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Anti-Villin Antibody

Mouse Monoclonal Antibody
Catalog # AH13566

Product Information

Application	WB, IHC-P, IF, FC
Primary Accession	P09327
Other Accession	654595
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	VIL1/1314
Calculated MW	92695

Additional Information

Gene ID	7429
Other Names	VIL1; Villin-1; Villin1
Application Note	Flow Cytometry (0.5-1ug/million cells in 0.1ml); ,Immunofluorescence (1-2ug/ml); ,Western Blotting (1-2ug/ml for 60 minutes at RT);,Immunohistology (Formalin-fixed) (0.25-0.5ug/ml for 30 minutes at RT),(Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes),Optimal dilution for a specific application should be determined.
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.

Protein Information

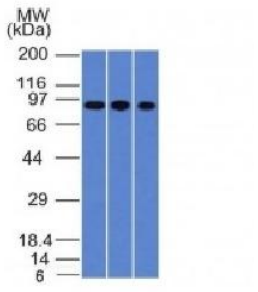
Name	VIL1
Synonyms	VIL
Function	Epithelial cell-specific Ca(2+)-regulated actin-modifying protein that modulates the reorganization of microvillar actin filaments. Plays a role in the actin nucleation, actin filament bundle assembly, actin filament capping and

	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).

Background

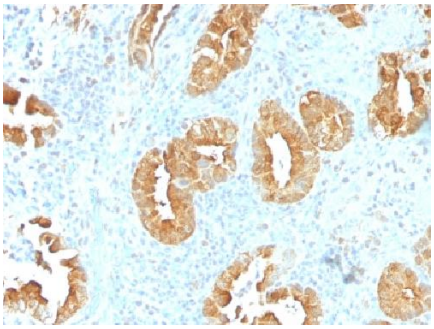
Recognizes a protein of 95kDa, which is identified as villin. It is a major constituent in the microvilli, which compose the brush border of epithelial cells forming absorptive surfaces of the intestinal and renal proximal tubular epithelia. Anti-Villin labels the brush border area in the gastrointestinal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

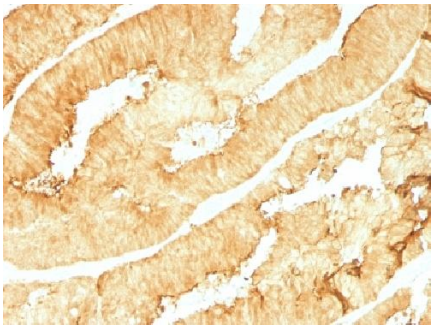
Images



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).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.