abcam

Product datasheet

PE Anti-Caveolin-1 antibody [EPR15554] - N-terminal ab212007

`Recombinant` RabMAb

2 Images

Overview

Product name	PE Anti-Caveolin-1 antibody [EPR15554] - N-terminal
Description	PE Rabbit monoclonal [EPR15554] to Caveolin-1 - N-terminal
Host species	Rabbit
Conjugation	PE. Ex: 488nm, Em: 575nm
Tested applications	**Suitable for:** Flow Cyt (Intra)
Species reactivity	**Reacts with:** Human
	Predicted to work with: Mouse ⚠
Immunogen	Recombinant fragment within Human Caveolin-1 aa 1-100 (N terminal). The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please **contact** our Scientific Support team to discuss your requirements. Database link: **Q03135**
Positive control	Flow Cyt (intra): A549 cells.
General notes	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. Upon delivery aliquot. Store at +4°C. Do Not Freeze. Store In the Dark.
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 1% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR15554
Isotype	IgG

Applications

Our **Abpromise guarantee** covers the use of ab212007 in the following tested applications.

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

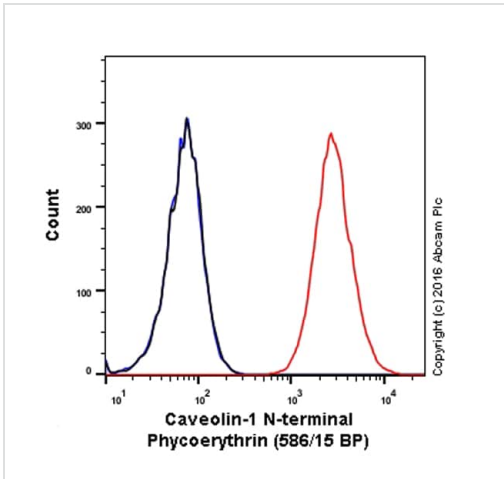| Application	Abreviews	Notes
Flow Cyt (Intra)		1/500. The cellular localisation of this product has been verified in ICC/IF.

Target

Function	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.
Tissue specificity	Expressed in muscle and lung, less so in liver, brain and kidney.
Involvement in disease	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.
Sequence similarities	Belongs to the caveolin family.
Post-translational modifications	The initiator methionine for isoform Beta is removed during or just after translation. The new N-terminal amino acid is then N-acetylated.
Cellular localization	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.

Images

Overlay histogram showing A549 cells stained with ab212007 (red line). The cells were fixed with 4% formaldehyde (10 min) and then permeabilized with 90% methanol at -20°C for 15 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab212007, 1/500 dilution) for 30 min at 22°C.

Isotype control antibody (black line) was rabbit IgG (monoclonal) Phycoerythrin (**ab209478**) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 50 mW Yellow/Green laser (561nm) and 586/15 bandpass filter.

Flow Cytometry (Intracellular) - PE Anti-Caveolin-1 antibody [EPR15554] - N-terminal (ab212007)

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

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