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**Research Use Only. Not for
diagnostic or therapeutic use.**

EB09376 - Goat Anti-CAMK2A Antibody

Size: 100µg specific antibody in 200µl



Target Protein

Principal Names: CAMK2A, calcium/calmodulin-dependent protein kinase (CaM kinase) II alpha, CAMKA, KIAA0968, CaM kinase II alpha subunit, CaM-kinase II alpha chain, CaMK-II alpha subunit, OTTHUMP00000165787, OTTHUMP00000165788, calcium/calmodulin-dependent protein kinase II alpha-B subunit, calcium/calmodulin-dependent protein kinase IIA, calcium/calmodulin-dependent protein kinase type II alpha chain

Official Symbol: CAMK2A

Accession Number(s): NP_057065.2; NP_741960.1

Human GeneID(s): [815](#)

Non-Human GeneID(s): 12322 (mouse), 25400 (rat)

Important Comments: This antibody is expected to recognize both reported isoforms (NP_057065.2; NP_741960.1).

Immunogen

Peptide with sequence C-PRTAQSEETRVWHR, from the internal region of the protein sequence according to NP_057065.2; NP_741960.1.

Please note the [peptide](#) is available for sale.

Purification and Storage

Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.

Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin.

Aliquot and store at -20°C. Minimize freezing and thawing.

Applications Tested

Peptide ELISA: antibody detection limit dilution 1:64000.

Western blot: Approx 58-60kDa band observed in Human (Cerebellum), Mouse and Rat Brain lysates (calculated MW of 55.3kDa according to Human NP_057065.2, and 54.1kDa according to Mouse NP_803126.1 and Rat NP_037052.1). An additional band of 50kDa was observed in some Rat Brain lysates and was successfully blocked by incubation with the immunizing peptide. The observed molecular weights correspond to earlier findings with different antibodies from other commercial sources. Recommended concentration: 0.03--0.3µg/ml. Primary incubation 1 hour at room temperature.

IHC: In paraffin embedded Human Brain Cortex shows granular staining in the periphery of pyramidal cell bodies. Recommended concentration: 3-6µg/ml. Paraffin embedded Human Adrenal Gland. Recommended concentration: 3.75µg/ml.

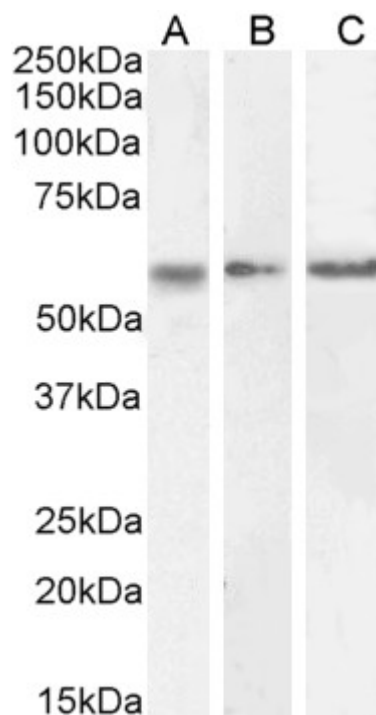
Immunofluorescence: Strong expression of the protein seen in the membrane of U2OS and U251 cells. Recommended concentration: 10µg/ml.

Flow Cytometry: Flow cytometric analysis of Kelly cells. Recommended concentration: 10ug/ml.

