abcam

Product datasheet

Anti-Caveolin-1 antibody [7C8] ab17052

敲除验证

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概述

产品名称	Anti-Caveolin-1抗体[7C8]
描述	小鼠单克隆抗体[7C8] to Caveolin-1
宿主	Mouse
特异性	The monoclonal antibody 7C8 recognizes caveolin-1a as well as caveolin-1ß, which are present in many tissues, like aorta, heart, muscle, lung, adipose white, brown and epididymal fat.
经测试应用	**适用于:** ICC/IF, WB **不适用于:** Flow Cyt
种属反应性	**与反应:** Rat, Human **预测可用于:** Mouse
免疫原	Tissue, cells or virus corresponding to Rat Caveolin-1. GLUT4-containing vesicles immunoadsorbed from low density microsomes of rat adipocytes (Sprague Dawley). The antibody recognises epitope between residue 32 and the C-terminus.
阳性对照	WB: A431, A549 and HUVEC cell lysates. ICC: HeLa cells.
常规说明	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

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
存储溶液	Preservative: 0.02% Sodium azide Constituents: PBS, 0.1% BSA
纯度	Protein G purified

纯化说明	0.2 µm filtered
克隆	单克隆
克隆编号	7C8
同种型	IgG2b

应用

The Abpromise guarantee Abpromise™承诺保证使用ab17052于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

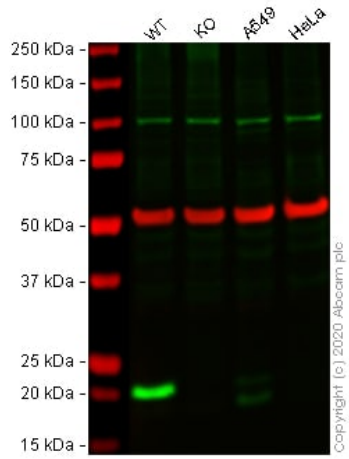
应用	Ab评论	说明
ICC/IF	★★★★☆ (9)	Use at an assay dependent concentration.
WB	★★★★☆ (3)	Use at an assay dependent concentration. Detects a band of approximately 21, 19 kDa.

应用说明 Is unsuitable for Flow Cyt.

靶标

功能	May act as a scaffolding protein within caveolar membranes. Interacts directly with G-protein alpha subunits and can functionally regulate their activity (By similarity). Involved in the costimulatory signal essential for T-cell receptor (TCR)-mediated T-cell activation. Its binding to DPP4 induces T-cell proliferation and NF-kappa-B activation in a T-cell receptor/CD3-dependent manner. Recruits CTNNB1 to caveolar membranes and may regulate CTNNB1-mediated signaling through the Wnt pathway.
组织特异性	Expressed in muscle and lung, less so in liver, brain and kidney.
疾病相关	Defects in CAV1 are the cause of congenital generalized lipodystrophy type 3 (CGL3) [MIM:612526]; also called Berardinelli-Seip congenital lipodystrophy type 3 (BSCL3). Congenital generalized lipodystrophies are autosomal recessive disorders characterized by a near absence of adipose tissue, extreme insulin resistance, hypertriglyceridemia, hepatic steatosis and early onset of diabetes.
序列相似性	Belongs to the caveolin family.
翻译后修饰	The initiator methionine for isoform Beta is removed during or just after translation. The new N-terminal amino acid is then N-acetylated.
细胞定位	Golgi apparatus membrane. Cell membrane. Membrane > caveola. Membrane raft. Colocalized with DPP4 in membrane rafts. Potential hairpin-like structure in the membrane. Membrane protein of caveolae.

图片



Western blot - Anti-Caveolin-1 antibody [7C8] (ab17052)

All lanes : Anti-Caveolin-1 antibody [7C8] (ab17052) at 1 µg/ml

Lane 1 : Wild-type A-431 (Human epidermoid carcinoma cell line) whole cell lysate
Lane 2 : CAV1 knockout A-431 (Human epidermoid carcinoma cell line) whole cell lysate
Lane 3 : A549 (Human lung carcinoma cell line) whole cell lysate
Lane 4 : HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

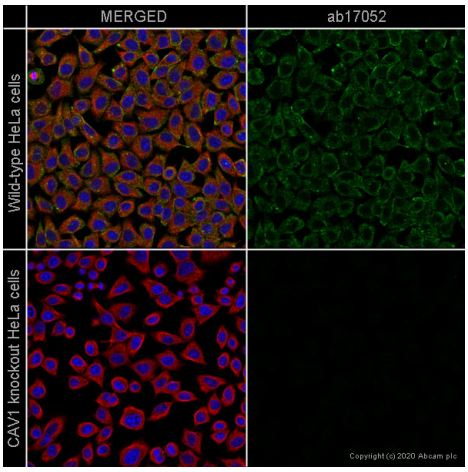
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Observed band size: 21-24 kDa

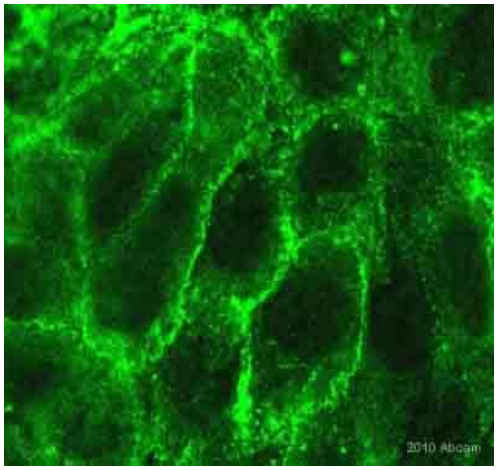
Lanes 1 - 4: Merged signal (red and green). Green - ab17052 observed at 21-24 kDa. Red - loading control, **ab52866** (Rabbit anti-alpha Tubulin antibody [EP1332Y]) observed at 55kDa.

