**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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

Villin (BDID2C3) is a mouse monoclonal antibody raised against purified full length native Villin of chicken origin.

**PRODUCT**

Each vial contains 200 µg IgG\(_1\) kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

Villin (BDID2C3) is recommended for detection of Villin of mouse, rat, human and avian origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with breast cancer.

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: Hep G2 cell lysate: sc-2227, COLO 205 whole cell lysate: sc-364177 or Caco-2 cell lysate: sc-2262.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1. Western Blotting: use m-IgG\(_2\)BP-HRP: sc-516102 or m-IgG\(_1\)BP-HRP (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker\(_{TM}\) 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).


**DATA**

**SELECT PRODUCT CITATIONS**


**STORAGE**

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

**RESEARCH USE**

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

**CONJUGATES**

See Villin (1D2C3): sc-58897 for Villin (BDID2C3) antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor\(_{®}\) 488, 546, 594, 647, 680 and 790.