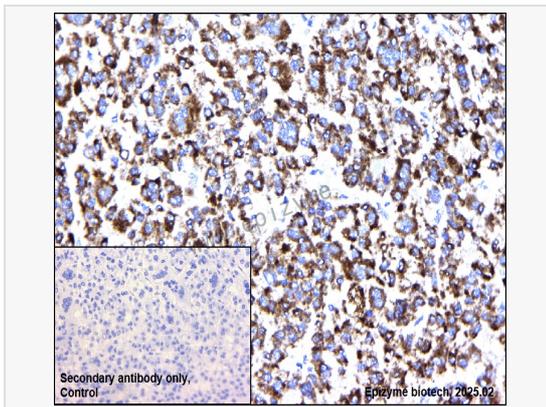
Sample: HeLa cells

The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.

Primary antibody: M014819 at 1:100 dilution

Secondary antibody: Goat anti-Mouse (488) at 1:1,000 dilution (shown in green)

Nuclei were stained with DAPI (shown in blue).



Immunohistochemistry - Anti-CaMKII beta Mouse mAb [80R01S35]

Sample: Paraformaldehyde-fixed, paraffin embedded human hepatoma tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: M014819 at 1:300 dilution

Secondary antibody: Goat Anti-Mouse IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.