abcam

Product datasheet

Anti-CaMKK antibody ab80066

1 References 2 Images

Overview

Product name	Anti-CaMKK antibody
Description	Rabbit polyclonal to CaMKK
Host species	Rabbit
Tested applications	**Suitable for:** WB, ELISA, ICC/IF
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	KLH conjugated synthetic peptide selected from the center region of Human CaMKK.
Positive control	Mouse thymus tissue lysate. IF/ICC: HeLa cell line.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.09% Sodium azide Constituent: PBS
Purity	Ammonium Sulphate Precipitation
Purification notes	ab80066 is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab80066 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

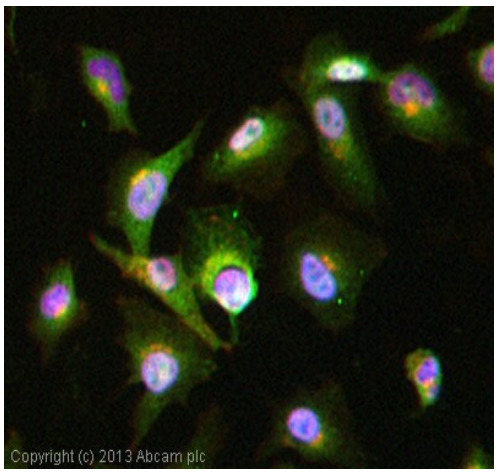
Application	Abreviews	Notes
WB		1/50 - 1/100. Detects a band of approximately 56 kDa (predicted molecular weight: 56 kDa).
ELISA		1/1000.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 5 µg/ml.

Target

Function	Calcium/calmodulin-dependent protein kinase that belongs to a proposed calcium-triggered signaling cascade involved in a number of cellular processes. Phosphorylates CAMK1, CAMK1D, CAMK1G and CAMK4. Involved in regulating cell apoptosis. Promotes cell survival by phosphorylating AKT1/PKB that inhibits pro-apoptotic BAD/Bcl2-antagonist of cell death.
Sequence similarities	Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. Contains 1 protein kinase domain.
Domain	The autoinhibitory domain overlaps with the calmodulin binding region and may be involved in intrasteric autoinhibition. The RP domain (arginine/proline-rich) is involved in the recognition of CAMKI and CAMK4 as substrates.
Post-translational modifications	Appears to be autophosphorylated in a Ca(2+)/calmodulin-dependent manner. Phosphorylated at multiple sites by PRCAKA/PKA. Phosphorylation of Ser-458 is blocked upon binding to Ca(2+)/calmodulin. In vitro, phosphorylated by CAMK1 and CAMK4.
Cellular localization	Cytoplasm. Nucleus.

Images



Immunocytochemistry/ Immunofluorescence - Anti-CaMKK antibody (ab80066)

ICC/IF image of ab80066 stained HeLa 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 (ab80066, 5µg/ml) overnight at +4°C. The secondary antibody (green) was **ab96899**, DyLight® 488 goat anti-rabbit 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.

Western blot - Anti-CaMKK antibody (ab80066)

Anti-CaMKK antibody (ab80066) at 1/50 dilution + mouse thymus tissue lysate at 35 µg

Predicted band size: 56 kDa
Observed band size: 56 kDa

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