abcam

Product datasheet

Anti-DCAMKL1 antibody ab31704

KO 評価済

14 Abreviews 106 References 画像数 7

製品の概要

製品名	Anti-DCAMKL1 antibody
製品の詳細	Rabbit polyclonal to DCAMKL1
由来種	Rabbit
特異性	This antibody recognizes 2 different human isoforms (AL: 82.2 KDa and BL: 47.6 KDa)
アプリケーション	**適用あり:** ICC, WB, IP
種交差性	**交差種:** Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: HAP1 and NIH-3T3 cell lysates. Human, mouse, and rat brain tissue lysates;
特記事項	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. 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&As

製品の特性

製品の状態	Liquid
保存方法	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.
バッファー	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
精製度	Immunogen affinity purified

ポリ/モノ	ポリクローナル
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab31704の使用に適用されます

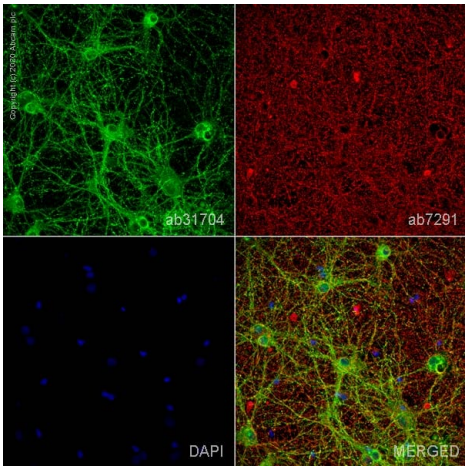
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
ICC	★★★★★ (1)	Use a concentration of 5 µg/ml.
WB	★★★★☆ (4)	Use a concentration of 0.5 µg/ml. Detects a band of approximately 47, 82 kDa (predicted molecular weight: 47, 82 kDa).
IP		Use at an assay dependent concentration.

ターゲット情報

機能	Probable kinase that may be involved in a calcium-signaling pathway controlling neuronal migration in the developing brain. May also participate in functions of the mature nervous system.
組織特異性	In fetal tissues, highly expressed in brain, detectable in lung and liver, but not in kidney. In adult tissues, expressed ubiquitously in the brain, detectable in the heart, liver, spleen, thymus, prostate, testis, ovary, small intestine and colon. The type A isoforms seem to be expressed predominantly in fetal brain whereas type B isoforms are expressed abundantly in both fetal and adult brain.
配列類似性	Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. CaMK subfamily. Contains 2 doublecortin domains. Contains 1 protein kinase domain.

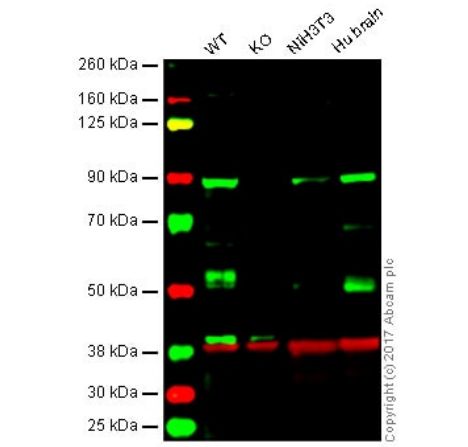
画像



Immunocytochemistry - Anti-DCAMKL1 antibody (ab31704)

ab31704 staining DCAMKL1 in primary hippocampal rat neurons/glia, (obtained from Neuromics, cat. no. PC35101), DIV14. The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab31704 at 5 µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.

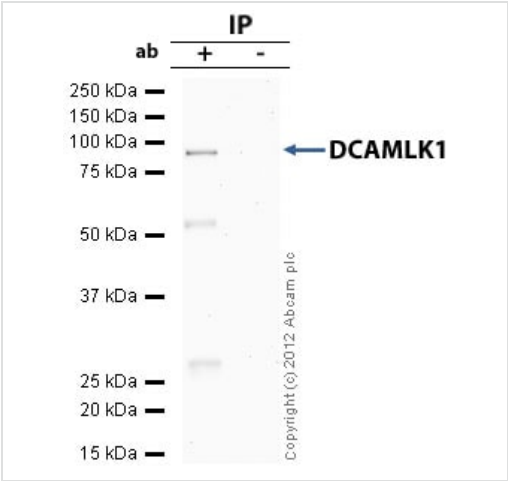


Western blot - Anti-DCAMKL1 antibody (ab31704)

Lane 1: Wild type HAP1 whole cell lysate (20 µg)
Lane 2: DCAMKL1 knockout HAP1 whole cell lysate (20 µg)
Lane 3: NIH3T3 whole cell lysate (20 µg)
Lane 4: Human brain whole tissue lysate (20 µg)

