Datasheet for ABIN967920

anti-Villin 1 antibody (AA 1-827)

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Overview

Quantity:	50 µg
Target:	Villin 1 (VIL1)
Binding Specificity:	AA 1-827
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Villin 1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP)

Product Details

Immunogen:	Cow Villin aa. 1-827
Clone:	12-Villin
Isotype:	IgG1
Cross-Reactivity:	Human
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us 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.

Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	Villin 1 (VIL1)
Alternative Name:	Villin (VIL1 Products)
Background:	The isolated intestinal microvillus cytoskeleton (core) consists of four major proteins: actin, villin, fimbrin, and brush border myosin-I. These proteins can assemble in vitro into structures resembling native microvillus cores. Of these components, villin, and brush border myosin-I show tissue-specific expression, so they may be involved in the morphogenesis of intestinal microvilli. Found in association with the microvillar actin bundles of the intestinal brush border, villin is a 95 kDa protein composed of two very similar domains of approximately 44 kDa each, the core, and a C-terminal domain of 8 kDa, the headpiece. The core has been shown to contain villin's Ca[2+] regulated capping, nucleating, and severing activities, but it cannot induce the formation of microfilament bundles without the headpiece. Villin is a useful differentiation marker of early embryogenesis and may be useful in diagnosis and follow-up of colorectal cancers. It has been demonstrated that villin is necessary for both the cytoskeletal and membrane protein organization of a functional brush border. This antibody is routinely tested by western blot analysis.
Molecular Weight:	95 kDa
Pathways:	EGFR Signaling Pathway, Regulation of Actin Filament Polymerization

Application Details

Comment:	Related Products: ABIN968551, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide

Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

Product cited in:

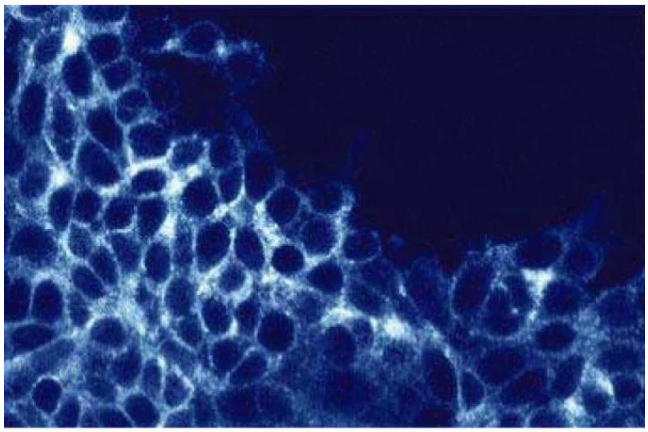
Nies, König, Cui, Brom, Spring, Keppler: "Structural requirements for the apical sorting of human multidrug resistance protein 2 (ABCC2)." in: **European journal of biochemistry / FEBS**, Vol. 269, Issue 7, pp. 1866-76, (2002) (PubMed).

Zhai, Zhao, Panebra, Guerrerio, Khurana: "Tyrosine phosphorylation of villin regulates the organization of the actin cytoskeleton." in: **The Journal of biological chemistry**, Vol. 276, Issue 39, pp. 36163-7, (2001) (PubMed).

McSwine, Musch, Bookstein, Xie, Rao, Chang: "Regulation of apical membrane Na+/H+ exchangers NHE2 and NHE3 in intestinal epithelial cell line C2/bbe." in: **The American journal of physiology**, Vol. 275, Issue 3 Pt 1, pp. C693-701, (1998) (PubMed).

Friederich, Vancompernolle, Huet, Goethals, Finidori, Vandekerckhove, Louvard: "An actin-binding site containing a conserved motif of charged amino acid residues is essential for the morphogenic effect of villin." in: **Cell**, Vol. 70, Issue 1, pp. 81-92, (1992) (PubMed).

Friederich, Pringault, Arpin, Louvard: "From the structure to the function of villin, an actin-binding protein of the brush border." in: **BioEssays : news and reviews in molecular, cellular and developmental biology**, Vol. 12, Issue 9, pp. 403-8, (1991) (PubMed).



Immunofluorescence

Image 1. Immunofluorescent staining of HCT-8 cells

Western Blotting

Image 2. Western blot analysis of Villin on HCT-8 lysate. Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of anti-Villin antibody.