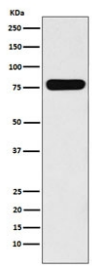
VIL1 Antibody / Calcium-Regulated Actin Protein Antibody [clone AFGO-22] (RQ5272)

Catalog No.	Formulation	Size
RQ5272	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Bulk quote request

Availability	1-2 weeks
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	AFGO-22
Purity	Affinity purified
UniProt	P09327
Applications	Western blot: 1:1000-1:10000
Limitations	This VIL1 antibody is available for research use only.



VIL1 Antibody for WB. Western blot analysis of Villin-1 (VIL1) using human Caco-2 cell lysate with VIL1 Antibody / Calcium-Regulated Actin Protein Antibody (clone VIL1/5521R). Lane 1: human Caco-2 lysate. A band is detected at approximately 93 kDa, consistent with the predicted molecular weight of Villin-1 (VIL1). This signal supports the presence of Villin in intestinal epithelial cells and aligns with its role as a calcium-regulated actin-binding protein involved in cytoskeletal signaling and filament dynamics.

Description

Villin-1 (VIL1) is a calcium-dependent actin-binding protein that functions as a molecular switch controlling actin filament organization in epithelial cells. VIL1 Antibody / Calcium-Regulated Actin Protein Antibody is designed to detect Villin in contexts where calcium signaling governs cytoskeletal behavior. VIL1 antibody, also known as Villin-1 antibody or Villin antibody, is particularly relevant in studies examining calcium-driven actin remodeling and signal-dependent cytoskeletal responses.

What differentiates this VIL1 Antibody / Calcium-Regulated Actin Protein Antibody from other Villin-focused pages is its emphasis on calcium-regulated functional switching. Villin belongs to the gelsolin family and exhibits distinct activities depending on intracellular calcium levels, including actin severing at high calcium concentrations and filament stabilization or bundling at lower levels. This calcium sensitivity allows Villin to function as a key mediator linking signaling pathways to structural cytoskeletal outcomes.

In epithelial cells, fluctuations in calcium signaling are closely tied to processes such as secretion, membrane trafficking, and barrier regulation. Villin participates in these processes by modulating actin architecture in response to signaling cues, enabling rapid structural adaptation. This makes it a useful marker for studying how intracellular signaling pathways influence cytoskeletal organization at a mechanistic level.

From a research standpoint, this VIL1 antibody is especially suited for investigations into calcium-dependent cytoskeletal regulation, signaling-driven actin dynamics, and epithelial response to intracellular signaling events. VIL1 Antibody / Calcium-Regulated Actin Protein Antibody supports detection of Villin in these signaling-focused contexts, differentiating it from antibodies positioned around morphology or tissue identity.

Application Notes

Optimal dilution of the VIL1 Antibody / Calcium-Regulated Actin Protein Antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to human Villin / VIL1 was used as the immunogen for the VIL1 Antibody / Calcium-Regulated Actin Protein Antibody.

Storage

Store the VIL1 antibody at -20oC.

Alternate Names

Villin-1 antibody, Villin calcium-regulated protein antibody, VIL1 actin regulator antibody, Villin calcium signaling antibody

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