

## UK Office

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

## EB09376 - Goat Anti-CAMK2 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/B

**Accession Number(s):** NP\_057065.2; NP\_001280099.1

**Human GeneID(s):** [815](#) , [816](#)

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

**Important Comments:** This antibody is expected to recognize both reported isoforms (NP\_057065.2 (CAMK2A) and NP\_001280099.1 (CAMK2B)).

### Immunogen

Peptide with sequence C-PRTAQSEETRVWHR, from the internal region of the protein sequence according to NP\_057065.2; NP\_001280099.1.

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 1:128000.

**Western blot:** Approx 48-50+60kDa bands observed in Human Cerebral Cortex and Mouse and Rat Brain lysates, corresponding to CAMK2alpha and CAMK2beta respectively and approx. 60kDa in Human Cerebellum lysates (calculated MW of 55.3kDa according to Human NP\_057065.2 and 54.1kDa according to Mouse NP\_001390241.1 and Rat NP\_037052.1 subunit Alpha and 60.4kDa according to Human NP\_001280099.1, Mouse NP\_031621.3 and Rat NP\_068507.2 subunit beta). These molecular weights are routinely observed by other sources, and were successfully blocked by incubation with the immunizing peptide. Recommended concentration 0.1-1ug/ul. Primary incubation 1 hour at room temperature.

**Immunofluorescence:** Strong expression of the protein seen in the cytoplasm of Neuro2a cells. Recommended concentration: 10µg/ml.

**Flow Cytometry:** Flow cytometric analysis of Neuro2a cells. Recommended concentration: 10ug/ml.

### Species Reactivity

**Tested:** Human, Mouse, Rat

**Expected from sequence similarity:** Human, Mouse, Rat

EB09376 (1µg/ml) staining of Human Cerebral Cortex (A) + peptide (B), (0.5µg/ml) Human Cerebellum (C) + peptide (D), and (0.1ug/ml) Mouse Brain (E) + peptide (F) and Rat Brain (G) + peptide (H) lysate, (35µg protein in RIPA buffer). Detected by chemiluminescence.

EB09376 Immunofluorescence analysis of paraformaldehyde fixed Neuro2a cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing cytoplasmic 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 Neuro2a 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.