


Product datasheet

Anti-Caveolin-2 antibody [EPR5471] ab133484

Recombinant RabMAb

★ ★ ★ ★ ★ [1 Abreviews](#) [4 References](#) [3 Images](#)

Overview

Product name	Anti-Caveolin-2 antibody [EPR5471]
Description	Rabbit monoclonal [EPR5471] to Caveolin-2
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 within Human Caveolin-2 (C terminal). The exact sequence is proprietary. Database link: P51636
Positive control	HUVEC, HeLa, 3T3-L1, and U87-MG cell lysates.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none">- 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 -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.2 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Tissue culture supernatant
Clonality	Monoclonal

Clone number EPR5471

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab133484 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)	1/1000 - 1/10000. Predicted molecular weight: 18 kDa.
ICC/IF		1/50.

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

Target

Function May act as a scaffolding protein within caveolar membranes. Interacts directly with G-protein alpha subunits and can functionally regulate their activity. Acts as an accessory protein in conjunction with CAV1 in targeting to lipid rafts and driving caveolae formation. The Ser-36 phosphorylated form has a role in modulating mitosis in endothelial cells. Positive regulator of cellular mitogenesis of the MAPK signaling pathway. Required for the insulin-stimulated nuclear translocation and activation of MAPK1 and STAT3, and the subsequent regulation of cell cycle progression.

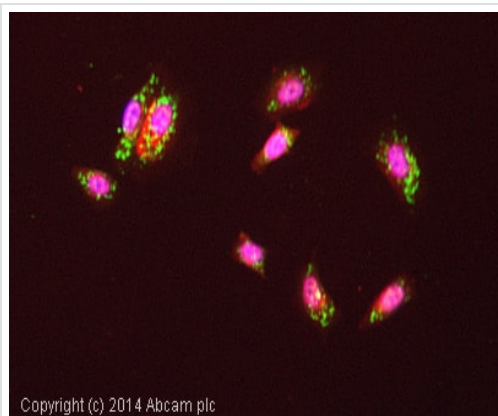
Tissue specificity Expressed in endothelial cells, smooth muscle cells, skeletal myoblasts and fibroblasts.

Sequence similarities Belongs to the caveolin family.

Post-translational modifications Phosphorylated on serine and tyrosine residues. CAV1 promotes phosphorylation on Ser-23 which then targets the complex to the plasma membrane, lipid rafts and caveolae. Phosphorylation on Ser-36 appears to modulate mitosis in endothelial cells (By similarity). Phosphorylation on both Tyr-19 and Tyr-27 is required for insulin-induced 'Ser-727' phosphorylation of STAT3 and its activation. Phosphorylation on Tyr-19 is required for insulin-induced phosphorylation of MAPK1 and DNA binding of STAT3. Tyrosine phosphorylation is induced by both EGF and insulin.

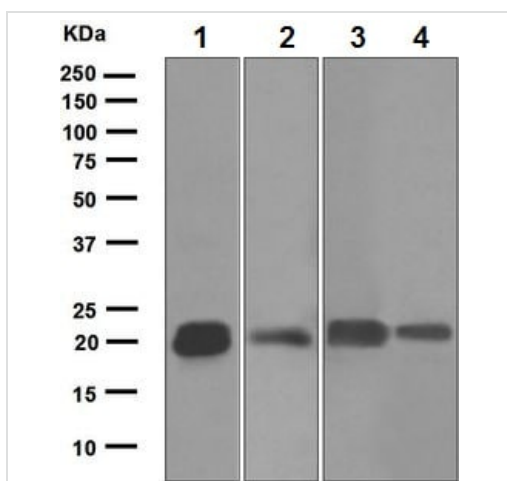
Cellular localization Nucleus. Cytoplasm. Golgi apparatus membrane. Cell membrane. Membrane > caveola. Potential hairpin-like structure in the membrane. Membrane protein of caveolae. Tyr-19-phosphorylated form is enriched at sites of cell-cell contact and is translocated to the nucleus in complex with MAPK1 in response to insulin (By similarity). Tyr-27-phosphorylated form is located both in the cytoplasm and plasma membrane. CAV1-mediated Ser-23-phosphorylated form locates to the plasma membrane. Ser-36-phosphorylated form resides in intracellular compartments.

Images



Immunocytochemistry/ Immunofluorescence - Anti-Caveolin-2 antibody [EPR5471] (ab133484)

ab133484 stained MCF cells. The cells were 4% formaldehyde fixed for 10 minutes at room temperature and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1hour at room temperature to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab133484 at 1/100 dilution) overnight at +4°C. The secondary antibody (pseudo-colored green) was Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (**ab150081**) used at a 1/1000 dilution for 1hour at room temperature. Alexa Fluor® 594 WGA was used to label plasma membranes (pseudo-colored red) at a 1/200 dilution for 1hour at room temperature. DAPI was used to stain the cell nuclei (pseudo-colored blue) at a concentration of 1.43µM for 1hour at room temperature.



Western blot - Anti-Caveolin-2 antibody [EPR5471] (ab133484)

All lanes : Anti-Caveolin-2 antibody [EPR5471] (ab133484) at 1/1000 dilution

Lane 1 : HUVEC cell lysate

Lane 2 : HeLa cell lysate

Lane 3 : 3T3-L1 cell lysate

Lane 4 : U87-MG cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 18 kDa

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Caveolin-2 antibody [EPR5471] (ab133484)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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