

# Supervillin (A-12): sc-393135

## BACKGROUND

Members of the Gelsolin superfamily play a role in Actin filament remodeling as well as several other cellular processes, including cell motility, control of apoptosis and regulation of phagocytosis. Supervillin is tightly associated with both Actin filaments and plasma membrane and may participate in cell growth, adhesion and motility. Supervillin is ubiquitously expressed. A non-muscle-specific form of Supervillin can activate androgen receptor activity; the muscle-specific isoform of Supervillin, designated Archvillin, contributes to myogenic membrane structures and differentiation.

## REFERENCES

1. Pestonjamas, K.N., et al. 1997. Supervillin (p205): a novel membrane-associated, F-Actin-binding protein in the villin/gelsolin superfamily. *J. Cell Biol.* 139: 1255-1269.
2. Pope, R.K., et al. 1998. Cloning, characterization, and chromosomal localization of human Supervillin (SVIL). *Genomics* 52: 342-351.
3. Ting, H.J., et al. 2002. Supervillin associates with androgen receptor and modulates its transcriptional activity. *Proc. Natl. Acad. Sci. USA* 99: 661-666.
4. Oh, S.W., et al. 2003. Archvillin, a muscle-specific isoform of Supervillin, is an early expressed component of the costameric membrane skeleton. *J. Cell Sci.* 116: 2261-2275.
5. Silacci, P., et al. 2004. Gelsolin superfamily proteins: key regulators of cellular functions. *Cell. Mol. Life Sci.* 61: 2614-2623.
6. Archer, S.K., et al. 2004. The flightless I protein and the gelsolin family in nuclear hormone receptor-mediated signalling. *Biochem. Soc. Trans.* 32: 940-942.
7. Gangopadhyay, S.S., et al. 2004. Smooth muscle archvillin: a novel regulator of signaling and contractility in vascular smooth muscle. *J. Cell Sci.* 117: 5043-5057.
8. Ting, H.J., et al. 2004. Actin monomer enhances Supervillin-modulated androgen receptor transactivation. *Biochem. Biophys. Res. Commun.* 319: 393-396.

## CHROMOSOMAL LOCATION

Genetic locus: SVIL (human) mapping to 10p11.23; Svl (mouse) mapping to 18 A1.

## SOURCE

Supervillin (A-12) is a mouse monoclonal antibody raised against amino acids 1493-1792 mapping within an internal region of Supervillin of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

Supervillin (A-12) is recommended for detection of Supervillin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Supervillin siRNA (h): sc-61624, Supervillin siRNA (m): sc-61625, Supervillin shRNA Plasmid (h): sc-61624-SH, Supervillin shRNA Plasmid (m): sc-61625-SH, Supervillin shRNA (h) Lentiviral Particles: sc-61624-V and Supervillin shRNA (m) Lentiviral Particles: sc-61625-V.

Molecular Weight (predicted) of Supervillin isoforms p250/p205: 248/201 kDa.

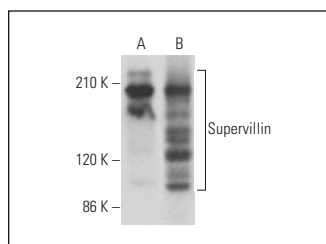
Molecular Weight (observed) of Supervillin: 169-200 kDa kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, A549 cell lysate: sc-2413 or A-673 cell lysate: sc-2414.

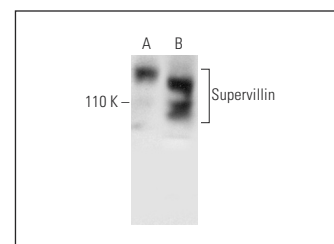
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



Supervillin (A-12): sc-393135. Western blot analysis of Supervillin expression in A-673 (A) and A-10 (B) whole cell lysates.



Supervillin (A-12): sc-393135. Western blot analysis of Supervillin expression in A549 (A) and Jurkat (B) whole cell lysates.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.