

## Villin-FC recombinant protein

<b>Catalog No :</b>	YD3029
<b>Reactivity :</b>	Human;
<b>Purity :</b>	>90% as determined by SDS-PAGE
<b>Gene Name :</b>	VIL1
<b>Protein Name :</b>	Villin-1
<b>Human Gene Id :</b>	7429
<b>Human Swiss Prot No :</b>	P09327
<b>Formulation :</b>	Phosphate-buffered solution
<b>Source :</b>	Mammalian cells
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Avoid freeze / thaw cycles)
<b>Function :</b>	<p>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</p>
<b>Subcellular Location :</b>	<p>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</p>

to autotaxin, lysophosphatidic acid (LPA) and epidermal growth factor (EGF) treatment. .

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**Expression :**

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).

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