

## Product datasheet for **TA355358**

### Villin (VIL1) Mouse Monoclonal Antibody [Clone ID: CWWB1]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	CWWB1
Applications:	IHC
Recommended Dilution:	IHC: 1:100 - 1:200 WB: 1:500 - 1:1000
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Prokaryotic recombinant protein corresponding to the C-terminal "headpiece" region of the human villin molecule
Specificity:	Human villin protein
Formulation:	Liquid tissue culture supernatant containing 15 mM sodium azide as a preservative
Conjugation:	Unconjugated
Storage:	Store at 2-8°C
Stability:	12 months
Gene Name:	villin 1
Database Link:	<a href="#">Entrez Gene 7429 Human P09327</a>



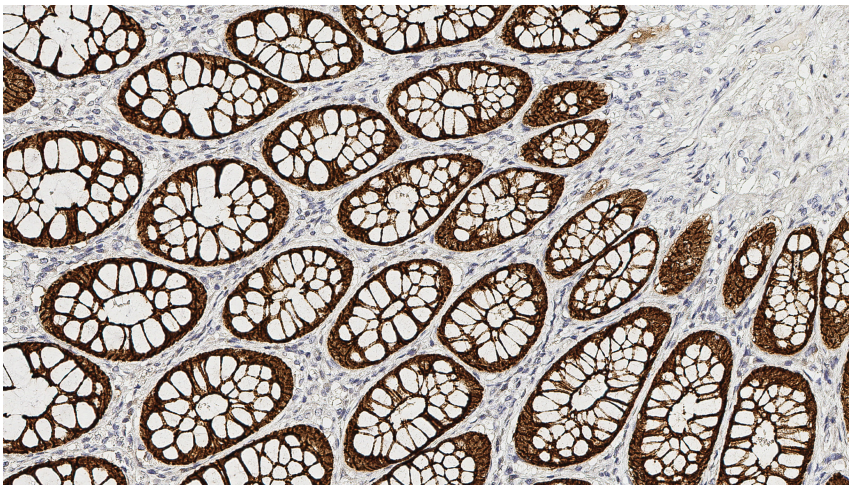
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**Background:**

Villin and the structurally-related proteins gelsolin, fragmin and severin, all regulate the framework and assembly of actin. Villin is unique among these proteins in its ability to cross-link actin filaments into bundles, a process observed only at low  $\text{Ca}^{2+}$  concentration. Villin is composed of three domains. The first two domains are homologous and the third domain is called the headpiece. This headpiece region is located at the C-terminus. Villin is mainly produced by epithelial cells that develop a brush border. Cells producing villin are reported to be found either in the epithelial cells of the intestinal mucosa and gallbladder, or in epithelial cells of the kidney proximal tubules and ductuli efferentes of the testis. However, villin is also reported to be found in some epithelia which lack a brush border but which are derived from embryonic gut such as duct cells of the exocrine pancreas and biliary cells of the liver. In these cell types, villin is concentrated in the apical cytoplasm. Epithelial cells of the intestinal mucosa are continually being renewed and this involves a migration of these cell types from the intestinal crypts to the tips of the villi, gradually acquiring their differentiated phenotype as they do so. The maximum production of villin occurs at the base of the villus. Villin, therefore, shows tissue-specific expression being restricted to certain epithelia and their apical domains, thus indicating their polarity. The morphological loss of polarity of colonic epithelial cells is reported to be one of the most significant indicators of dysplasia or neoplasia.

**Synonyms:**

D2S1471; VIL

**Product images:**

Human large bowel: immunohistochemical staining for Villin. Note cytoplasmic staining of the epithelial cells. Villin: clone CWWB1