

## Basic Information

<b>Product Name</b>	Anti-CaMKII Alpha/CAMK2A Antibody (Clone#AAFF-3)
<b>Gene Name</b>	CAMK2A
<b>Source</b>	Rabbit
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	IgG
<b>Species Reactivity</b>	human, mouse, rat
<b>Tested Application</b>	WB, IHC, IP, FCM
<b>Contents</b>	500 ug/ml; Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide, 0.4-0.5 mg/ml BSA and 50% glycerol.
<b>Immunogen</b>	A synthesized peptide derived from human CaMKII alpha
<b>Concentration</b>	500 ug/ml
<b>Purification</b>	Affinity-chromatography
<b>Observed MW</b>	54 kDa
<b>Dilution Ratios</b>	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC):1:50-200 ImmunoPrecipitation (IP): 1:20 Flow Cytometry (FCM): 1:20

## Storage

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

## Background Information

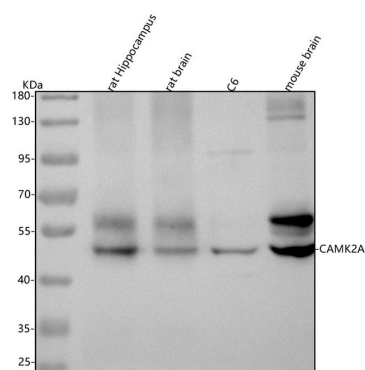
Calcium/calmodulin-dependent protein kinase type II subunit alpha (CaMKII $\alpha$ ), a.k.a. Ca<sup>2+</sup>/calmodulin-dependent protein kinase II alpha, is a protein kinase (i.e., an enzyme which phosphorylates proteins) that in humans is encoded by the CAMK2A gene. It is mapped to 5q32. The product 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. Several transcript variants encoding

distinct isoforms have been identified for this gene.

## Reference

Anti-CaMKII Alpha/CAMK2A Antibody (Clone#AAFF-3)被引用在1文献中。

## Selected Validation Data



Western blot analysis of anti-CaMKII Alpha/CAMK2A antibody (BM5046). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: rat Hippocampus tissue lysates,

Lane 2: rat brain tissue lysates,

Lane 3: rat C6 whole cell lysates,

Lane 4: 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 monoclonal antibody (BM5046) 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 kDa. The expected band size for CaMKII Alpha/CAMK2A is at 54 kDa.

Product datasheet

## Anti-CaMKII Alpha/CAMK2A Antibody (Clone#AAFF-3)

Catalog Number: **BM5046**

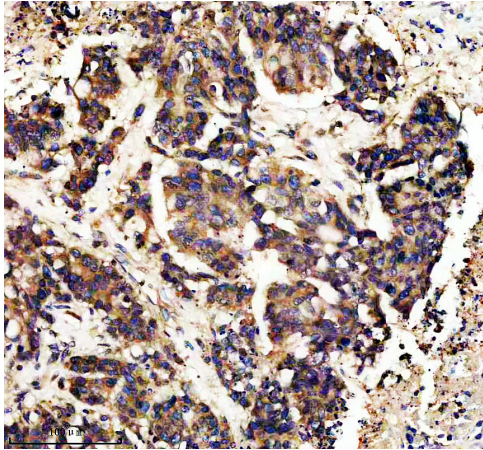
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IHC analysis of CAMK2A using anti-CAMK2A antibody (BM5046). CAMK2A was detected in a paraffin-embedded section of human colon cancer tissue. The tissue section was incubated with rabbit anti-CAMK2A Antibody (BM5046) at a dilution of 1:200 and developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.