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Tel: 858.875.1900 Fax: 858.875.1999

Anti-Villin Antibody
Mouse Monoclonal Antibody
Catalog # AH13566

Specification

Anti-Villin Antibody - Product Information

Application	**WB, IHC-P, IF, FC**
Primary Accession	P09327
Other Accession	654595
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse / IgG1, kappa**
Calculated MW	**92695**

Anti-Villin Antibody - Additional Information

Gene ID 7429

Other Names
VIL1; Villin-1; Villin1

Application Note
WB~~1:1000<br \>IHC-P~~N/A<br \>IF~~1:50~200<br \>FC~~1:10~50

Format
200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage
Store at 2 to 8°C.Antibody is stable for 24 months.

Precautions
Anti-Villin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-Villin Antibody - Protein Information

Name VIL1

Synonyms VIL

Function
Epithelial cell-specific Ca(2+)-regulated actin-modifying protein that modulates the reorganization of microvillar actin filaments. Plays a role in the actin nucleation, actin filament bundle assembly, actin filament capping and severing. Binds phosphatidylinositol 4,5-bisphosphate (PIP2) and

lysophosphatidic acid (LPA); binds LPA with higher affinity than PIP2. Binding to LPA increases its phosphorylation by SRC and inhibits all actin-modifying activities. Binding to PIP2 inhibits actin-capping and -severing activities but enhances actin-bundling activity. Regulates the intestinal epithelial cell morphology, cell invasion, cell migration and apoptosis. Protects against apoptosis induced by dextran sodium sulfate (DSS) in the gastrointestinal epithelium. Appears to regulate cell death by maintaining mitochondrial integrity. Enhances hepatocyte growth factor (HGF)-induced epithelial cell motility, chemotaxis and wound repair. Upon S.flexneri cell infection, its actin-severing activity enhances actin-based motility of the bacteria and plays a role during the dissemination.

Cellular Location
Cytoplasm, cytoskeleton. Cell projection, lamellipodium. Cell projection, ruffle. Cell projection, microvillus Cell projection, filopodium tip. Cell projection, filopodium. Note=Relocalized in the tip of cellular protrusions and filipodial extensions upon infection with S.flexneri in primary intestinal epithelial cells (IEC) and in the tail-like structures forming the actin comets of S.flexneri. Redistributed to the leading edge of hepatocyte growth factor (HGF)-induced lamellipodia (By similarity). Rapidly redistributed to ruffles and lamellipodia structures in response to autotaxin, lysophosphatidic acid (LPA) and epidermal growth factor (EGF) treatment.

Tissue Location
Specifically expressed in epithelial cells. Major component of microvilli of intestinal epithelial cells and kidney proximal tubule cells. Expressed in canalicular microvilli of hepatocytes (at protein level).

Anti-Villin Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Villin Antibody - Images

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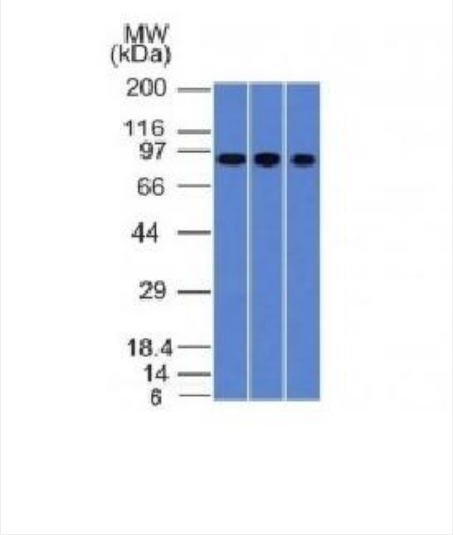
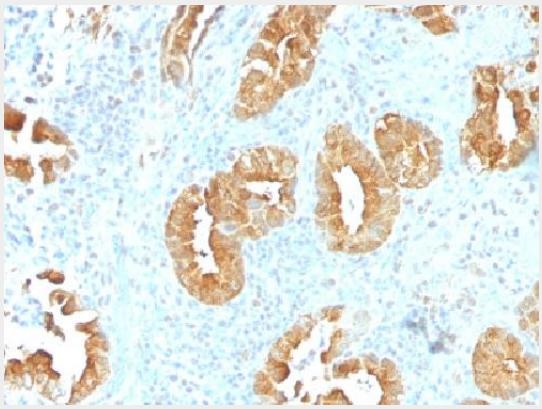
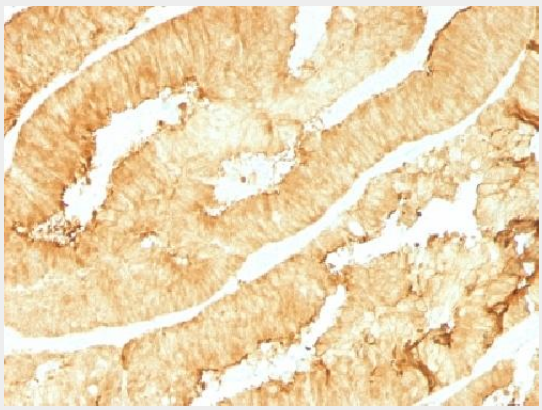


Western Blot of A549, HepG2 & HCT116 Cell Lysates with Villin Monoclonal Antibody (VIL1/1314).



Formalin-fixed, paraffin-embedded human Rectum stained with Villin Monoclonal Antibody (VIL1/1314).



Formalin-fixed, paraffin-embedded human Colon stained with Villin Monoclonal Antibody (VIL1/1314).

Anti-Villin Antibody - Background

Recognizes a protein of 95kDa, which is identified as villin. It is a major constituent in the microvilli, which compose the brush border of epithelial cells forming absorptive surfaces of the intestinal and renal proximal tubular epithelia. Anti-Villin labels the brush border area in the gastrointestinal mucosal epithelium and urogenital tract. Among neoplasms, villin is predominantly expressed in

tumors of colorectal origin. Antibody to villin is useful in identifying malignant cells from primary and metastatic colorectal carcinomas. This antibody also labels Merkel cells of the skin.