

# Caveolin-1 (Tyr-14), phospho-specific

Cat. # CM2831

Host Mouse Monoclonal IgG1

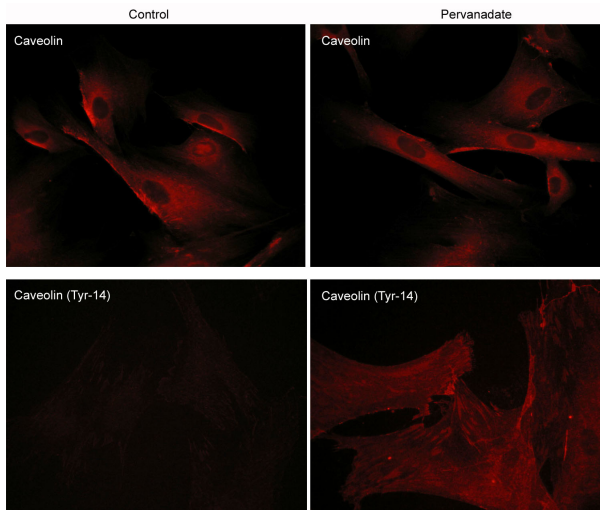
Size 100 µl

## Background:

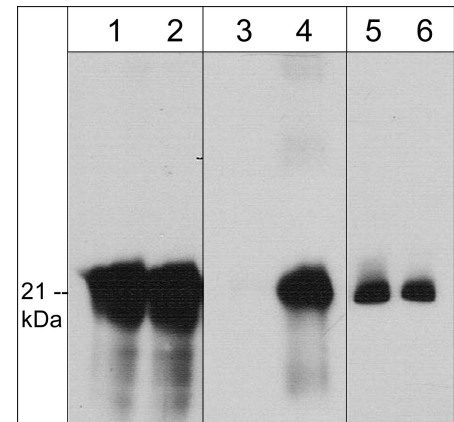
Caveolins are the primary structural components of the plasma membrane microdomains, caveolae. Three members of the caveolin family (caveolin-1, -2, and -3) have been identified, and each has distinct expression patterns. Caveolins are involved in diverse biological functions, including vesicular trafficking, cholesterol homeostasis, cell adhesion and apoptosis. Caveolins can interact with various signaling molecules, including G-proteins, receptor tyrosine kinases, PKCs, and Src family kinases. Phosphorylation at Tyr-14 is essential for caveolin association with SH2 or PTB domain-containing adaptor proteins, while phosphorylation at Ser-80 regulates caveolin binding to the ER membrane and entry into the secretory pathway.

## References

- Okamoto, T. et al. (1998) J. Biol. Chem. 273:5419.  
 Smart, E. J. et al. (1999) Mol. Cell. Biol. 19:7289.  
 Nomura, R. et al. (1999) Mol. Biol. Cell 10:975.  
 Schlegel, A. et al. (2001) J. Biol. Chem. 276:4398.



Immunocytochemical labeling of caveolin-1 phosphorylation in rabbit spleen fibroblasts. The cells were treated with pervanadate (1 mM) for 30 min, then fixed with paraformaldehyde and labeled with rabbit polyclonal Caveolin-1 (N-terminal region) and mouse monoclonal Caveolin-1 (Tyr-14) antibodies. The antibodies were detected using appropriate secondary antibodies conjugated to Cy3.



Western blot image of human A431 cells unstimulated (lanes 1, 3, & 5) or stimulated with pervanadate (1 mM) for 30 min (lanes 2, 4, & 6). The blots were probed with rabbit polyclonal caveolin-1 (N-term.) (lanes 1 & 2), mouse monoclonal caveolin-1 (Tyr-14) (lanes 3 & 4) or mouse monoclonal caveolin-1 (lanes 5 & 6).

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# Caveolin-1 (Tyr-14), phospho-specific

**Cat. #** CM2831

**Host** Mouse Monoclonal IgG1

**Size** 100 µl

## **Immunogen:**

Phospho-Caveolin-1 (Tyr-14) synthetic peptide corresponding to amino acids surrounding tyrosine 14 in human Caveolin-1. This sequence has significant homology to the conserved site in rat and mouse Caveolin-1.

## **Buffer and Storage:**

Mouse monoclonal antibody purified with protein A chromatography is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

## **Applications:**

WB 1:1000

ELISA 1:2000

ICC 1:100

End user should determine optimal dilution for their particular applications and experiments.  
Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1hour at room temperature.

## **Specificity:**

This antibody detects a 21 kDa\* protein corresponding to the apparent molecular mass of caveolin-1 on SDS-PAGE immunoblots of human A431 cells treated with EGF or pervanadate, and is not observed in untreated cells.

\*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

## **Related Products:**

CM2811 Caveolin-1 Mouse Monoclonal  
CP2781 Caveolin-1 (N-terminal region) Rabbit Polyclonal  
EM1991 EGFR (Tyr-1101), phospho-specific Mouse Monoclonal  
EP1931 EGFR (Ser-1142), phospho-specific Rabbit Polyclonal  
EP1911 EGFR (Ser-967), phospho-specific Rabbit Polyclonal  
SM2611 c-Src (Tyr-530), phospho-specific [Conserved site] Mouse

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