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Rabbit Anti-phospho-CAMK4 (Thr196 + Thr200) antibody

SL6728R

Product Name:	phospho-CAMK4 (Thr196 + Thr200)
Chinese Name:	磷酸化钙/钙调蛋白依赖性蛋白激酶4抗体
Alias:	CAMKIV(phospho Thr196 + Thr200); CAMKIV(phospho T196 + T200); Brain Ca(2+) calmodulin dependent protein kinase type 4; Brain Ca(2+) calmodulin dependent protein kinase type IV; Calcium / calmodulin dependent protein kinase type 4 catalytic chain; Calcium / calmodulin dependent protein kinase type IV catalytic chain; Calcium/calmodulin dependent protein kinase IV; Calcium/calmodulin dependent protein kinase type IV; CAM kinase 4; CAM kinase GR; CAM kinase IV; CaMK 4; CAMK GR; CaMK IV; CaMK4; CaMKGR; MGC36771.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=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:	55kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human CAMKIV around the phosphorylation site of Thr196 + Thr200.:MK(p-T)VCG(p-T)PG
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

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	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:	Ca2+/calmodulin dependent protein kinase type IV (CAMKIV) belongs to the serine/threonine protein kinase family, and to the Ca(2+)/calmodulin-dependent protein kinase subfamily. This enzyme is a multifunctional serine/threonine protein kinase with limited tissue distribution, that has been implicated in transcriptional regulation in lymphocytes, neurons and male germ cells. **Function:** Calcium/calmodulin-dependent protein kinase that operates in the calcium-triggered CaMKK-CaMK4 signaling cascade and regulates, mainly by phosphorylation, the activity of several transcription activators, such as CREB1, MEF2D, JUN and RORA, which play pivotal roles in immune response, inflammation, and memory consodilation. In the thymus, regulates the CD4(+)/CD8(+) double positive thymocytes selection threshold during T-cell ontogeny. In CD4 memory T-cells, is required to link T-cell antigen receptor (TCR) signaling to the production of IL2, IFNG and IL4 (through the regulation of CREB and MEF2). Regulates the differentiation and survival phases of osteolclasts and dendritic cells (DCs). Mediates DCs survival by linking TLR4 and the regulation of temporal expression of BCL2. Phosphrylates the transcription activator CREB1 on 'Ser-133' in hippocampal neuron nuclei and contribute to memory consolidation and long term potentiation (LTP) in the hippocampus. Can activate the MAP kinases MAPK1/ERK2, MAPK8/JNK1 and MAPK14/p38 and stimulate transcription through the phosphorylation of ELK1 and ATF2. Can also phosphorylate in vitro CREBBP, PRM2, MEF2A and STMN1/OP18. **Subunit:** Monomer (By similarity). Interacts with protein phosphatase 2A (PPP2CA/PPP2CB); the interaction is mutually exclusive with binding to Ca(2+)/calmodulin. **Subcellular Location:** Cytoplasm. Nucleus. Note=Localized in hippocampal neuron nuclei. In spermatids, associated with chromatin and nuclear matrix (By similarity). **Tissue Specificity:** Expressed in brain, thymus, CD4 T-cells, testis and epithelial ovarian cancer tissue. **Post-translational modifications:** Phosphorylated by CaMKK1 and CaMKK2 on Thr-200. Dephosphorylated by protein phosphatase 2A. Autophosphorylated on Ser-12 and Ser-13. Glycosylation at Ser-189 modulates the phosphorylation of CaMK4 at Thr-200 and negatively regulates its activity toward CREB1 in basal conditions and during early inomycin stimulation. **Similarity:** Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family.

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	CaMK subfamily. Contains 1 protein kinase domain. **SWISS:** Q16566 **Gene ID:** 814 **Database links:** Entrez Gene: 814Human Entrez Gene: 12326Mouse Entrez Gene: 25050Rat Omim: 114080Human SwissProt: Q16566Human SwissProt: P08414Mouse SwissProt: P13234Rat Unigene: 591269Human Unigene: 222329Mouse Unigene: 11046Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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