

## Basic Information

<b>Product Name</b>	Anti-CaMKII Alpha/CAMK2A Antibody
<b>Gene Name</b>	CAMK2A
<b>Source</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG
<b>Species Reactivity</b>	human, mouse, rat
<b>Tested Application</b>	WB, ELISA
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.
<b>Immunogen</b>	E. coli-derived human CaMKII alpha recombinant protein (Position: L392-R457).
<b>Concentration</b>	500 ug/ml
<b>Purification</b>	Immunogen affinity purified.
<b>Observed MW</b>	54, 60 kDa
<b>Dilution Ratios</b>	Western blot (WB):1:500-2000 ELISA: 1:100-1000

## Storage

12 months from date of receipt, -20°C as supplied.

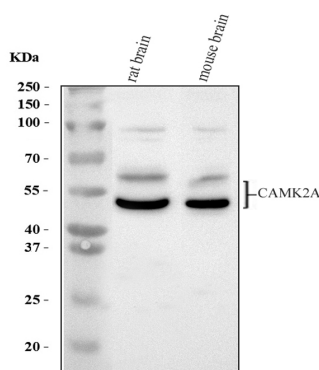
## Background Information

Calcium/calmodulin-dependent protein kinase type II alpha chain (CaMKII $\alpha$ ) is an enzyme that in humans is encoded by the CAMK2A gene. 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.

## Reference

Anti-CaMKII Alpha/CAMK2A Antibody被引用在2文献中。

## Selected Validation Data



Western blot analysis of CaMKII Alpha/CAMK2A using anti-CaMKII Alpha/CAMK2A antibody (A03241-1). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: rat brain tissue lysates,

Lane 2: mouse brain tissue lysates.

After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-CaMKII Alpha/CAMK2A antigen affinity purified polyclonal antibody (A03241-1) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for CaMKII Alpha/CAMK2A at approximately 54, 60 kDa. The expected band size for CaMKII Alpha/CAMK2A is at 54 kDa.