Technical Data Sheet
Purified Mouse Anti-Caveolin 1

Product Information
Material Number: 610406
Size: 50 µg
Concentration: 250 µg/ml
Clone: 2297/Caveolin 1
Immunogen: RSV-CEF Caveolin aa. 1-178
Isotype: Mouse IgG1
Reactivity: QC Testing: Human
           Tested in Development: Chicken, Dog, Mouse, Rat
Target MW: 21-24 kDa
Storage Buffer: 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-1 can generate two forms, α and β, due to alternate splicing of the mRNA. The α isoform has been reported to be observed at 24 kD and the β isoform at 21 kD. Caveolin-1 forms large lipid-binding homo-oligomers which are believed to play a role in caveola formation. It may also function as a scaffolding protein which concentrates and organizes signaling molecules, a role supported by the fact that caveolin-1 interacts directly with inactive Ras and G-protein α subunits.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.

Preparation and Storage
Store undiluted at -20° C.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

BD Biosciences

Western blot analysis of Caveolin 1 on a human endothelial cell lysate. Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the mouse anti- caveolin 1 antibody.

Immunofluorescence with the mouse anti- caveolin 1 antibody on human endothelial cells.
Application Notes

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Suggested Companion Products

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<tr>
<td>611450</td>
<td>Human Endothelial Cell Lysate</td>
<td>500 µg</td>
<td>(none)</td>
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<tr>
<td>554002</td>
<td>HRP Goat Anti-Mouse Igs</td>
<td>1.0 ml</td>
<td>(none)</td>
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<tr>
<td>554001</td>
<td>FITC Goat Anti-Mouse Igs</td>
<td>0.5 mg</td>
<td>Polyclonal</td>
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. 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.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References


