



Rabbit Anti-CaMK2 alpha antibody

SL0564R

Product Name:	CaMK2 alpha
Chinese Name:	钙/钙调素依赖蛋白激酶2 α 抗体
Alias:	alpha CaMKII; CaMKII alpha; Calcium / Calmodulin Dependent Protein Kinase II G; Calcium calmodulin dependent protein kinase CaM kinase II alpha; Calcium calmodulin dependent protein kinase II alpha-B subunit; Calcium calmodulin dependent protein kinase II; Calcium/calmodulin dependent protein kinase II alpha; Calcium/calmodulin-dependent protein kinase (CaM kinase) II alpha; Calcium/calmodulin-dependent protein kinase II alpha; Calcium/calmodulin-dependent protein kinase II-alpha; Calcium/calmodulin-dependent protein kinase type II subunit alpha; Calcium/calmodulin-dependent protein kinase type IIA; CaM kinase II alpha chain; CaM kinase II alpha subunit; CaM kinase II subunit alpha; CAM2; CaMK II alpha subunit; CaMK-II subunit alpha; CAMK2A; CAMKA; CAMKB; CaMKII; CaMK 2a; CaMK2a; KCC2A HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Guinea Pig,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=0.2ug/testIF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	54kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human CaMK2a:401-478/478
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	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.
PubMed:	PubMed
Product Detail:	<p>The product of this gene belongs to the serine/threonine protein kinases family, and to the Ca(2+)/calmodulin-dependent protein kinases subfamily. Calcium signaling is crucial for several aspects of plasticity at glutamatergic synapses. This calcium calmodulin-dependent protein kinase is composed of four different chains: alpha, beta, gamma, and delta. The alpha chain encoded by this gene is required for hippocampal long-term potentiation (LTP) and spatial learning. In addition to its calcium-calmodulin (CaM)-dependent activity, this protein can undergo autophosphorylation, resulting in CaM-independent activity. Two transcript variants encoding distinct isoforms have been identified for this gene. [provided by RefSeq, Nov 2008].</p> <p>Function: CaM-kinase II (CAMK2) is a prominent kinase in the central nervous system that may function in long-term potentiation and neurotransmitter release. Member of the NMDAR signaling complex in excitatory synapses it may regulate NMDAR-dependent potentiation of the AMPAR and synaptic plasticity.</p> <p>Subunit: CAMK2 is composed of four different chains: alpha, beta, gamma, and delta. The different isoforms assemble into homo- or heteromultimeric holoenzymes composed of 8 to 12 subunits. Interacts with BAALC, MPDZ, SYN1, CAMK2N2 and SYNGAP1.</p> <p>Subcellular Location: Cell junction, synapse, presynaptic cell membrane. Cell junction, synapse. Note=Postsynaptic lipid rafts.</p> <p>Similarity: Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. CaMK subfamily. Contains 1 protein kinase domain.</p> <p>SWISS: Q9UQM7</p> <p>Gene ID: 815</p> <p>Database links: Entrez Gene: 815Human Entrez Gene: 12322Mouse Entrez Gene: 25400Rat</p>

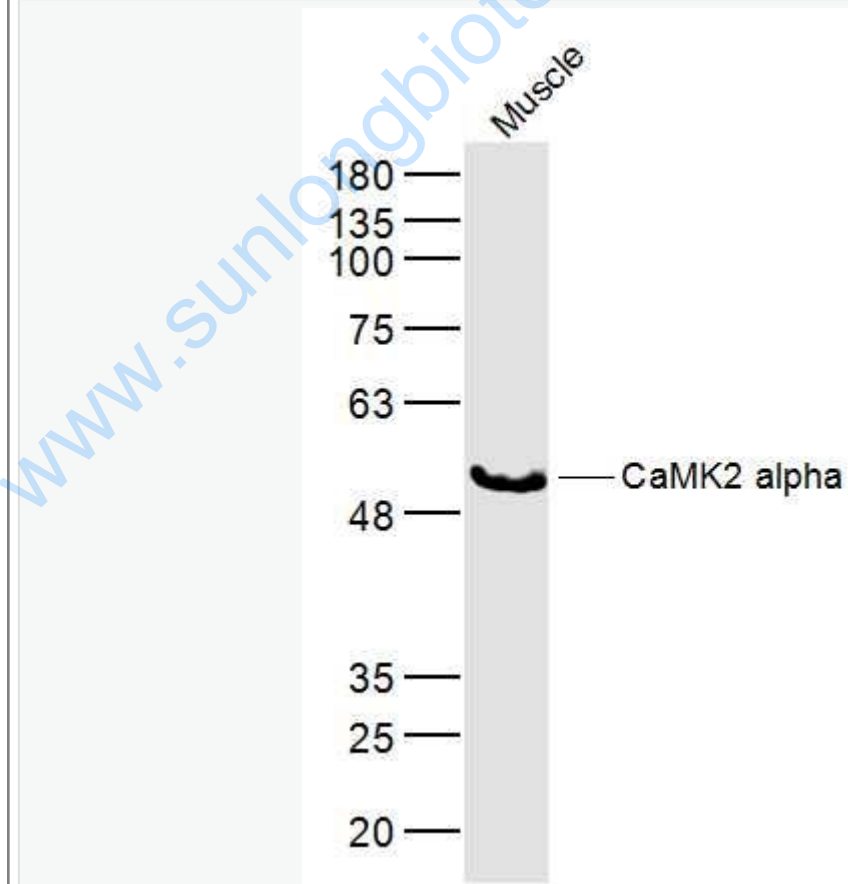
[Oimim: 114078](#)Human
[SwissProt: Q9UQM7](#)Human
[SwissProt: P11798](#)Mouse
[SwissProt: P11275](#)Rat
[Unigene: 725992](#)Human
[Unigene: 131530](#)Mouse
[Unigene: 107499](#)Rat

