Human Phospho-Caveolin-1 (Y14) Antibody

Monoclonal Mouse IgG_{2A} Clone # 750304

Catalog Number: MAB7418

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Phospho-Caveolin-1 (Y14) in direct ELISAs.
Source	Monoclonal Mouse IgG_{2A} Clone # 750304
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Phosphopeptide containing the human Caveolin-1 Y14 site Accession # Q03135
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

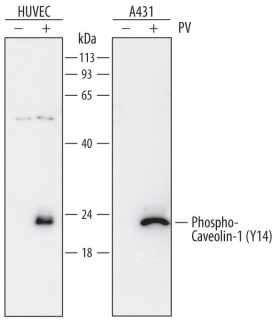
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.2 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below

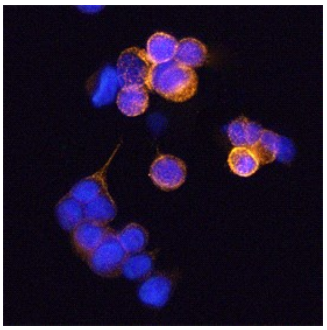
DATA

Western Blot



Detection of Human Phospho-Caveolin-1 (Y14) by Western Blot.
Western blot shows lysates of HUVEC human umbilical vein endothelial cells and A431 human epithelial carcinoma cell line untreated (-) or treated (+) with 1 mM Pervanadate (PV) for 5 minutes. PVDF membrane was probed with 0.2 µg/mL of Mouse Anti-Human Phospho-Caveolin-1 (Y14) Monoclonal Antibody (Catalog # MAB7418) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Phospho-Caveolin-1 (Y14) at approximately 22 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



Phospho-Caveolin-1 (Y14) in MCF-7 Human Cell Line.
Caveolin-1 phosphorylated at Y14 was detected in immersion fixed MCF-7 human breast cancer cell line using Mouse Anti-Human Phospho-Caveolin-1 (Y14) Monoclonal Antibody (Catalog # MAB7418) at 25 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (yellow; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to plasma membranes. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Caveolin-1 is a palmitoylated 22 kDa membrane-associated protein in caveolae, the cholesterol-rich invaginations in the plasma membrane involved in vesicular transport and regulation of lipid rafts. Caveolin-1 expression is dysregulated during cancer progression and exhibits both positive and negative effects on tumor progression. The central region of Caveolin-1 (aa 105-125) is buried in the lipid layer, while the N- and C-terminal flanking regions are exposed to the cytoplasm and interact with many other proteins. Within these cytoplasmic regions, human Caveolin-1 shares 95% aa sequence identity with mouse and rat Caveolin-1. Alternate splicing in human, mouse and rat generates an isoform with a deletion of the N-terminal 31 residues.

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