

Monoclonal anti-human CAV1 antibody (clone AT4C1)

Mouse IgG_{2b}, κ

Cat. No. IBATGA0195

Immunogen: Recombinant human CAV1 (1-104aa) purified from *E. coli*

NCBI Accession No.: NP_001744

Isotype: Mouse IgG_{2b} heavy chain and κ light chain

Clone: Anti-human CAV1 mAb, clone AT4C1, is derived from hybridization of mouse F0 myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human CAV1 protein.

Description: The identification of caveolin-1 (CAV1) as the main structural component of caveolae, together with the finding that CAV1 might serve as a molecular organizer for membrane multiprotein complexes involved in cellular traffic, endo-and transcytosis, cell adhesion and signal transduction prompted a new impulse in the research on these intracellular organelles. One of the properties of CAV1 was its insolubility in cold non-ionic detergents together with apical markers in epithelial cell. Also, cholesterol is essential for caveolae formation and maintenance, and caveolae structure is highly sensitive to cholesterol depletion or treatment with cholesterol binding drugs. CAV1 tightly and specifically binds free cholesterol and artificial cholesterol containing vesicles.

Concentration: 1 mg/ml

Form: Liquid. In Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% Glycerol

Storage: Can be stored at +4°C. For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

Usage: The antibody has been tested by ELISA, Western blot ICC/IF and Flow cytometry to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

Application: ELISA, WB, ICC/IF, Flow cytometry

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.



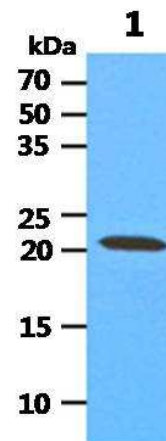
Manufactured for:
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Product information

Western blot analysis

The lysate (40ug) was resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human CAV1 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1. : Rat Brain lysate



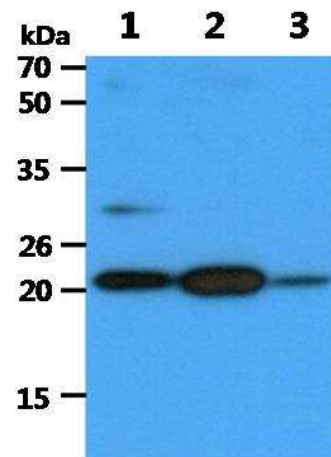
Western blot analysis

The lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human CAV1 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1. : Mouse Brain lysate

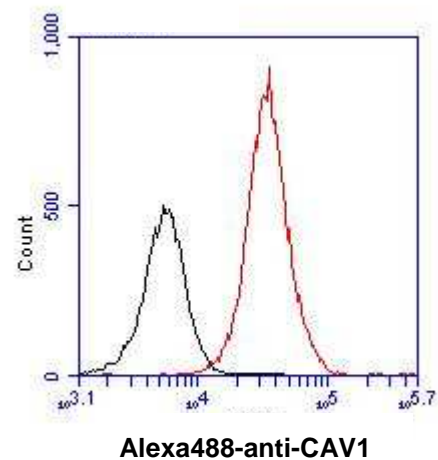
Lane 2. : Mouse Heart cell lysate

Lane 3. : A431 cell lysate



Flow cytometry

Flow cytometry analysis of CAV1 in A549 cell line, staining at 2-5ug for 1×10^6 cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).

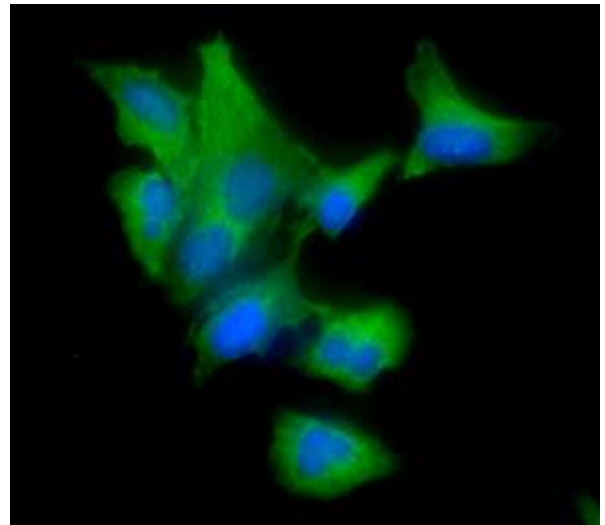


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ICC/IF analysis

ICC/IF analysis of CAV1 in A549 cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human CAV1 antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



Van Meer G., *et al.* (2008) *Nat Rev Mol Cell Biol.* **9**: 112-124.

General references: Todeschini RA., *et al.* (2008) *Biochim Biophys Acta.* **1780**: 421-433.

Lajoie P., *et al.* (2007) *J Cell Mol Med.* **11**: 644-653.

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