



## Rabbit Anti-CAMKK2 antibody

SL6253R

<b>Product Name:</b>	CAMKK2
<b>Chinese Name:</b>	钙调蛋白激酶激酶β抗体
<b>Alias:</b>	Calcium/calmodulin dependent protein kinase beta; Calcium/calmodulin dependent protein kinase kinase 2; Calcium/calmodulin dependent protein kinase kinase beta; CaM kinase kinase beta; CaM KK beta; CAMKK 2; CAMKK; CaMKK beta; CAMKK beta protein; CAMKKB.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Pig,Cow,Horse,Sheep,
<b>Applications:</b>	WB=1:500-2000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1ug/Test (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	55kDa
<b>Cellular localization:</b>	The nucleus
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human CAMKK2:501-588/588
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	The product of this gene belongs to the Serine/Threonine protein kinase family, and to the Ca(2+)/calmodulin-dependent protein kinase subfamily. This protein plays a role in the calcium/calmodulin-dependent (CaM) kinase cascade by phosphorylating the downstream kinases CaMK1 and CaMK4. Seven transcript variants encoding six distinct

isoforms have been identified for this gene. Additional splice variants have been described but their full-length nature has not been determined. The identified isoforms exhibit a distinct ability to undergo autophosphorylation and to phosphorylate the downstream kinases. [provided by RefSeq, Jul 2008].

**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. Efficiently phosphorylates 5'-AMP-activated protein kinase (AMPK) trimer, including that consisting of PRKAA1, PRKAB1 and PRKAG1. This phosphorylation is stimulated in response to Ca(2+) signals (By similarity). Seems to be involved in hippocampal activation of CREB1 (By similarity). May play a role in neurite growth. Isoform 3 may promote neurite elongation, while isoform 1 may promote neurite branching.

**Subunit:**

Interacts with calmodulin.

**Subcellular Location:**

Nucleus. Cytoplasm. Cell projection. Note=Predominantly nuclear in unstimulated cells. Found in the 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.

**Post-translational modifications:**

Autophosphorylated and phosphorylated by PKA. Each isoform may show a different pattern of phosphorylation.

**Similarity:**

Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. Contains 1 protein kinase domain.

**SWISS:**

Q96RR4

**Gene ID:**

10645

**Database links:**

[Entrez Gene: 10645](#) Human

[Entrez Gene: 83506](#) Rat

[Omic: 615002](#) Human

[SwissProt: Q96RR4](#) Human

[SwissProt: O88831](#) Rat

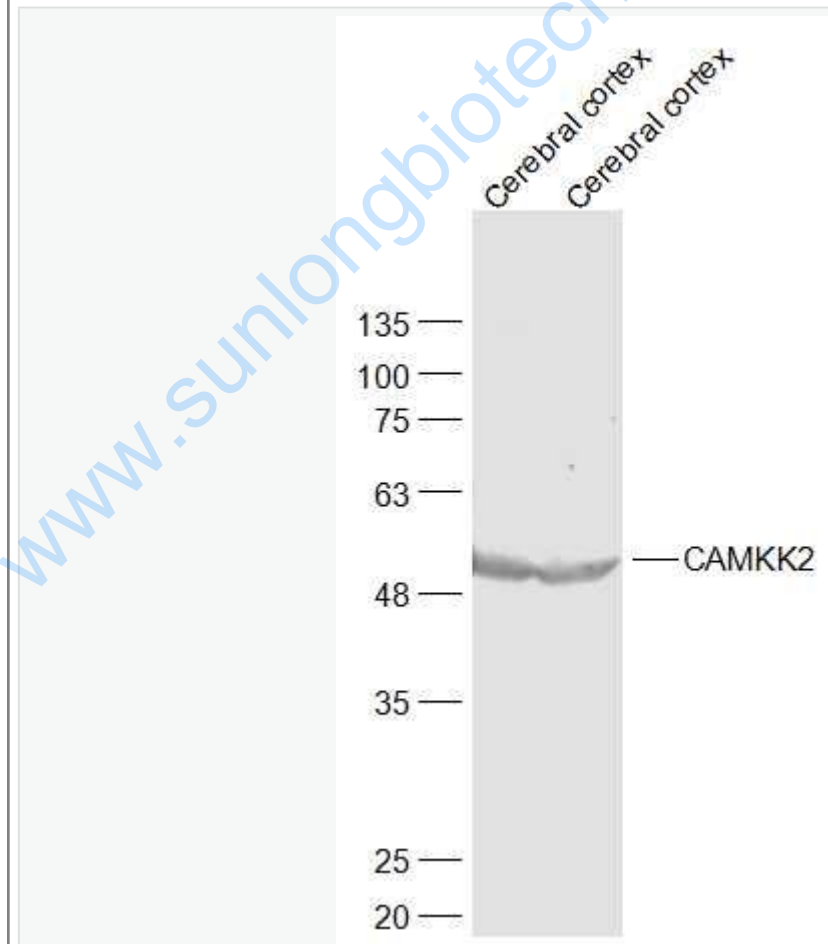
[Unigene: 297343](#) Human

[Unigene: 88589](#) Rat

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample:

