SunLong Biotech Co.,LTD
Tel: 0086-571- 56623320 Fax:0086-571- 56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-CAMK2A + CAMK2B + CAMK2D antibody

SL0541R

Product Name:	CAMK2A + CAMK2B + CAMK2D
Chinese Name:	钙/钙调素依赖蛋白激酶2b/2γ抗体
Alias:	CaMK2 beta+gamma+delta; CaMK2 beta; CaMK2 gamma; CaMK2 delta; CAMK2G; Calcium/calmodulin dependent protein kinase (CaM kinase) II beta; Calcium/calmodulin dependent protein kinase II beta; Calcium/calmodulin dependent protein kinase IIB; Calcium/calmodulin dependent protein kinase type II beta chain; CAM 2; CaM kinase II beta chain; CaM kinase II beta subunit; CAM2; CAMK 2; CAMK 2B; CaMK II beta subunit; CaMK II subunit beta; CAMK2; CaMK2 beta; CAMK2B; CAMKB; CaMKII beta subunit; CaMKIIB; MGC29528; Proline rich calmodulin dependent protein kinase; CaM kinase II; Calcium/calmodulin-dependent protein; CaM kinase II gamma subunit; CaM-kinase II gamma chain; CaM kinase II delta subunit; CaM-kinase II delta chain; CAM2; CAMK; CAMK-II; CAMK2D; CAMK2G; CAMK2N2; CAMKD; CAMKG; KCC2B; kinase CaMK2-beta.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	53-73kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human CaMK2 beta/ gamma/ delta:1-100/479
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:	The product of this gene belongs to the serine/threonine protein kinase family and to the Ca(2+)/calmodulin-dependent protein kinase subfamily. Calcium signaling is crucial for several aspects of plasticity at glutamatergic synapses. In mammalian cells, the enzyme is composed of four different chains: alpha, beta, gamma, and delta. The product of this gene is a beta chain. It is possible that distinct isoforms of this chain have different cellular localizations and interact differently with calmodulin. Eight transcript variants encoding eight distinct isoforms have been identified for this gene. [provided by RefSeq, Jul 2008]. **Function:** Calcium/calmodulin-dependent protein kinase that functions autonomously after Ca(2+)/calmodulin-binding and autophosphorylation, and is involved in dendritic spine and synapse formation, neuronal plasticity and regulation of sarcoplamic reticulum Ca(2+) transport in skeletal muscle. In neurons, plays an essential structural role in the reorganization of the actin cytoskeleton during plasticity by binding and bundling actin filaments in a kinase-independent manner. This structural function is required for correct targeting of CaMK2A, which acts downstream of NMDAR to promote dendritic spine and synapse formation and maintain synaptic plasticity which enables long-term potentiation (LTP) and hippocampus-dependent learning. In developing hippocampal neurons, promotes arborization of the dendritic tree and in mature neurons, promotes dendritic remodeling. Participates in the modulation of skeletal muscle function in response to exercise. In slow-twitch muscles, is involved in regulation of sarcoplamic reticulum (SR) Ca(2+) transport and in fast-twitch muscle participates in the control of Ca(2+) release from the SR through phosphorylation of triadin, a ryanodine receptor-coupling factor, and phospholamban (PLN/PLB), an endogenous inhibitor of SERCA2A/ATP2A2. **Subunit:** CAMK2 is composed of 4 different chains: alpha (CAMK2A), beta (CAMK2B), gamma (CAMK2G), and delta (CAMK2D). The different isoforms assemble into homo- or heteromultimeric holoenzymes composed of 12 subunits with two hexameric rings stacked one on top of the other. Interacts with SYNGAP1 and CAMK2N2 (By similarity). Interacts with MPDZ. **Subcellular Location:** Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, centrosome. Sarcoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side. Note=In slow-twitch muscle, evenly distributed between longitudinal SR and junctional SR. **Tissue Specificity:**

Widely expressed. Expressed in adult and fetal brain. Expression is slightly lower in fetal brain. Expressed in skeletal muscle.