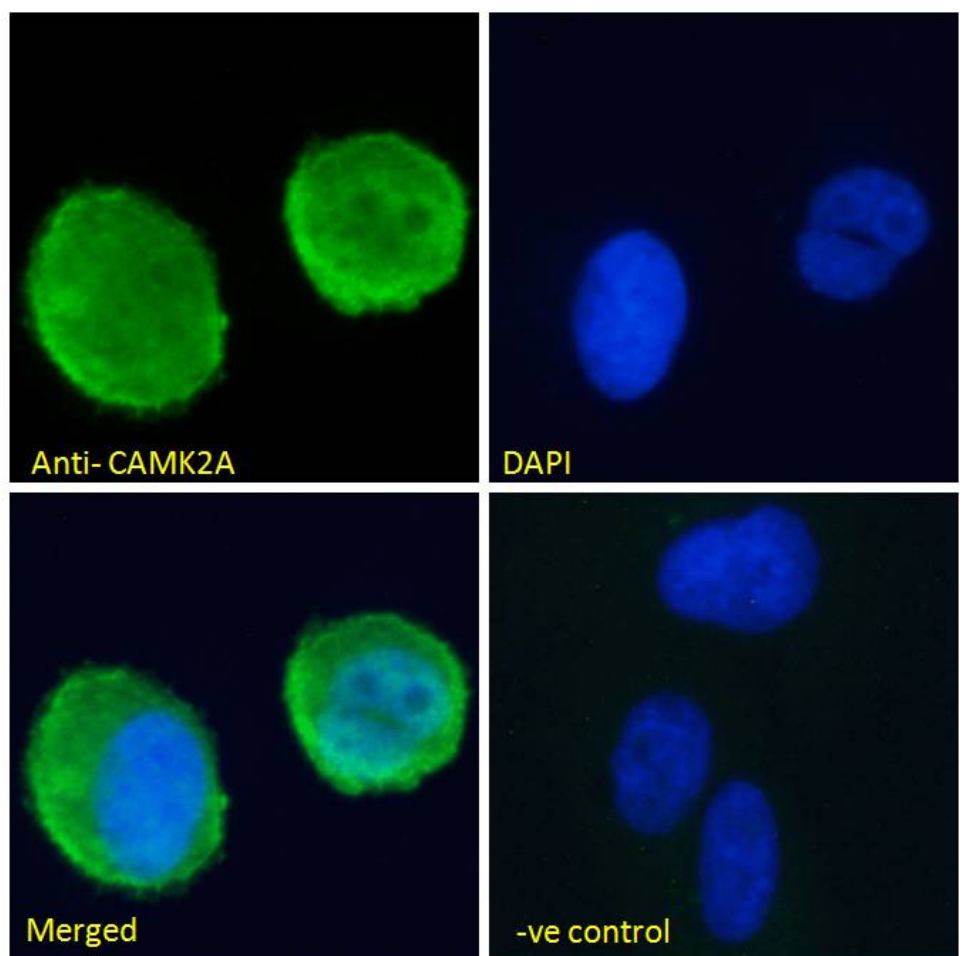
Species Reactivity

Tested: Human, Mouse, Rat

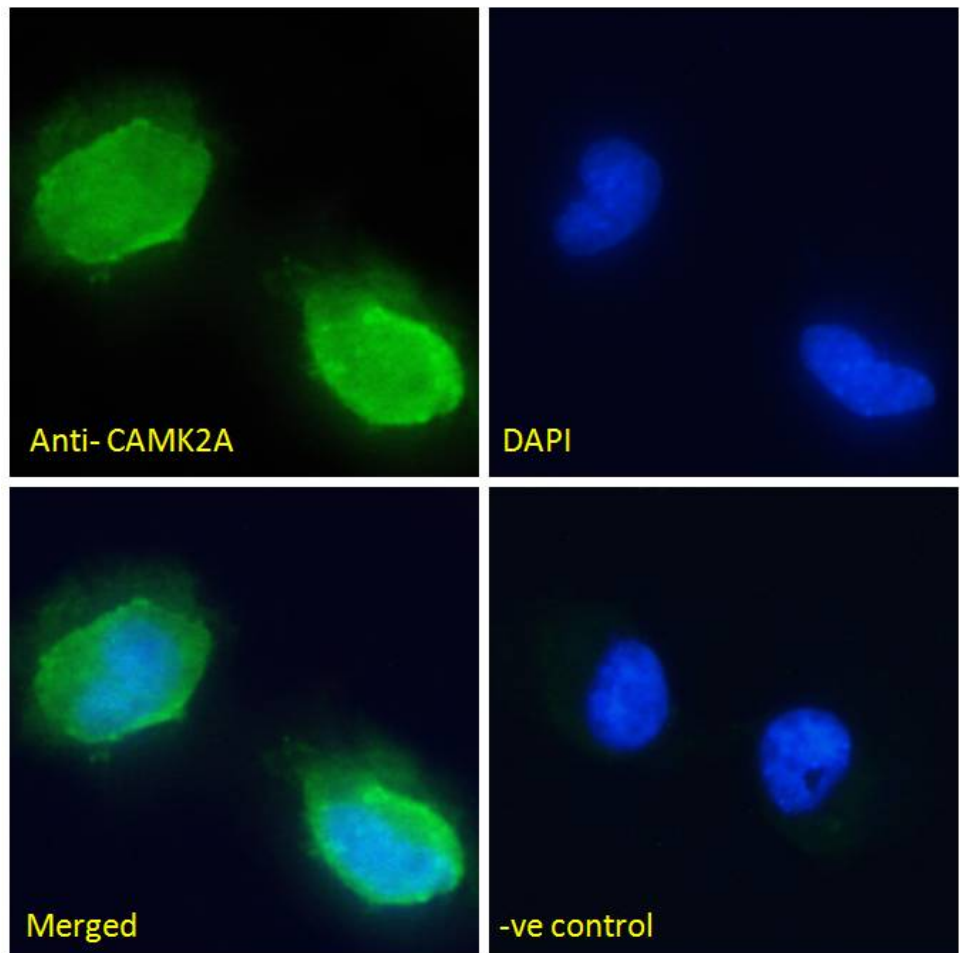
Expected from sequence similarity: Human, Mouse, Rat



