

Product datasheet

Anti-CAMK1D antibody [2C6] ab118022

5 Images

Overview

<b>Product name</b>	Anti-CAMK1D antibody [2C6]
<b>Description</b>	Mouse monoclonal [2C6] to CAMK1D
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant full length Human CAMK1D produced in HEK293T cells (NP_065130).
<b>Positive control</b>	HEK293T cell lysate transfected with pCMV6-ENTRY CAMK1D cDNA; Human breast adenocarcinoma and thyroid tissues; COS7 cells transiently transfected by pCMV6-ENTRY CAMK1D.
<b>General notes</b>	Dilute in PBS (pH7.3) before use. Stable for 12 months from date of receipt.

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 48% PBS, 50% Glycerol, 1% BSA
<b>Purity</b>	Protein G purified
<b>Purification notes</b>	ab118022 was purified from Mouse ascites fluids by affinity chromatography.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	2C6
<b>Isotype</b>	IgG1

Applications

Our [Abpromise guarantee](#) covers the use of **ab118022** in the following tested applications.

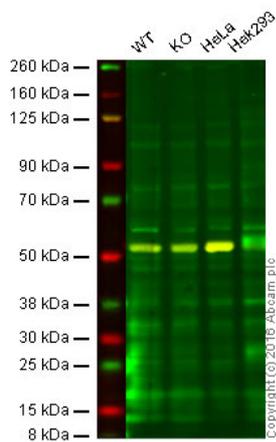
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/2000. Predicted molecular weight: 43 kDa.
IHC-P		1/50.
ICC/IF		1/100.

## Target

<b>Function</b>	Calcium/calmodulin-dependent protein kinase belonging to a proposed calcium-triggered signaling cascade. May regulate calcium-mediated granulocyte function. May play a role in apoptosis of erythroleukemia cells. Activates MAP kinase MAPK3 (By similarity). In vitro, phosphorylates transcription factor CREM isoform Beta and probably CREB1.
<b>Tissue specificity</b>	Broadly expressed. Highly and mostly expressed in polymorphonuclear leukocytes (neutrophilic and eosinophilic granulocytes) while little or no expression is observed in monocytes and lymphocytes.
<b>Sequence similarities</b>	Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. CaMK subfamily. Contains 1 protein kinase domain.
<b>Domain</b>	The autoinhibitory domain overlaps with the calmodulin binding region and interacts in the inactive folded state with the catalytic domain as a pseudosubstrate.
<b>Cellular localization</b>	Cytoplasm. Nucleus. Predominantly cytoplasmic (Probable). Also nuclear upon activation.

## Images



Western blot - Anti-CAMK1D antibody [2C6]  
(ab118022)

**Lane 1:** Wild-type HAP1 cell lysate (40 µg)

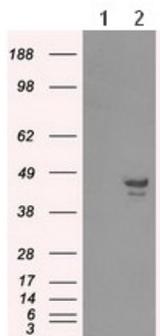
**Lane 2:** CAMK1D knockout HAP1 cell lysate (40 µg)

**Lane 3:** HeLa cell lysate (40 µg)

**Lane 4:** HEK293 cell lysate (40 µg)

**Lanes 1 - 4:** Merged signal (red and green).  
Green - ab118022 observed at 43 kDa. Red - loading control, ab176560, observed at 52 kDa.

ab118022 was shown not to react with CAMK1D when CAMK1D knockout samples were used. Wild-type and CAMK1D knockout samples were subjected to SDS-PAGE. Ab118022 and ab176560 (loading control to alpha Tubulin) were diluted at 1/2000 and 1:10,000 dilution respectively and incubated overnight at 4C. Blots were developed with IRDye® 800CW Goat anti-Mouse IgG (H + L) and IRDye® 680 Goat anti-Rabbit IgG (H + L) secondary antibodies at 1:10,000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-CAMK1D antibody [2C6]  
(ab118022)

**All lanes :** Anti-CAMK1D antibody [2C6]  
(ab118022) at 1/2000 dilution

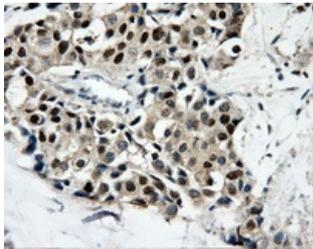
**Lane 1 :** HEK293T cell lysate transfected with pCMV6-ENTRY control

**Lane 2 :** HEK293T cell lysate transfected with pCMV6-ENTRY CAMK1D cDNA

Lysates/proteins at 5 µg per lane.

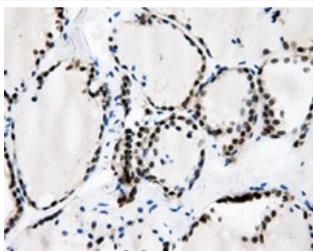
**Predicted band size:** 43 kDa

HEK293T cell lysates were generated from transient transfection of the cDNA clone (RC201419)



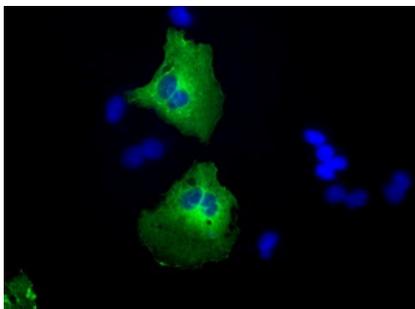
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CAMK1D antibody [2C6] (ab118022)

ab118022, at 1/50 dilution, staining CAMK1D in paraffin-embedded Human breast adenocarcinoma tissue by Immunohistochemistry.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CAMK1D antibody [2C6] (ab118022)

ab118022, at 1/50 dilution, staining CAMK1D in paraffin-embedded Human thyroid tissue by Immunohistochemistry.



Immunocytochemistry/ Immunofluorescence - Anti-CAMK1D antibody [2C6] (ab118022)

ab118022, at 1/100 dilution, staining CAMK1D in COS7 cells transiently transfected by pCMV6-ENTRY CAMK1D by Immunofluorescence.

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