Cerebral cortex (Mouse) Lysate at 40 ug

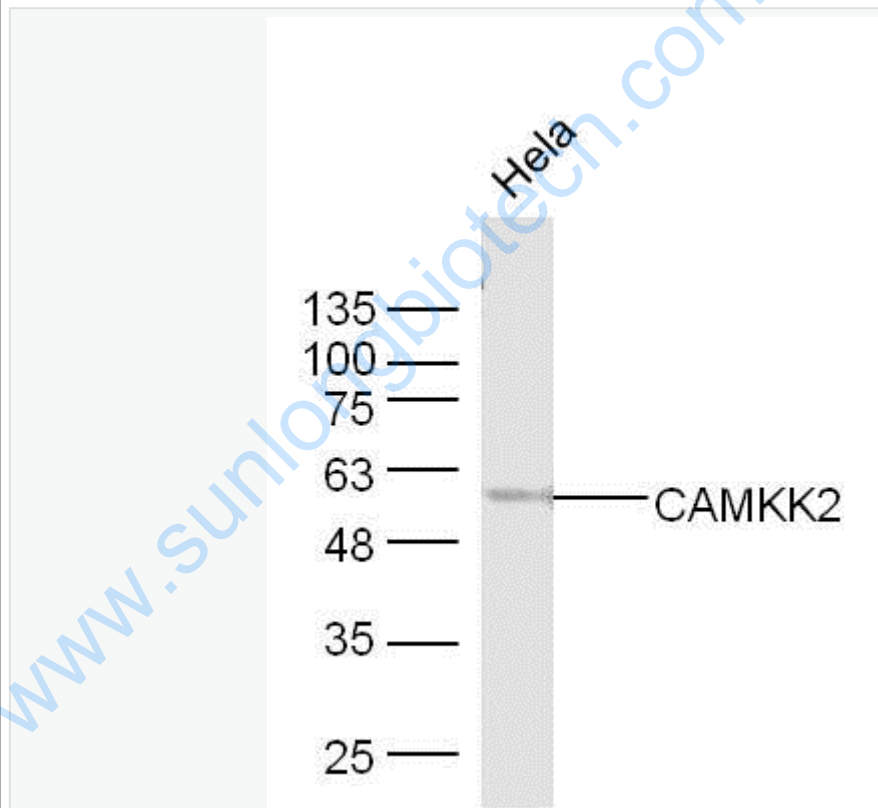
Cerebral cortex (Rat) Lysate at 40 ug

Primary: Anti-CAMKK2 (SL6253R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 55 kD

Observed band size: 55 kD



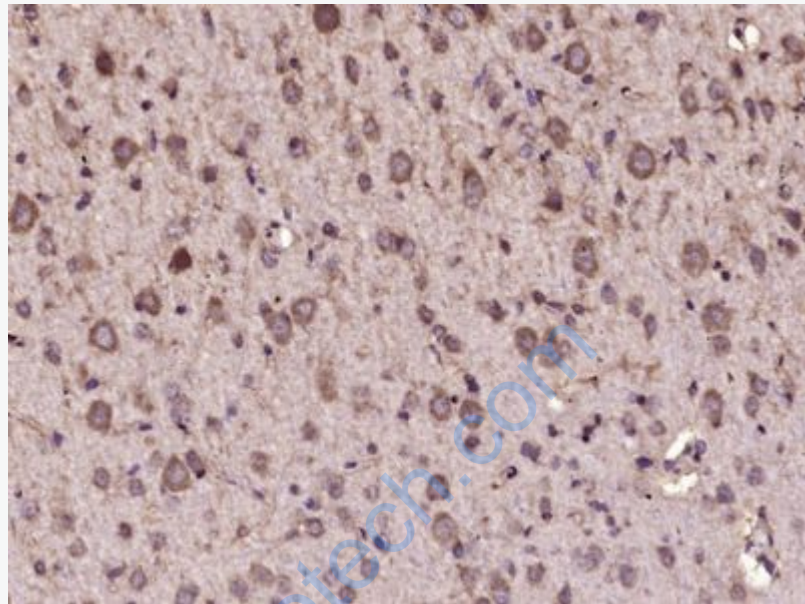
Sample: HeLa Cell (Human) Lysate at 40 ug

