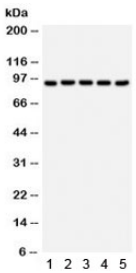
# Villin Antibody for IF / VIL1 Immunofluorescence Antibody (R31923)

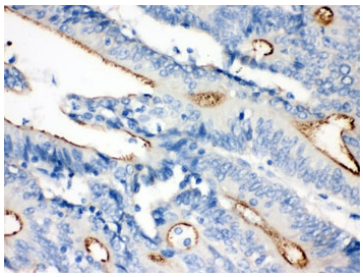
| Catalog No. | Formulation | Size |
|---|---|---|
| R31923 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

**Bulk quote request**

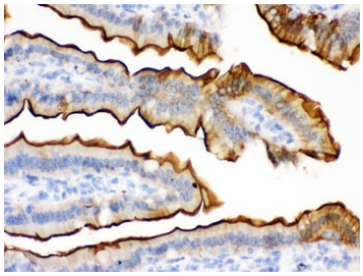
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Antigen affinity purified |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Antigen affinity |
| **Buffer** | Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide |
| **UniProt** | P09327 |
| **Localization** | Cytoplasm, luminal membrane of GI tract cells |
| **Applications** | Western blot: 0.1-0.5ug/ml<br>IHC (FFPE): 0.5-1ug/ml<br>Immunofluorescence: 2-4ug/ml |
| **Limitations** | This Villin antibody is available for research use only. |



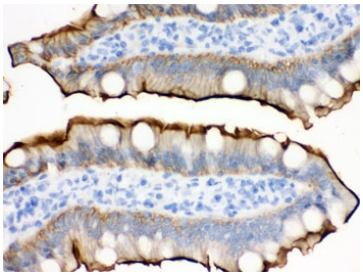

Western blot testing of 1) rat intestine, 2) mouse kidney, 3) human RH35, 4) HepG2 and 5) MCF7 lysate with Villin antibody. Expected/observed molecular weight ~93 kDa.



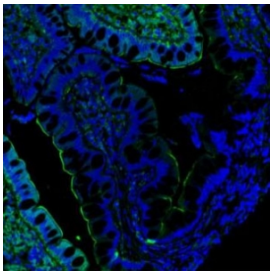
IHC testing of FFPE human intestinal cancer with Villin antibody. HIER: Boil the paraffin sections in pH 6, 10mM citrate buffer for 20 minutes and allow to cool prior to staining.



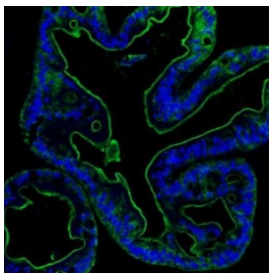
IHC testing of FFPE mouse intestine with Villin antibody. HIER: Boil the paraffin sections in pH 6, 10mM citrate buffer for 20 minutes and allow to cool prior to staining.



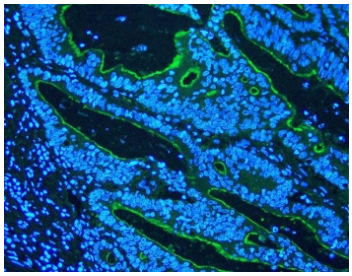
IHC testing of FFPE rat intestine with Villin antibody. HIER: Boil the paraffin sections in pH 6, 10mM citrate buffer for 20 minutes and allow to cool prior to staining.



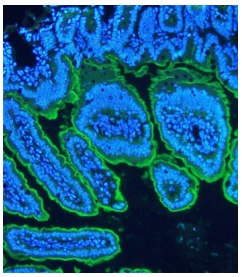
Villin Antibody for IF. Immunofluorescence analysis of Villin-1 (VIL1) in FFPE human ileum using a VIL1 Immunofluorescence Antibody (rabbit polyclonal). Villin Antibody for IF produces strong apical staining of epithelial cells lining the intestinal villi (green), clearly highlighting brush border localization and epithelial polarity, while nuclei are counterstained with DAPI (blue). The distinct membrane-associated signal along the luminal surface is consistent with the known distribution of Villin in microvilli-rich absorptive epithelium, supporting its use for high-resolution immunofluorescence imaging of epithelial structure and apical cytoskeletal organization.



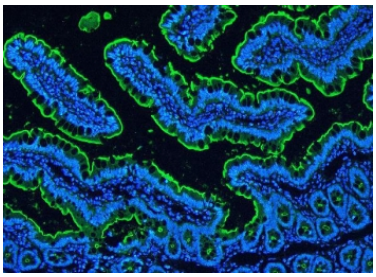
Villin Antibody for IF. Immunofluorescence analysis of Villin-1 (VIL1) in FFPE human colon using a VIL1 Immunofluorescence Antibody (rabbit polyclonal). Villin Antibody for IF shows strong, continuous apical membrane staining of colonic epithelial cells (green), clearly outlining the luminal brush border and emphasizing epithelial polarity, while nuclei are counterstained with DAPI (blue). The sharp, linear fluorescence along the glandular lumen highlights microvillus-rich absorptive surfaces, supporting use of this antibody for high-resolution immunofluorescence imaging of epithelial architecture and brush border cytoskeletal organization.



