

Villin (E-12): sc-374350

BACKGROUND

Caldesmon, Filamin 1, Nebulin and Villin are differentially expressed and regulated Actin binding proteins. Both muscular (CDh) and non-muscular (CDI) forms of Caldesmon have been identified and each has been shown to bind to Actin as well as to calmodulin and Myosin. CDh is expressed predominantly on thin filaments in smooth muscle, whereas CDI is widely expressed in non-muscle tissues and cells. Filamin 1, which is ubiquitously expressed and exists as a homodimer, functions to crosslink Actin to filaments. Nebulin is a large filamentous protein specific to muscle tissue that may function as a ruler for filament length. Several isoforms of Nebulin are produced by alternative exon usage. Villin is Ca^{2+} -regulated and is the major structural component of the brush border of absorptive cells.

CHROMOSOMAL LOCATION

Genetic locus: VIL1 (human) mapping to 2q35; Vil1 (mouse) mapping to 1 C3.

SOURCE

Villin (E-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 799-827 at the C-terminus of Villin of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-374350 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Villin (E-12) is recommended for detection of Villin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Villin (E-12) is also recommended for detection of Villin in additional species, including porcine.

Suitable for use as control antibody for Villin siRNA (h): sc-29521, Villin siRNA (m): sc-36818, Villin shRNA Plasmid (h): sc-29521-SH, Villin shRNA Plasmid (m): sc-36818-SH, Villin shRNA (h) Lentiviral Particles: sc-29521-V and Villin shRNA (m) Lentiviral Particles: sc-36818-V.

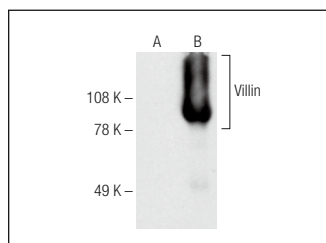
Molecular Weight of Villin: 93 kDa.

Positive Controls: mouse kidney extract: sc-2255, HCT-8 cell lysate: sc-24675 or Villin (m): 293T Lysate: sc-124565.

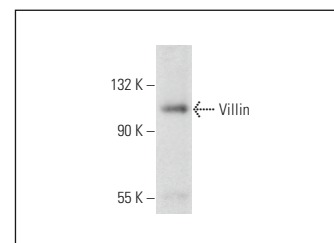
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Villin (E-12): sc-374350. Western blot analysis of Villin expression in non-transfected: sc-117752 (A) and mouse Villin transfected: sc-124565 (B) 293T whole cell lysates.



Villin (E-12): sc-374350. Western blot analysis of Villin expression in mouse kidney tissue extract.

SELECT PRODUCT CITATIONS

- Jiang, P., et al. 2017. Glucagon-like peptide 2 stimulates postresection intestinal adaptation in preterm pigs by affecting proteins related to protein, carbohydrate, and sulphur metabolism. JPEN J. Parenter. Enteral Nutr. 41: 1293-1300.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.



See **Villin (1D2C3): sc-58897** for Villin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.