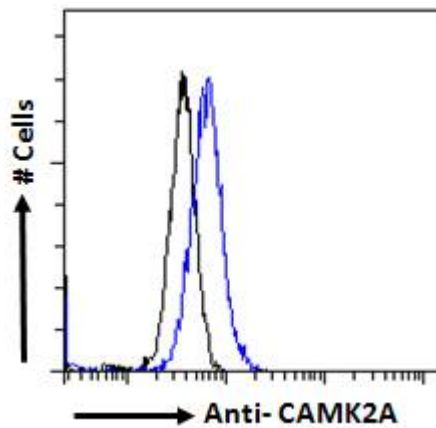
EB09376 (0.3 μ g/ml) staining of Human Cerebellum (A), Mouse (B) and Rat (C) Brain lysate (35 μ g protein in RIPA buffer). Detected by chemiluminescence



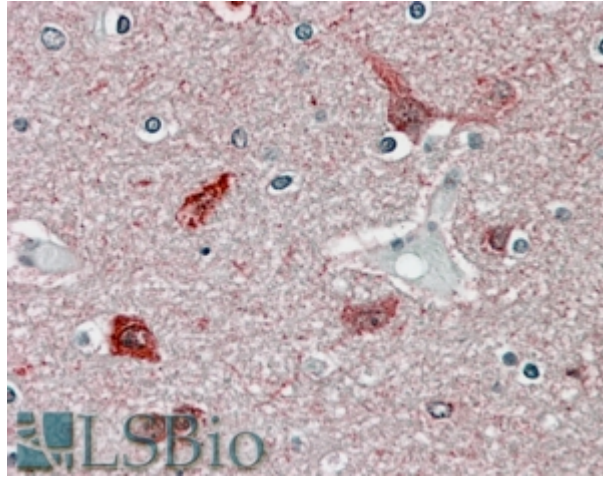
EB09376 Immunofluorescence analysis of paraformaldehyde fixed U2OS cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10 μ g/ml) followed by Alexa Fluor 488 secondary antibody (2 μ g/ml), showing membrane staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10 μ g/ml) followed by Alexa Fluor 488 secondary antibody (2 μ g/ml).



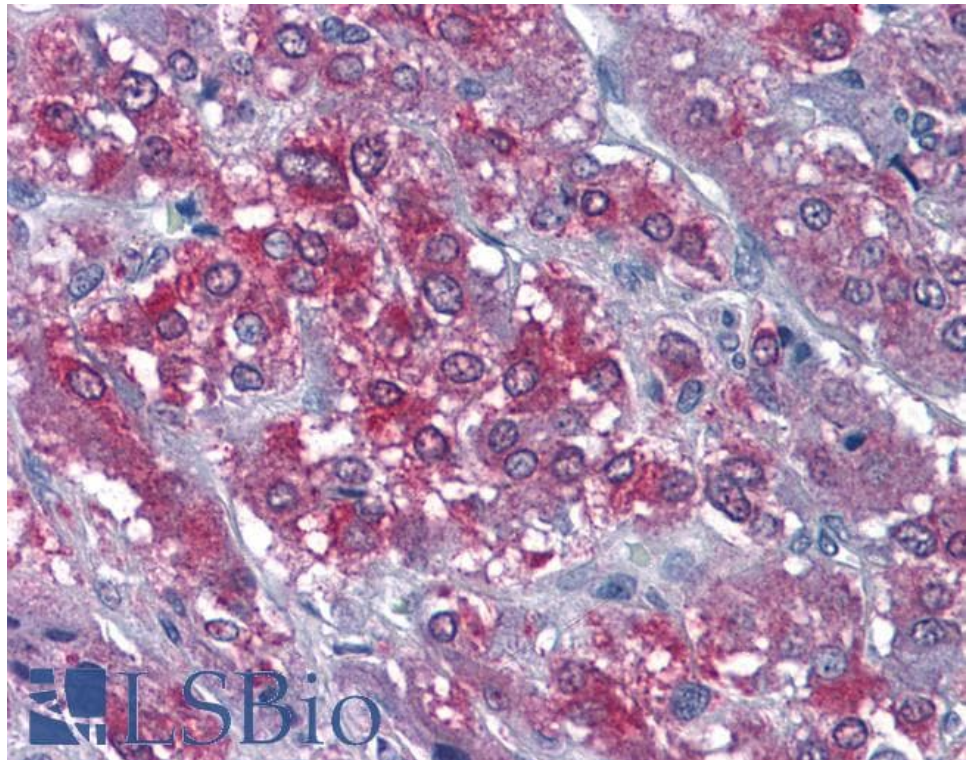
EB09376 Immunofluorescence analysis of paraformaldehyde fixed U251 cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing membrane staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml).



EB09376 Flow cytometric analysis of paraformaldehyde fixed Kelly cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (1ug/ml). IgG control: Unimmunized goat IgG (black line) followed by Alexa Fluor 488 secondary antibody.



EB09376 (3.8µg/ml) staining of paraffin embedded Human Cortex. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



EB09376 (3.75µg/ml) staining of paraffin embedded Human Adrenal Gland. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.