Post-translational modifications:
Autophosphorylation of Thr-287 following activation by Ca(2+)/calmodulin. Phosphorylation of Thr-287 locks the kinase into an activated state.

Similarity:
Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. CaMK subfamily.
Contains 1 protein kinase domain.

SWISS:
Q13554

Gene ID:
815

Database links:

Entrez Gene: 815Human

Entrez Gene: 816Human

Entrez Gene: 817Human

Entrez Gene: 108058Mouse

Entrez Gene: 12322Mouse

Entrez Gene: 12323Mouse

Entrez Gene: 24245Rat

Entrez Gene: 24246Rat

Entrez Gene: 25400Rat

Omim: 114078Human

Omim: 607707Human

Omim: 607708Human

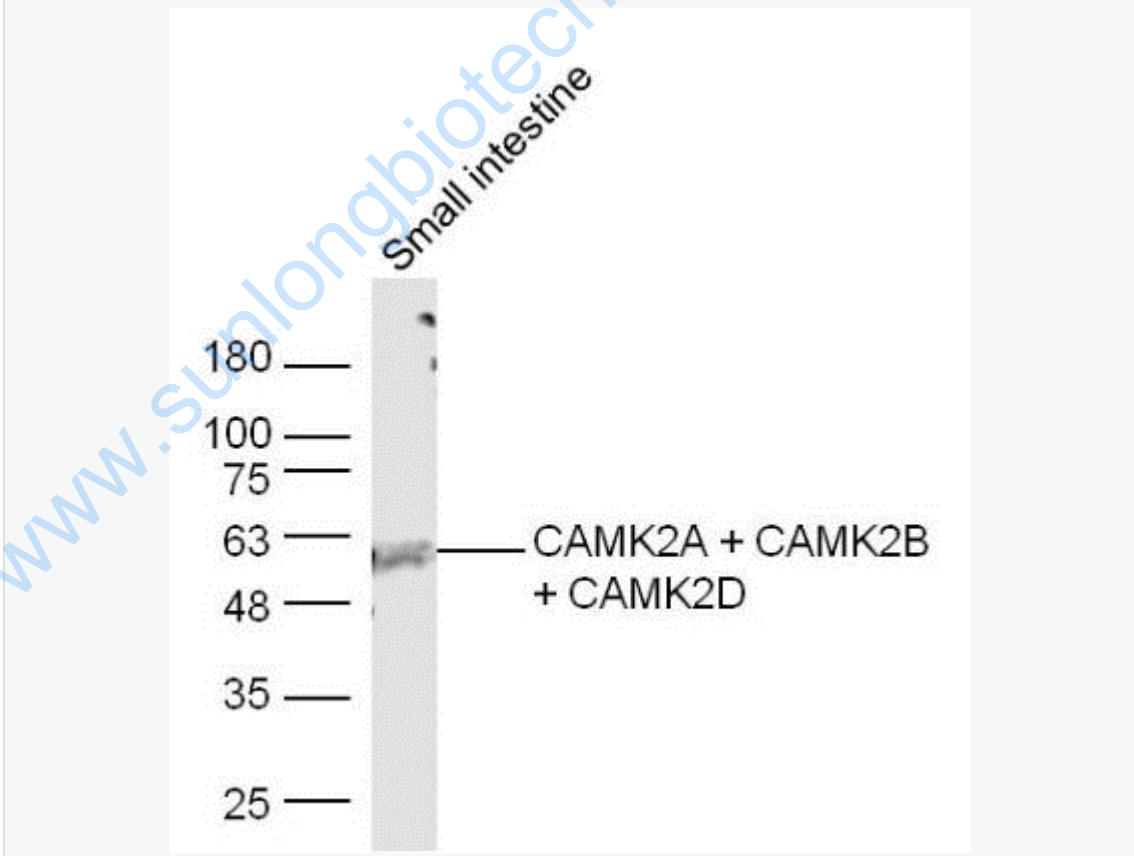
SwissProt: Q13554Human

SwissProt: Q13557Human

SwissProt: Q9UQM7Human

SwissProt: P11798Mouse

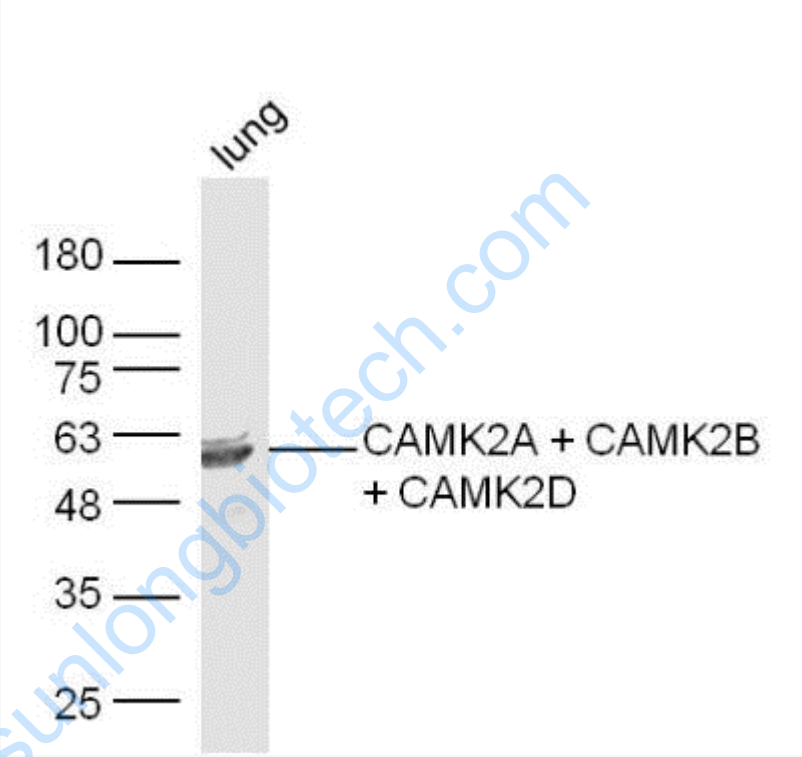
SwissProt: P28652Mouse

	SwissProt: Q6PHZ2Mouse SwissProt: P08413Rat SwissProt: P11275Rat SwissProt: P15791Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. CaMK2b也是丝/苏氨基酸激酶的一种，同属于Ca++/钙调素依赖性蛋白质激酶家族成员。钙／钙调素依赖性蛋白激酶Ⅱb（CaMKⅡb）广泛分布于中枢神经系统内，参与调节神经递质的合成释放、Signal transduction和突触可塑性的形成以及磷酸化蛋白
Picture:	 Sample: Small intestine (Mouse) Lysate at 40 ug Primary: Anti- CAMK2A+CAMK2B+CAMK2D (SL0541R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/10000 dilution

