

# Filamin 1 (H-300): sc-28284

## 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<sup>2+</sup>-regulated and is the major structural component of the brush border of absorptive cells.

## CHROMOSOMAL LOCATION

Genetic locus: FLNA (human) mapping to Xq28; Flna (mouse) mapping to X A7.3.

## SOURCE

Filamin 1 (H-300) is a rabbit polyclonal antibody raised against amino acids 2348-2647 mapping at the C-terminus of Filamin 1 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.

## 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.

## APPLICATIONS

Filamin 1 (H-300) is recommended for detection of Filamin 1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Filamin 1 (H-300) is also recommended for detection of Filamin 1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Filamin 1 siRNA (h): sc-35374, Filamin 1 siRNA (m): sc-35375, Filamin 1 shRNA Plasmid (h): sc-35374-SH, Filamin 1 shRNA Plasmid (m): sc-35375-SH, Filamin 1 shRNA (h) Lentiviral Particles: sc-35374-V and Filamin 1 shRNA (m) Lentiviral Particles: sc-35375-V.

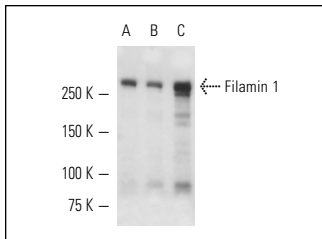
Molecular Weight of Filamin 1: 280 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, C32 whole cell lysate: sc-2205 or A-431 whole cell lysate: sc-2201.

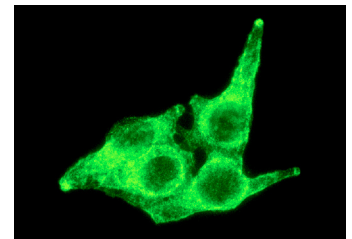
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Filamin 1 (H-300): sc-28284. Western blot analysis of Filamin 1 expression in HeLa (A), C32 (B) and A-431 (C) whole cell lysates.



Filamin 1 (H-300): sc-28284. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoskeletal localization.

## SELECT PRODUCT CITATIONS

- Kim, E.J., et al. 2007. Filamin A negatively regulates the transcriptional activity of p73α in the cytoplasm.. *Biochem. Biophys. Res. Commun.* 362: 1101-1106.
- Feuillette, S., et al. 2010. Filamin-A and Myosin VI colocalize with fibrillary Tau protein in Alzheimer's disease and FTDP-17 brains. *Brain Res.* 1345: 182-189.
- Noam, Y., et al. 2012. Distinct regional and subcellular localization of the actin-binding protein filamin A in the mature rat brain. *J. Comp. Neurol.* 520: 3013-3034.
- Wang, H.Y., et al. 2012. Reducing amyloid-related Alzheimer's disease pathogenesis by a small molecule targeting filamin A. *J. Neurosci.* 32: 9773-9784.
- Wang, Q., et al. 2012. Structural interaction and functional regulation of polycystin-2 by filamin. *PLoS ONE* 7: e40448.



Try **Filamin 1 (E-3): sc-17749** or **Filamin 1 (PM6/317): sc-58764**, our highly recommended monoclonal alternatives to Filamin 1 (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Filamin 1 (E-3): sc-17749**.