Technical Data Sheet

Purified Mouse Anti-Flotillin-1

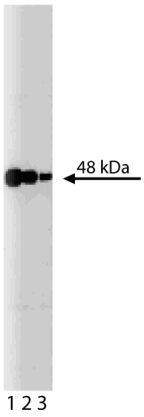
Product Information

Material Number:	**610820**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	18/Flotillin-1
Immunogen:	Mouse Flotillin aa. 312-428
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat Tested in Development: Chicken, Human, Mouse
Target MW:	48 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Caveolae are specialized membrane invaginations of 50-100 nm present in all cells, but abundant in endothelium, muscle cells, and adipocytes. These plasma membrane microdomains function in transcytosis of macromolecules, and are the sites of potocytosis, where small molecules are concentrated and transferred inside the cells by glycosylphosphatidylinositol (GPI)-linked receptors. Caveolin, a 22kDa protein and a well known marker for these plasma membrane microdomains, plays a structural role in these specializations. Flotillin-1 was isolated from the Triton X-100 insoluble buoyant fraction, characteristic of caveolae. Although the mRNA expression of both Flotillin-1 and Caveolin is very similar, Caveolin is undetectable in brain, while Flotillin-1 is very abundant. Flotillin-1 is a close homolog of the Epidermal Surface Antigen (ESA/Flotillin-2), which also colocalizes in the caveolae. Thus, Flotillin-1 and its relative ESA/Flotillin-2 are now incorporated into the expanding list of proteins co-localized at the caveolae which includes PKCα, Ras, Rap Src-like kinases, Gαßγ,and GPI-linked receptors.

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.



Western blot analysis of flotillin-1 on rat brain lysate. *Lane 1: 1:250, Lane 2: 1:500, Lane 3: 1:1000 dilution of flotillin-1.*

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
Immunofluorescence	Tested During Development

BD Biosciences

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Suggested Companion Products

Catalog Number	Name	Size	Clone
611463	Rat Cerebrum Lysate	500 µg	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/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

Bickel PE, Scherer PE, Schnitzer JE, Oh P, Lisanti MP, Lodish HF. Flotillin and epidermal surface antigen define a new family of caveolae-associated integral membrane proteins. *J Biol Chem.* 1997; 272(21):13793-13802.(Biology)

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Fallon L, Moreau F, Croft BG, Labib N, Gu WJ, Fon EA. Parkin and CASK/LIN-2 associate via a PDZ-mediated interaction and are co-localized in lipid rafts and postsynaptic densities in brain. *J Biol Chem.* 2002; 277(1):486-491.(Clone-specific: Western blot)

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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, Western blot)