



CaMKK2 Monoclonal Antibody

Catalog No	YP-mAb-14686
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	CAMKK2
Protein Name	Calcium/calmodulin-dependent protein kinase kinase 2
Immunogen	The antiserum was produced against synthesized peptide derived from human CAMKK2. AA range:381-430
Specificity	CaMKII β Monoclonal Antibody detects endogenous levels of CaMKII β protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	$\geq 90\%$
Storage Stability	-20°C/1 year
Synonyms	CAMKK2; CAMKKB; KIAA0787; Calcium/calmodulin-dependent protein kinase kinase 2; CaM-KK 2; CaM-kinase kinase 2; CaMKK 2; Calcium/calmodulin-dependent protein kinase kinase beta; CaM-KK beta; CaM-kinase kinase beta; CaMKK beta
Observed Band	65kD
Cell Pathway	Nucleus . Cytoplasm . Cell projection, neuron projection . Predominantly nuclear in unstimulated cells, relocalizes into cytoplasm and neurites after forskolin induction. .
Tissue Specificity	Ubiquitously expressed with higher levels in the brain. Intermediate levels are detected in spleen, prostate, thyroid and leukocytes. The lowest level is in lung.
Function	catalytic activity:ATP + a protein = ADP + a phosphoprotein.,domain:The autoinhibitory domain overlaps with the calmodulin binding region and may be involved in intrasteric autoinhibition.,domain:The RP domain (arginine/proline-rich) is involved in the recognition of CAMKI and CAMK4 as substrates.,enzyme regulation:Activated by Ca(2+)/calmodulin. Binding of calmodulin may release intrasteric autoinhibition. Autophosphorylation does not alter activity or regulation by Ca(2+)/calmodulin. In part, activity is independent on Ca(2+)/calmodulin.,function:Calcium/calmodulin-dependent protein kinase belonging to a proposed calcium-triggered signaling cascade involved in a number of cellular processes. Isoform 1, isoform 2 and isoform 3 phosphorylate



CAMK1 and CAMK4. Isoform 3 phosphorylates CAMK1D. Isoform 4, isoform 5 and isoform 6 lacking part of the calmodulin-binding domain are inactive. See

Background

The product of this gene belongs to the Serine/Threonine protein kinase family, and to the Ca(2+)/calmodulin-dependent protein kinase subfamily. The major isoform of this gene plays a role in the calcium/calmodulin-dependent (CaM) kinase cascade by phosphorylating the downstream kinases CaMK1 and CaMK4. Protein products of this gene also phosphorylate AMP-activated protein kinase (AMPK). This gene has its strongest expression in the brain and influences signalling cascades involved with learning and memory, neuronal differentiation and migration, neurite outgrowth, and synapse formation. Alternative splicing results in multiple transcript variants encoding distinct isoforms. The identified isoforms differ in their ability to undergo autophosphorylation and to phosphorylate downstream kinases. [provided by RefSeq, Jul 2012],

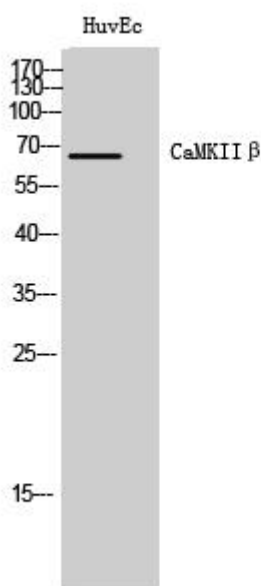
matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis of various cells using CaMKK2 Monoclonal Antibody