


### Anti-Caveolin-1 antibody [7C8] ab17052

KO 評価済

★★★★☆ 13 Abreviews 35 References 画像数 6

#### 製品の概要

製品名	Anti-Caveolin-1 antibody [7C8]
製品の詳細	Mouse monoclonal [7C8] to Caveolin-1
由来種	Mouse
特異性	The monoclonal antibody 7C8 recognizes caveolin-1a as well as caveolin-1β, which are present in many tissues, like aorta, heart, muscle, lung, adipose white, brown and epididymal fat.
アプリケーション	適用あり: ICC/IF, WB 適用なし: Flow Cyt
種交差性	交差種: Rat, Human 交差が予測される動物種: 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.
ポジティブ・コントロール	WB: A431, A549 and HUVEC cell lysates. ICC: HeLa cells.
特記事項	<p>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.</p> <p>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&amp;As</p>

#### 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. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.02% Sodium azide Constituents: PBS, 0.1% BSA
精製度	Protein G purified

特記事項(精製)	0.2 µm filtered
ポリ/モノ	モノクローナル
クローン名	7C8
アイソタイプ	IgG2b

## 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ab17052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確認ください。

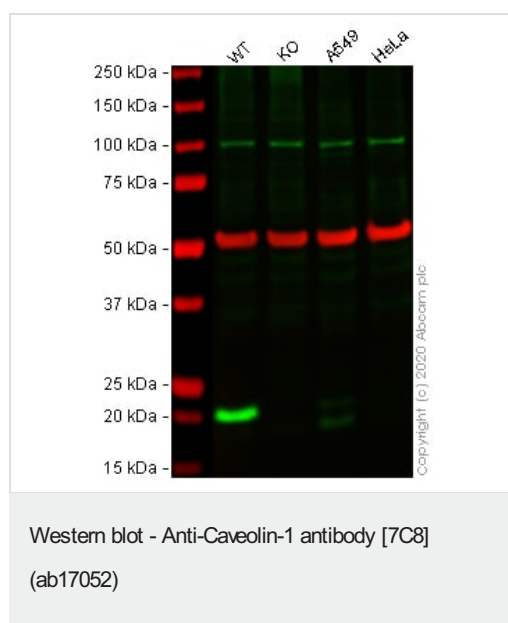
アプリケーション	Abreviews	特記事項
ICC/IF	★★★★★ (9)	Use at an assay dependent concentration.
WB	★★★★★ (3)	Use at an assay dependent concentration. Detects a band of approximately 21, 19 kDa.

**追加情報** Is unsuitable for Flow Cyt.

## ターゲット情報

<b>機能</b>	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.
<b>組織特異性</b>	Expressed in muscle and lung, less so in liver, brain and kidney.
<b>関連疾患</b>	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.
<b>配列類似性</b>	Belongs to the caveolin family.
<b>翻訳後修飾</b>	The initiator methionine for isoform Beta is removed during or just after translation. The new N-terminal amino acid is then N-acetylated.
<b>細胞内局在</b>	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.

## 画像



**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

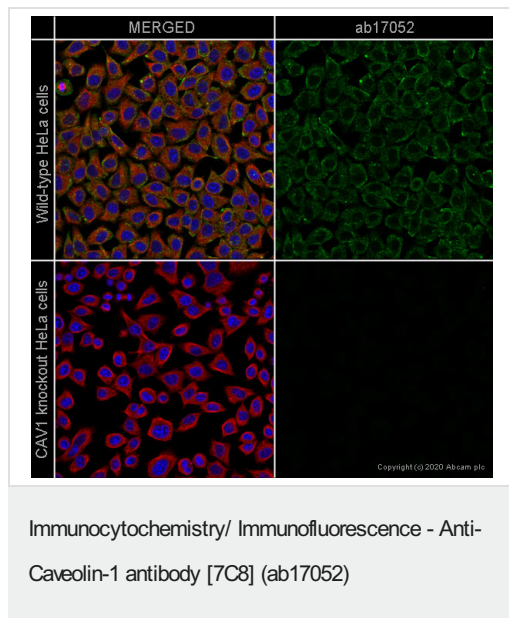
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

**Observed band size:** 21-24 kDa

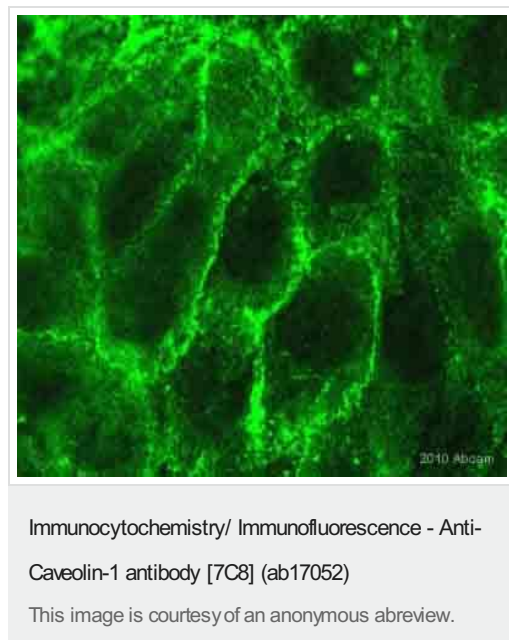
**Lanes 1 -4:** Merged signal (red and green). Green - ab17052 observed at 21-24 kDa. Red - loading control, [ab52866](#) (Rabbit anti-alpha Tubulin antibody [EP1332Y]) observed at 55kDa.

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.

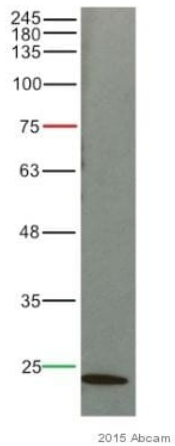


ab17052 staining Caveolin-1 in wild-type HeLa cells (top panel) and CAV1 knockout HeLa cells (**ab255371**) (bottom panel). The cells were fixed with 100% methanol (5 min) then permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween 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).



**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)

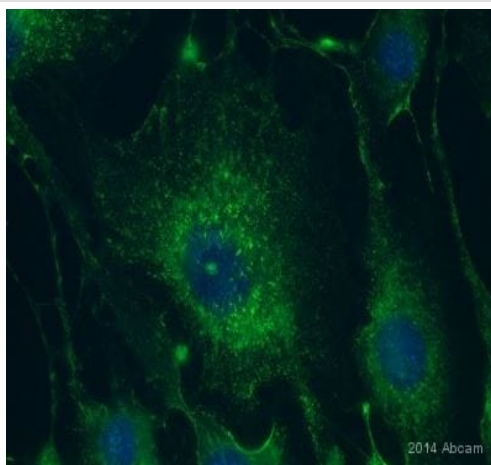
This image is courtesy of an anonymous Abreview.

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.

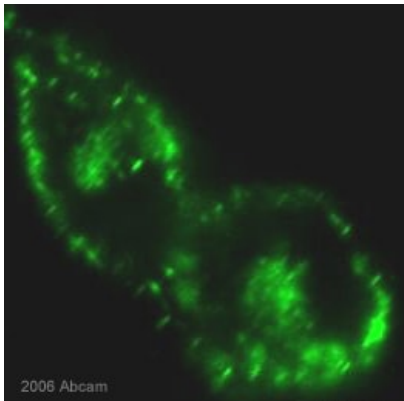
**Exposure time:** 10 seconds



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.



**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.

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

This image is courtesy of an anonymous Abreview

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