

Rabbit CaMKII Polyclonal Antibody | anti-CaMKII antibody

Phospho-CaMKII (Ser235) Antibody

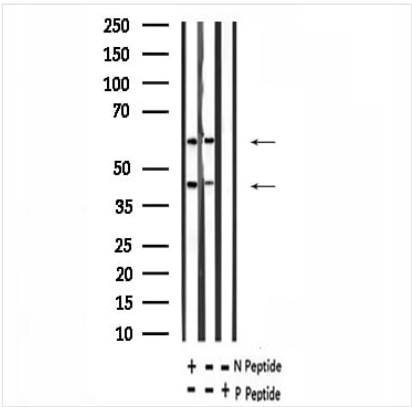
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA328507	Rabbit	Human, Mouse, RatPredicted: Pig, Bovine, Horse, Sheep, Rabbit, Xenopus	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

CaMKII; Polyclonal Antibody; Phospho-CaMKII (Ser235) Antibody; Calcium/calmodulin-dependent protein kinase type II subunit alpha; Calcium/calmodulin-dependent protein kinase type II subunit delta; CaM kinase II subunit alpha; CaM kinase II subunit delta; CAM2; CaMK-II subunit alpha; CaMK-II subunit delta; CAMK2A; CAMK2B; CAMKA; CAMKB; CAMKD; CaMKII alpha; KIAA0968; anti-CaMKII antibody

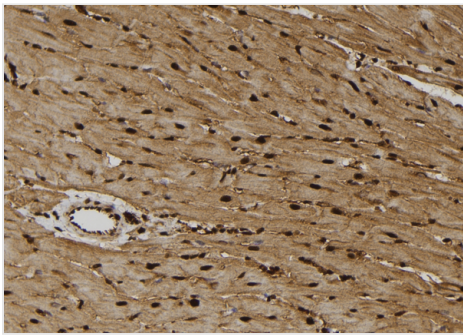
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted: Pig, Bovine, Horse, Sheep, Rabbit, Xenopus
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-CaMKII (Ser235) Antibody detects endogenous levels of CaMKII only when phosphorylated at Ser235.
Purity/Purification	Purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.
Form/Format	Liquid; Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	666
Applicable Applications for anti-CaMKII antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human CaMKII around the phosphorylation site of Ser235.
Tissue Specificity	Widely expressed. Expressed in adult and fetal brain. Expression is slightly lower in fetal brain. Expressed in skeletal muscle.
Subcellular Location	Cytoskeleton
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



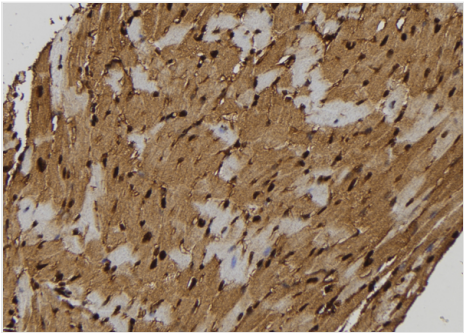
WB (Western Blot)

Western blot analysis of extracts of Rat brain? tissue sample,using Phospho-CaMKII (Ser235) Antibody.



IHC (Immunohistochemistry)

At 1/100 staining rat heart tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary



IHC (Immunohistochemistry)

At 1/100 staining mouse heart tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary

ADDITIONAL INFORMATION

Related Product Information for anti-CaMKII antibody

Description: Calcium/calmodulin-dependent protein kinase that functions autonomously after Ca2+/calmodulin-binding and autophosphorylation, and is involved in dendritic spine and synapse formation, neuronal plasticity and regulation of sarcoplasmic reticulum Ca2+ transport in skeletal muscle. In neurons, plays an essential structural role in the reorganization of the actin cytoskeleton during plasticity by binding and bundling actin filaments in a kinase-independent manner. This structural function is required for correct targeting of CaMK2A, which acts downstream of NMDAR to promote dendritic spine and synapse formation and maintain synaptic plasticity which enables long-term potentiation (LTP) and hippocampus-dependent learning. In developing hippocampal neurons, promotes arborization of the dendritic tree and in mature neurons, promotes dendritic remodeling. Participates in the modulation of skeletal muscle function in response to exercise. In slow-twitch muscles, is involved in regulation of sarcoplasmic reticulum (SR) Ca2+ transport and in fast-twitch muscle participates in the control of Ca2+ release from the SR through phosphorylation of triadin, a ryanodine receptor-coupling factor, and phospholamban (PLN/PLB), an endogenous inhibitor of SERCA2A/ATP2A2.

Post Translational Modifications: Autophosphorylation of Thr-287 following activation by Ca2+/calmodulin. Phosphorylation of Thr-287 locks the kinase into an activated state.

Subunit Structure: CAMK2 is composed of 4 different chains: alpha (CAMK2A), beta (CAMK2B), gamma (CAMK2G), and delta (CAMK2D). The different isoforms assemble into homo- or heteromultimeric holoenzymes composed of 12 subunits with two hexameric rings stacked one on top of the other (PubMed:14722083, Ref. 19). Interacts with SYNGAP1 and CAMK2N2 (By similarity). Interacts with MPDZ (PubMed:15312654). Interacts with FOXO3 (By similarity). Interacts (when in a kinase inactive state not associated with calmodulin) with ARC; leading to target ARC to inactive synapses (By similarity).

Similarity: The CAMK2 protein kinases contain a unique C-terminal subunit association domain responsible for oligomerization. Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. CaMK subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	334302890
NCBI GeneID	816
UniProt Accession #	Q13554
Molecular Weight	Observed: 45; 60 kDa Predicted: 73 kDa
NCBI Official Full Name	Calcium/calmodulin-dependent protein kinase type II subunit beta
NCBI Official Synonym Full Names	calcium/calmodulin dependent protein kinase II beta
NCBI Official Symbol	CAMK2B
NCBI Official Synonym Symbols	CAM2; CAMK2; CAMKB; MRD54
NCBI Protein Information	calcium/calmodulin-dependent protein kinase type II subunit beta
UniProt Protein Name	Calcium/calmodulin-dependent protein kinase type II subunit beta
UniProt Gene Name	CAMK2B
UniProt Synonym Gene Names	CAM2; CAMK2; CAMKB; CaM kinase II subunit beta; CaMK-II subunit beta
UniProt Entry Name	KCC2B_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/camkii-antibody-peptide-elisa-immunohistochemistry-western-blot-elisa/328507>