abcam

Product datasheet

Anti-CAMK1D antibody [EPR3536(2)] ab172618

KO VALIDATED Recombinant RabMAb

4 References 4 Images

Overview

Product name	Anti-CAMK1D antibody [EPR3536(2)]
Description	Rabbit monoclonal [EPR3536(2)] to CAMK1D
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF **Unsuitable for:** Flow Cyt,IHC-P or IP
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Human fetal forebrain, 293T and HeLa lysates; 293T cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Tissue culture supernatant
Clonality	Monoclonal

Clone number	EPR3536(2)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab172618 in the following tested applications.

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

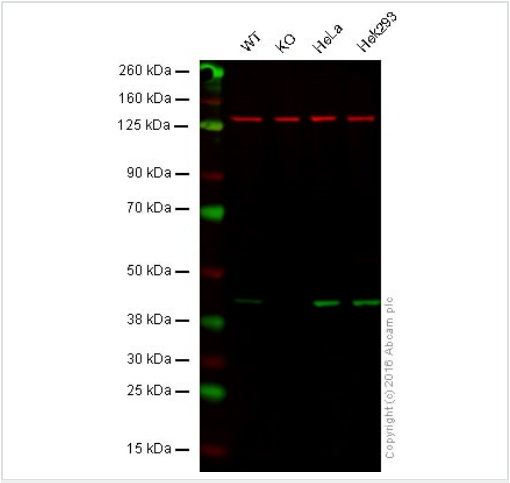
Application	Abreviews	Notes
WB		1/10000 - 1/50000. Detects a band of approximately 40 kDa (predicted molecular weight: 43 kDa).
ICC/IF		1/50 - 1/100.

Application notes Is unsuitable for Flow Cyt,IHC-P or IP.

Target

Function	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.
Tissue specificity	Broadly expressed. Highly and mostly expressed in polymorphonuclear leukocytes (neutrophilic and eosinophilic granulocytes) while little or no expression is observed in monocytes and lymphocytes.
Sequence similarities	Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. CaMK subfamily. Contains 1 protein kinase domain.
Domain	The autoinhibitory domain overlaps with the calmodulin binding region and interacts in the inactive folded state with the catalytic domain as a pseudosubstrate.
Cellular localization	Cytoplasm. Nucleus. Predominantly cytoplasmic (Probable). Also nuclear upon activation.

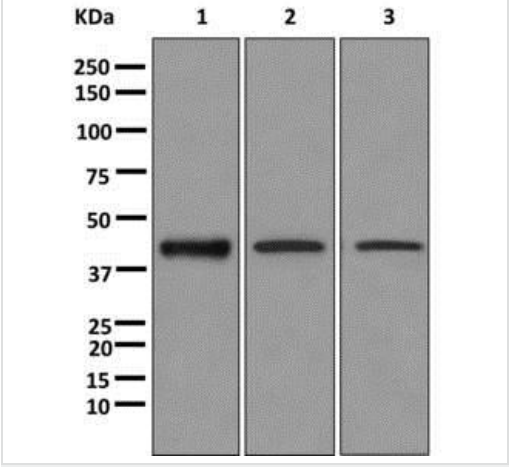
Images



Western blot - Anti-CAMK1D antibody [EPR3536(2)] (ab172618)

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: CAMK1D knockout HAP1 cell lysate (20 µg)
Lane 3: HeLa cell lysate (20 µg)
Lane 4: HEK293 cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab172618 observed at 43 kDa. Red - loading control, **ab18058**, observed at 124 kDa.

ab172618 was shown to specifically react with CAMK1D when CAMK1D knockout samples were used. Wild-type and CAMK1D knockout samples were subjected to SDS-PAGE. ab172618 and **ab18058** (loading control to Vinculin) were both diluted 1/10,000 and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed **ab216776** secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



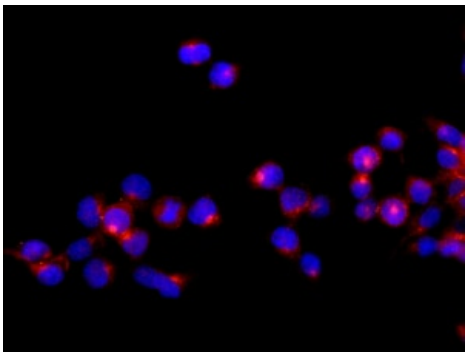
Western blot - Anti-CAMK1D antibody [EPR3536(2)] (ab172618)

All lanes : Anti-CAMK1D antibody [EPR3536(2)] (ab172618) at 1/10000 dilution

Lane 1 : Human fetal forebrain tissue lysate
Lane 2 : HeLa cell lysate
Lane 3 : 293T cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 43 kDa



Immunocytochemistry/ Immunofluorescence - Anti-CAMK1D antibody [EPR3536(2)] (ab172618)

Immunofluorescent analysis of 293T cells labeling CAMK1D with ab172618 at 1/50 dilution (red). DAPI nuclear staining (blue).

Anti-CAMK1D antibody [EPR3536(2)] (ab172618)

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