Technical Data Sheet

Purified Mouse Anti- Caveolin-1 (pY14)

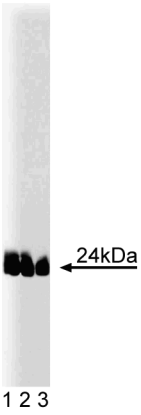
Product Information

Material Number:	**611339**
Size:	150 µg
Concentration:	250 µg/ml
Clone:	56/Caveolin (pY14)
Immunogen:	Phosphorylated Human Caveolin-1 (Y14) Peptide
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat
Target MW:	21-24 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

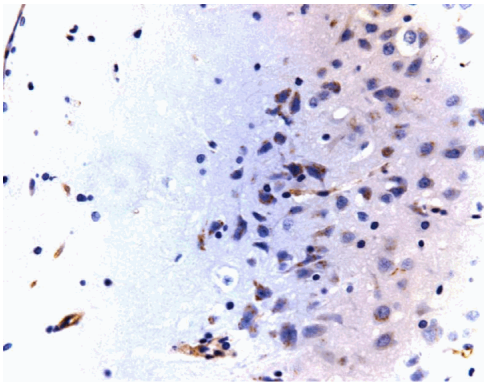
Description

Caveolin (VIP21) localizes to non-clathrin membrane invaginations (caveolae) on the inner surface of the plasma membrane. In addition, it is present in the trans-Golgi network (TGN) and in apically and basolaterally destined transport vesicles. Caveolin is a transmembrane adaptor molecule that recognizes GPI-linked proteins and interacts with downstream cytoplasmic signaling molecules, such as src-family tyrosine kinases and hetero-trimeric G proteins. Caveolin forms large lipid-binding oligomers, which are thought to play a role in caveolae formation. It may also function as a scaffolding protein, which organizes signaling molecules. This functional role is supported by the fact that caveolin interacts directly with inactive ras and G-protein α subunits. Phosphorylation of caveolin at Tyr-14, Ser-88, and other residues in v-src transformed cells leads to flattening, aggregation, and fusion of caveolae and caveolae-derived vesicles. Thus, caveolin is the principle protein of caveolae and may be involved in v-src mediated cellular transformation.

This antibody has also been reported to cross-react to paxillin in mouse embryonic fibroblasts (MEF), observable to migrate at ~ 68 kDa .



Western blot analysis of caveolin-1 (pY14) on lysates from A431 cells (Human epithelial carcinoma; ATCC CRL-1555) treated with 100 ng/mL EGF. *Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the mouse anti-caveolin-1 (pY14) antibody.*



Immunohistochemistry: *Zinc-fixed paraffin-embedded rat brain section stained with the mouse anti- caveolin-1 (pY14) antibody (40X magnification).*

Preparation and Storage

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

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Application Notes

Application

Western blot	Routinely Tested
Immunohistochemistry-zinc-fixed	Tested During Development
Immunofluorescence	Not Recommended

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
611448	A431 + EGF Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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Labrecque L, Royal I, Surprenant DS, Patterson C, Gingras D, Béliveau R. Regulation of vascular endothelial growth factor receptor-2 activity by caveolin-1 and plasma membrane cholesterol. *Mol Biol Cell.* 2003; 14(1):334-347.(Biology: Western blot)

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