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Human Caveolin-1 antibody

Catalog Number: ATGA0540

PRODUCT INFORMATION

Catalog number
ATGA0540

Clone No.
AT4C1

Product type
Monoclonal antibody

UnitProt No.
Q03135

NCBI Accession No.
NP_001744

Alternative Names
VIP 21, CAV, CAV 1, CAV1, caveolae protein 22 kD, caveolin 1 alpha isoform, caveolin 1 beta isoform, Caveolin 1 caveolae protein 22kDa, Caveolin1, cell growth-inhibiting protein 32, MSTP085, OTTHUMP00000025031, VIP 21, VIP21

Additional Information
This product was produced from tissue culture supernatant.

PRODUCT SPECIFICATION

Antibody Host
Mouse

Reacts With
Human

Concentration
1mg/ml (determined by BCA assay)

Formulation
Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

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

Isotype
IgG2b kappa

Purification Note
By protein-A affinity chromatography

Application
ELISA, WB, ICC/IF

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Usage

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

Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

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 organells. 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.

General References

Van Meer, G., et al. (2008) Nat Rev Mol Cell Biol. 9: 112-124
Todeschini, R.A. et al. (2008) Biochim Biophy Acta 1780: 421-433
Lajoie, P et al. (2007) J Cell Mol Med 11: 644-653

DATA

Western blot analysis (WB)

Human Caveolin-1 antibody

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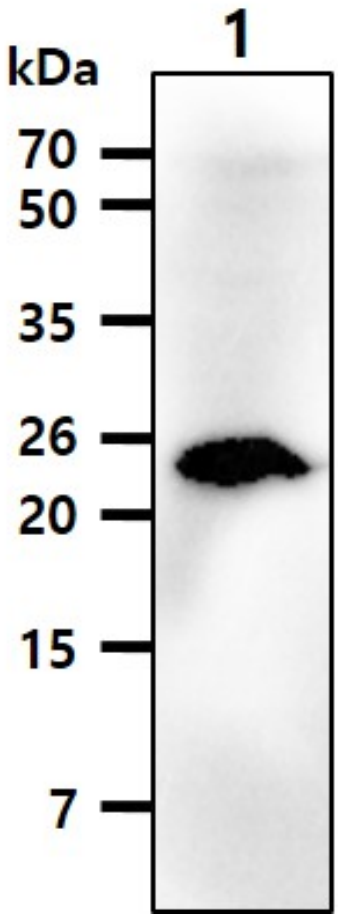
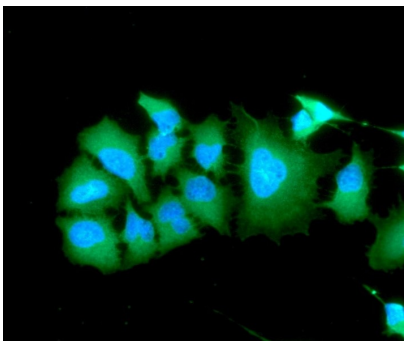


The tissue lysate (40ug) was resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human CAV1 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane 1.: Mouse heart tissue lysate

Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of CAV1 in A549 cells. The cell was stained with ATGA0540 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).