Important Note:

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

CaMK2a也是丝/苏氨酸激酶的一种，同属于Ca⁺⁺/钙调素依赖性蛋白质激酶家族成员。

Picture:



Sample:

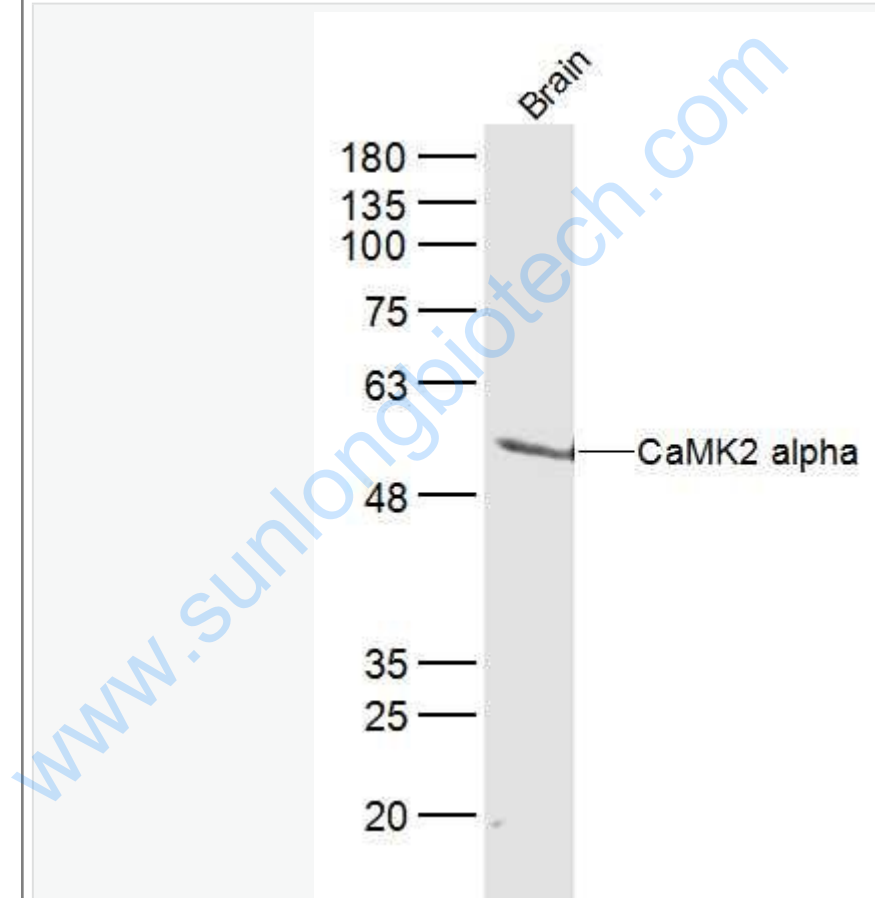
Muscle (Mouse) Lysate at 40 ug

Primary: Anti-CaMK2 alpha (SL0564R) at 1/300 dilution

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

Predicted band size: 54 kD

Observed band size: 54 kD



Sample:

