

Villin (C-19): sc-7672



The Power to Question

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, ranging from 700 to 900 kDa, are produced by alternative exon usage. Villin is Ca²⁺-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 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Villin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-7672 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Villin (C-19) is recommended for detection of Villin of mouse, rat and human 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).

Villin (C-19) is also recommended for detection of Villin in additional species, including canine, bovine and 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: Villin (m): 293T Lysate: sc-124565, mouse kidney extract: sc-2255 or HCT-8 cell lysate: sc-24675.

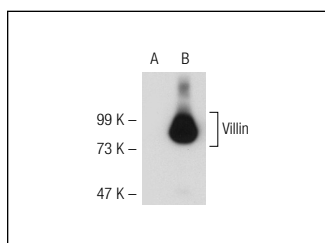
STORAGE

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

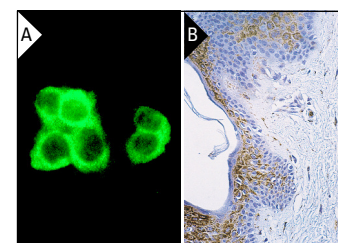
RESEARCH USE

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

DATA



Villin (C-19): sc-7672. Western blot analysis of Villin expression in non-transfected: sc-117752 (A) and mouse Villin transfected: sc-124565 (B) 293T whole cell lysates.



Villin (C-19): sc-7672. Immunofluorescence staining of methanol-fixed PC-12 cells showing cytoskeletal localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded normal human skin showing localization within the cytoplasm (B).

SELECT PRODUCT CITATIONS

- Koch, H., et al. 1979. Diagnosis of acute gastrointestinal hemorrhages. *MMW Munch. Med. Wochenschr.* 121: 975-976.
- Tuin, A., et al. 2009. Role of alkaline phosphatase in colitis in man and rats. *Gut* 58: 379-387.
- Chow, E.C., et al. 2009. 1 α ,25-Dihydroxyvitamin D₃ triggered vitamin D receptor and farnesoid X receptor-like effects in rat intestine and liver *in vivo*. *Biopharm. Drug Dispos.* 30: 457-475.
- Garcia, M.I., et al. 2009. LGR5 deficiency deregulates Wnt signaling and leads to precocious Paneth cell differentiation in the fetal intestine. *Dev. Biol.* 331: 58-67.
- Rodríguez-Serrano, F., et al. 2010. Differentiation of intestinal epithelial cells mediated by cell confluence and/or exogenous nucleoside supplementation. *Cells Tissues Organs* 191: 478-488.
- Chow, E.C., et al. 2010. Comparative effects of doxercalciferol (1 α -hydroxyvitamin D₂) versus calcitriol (1 α ,25-dihydroxyvitamin D₃) on the expression of transporters and enzymes in the rat *in vivo*. *J. Pharm. Sci.* 100: 1594-1604.
- Crajoinas, R.O., et al. 2011. Mechanisms mediating the diuretic and natriuretic actions of the incretin hormone glucagon-like peptide-1. *Am. J. Physiol. Renal Physiol.* 301: F355-F363.
- Soroka, C.J., et al. 2011. Ost α depletion protects liver from oral bile acid load. *Am. J. Physiol. Gastrointest. Liver Physiol.* 301: G574-G579.
- Pessac, B., et al. 2011. Hematopoietic progenitors express embryonic stem cell and germ layer genes. *C. R. Biol.* 334: 300-306.



Try **Villin (1D2C3): sc-58897** or **Villin (G-6): sc-365310**, our highly recommended monoclonal alternatives to Villin (C-19). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Villin (1D2C3): sc-58897**.