ab17052 was shown to react with Caveolin-1 in wild-type A431 cells in western blot. Loss of signal was observed when CAV1 knockout sample was used. Wild-type and CAV1 knockout A431 cell lysates were subjected to SDS-PAGE. Membranes were blocked in non-mammalian (TBS-based) blocking solution before incubation with ab17052 and **ab52866** (Rabbit anti-alpha Tubulin antibody [EP1332Y]) overnight at 4°C at 1 µg/ml and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed (**ab216772**) and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed (**ab216777**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-Caveolin-1 antibody [7C8] (ab17052)

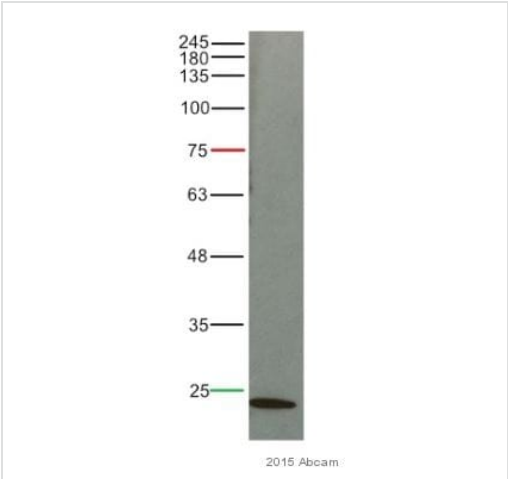
ab17052 staining Caveolin-1 in wild-type HeLa cells (top panel) and CAV1 knockout HeLa cells (**ab255371**) (bottom panel). The cells were fixed with 100% methanol (5 min) then permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab17052 at 1/500 dilution and **ab6046** (Rabbit polyclonal to beta Tubulin) at 1/1000 dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat secondary antibody to mouse IgG (Alexa Fluor® 488) (**ab150117**) at 2 µg/ml (shown in green) and a goat secondary antibody to rabbit IgG (Alexa Fluor® 594) (**ab150080**) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI.
Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).



Immunocytochemistry/ Immunofluorescence - Anti-Caveolin-1 antibody [7C8] (ab17052)

This image is courtesy of an anonymous abreview.

ab17052 staining Caveolin-1 in human Hacat keratinocyte cells by Immunocytochemistry/ Immunofluorescence. The cells were formaldehyde fixed, permeabilised in 0.1% Triton X-100 and then blocked using 1% serum for 1 hour at 25°C. Samples were then incubated with primary antibody at 1/75 for 24 hours at 4°C. The secondary antibody used was conjugated to Alexa Fluor® 488 (green) used at a 1/500 dilution.



Western blot - Anti-Caveolin-1 antibody [7C8] (ab17052)

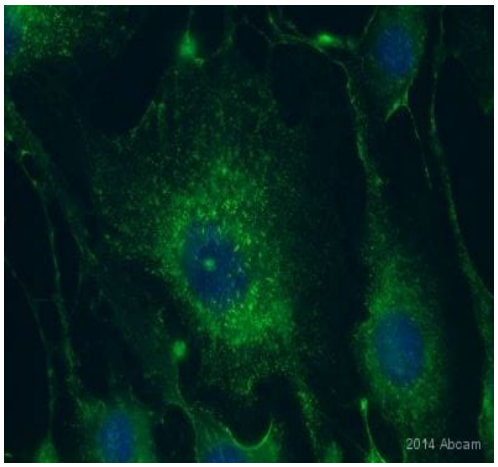
This image is courtesy of an anonymous Abreview.

Anti-Caveolin-1 antibody [7C8] (ab17052) at 1/500 dilution + HUVEC whole cell lysate at 20 µg

Developed using the ECL technique.

Performed under reducing conditions.

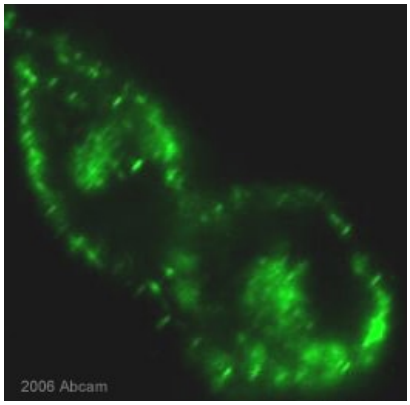
Exposure time: 10 seconds



Immunocytochemistry/ Immunofluorescence - Anti-Caveolin-1 antibody [7C8] (ab17052)

This image is courtesy of an anonymous Abreview.

Immunocytochemical analysis of Mouse Bend.3 cells, labeling Caveolin-1 with ab17052. Cells were paraformaldehyde fixed, permeabilized with PBS + 0.1% Triton (PBT), and blocked with 10% serum for 1 hour at 22°C. Staining with ab17052 (diluted 1/200) was for 16 hours at 4°C.



Immunocytochemistry/ Immunofluorescence - Anti-Caveolin-1 antibody [7C8] (ab17052)

This image is courtesy of an anonymous Abreview

ab17052 at a 1/500 dilution staining hamster CHO cells by ICC/IF. The cells were paraformaldehyde fixed and blocked with 10% serum prior to incubation with the antibody. Bound antibody was detected using a FITC conjugated goat anti-mouse antibody.

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