SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-CAMKK2 antibody

Catalog Number: SL6253R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	CAMKK2
Immunogen:	KLH conjugated synthetic peptide derived from human CAMKK2: 501-588/588
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 IHC-P=1:100-500 IHC-F=1:100-500 IF=1:100-500 Flow-Cyt=1ug/Test （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Rat(predicted:Mouse,Pig,Cow,Horse,Sheep)
Predicted MW.:	55kDa
Subcellular Location:	The nucleus
Background:	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

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	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 promoter 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. **Database links:** **Entrez Gene:** 10645 Human **Entrez Gene:** 83506 Rat Omim: 615002 Human **SwissProt:** Q96RR4 Human **SwissProt:** O88831 Rat **Unigene:** 297343 Human **Unigene:** 88589 Rat

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[VALIDATION IMAGES]

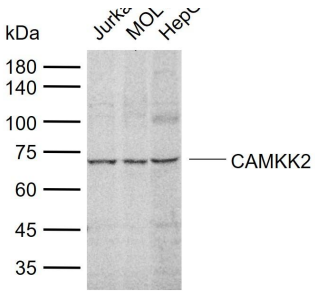


Figure 1. Sample: Lane 1: Human Jurkat cell lysates Lane 2: Human MOLT4 cell lysates Lane 3: Human HepG2 cell lysates Primary: Anti-CAMKK2 (SL6253R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 55 kDa Observed band size: 70 kDa

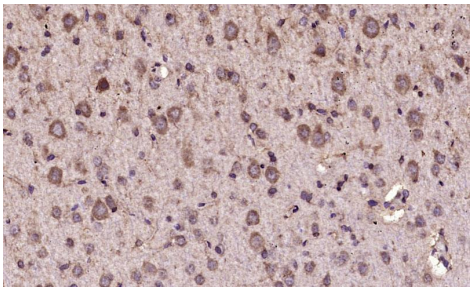


Figure 2. Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by microwave in sodium citrate buffer (pH6.0); Block endogenous peroxidase by 3% hydrogen peroxide for 30 minutes; Blocking buffer (3% BSA) at RT for 30min; Antibody incubation with (CAMKK2) Polyclonal Antibody, Unconjugated (SL6253R) at 1:400 overnight at 4°C, followed by conjugation to the secondary antibody (labeled with HRP)and DAB staining

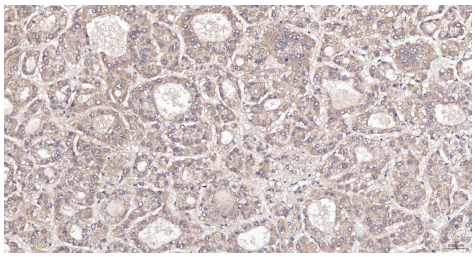


Figure 3. Paraformaldehyde-fixed, paraffin embedded Human Liver Cancer; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with CAMKK2 Polyclonal Antibody, Unconjugated (SL6253R) at 1:200 overnight at 4°C, followed by conjugation to the SL0295G-HRP and DAB (C-0010) staining

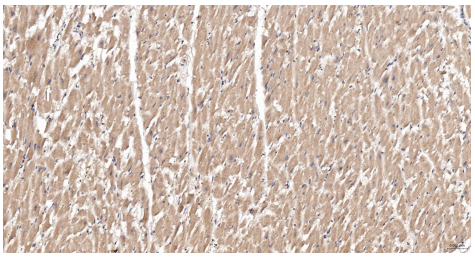


Figure 4. Paraformaldehyde-fixed, paraffin embedded Human Heart; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with CAMKK2 Polyclonal Antibody, Unconjugated (SL6253R) at 1:200 overnight at 4°C, followed by conjugation to the SL0295G-HRP and DAB (C-0010) staining

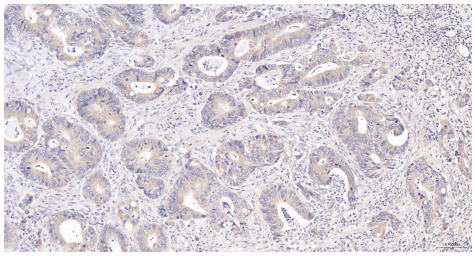


Figure 5. Paraformaldehyde-fixed, paraffin embedded Human Colon Cancer; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with CAMKK2 Polyclonal Antibody, Unconjugated (SL6253R) at 1:200 overnight at 4°C, followed by conjugation to the SL0295G-HRP and DAB (C-0010) staining

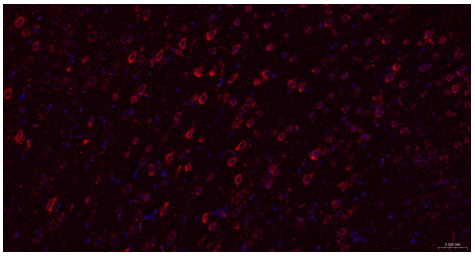


Figure 6. Paraformaldehyde-fixed, paraffin embedded Rat Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with CAMKK2 Polyclonal Antibody, Unconjugated (SL6253R) at 1:200 overnight at 4°C. Followed by conjugated Goat Anti-Rabbit IgG antibody (Red, SL0295G-BF594), DAPI (blue, C02-04002) was used to stain the cell nuclei

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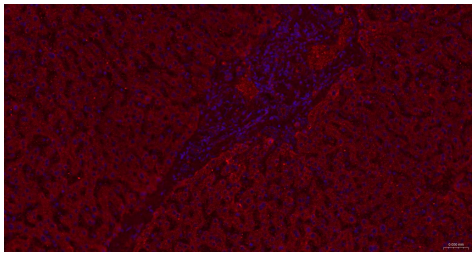


Figure 7. Paraformaldehyde-fixed, paraffin embedded Human Liver; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with CAMKK2 Polyclonal Antibody, Unconjugated (SL6253R) at 1:200 overnight at 4°C. Followed by conjugated Goat Anti-Rabbit IgG antibody (Red, SL0295G-BF594), DAPI (blue, C02-04002) was used to stain the cell nuclei

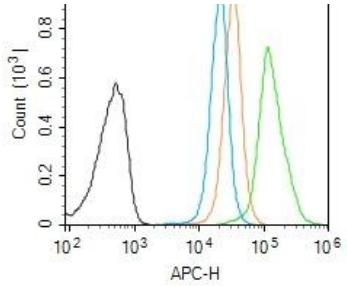


Figure 8. Blank control (Black line): Molt4 (Black). Primary Antibody (green line):Rabbit Anti-CAMKK2 antibody (SL6253R) Dilution: 1µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG. Secondary Antibody (white blue line): Goat anti-rabbit IgG-BF647 Dilution: 1µg /test. Protocol The cells 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

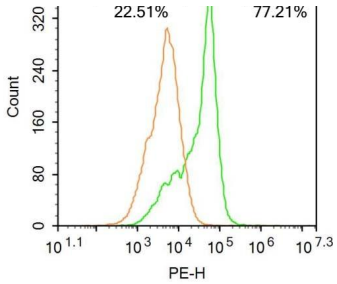


Figure 9. Molt-4 cells were fixed with 4% PFA for 10min at room temperature,permeabilized with 0.1% PBST for 20 min at room temperature, and incubated in 5% BSA blocking buffer for 30 min at room temperature. Cells were then stained with CAMKK2 Antibody(SL6253R)at 1:100 dilution in blocking buffer and 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)

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