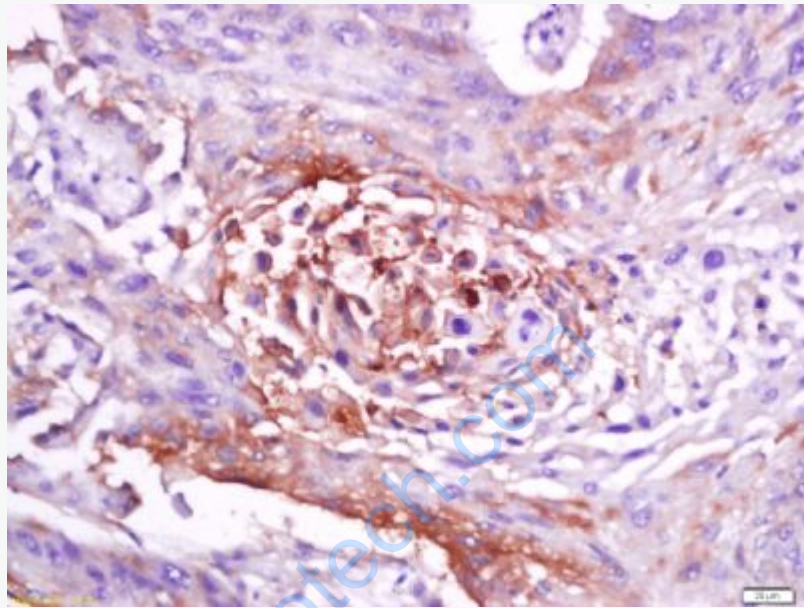
Brain (Mouse) Lysate at 40 ug

Primary: Anti-CaMK2 alpha (SL0564R) at 1/300 dilution

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

Predicted band size: 54 kD

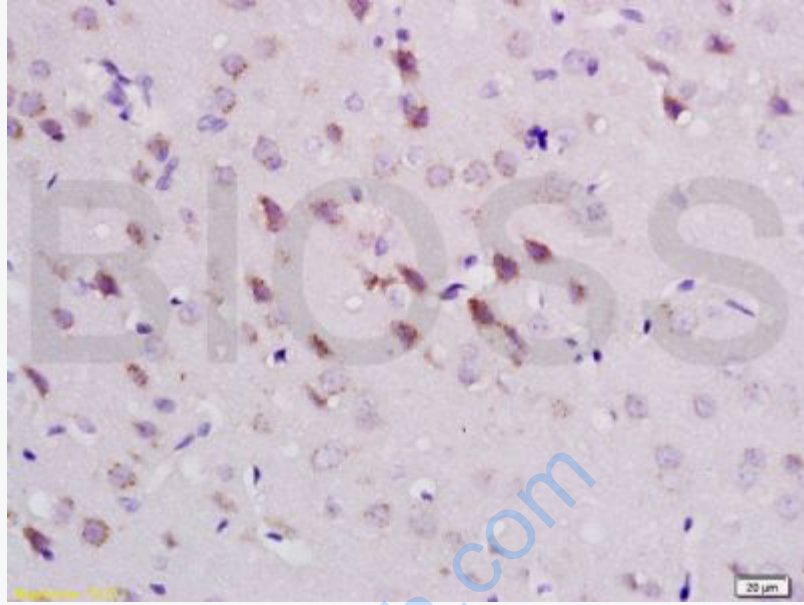
Observed band size: 54 kD



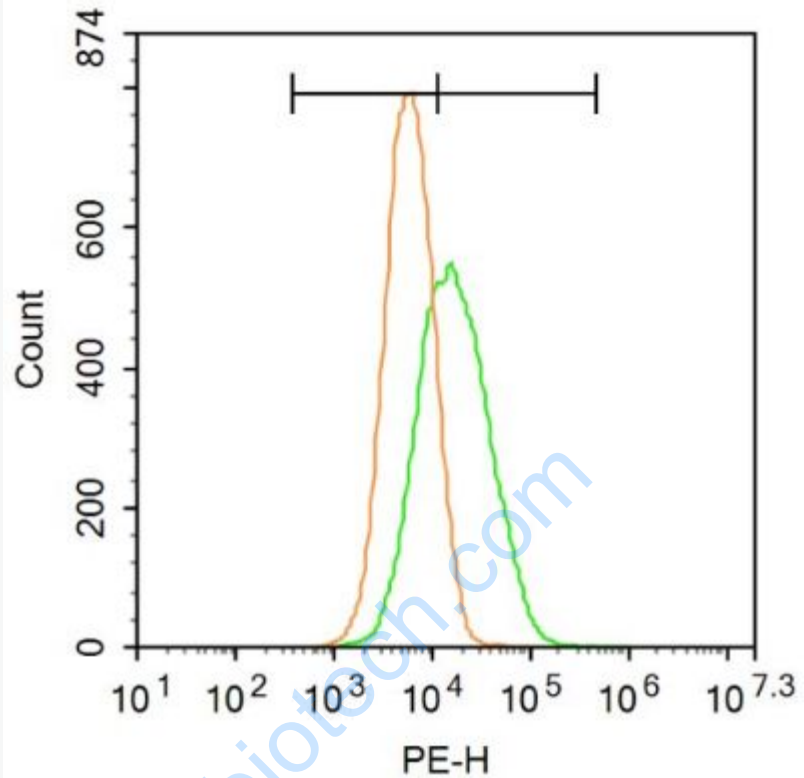
Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-CaMK2 alpha Polyclonal Antibody, Unconjugated(SL0564R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-CaMK2a Polyclonal Antibody, Unconjugated(SL0564R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: U87MG.

Primary Antibody (green line): Rabbit Anti-CaMK2 antibody (SL0564R)

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

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-PE

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

The cells were 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.