

**Mouse Anti-Caveolin 1 [C060]: MC0492, MC0492RTU7**

**Intended Use:** For Research Use Only

**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,  $\alpha$  and  $\beta$ , due to alternate splicing of the mRNA. Caveolin-1 forms large lipid-binding homo-oligomers which are believed to lay a role in caveolae formation.

**Specifications:**

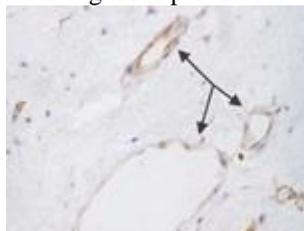
Clone: C060  
 Source: Mouse  
 Isotype: IgM  
 Reactivity: Human, rat, dog, rabbit  
 Localization: Membrane  
 Formulation: Purified ascites in PBS pH7.4, containing BSA, glycerol, and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>).  
 Storage: Store at 2°- 8°C. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles  
 Applications: IHC, IP, WB  
 Package:

Description	Catalog No.	Size
Caveolin 1 Concentrated	MC0492	1 ml
Caveolin 1 Prediluted	MC0492RTU7	7 ml

**IHC Procedure\*:**

Positive Control Tissue: Human urinary bladder or atheroma tissue  
 Concentrated Dilution: 20-100  
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



Human atheroma FFPE tissue stained with anti-Caveolin 1 using DAB

**References:**

1. Decreased caveolin-1 in atheroma: Loss of antiproliferative control of vascular smooth muscle cells in atherosclerosis. Carsten S., et al. Cardiovascular Research 68: 128 – 135, 2005.
2. PC12 cells have caveolae that contain TrkA. Caveolae-disrupting drugs inhibit nerve growth factor-induced, but not epidermal growth factor-induced, MAPK phosphorylation. Peiro S, et al. J Biol Chem. 275(48):37846-37852, 2000.
3. Caveolin cycles between plasma membrane caveolae and the Golgi complex by microtubule-dependent and microtubule-independent steps. Conrad PA, et al. J Cell Biol. 131(1):1421-1433, 1995.

Doc. 100-MC0492  
Rev. B