



# CaMKK2 Polyclonal Antibody

<b>Catalog No</b>	YP-Ab-14686
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse;Rat
<b>Applications</b>	WB;IHC;IF;ELISA
<b>Gene Name</b>	CAMKK2
<b>Protein Name</b>	Calcium/calmodulin-dependent protein kinase kinase 2
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human CAMKK2. AA range:381-430
<b>Specificity</b>	CaMKII $\beta$ Polyclonal Antibody detects endogenous levels of CaMKII $\beta$ protein.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/10000.. IF 1:50-200
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	$\geq 90\%$
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	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
<b>Observed Band</b>	65kD
<b>Cell Pathway</b>	Nucleus . Cytoplasm . Cell projection, neuron projection . Predominantly nuclear in unstimulated cells, relocalizes into cytoplasm and neurites after forskolin induction. .
<b>Tissue Specificity</b>	Ubiquitously expressed with higher levels in the brain. Intermediate levels are detected in spleen, prostate, thyroid and leukocytes. The lowest level is in lung.
<b>Function</b>	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**

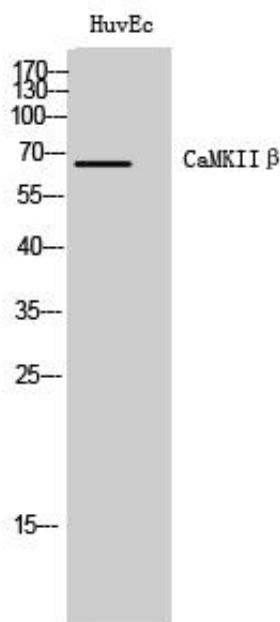
Avoid repeated freezing and thawing!

**Usage suggestions**

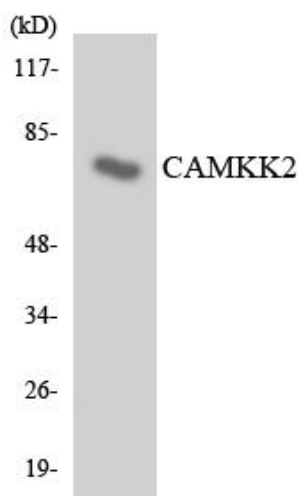
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



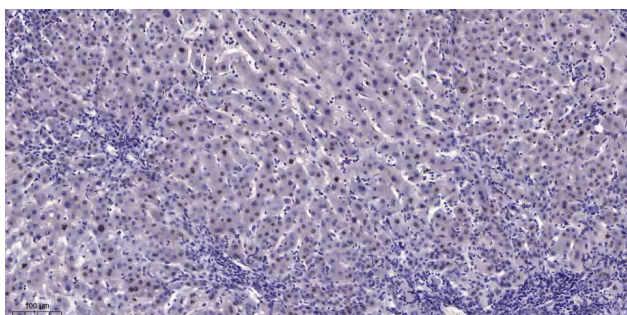
## Products Images



Western Blot analysis of HuvEc cells using CaMKII $\beta$  Polyclonal Antibody



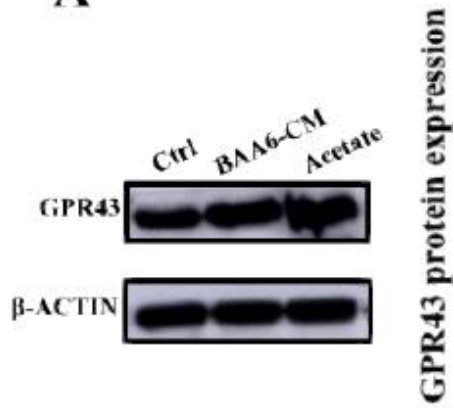
Western blot analysis of the lysates from HeLa cells using CAMKK2 antibody.



Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).



**A**



Bifidobacterium animalis subsp. lactis A6 Enhances Fatty Acid &beta;-Oxidation of Adipose Tissue to Ameliorate the Development of Obesity in Mice Nutrients. 2022 Jan;14(3):598. WB Mouse epididymal adipose tissues

**C**