Predicted band size: 53-73 kD

Observed band size: 60 kD



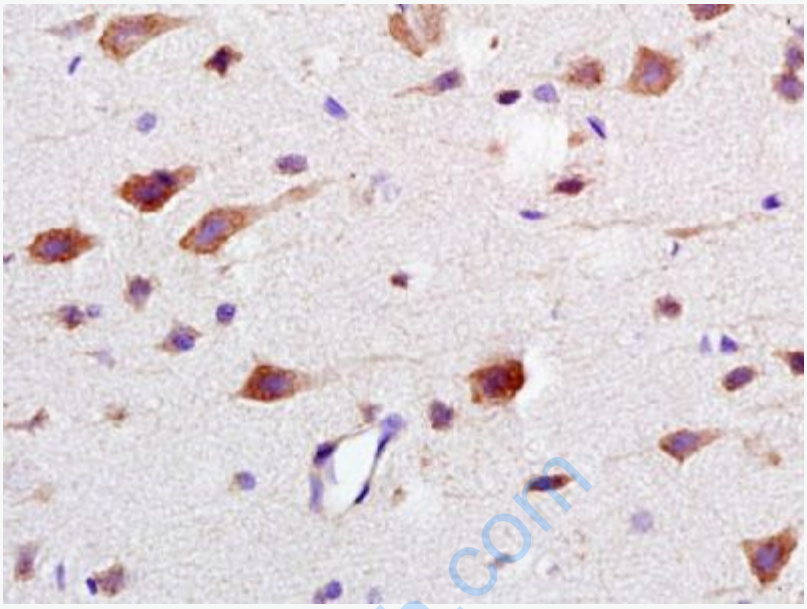
Sample: Lung (Mouse) Lysate at 40 ug

Primary: Anti- CAMK2A+CAMK2B+CAMK2D (SL0541R) at 1/300 dilution

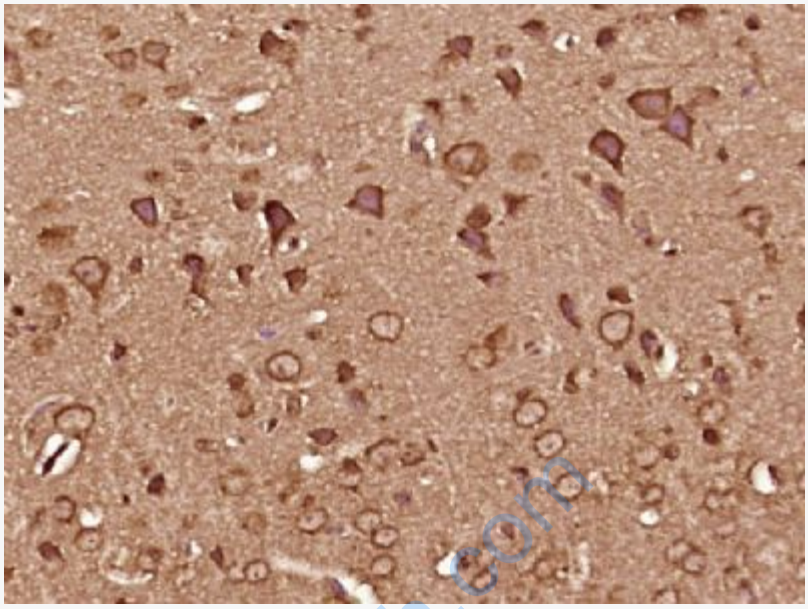
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/10000 dilution

Predicted band size: 53-73 kD

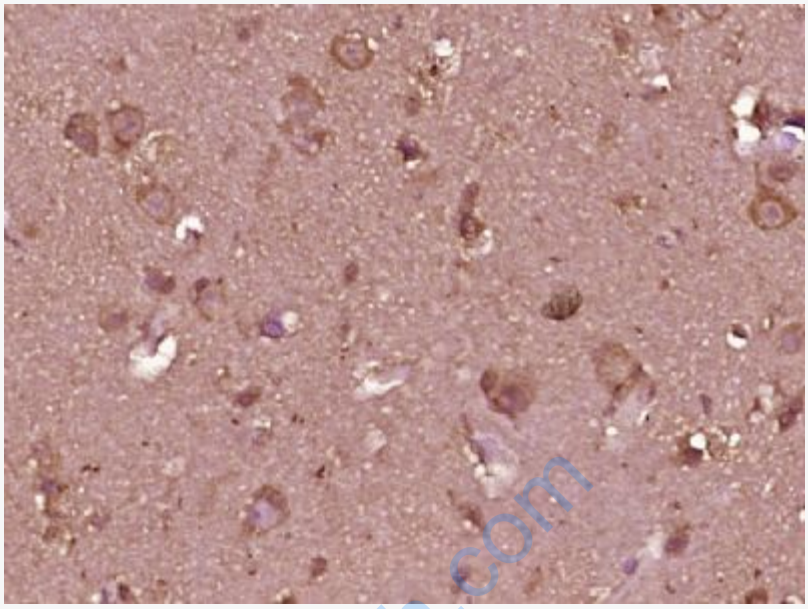
Observed band size: 60 kD



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CaMK2b) Polyclonal Antibody, Unconjugated (SL0541R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CAMK2A + CAMK2B + CAMK2D) Polyclonal Antibody, Unconjugated (SL0541R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human brain glioma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CAMK2A + CAMK2B + CAMK2D) Polyclonal Antibody, Unconjugated (SL0541R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.