

## Product datasheet

# Anti-CaMKII beta antibody ab34703

★★★★★ [7 Abreviews](#) [35 References](#) [2 Images](#)

### Overview

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<b>Product name</b>	Anti-CaMKII beta antibody
<b>Description</b>	Rabbit polyclonal to CaMKII beta
<b>Host species</b>	Rabbit
<b>Specificity</b>	Replenishment batches of ab34703 are tested in WB. Previous batches were additionally validated in ICC/IF. This application is still expected to work and is covered by our Abpromise guarantee.
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat
<b>Immunogen</b>	Synthetic peptide corresponding to Mouse CaMKII beta aa 350-450 conjugated to keyhole limpet haemocyanin. (Peptide available as <a href="#">ab27843</a> )
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

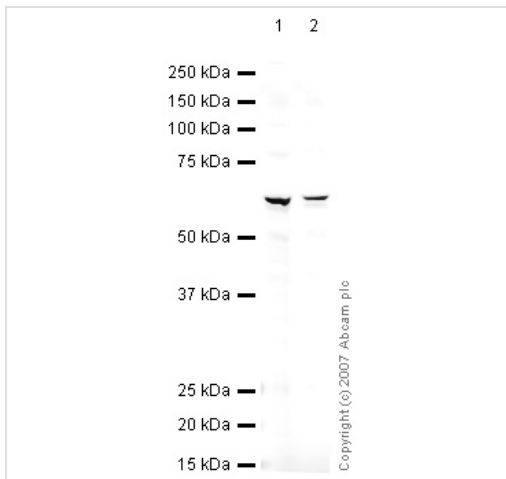
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab34703 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 5 µg/ml.
WB	★★★★★ (3)	Use a concentration of 1 µg/ml. Detects a band of approximately 60 kDa (predicted molecular weight: 60 kDa).

## Target

<b>Function</b>	CaM-kinase II (CAMK2) is a prominent kinase in the central nervous system that may function in long-term potentiation and neurotransmitter release. Member of the NMDAR signaling complex in excitatory synapses, it may regulate NMDAR-dependent potentiation of the AMPAR and synaptic plasticity.
<b>Tissue specificity</b>	Widely expressed. Expressed in adult and fetal brain. Expression is slightly lower in fetal brain.
<b>Sequence similarities</b>	Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. CaMK subfamily. Contains 1 protein kinase domain.
<b>Form</b>	The multifunctional CaMKII beta, or Ca <sup>2+</sup> /calmodulin-dependent protein kinase II, is a well known effector of calcium- and calmodulin- mediated functions. It is present in many tissues but is most abundant in the brain. CaMKII is composed of four different chains: alpha, beta, gamma, and delta. The different isoforms assemble into homo- or heteromultimeric holoenzymes composed of 8 to 12 subunits.

## Images



Western blot - Anti-CaMKII beta antibody (ab34703)

**All lanes :** Anti-CaMKII beta antibody (ab34703) at 1 µg/ml

**Lane 1 :** Brain Mouse Tissue Lysate

**Lane 2 :** Brain Rat Tissue Lysate

Lysates/proteins at 10 µg per lane.

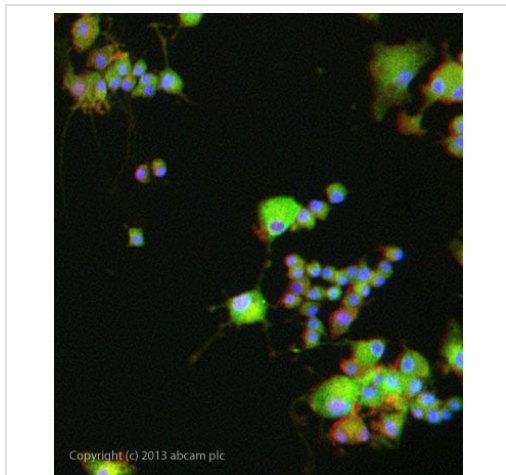
**Secondary**

**All lanes :** IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

**Predicted band size:** 60 kDa

**Observed band size:** 60 kDa



Immunocytochemistry/ Immunofluorescence - Anti-CaMKII beta antibody (ab34703)

ICC/IF image of ab34703 stained PC12 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab34703 at 5µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit ([ab96899](#)) IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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