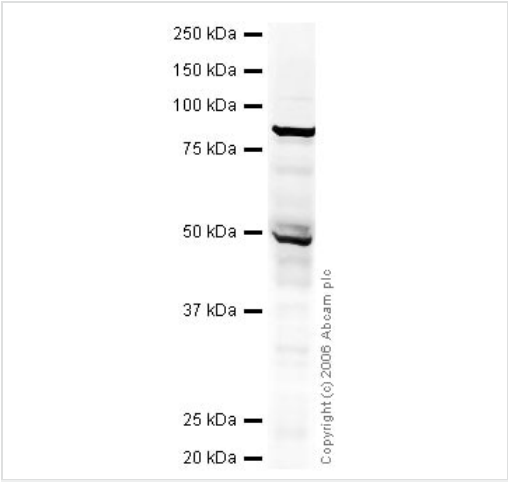
Lanes 1 - 4: Merged signal (red and green). Green - ab31704 observed at 90 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab31704 was shown to specifically react with DCAMKL1 in wild-type HAP1 cells along with additional cross reactive bands. No bands were observed when DCAMKL1 knockout cells were examined. Wild-type and DCAMKL1 knockout samples were subjected to SDS-PAGE. ab31704 and **ab8245** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1 µg/ml and 1/10,000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.



Immunoprecipitation - Anti-DCAMKL1 antibody (ab31704)

DCAMKL1 was immunoprecipitated using 0.5mg Mouse Brain whole tissue lysate, 5µg of Rabbit polyclonal to DCAMKL1 and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).
The antibody was incubated under agitation with Protein G beads for 10min, Mouse Brain whole tissue lysate lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.
Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70^{o}C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab31704.
Secondary: Mouse monoclonal [SB62a] Secondary Antibody to Rabbit IgG light chain (HRP) (**ab99697**).
Band: 82kDa: DCAMKL1; non specific - 52 and 27kDa: We are unsure as to the identity of this extra band.



Western blot - Anti-DCAMKL1 antibody (ab31704)

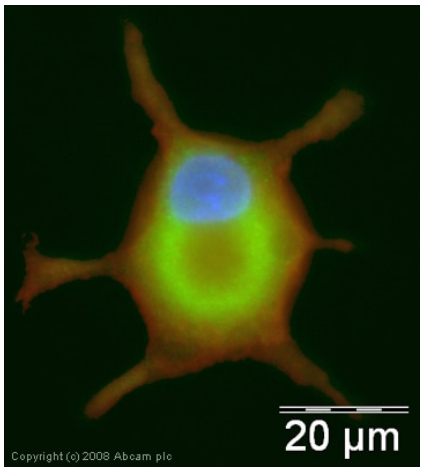
Anti-DCAMKL1 antibody (ab31704) at 1 µg/ml + Mouse Brain Whole Tissue Lysate at 20 µg

Secondary
IR Dye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/15000 dilution

Performed under reducing conditions.

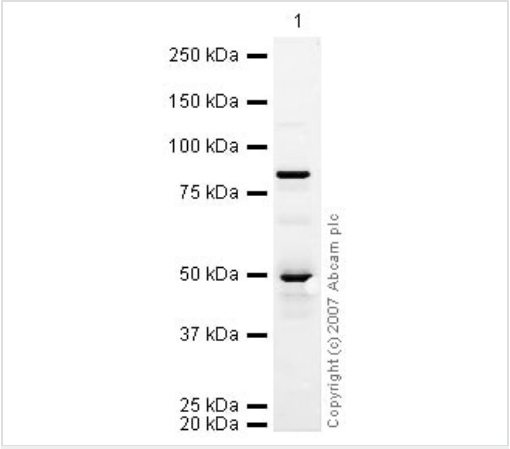
Predicted band size: 47, 82 kDa
Observed band size: 47,82 kDa

The 82 kDa and 47 kDa bands correspond to the AL and BL isoforms respectively. This antibody should not detect the AS and BS isoforms of DCAMLK1.



Immunocytochemistry - Anti-DCAMKL1 antibody (ab31704)

ICC/IF image of ab31704 stained PC12 cells. The cells were 4% PFA 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 (ab31704, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 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).



Western blot - Anti-DCAMKL1 antibody (ab31704)

Anti-DCAMKL1 antibody (ab31704) at 1 µg/ml + Brain (Rat) Tissue Lysate - normal tissue at 10 µg

Secondary
IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 47, 82 kDa
Observed band size: 47,82 kDa

Western blot - Anti-DCAMKL1 antibody (ab31704)

Anti-DCAMKL1 antibody (ab31704) at 1 µg/ml + Human brain tissue lysate - total protein (**ab29466**) at 10 µg

Secondary
Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

Predicted band size: 47, 82 kDa
Observed band size: 47,82 kDa
Additional bands at: 30 kDa, 52 kDa (possible post-translational modification), 54 kDa (possible post-translational modification). We

are unsure as to the identity of these extra bands.

Exposure time: 5 minutes

The 82 kDa and 47 kDa bands correspond to the AL and BL isoforms respectively. DCAMLK1 has a number of potential phosphorylation sites which may explain the higher migrating bands at 52 and 54 kDa.

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