Datasheet for ABIN967959

anti-Caveolin 3 antibody (AA 3-24)

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Overview

Quantity:	50 µg
Target:	Caveolin 3 (CAV3)
Binding Specificity:	AA 3-24
Reactivity:	Mouse, Rat, Rabbit
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Caveolin 3 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF)

Product Details

Immunogen:	Rat Caveolin 3 aa. 3-24
Clone:	26-Caveolin 3
Isotype:	IgG1
Cross-Reactivity:	Mouse (Murine), Rabbit
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	Caveolin 3 (CAV3)
Alternative Name:	Caveolin 3 (CAV3 Products)
Background:	Identified as a tyrosine phosphorylated protein in Rous sarcoma virus-transformed chick embryo fibroblasts (CEF), caveolin is now known to be ubiquitously expressed. Caveolin (also known as VIP21) localizes to non-clathrin membrane invaginations (caveolae) on the inner surface of the plasma membrane. This transmembrane protein plays a structural role in these specializations. Caveolin is also present at the trans-Golgi network (TGN), and similar quantities are found in apically and basolaterally destined transport vesicles. Caveolin is part of a complex containing glycosylphosphatidylinositol (GPI)-linked molecules and cytoplasmic signaling proteins. Caveolin is a transmembrane adaptor molecule that can simultaneously recognize GPI-linked proteins and interact with downstream cytoplasmic signaling molecules, such as c-yes, Annexin II, and hetero-trimeric G proteins. Caveolin 3 has been identified as a distinct isoform which is expressed only in smooth, skeletal, and cardiac muscle.
Molecular Weight:	18 kDa
Pathways:	Carbohydrate Homeostasis, Regulation of Muscle Cell Differentiation, Regulation of Cell Size, Skeletal Muscle Fiber Development, Negative Regulation of Transporter Activity

Application Details

Application Notes:	This antibody was tested in development by immunohistochemistry using the SDS Antigen Retreival Method.
Comment:	Related Products: ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.

Handling

Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

Publications

Product cited in:

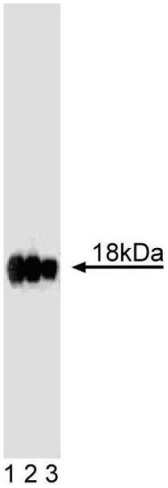
Lavitrano, Bacci, Forni, Lazzereschi, Di Stefano, Fioretti, Giancotti, Marfé, Pucci, Renzi, Wang, Stoppacciaro, Stassi, Sargiacomo, Sinibaldi, Turchi, Giovannoni, Della Casa, Seren, Rossi: " Efficient production by sperm-mediated gene transfer of human decay accelerating factor (hDAF) transgenic pigs for xenotransplantation." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 99, Issue 22, pp. 14230-5, (2002) (PubMed).

Woodman, Park, Cohen, Cheung, Chandra, Shirani, Tang, Jelicks, Kitsis, Christ, Factor, Tanowitz, Lisanti: "Caveolin-3 knock-out mice develop a progressive cardiomyopathy and show hyperactivation of the p42/44 MAPK cascade." in: **The Journal of biological chemistry**, Vol. 277, Issue 41, pp. 38988-97, (2002) (PubMed).

Zhao, Liu, Stan, Fan, Gu, Dalton, Chu, Peterson, Ross, Chien: "Defects in caveolin-1 cause dilated cardiomyopathy and pulmonary hypertension in knockout mice." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 99, Issue 17, pp. 11375-80, (2002) (PubMed).

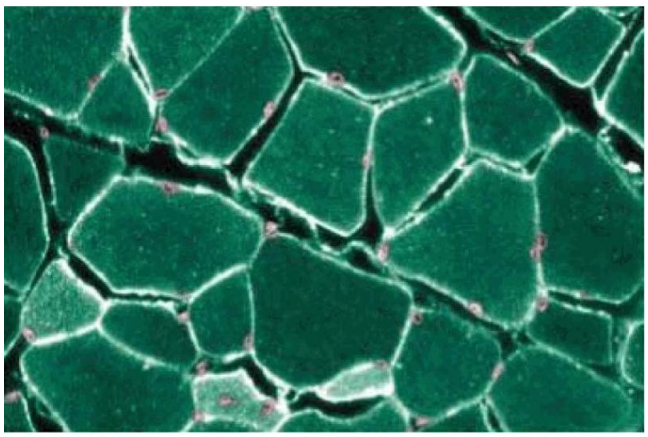
Rybin, Xu, Lisanti, Steinberg: "Differential targeting of beta -adrenergic receptor subtypes and adenylyl cyclase to cardiomyocyte caveolae. A mechanism to functionally regulate the cAMP signaling pathway." in: **The Journal of biological chemistry**, Vol. 275, Issue 52, pp. 41447-57, (2001) (PubMed).

Song, Scherer, Tang, Okamoto, Li, Chafel, Chu, Kohtz, Lisanti: "Expression of caveolin-3 in skeletal, cardiac, and smooth muscle cells. Caveolin-3 is a component of the sarcolemma and co-fractionates with dystrophin and dystrophin-associated glycoproteins." in: **The Journal of biological chemistry**, Vol. 271, Issue 25, pp. 15160-5, (1996) (PubMed).



Western Blotting

Image 1. Western blot analysis of Caveolin 3 on rat muscle lysate. Lane 1: 1:5000, lane 2: 1:10000, lane 3: 1:20000 dilution of anti-Caveolin 3.



Immunohistochemistry

Image 2. Immunohistochemical staining of Rabbit Muscle with anti-Caveolin 3.

