Data Sheet (Cat.No.TMAB-14101)

TargetMol

Anti-Villin Antibody (8J324)

Product Details

Ig Type:	IgG1
Reactivity:	Human,Mouse,Rat
Molecular Weight:	Theoretical: 93 kDa. Actual: 90-95 kDa.
Clone:	8J324
Purification:	Protein A purified

Applications

Verified Activity:	1. Paraformaldehyde-fixed, paraffin embedded (rat kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (Villin) Monoclonal Antibody, Unconjugated (TMAB-14101) at 1: 100 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructionsand DAB staining. 2. Paraformaldehyde-fixed, paraffin embedded (rat colon); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (Villin) Monoclonal Antibody, Unconjugated (TMAB-14101) at 1: 100 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructionsand DAB staining. 3. Paraformaldehyde-fixed, paraffin embedded (rat intestine); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (Villin) Monoclonal Antibody, Unconjugated (TMAB-14101) at 1: 100 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructionsand DAB staining. 4. Paraformaldehyde-fixed, paraffin embedded (human colon); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (Villin) Monoclonal Antibody, Unconjugated (TMAB-14101) at 1: 100 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructionsand DAB staining. 5. Paraformaldehyde-fixed, paraffin embedded (Human kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (Villin) Monoclonal Antibody, Unconjugated (TMAB-14101) at 1: 100 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructionsand DAB staining. 6. Paraformaldehyde-fixed, paraffin embedded (Human duodenum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (Villin) Monoclonal Antibody, Unconjugated (TMAB-14101) at 1: 100 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructionsand DAB staining. 7. Paraformaldehyde-fixed, paraffin embedded (mouse colon); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (Villin) Monoclonal Antibody, Unconjugated (TMAB-14101) at 1: 100 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructionsand DAB staining. 8. Paraformaldehyde-fixed, paraffin embedded (mouse kidney); Antigen retrieval by boiling in

	sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (Villin) Monoclonal Antibody, Unconjugated (TMAB-14101) at 1: 100 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructionsand DAB staining. 9. Paraformaldehyde-fixed, paraffin embedded (mouse intestine); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (Villin) Monoclonal Antibody, Unconjugated (TMAB-14101) at 1: 100 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructionsand DAB staining.
Application:	IF,IHC-Fr,IHC-P,WB
Recommended	IF=1:200-1000; IHC-Fr=1:200-1000; IHC-P=1:200-1000; WB=1:500-2000

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	KLH conjugated synthetic peptide: human Villin
Antigen Species:	Human
Gene ID:	7429
Uniprot ID:	P09327

Research Background

Villin can cap, nucleate, sever and bundle actin in a calcium and phosphoinositide regulated manner. It is associated with the microvillar actin core bundle of intestinal and renal brush border implicated in adsorption. Villin is composed of six repeats, each containing 150 residues that together constitute the core domain followed by the carboxyl terminal headpiece domain of 87 residues. The core domain retains the calcium dependent capping nucleating and severing activity, whereas the headpiece domain contributes towards actin filament bundling and binding F actin, independently of Calcium.
Function : 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 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.

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