

Recombinant Mouse Vil1 Protein, Myc/DDK-tagged

Cat. No. Vil1-6922M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of Mouse villin 1 (Vil1), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	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 <i>S.flexneri</i> cell infection, its actin-severing activity enhances actin-based motility of the bacteria and plays a role during the dissemination.
Molecular Mass	92.8 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining

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Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Vil1 villin 1 [Mus musculus (house mouse)]
Official Symbol	Vil1
Synonyms	VIL1; villin 1; villin-1; Vil; MGC143974
Gene ID	22349
mRNA Refseq	NM_009509
Protein Refseq	NP_033535
UniProt ID	Q62468

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