Villin Antibody for IF. Immunofluorescence analysis of Villin-1 (VIL1) in FFPE rectal cancer tissue using a VIL1 Immunofluorescence Antibody (rabbit polyclonal). Villin Antibody for IF demonstrates prominent apical membrane staining of tumor epithelial cells (green), outlining glandular structures and highlighting retained brush border-like polarity within malignant tissue, while nuclei are counterstained with DAPI (blue). The localized luminal fluorescence supports detection of epithelial differentiation patterns and is consistent with Villin expression in intestinal-type adenocarcinoma, making this antibody well suited for immunofluorescence imaging of tumor architecture and epithelial organization.



Villin Antibody for IF. Immunofluorescence analysis of Villin-1 (VIL1) in FFPE mouse intestine using a VIL1 Immunofluorescence Antibody (rabbit polyclonal). Villin Antibody for IF shows intense, continuous apical membrane staining of intestinal epithelial cells (green), sharply delineating the brush border along villus structures and clearly highlighting epithelial polarity, while nuclei are counterstained with DAPI (blue). The strong luminal fluorescence pattern is consistent with high Villin expression in microvilli-rich absorptive epithelium, supporting use of this antibody for high-resolution immunofluorescence imaging of epithelial architecture and apical cytoskeletal organization.



Villin Antibody for IF. Immunofluorescence analysis of Villin-1 (VIL1) in FFPE rat intestine using a VIL1 Immunofluorescence Antibody (rabbit polyclonal). Villin Antibody for IF demonstrates strong, continuous apical membrane staining of intestinal epithelial cells (green), clearly outlining villus structures and emphasizing brush border localization and epithelial polarity, while nuclei are counterstained with DAPI (blue). The sharp luminal fluorescence pattern is consistent with high Villin expression in microvilli-rich absorptive epithelium, supporting use of this antibody for high-resolution immunofluorescence imaging of epithelial architecture and apical cytoskeletal organization.

## Description

Villin-1 (VIL1) is an actin-binding, calcium-regulated cytoskeletal protein localized to the apical brush border of epithelial cells, where it plays a central role in microvillus structure and epithelial polarity. Villin Antibody for IF is optimized for fluorescence imaging applications, and this VIL1 Immunofluorescence Antibody enables clear visualization of Villin localization within polarized epithelial cells. Villin antibody, also known as Villin-1 antibody or VIL1 antibody, is widely used in fluorescence-based studies to define epithelial architecture and to highlight brush border-associated cytoskeletal organization with spatial precision.

What differentiates a Villin Antibody for IF from standard Villin reagents is its ability to generate sharp, well-defined fluorescent signals that resolve apical membrane localization. Researchers specifically searching for a VIL1 Immunofluorescence Antibody are typically focused on visualizing polarized distribution, confirming epithelial identity in mixed cell populations, and examining microvillus organization at the cellular level. Villin staining produces a characteristic apical signal pattern, making it especially valuable for identifying epithelial polarity and distinguishing organized epithelial layers from disorganized or dedifferentiated cells.

In immunofluorescence imaging, Villin labeling provides direct visual evidence of brush border integrity and cytoskeletal arrangement. Changes in signal localization, intensity, or continuity can indicate loss of polarity, cytoskeletal disruption, or disease-associated remodeling in epithelial tissues. Because of this, Villin Antibody for IF is frequently used in studies of epithelial differentiation, cancer progression, and tissue organization where spatial distribution of the protein is critical for interpretation rather than bulk protein detection.

Villin is highly expressed in gastrointestinal epithelium and other polarized epithelial tissues, where it regulates actin filament bundling, severing, and capping to maintain microvillus structure. Its strong apical localization and consistent fluorescence pattern make it a reliable marker for epithelial morphology and polarity in imaging studies. This rabbit polyclonal antibody provides robust signal detection and clear visualization of Villin in cells and tissues, making it well suited for researchers prioritizing high-quality immunofluorescence imaging of epithelial cytoskeletal organization using a VIL1 Immunofluorescence Antibody.

## Application Notes

Optimal dilution of the Villin Antibody for IF / VIL1 Immunofluorescence Antibody should be determined by the researcher.

## Immunogen

Amino acids EQLVNKPVEELPEGVDPSRKEEHLSIEDFT of human Villin were used as the immunogen for the Villin Antibody for IF / VIL1 Immunofluorescence Antibody.

## Storage

After reconstitution, the Villin antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

## Alternate Names

Villin-1 antibody, VIL1 antibody, Villin 1 antibody, Villin antibody


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