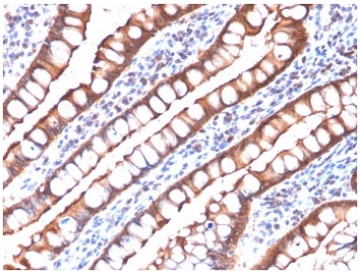
Villin Antibody / Brush Border Cytoskeletal Protein Antibody [clone rVIL1/1325] (V3566)

Catalog No.	Formulation	Size
V3566-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3566-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3566SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3566IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

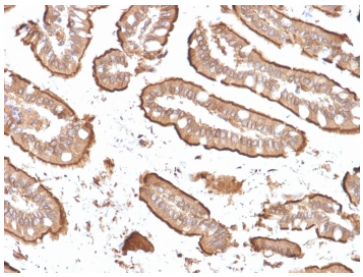
Recombinant MOUSE MONOCLONAL

Bulk quote request

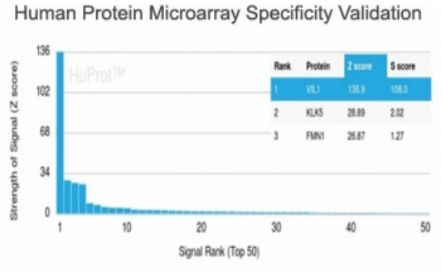
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rVIL1/1325
Purity	Protein G affinity chromatography
UniProt	P09327
Localization	Cytoplasmic and cell surface
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This recombinant Villin antibody is available for research use only.



Villin Antibody. Immunohistochemistry analysis of Villin-1 (VIL1) in FFPE human small intestine carcinoma using Villin Antibody / Brush Border Cytoskeletal Protein Antibody with recombinant mouse monoclonal clone rVIL1/1325. Strong HRP-DAB brown staining is observed along the apical membrane of tumor epithelial cells, clearly outlining glandular luminal surfaces and highlighting preserved brush border-like structures within malignant tissue. The predominantly membranous apical staining pattern is consistent with Villin localization to microvilli-rich brush border regions and supports its role as a brush border cytoskeletal protein in intestinal epithelium.



Villin Antibody. Immunohistochemistry analysis of Villin-1 (VIL1) in FFPE human small intestine carcinoma using Villin Antibody / Brush Border Cytoskeletal Protein Antibody with recombinant mouse monoclonal clone rVIL1/1325. Strong HRP-DAB brown staining highlights the apical membrane of tumor epithelial cells, outlining glandular and villus-like structures with a distinct luminal pattern consistent with brush border localization. The predominantly membranous apical signal emphasizes microvilli-associated staining and supports Villin as a brush border cytoskeletal protein in intestinal-type carcinoma.



Villin Antibody. Protein microarray specificity analysis of Villin-1 (VIL1) using Villin Antibody / Brush Border Cytoskeletal Protein Antibody with recombinant mouse monoclonal clone rVIL1/1325 on a HuProt human protein array containing over 19,000 full-length proteins. The antibody shows strongest binding to VIL1 with a high Z-score and clear separation from non-target proteins, indicating strong target specificity. Z-score reflects signal intensity relative to background, while the S-score represents the specificity gap between the top-ranked target and subsequent proteins, supporting selective recognition of Villin as a brush border cytoskeletal protein.

Description

Villin-1 (VIL1) is a calcium-regulated actin-binding protein that is a defining structural component of the epithelial brush border, where it directly regulates microvillus formation and apical membrane organization. Villin Antibody / Brush Border Cytoskeletal Protein Antibody (clone rVIL1/1325) is specifically suited for detecting this protein in studies focused on brush border architecture, and Villin antibody, also known as Villin-1 antibody or VIL1 antibody, is widely used to characterize microvilli-rich epithelial surfaces. As a core brush border cytoskeletal protein, Villin is tightly associated with the apical membrane of absorptive epithelial cells, particularly in the small intestine and colon, where dense microvillus arrays define the luminal interface.

Unlike general epithelial markers, Villin functions as a direct regulator of microvillus structure through actin filament bundling, severing, capping, and nucleation. These activities allow epithelial cells to dynamically control brush border assembly and maintain the highly ordered architecture required for efficient absorption. Researchers using a Villin Antibody / Brush Border Cytoskeletal Protein Antibody are typically investigating microvilli organization, apical membrane specialization, or structural changes in epithelial surfaces. This makes the brush border-focused positioning a key differentiator from other Villin antibody pages that emphasize polarity, cancer, or general cytoskeletal roles.

Villin expression is highly enriched at the apical surface of intestinal epithelial cells, where it produces a characteristic continuous luminal pattern corresponding to the brush border. This localization provides a direct structural readout of epithelial organization, making Villin a reliable marker for identifying intact microvillus architecture. Disruption of Villin expression or redistribution away from the apical membrane is often associated with loss of brush border integrity, epithelial injury, or disease-related remodeling of intestinal tissue. As a result, Villin Antibody / Brush Border Cytoskeletal Protein Antibody is particularly valuable in studies examining epithelial surface structure, intestinal differentiation, and microvillus stability.

This recombinant mouse monoclonal antibody (clone rVIL1/1325) provides targeted recognition of Villin as a brush border cytoskeletal protein, supporting consistent detection of apical microvilli structures in epithelial tissues. It is well suited for research focused on intestinal epithelium, luminal membrane organization, and the structural biology of microvilli, where precise identification of brush border components is essential for understanding epithelial function and architecture.

Application Notes

The stated application concentrations are suggested starting points. Titration of the Villin Antibody / Brush Border Cytoskeletal Protein Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Amino acids 179-311 from the human protein were used as the immunogen for this Villin Antibody / Brush Border Cytoskeletal Protein Antibody.

Storage

Store the recombinant Villin antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

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