Primary: Anti-CAMKK2 (SL6253R) at 1/300 dilution

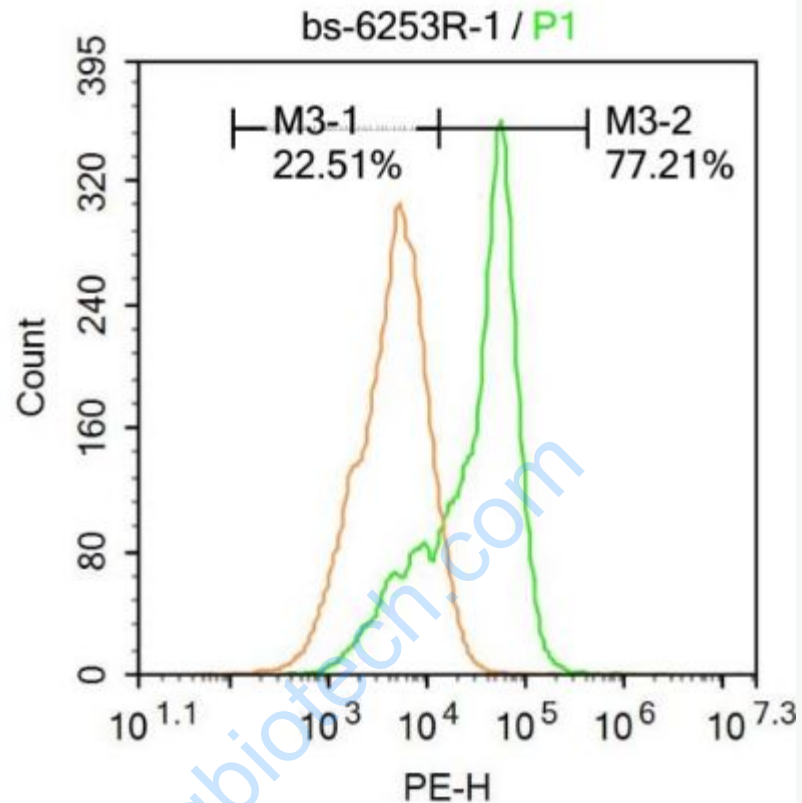
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 55 kD

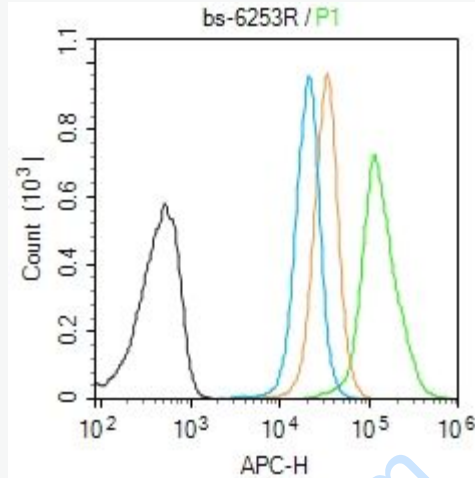
Observed band size: 55 kD



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by microwave in sodium citrate buffer (pH6.0) ; Block endogenous peroxidase by 3% hydrogen peroxide for 30 minutes; Blocking buffer (3% BSA) at RT for 30min; Antibody incubation with (CAMKK2) Polyclonal Antibody, Unconjugated (SL6253R) at 1:400 overnight at 4°C, followed by conjugation to the secondary antibody (labeled with HRP) and DAB staining.



Molt-4 cells were fixed with 4% PFA for 10min at room temperature, permeabilized with 20% PBST for 20 min at room temperature, and incubated in 5% BSA blocking buffer for 30 min at room temperature. Cells were then stained with CAMKK2 Antibody(SL6253R) at 1:100 dilution in blocking buffer and incubated for 30 min at room temperature, washed twice with 2% BSA in PBS, followed by secondary antibody incubation for 40 min at room temperature. Acquisitions of 20,000 events were performed. Cells stained with primary antibody (green), and isotype control (orange).



Blank control (Black line): Molt4 (Black).

Primary Antibody (green line): Rabbit Anti-CAMKK2 antibody (SL6253R)

Dilution:  $1\mu\text{g} / 10^6$  cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF647

Dilution:  $1\mu\text{g} / \text{test}$ .

Protocol

The cells were fixed with 4% PFA (10min at room temperature) and then permeabilized with PBST for 20 min at room temperature. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature.

Acquisition of 20,000 events was performed.