

## Technical Data Sheet

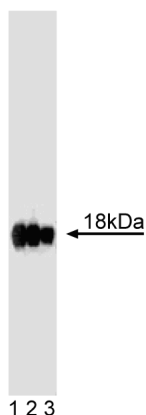
## Purified Mouse Anti-Caveolin 3

## Product Information

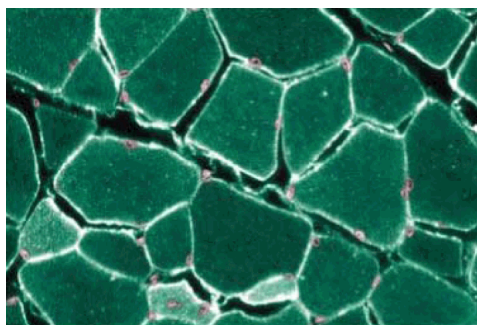
|                         |                                                                              |
|-------------------------|------------------------------------------------------------------------------|
| <b>Material Number:</b> | <b>610420</b>                                                                |
| <b>Size:</b>            | 50 µg                                                                        |
| <b>Concentration:</b>   | 250 µg/ml                                                                    |
| <b>Clone:</b>           | 26/Caveolin 3                                                                |
| <b>Immunogen:</b>       | Rat Caveolin 3 aa. 3-24                                                      |
| <b>Isotype:</b>         | Mouse IgG1                                                                   |
| <b>Reactivity:</b>      | QC Testing: Rat<br>Tested in Development: Mouse, Rabbit                      |
| <b>Target MW:</b>       | 18 kDa                                                                       |
| <b>Storage Buffer:</b>  | Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide. |

## Description

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.



**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.



**Immunohistochemical staining of Rabbit Muscle with anti-Caveolin 3.**

## Preparation and Storage

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

Store undiluted at -20°C.

## Application Notes

## Application

|                      |                           |
|----------------------|---------------------------|
| Western blot         | Routinely Tested          |
| Immunohistochemistry | Tested During Development |
| Immunofluorescence   | Not Recommended           |
| Immunoprecipitation  | Not Recommended           |

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**Recommended Assay Procedure:**

This antibody was tested in development by immunohistochemistry using the SDS Antigen Retrieval Method. Please view [http://www.bdbiosciences.com/support/resources/protocols/tissue\\_section\\_stain.jsp](http://www.bdbiosciences.com/support/resources/protocols/tissue_section_stain.jsp) for an example protocol.

**Suggested Companion Products**

| Catalog Number | Name                    | Size   | Clone      |
|----------------|-------------------------|--------|------------|
| 554002         | HRP Goat Anti-Mouse Ig  | 1.0 ml | (none)     |
| 554001         | FITC Goat Anti-Mouse Ig | 0.5 mg | Polyclonal |
| 611469         | Rat Muscle Lysate       | 500 µg | (none)     |

**Product Notices**

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharmlingen/protocols](http://www.bdbiosciences.com/pharmlingen/protocols) 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.

**References**

Lavitrano M, Bacci ML, Forni M, et al. Efficient production by sperm-mediated gene transfer of human decay accelerating factor (hDAF) transgenic pigs for xenotransplantation. *Proc Natl Acad Sci U S A*. 2002; 99(22):14230-14235. (Clone-specific: Western blot)

Rybin VO, Xu X, Lisanti MP, Steinberg SF. Differential targeting of beta -adrenergic receptor subtypes and adenylyl cyclase to cardiomyocyte caveolae. A mechanism to functionally regulate the cAMP signaling pathway. *J Biol Chem*. 2000; 275(52):41447-41457. (Clone-specific: Electron microscopy, Immunoprecipitation, Western blot)

Song KS, Scherer PE, Tang Z, et al. 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. *J Biol Chem*. 1996; 271(25):15160-15165. (Biology)

Woodman SE, Park DS, Cohen AW, et al. Caveolin-3 knock-out mice develop a progressive cardiomyopathy and show hyperactivation of the p42/44 MAPK cascade. *J Biol Chem*. 2002; 277(41):38988-38997. (Clone-specific: Immunofluorescence, Western blot)

Zhao YY, Liu Y, Stan RV, Fan L, et al. Defects in caveolin-1 cause dilated cardiomyopathy and pulmonary hypertension in knockout mice. *Proc Natl Acad Sci U S A*. 2002; 99(17):11375-11380. (Clone-specific: Immunohistochemistry, Western blot)