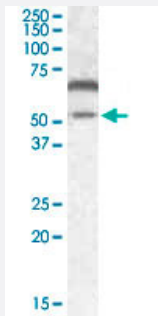


# CAMK2A polyclonal antibody

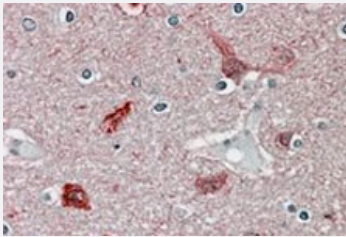
Catalog # PAB14145      Size 100 ug

## Applications



### Western Blot (Tissue lysate)

CAMK2A polyclonal antibody (Cat # PAB14145) (0.1 ug/mL) staining of mouse brain lysate (35 ug protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

CAMK2A polyclonal antibody (Cat # PAB14145) (3.8 ug/mL) staining of paraffin embedded human brain cortex. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

## Specification

<b>Product Description</b>	Goat polyclonal antibody raised against synthetic peptide of CAMK2A.
<b>Immunogen</b>	A synthetic peptide corresponding to internal region of human CAMK2A.
<b>Sequence</b>	C-PRTAQSEETRVWHR
<b>Host</b>	Goat
<b>Theoretical MW (kDa)</b>	55.3, 54.1
<b>Reactivity</b>	Human, Mouse

Specificity	Approx 55 and 65 KDa bands observed in human brain (cerebellum) and mouse brain lysates (calculated MW of 55.3 KDa according to human NP_057065.2 and of 54.1 KDa according to human NP_741960.1 and mouse NP_803126.1).
Form	Liquid
Purification	Antigen affinity purification
Concentration	0.5 mg/mL
Recommend Usage	ELISA (1:64000) Western Blot (0.1-0.3 ug/mL) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) (3-6 ug/mL) The optimal working dilution should be determined by the end user.
Storage Buffer	In Tris saline, pH 7.3 (0.5% BSA, 0.02% sodium azide)
Storage Instruction	Store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

## Applications

- Western Blot (Tissue lysate)

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- Enzyme-linked Immunoabsorbent Assay

## Gene Info — CAMK2A

Entrez GeneID	<a href="#">815</a>
Protein Accession#	<a href="#">NP_057065.2;NP_741960.1</a>
Gene Name	CAMK2A
Gene Alias	CAMKA, KIAA0968

Gene Description	calcium/calmodulin-dependent protein kinase II alpha
Omim ID	<a href="#">114078</a>
Gene Ontology	<a href="#">Hyperlink</a>
Gene Summary	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]
Other Designations	CaM kinase II alpha subunit CaM-kinase II alpha chain CaMK-II alpha subunit CaMKIIAlpha OTT HUMP00000165787 OTTHUMP00000165788 calcium/calmodulin-dependent protein kinase (CaM kinase) II alpha calcium/calmodulin-dependent protein kinase II alpha-B subunit

## Publication Reference

- [Tumor necrosis factor-alpha enhances neutrophil adhesiveness: induction of vascular cell adhesion molecule-1 via activation of Akt and CaM kinase II and modifications of histone acetyltransferase and histone deacetylase 4 in human tracheal smooth muscle cells.](#)

Lee CW, Lin CC, Luo SF, Lee HC, Lee IT, Aird WC, Hwang TL, Yang CM.

Molecular Pharmacology 2008 May; 73(5):1454.

Application: IP, Human, Human tracheal smooth muscle cells

## Pathway

- [Calcium signaling pathway](#)
- [ErbB signaling pathway](#)
- [Glioma](#)
- [GnRH signaling pathway](#)
- [Long-term potentiation](#)
- [Melanogenesis](#)
- [Neurotrophin signaling pathway](#)
- [Olfactory transduction](#)

- [Wnt signaling pathway](#)

## Disease

- [Bipolar Disorder](#)
- [Cognition](#)
- [Genetic Predisposition to Disease](#)
- [Schizophrenia](#)
- [Schizophrenic Psychology](#)
- [Tobacco Use Disorder](#)
- [Weight Gain](#)