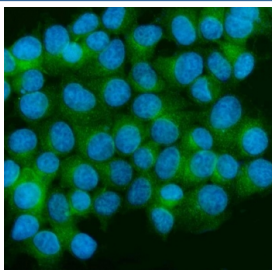


CAMK II alpha Antibody / CAMK2A (RQ5962)

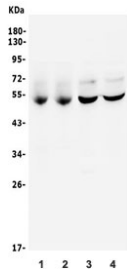
Catalog No.	Formulation	Size
RQ5962	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

[Bulk quote request](#)

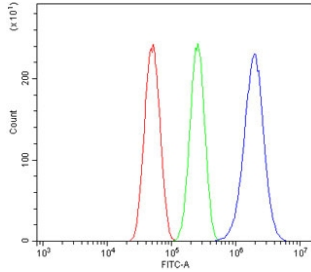
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	Q9UQM7
Applications	Western Blot : 0.5-1ug/ml Flow Cytometry : 1-3ug/million cells Immunofluorescence : 2-4ug/ml Direct ELISA : 0.1-0.5ug/ml
Limitations	This CAMK II alpha antibody is available for research use only.



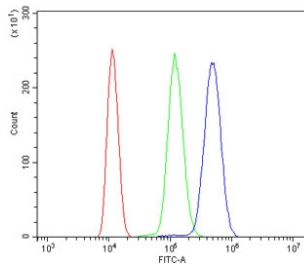
Immunofluorescent staining of FFPE human MCF7 cells with CAMK II alpha antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



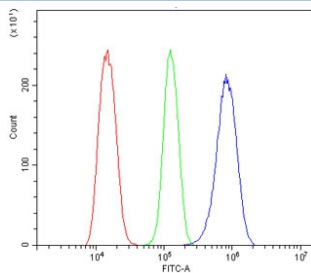
Western blot testing of different lots of rat brain (lanes 1-2) and mouse brain (lanes 3-4) lysate with CAMK II alpha antibody. Predicted molecular weight: ~54 kDa. An additional ~65 kDa band is often observed.



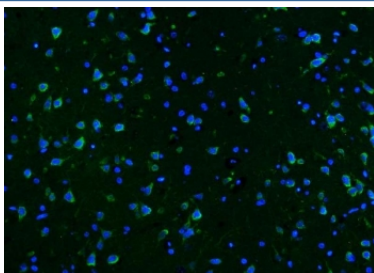
Flow cytometry testing of human U-87 MG cells with CAMK II alpha antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= CAMK II alpha antibody.



Flow cytometry testing of mouse ANA-1 cells with CAMK II alpha antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= CAMK II alpha antibody.



Flow cytometry testing of rat NRK cells with CAMK II alpha antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= CAMK II alpha antibody.



Immunofluorescent staining of FFPE rat brain with CAMK II alpha antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH8 EDTA for 20 min.

Description

Calcium/calmodulin-dependent protein kinase type II subunit alpha (CAMKIIa), a.k.a. Ca²⁺/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 Ca²⁺/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.

Application Notes

Optimal dilution of the CAMK II alpha antibody should be determined by the researcher.

Immunogen

Recombinant human protein (amino acids M1-H478) was used as the immunogen for the CAMK II alpha antibody.

Storage

After reconstitution, the CAMK II alpha antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.