

Anti-Villin VIL1 Monoclonal Antibody
Catalog # ABO14687

Specification

Anti-Villin VIL1 Monoclonal Antibody - Product Information

Application	WB, FC
Primary Accession	P09327
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

Description

Anti-Villin VIL1 Monoclonal Antibody . Tested in WB, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

Anti-Villin VIL1 Monoclonal Antibody - Additional Information

Gene ID 7429

Other Names

Villin-1, VIL1, VIL

Application Details

WB 1:1000-1:5000
FC 1:50

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human Villin Ca (2+) -regulated actin-binding protein.

Purification

Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-Villin VIL1 Monoclonal Antibody - Protein Information

Name VIL1

Synonyms VIL

Function

Epithelial cell-specific Ca²⁺-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.

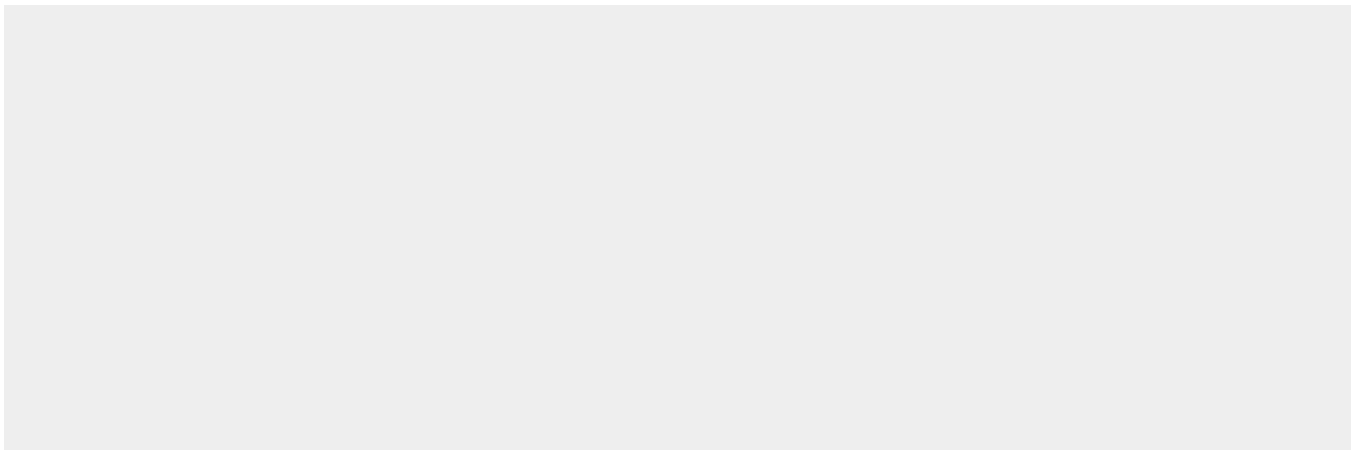
Tissue Location

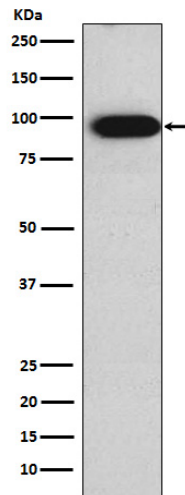
Specifically expressed in epithelial cells. Major component of microvilli of intestinal epithelial cells and kidney proximal tubule cells. Expressed in canalicular microvilli of hepatocytes (at protein level).

Anti-Villin VIL1 Monoclonal 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 Cytometry](#)
- [Cell Culture](#)

Anti-Villin VIL1 Monoclonal Antibody - Images



Western blot analysis of Villin expression in Caco-2 cell lysate.