

# Filamin 3 (N-16): sc-48502

## BACKGROUND

Filamins are Actin-binding proteins which contain an N-terminal Actin-binding domain, a membrane glycoprotein domain and a C-terminal self-association domain. Filamins help reshape the cytoskeleton by forming flexible cross-links between two Actin filaments, which maintain membrane integrity during force application. Filamins also participate in signal transduction pathways associated with cell motility, adhesion, differentiation and survival, and force transduction. The filamin family is comprised of Filamin 1, Filamin 2 and Filamin 3. Filamin 3, also designated Filamin B and  $\beta$ -Filamin, is a form of Filamin that plays a role in endochondral ossification, vertebral segmentation and joint formation. The interaction of Filamin 3 with Filamin 1 may allow neuroblast migration into the cortical plate from the ventricular zone. Mutations in the gene that encodes for Filamin 3, FLNB, are associated with five human skeletal disorders, specifically, autosomal dominant Larsen syndrome, spondylocarpotarsal syndrome, type I atelosteogenesis, type III atelosteogenesis and Boomerang dysplasia as well as the neurologic disorder peri-ventricular heterotopia.

## CHROMOSOMAL LOCATION

Genetic locus: FLNB (human) mapping to 3p14.3; Flnb (mouse) mapping to 14 A1.

## SOURCE

Filamin 3 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Filamin 3 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-48502 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Filamin 3 (N-16) is recommended for detection of Filamin 3 of human origin and Filamin  $\beta$  of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

Filamin 3 (N-16) is also recommended for detection of Filamin 3 in additional species, including canine and porcine.

Suitable for use as control antibody for Filamin 3 siRNA (h): sc-60641, Filamin  $\beta$  siRNA (m): sc-60642, Filamin 3 shRNA Plasmid (h): sc-60641-SH, Filamin  $\beta$  shRNA Plasmid (m): sc-60642-SH, Filamin 3 shRNA (h) Lentiviral Particles: sc-60641-V and Filamin  $\beta$  shRNA (m) Lentiviral Particles: sc-60642-V.

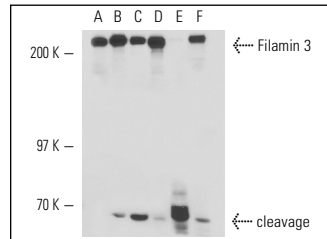
Molecular Weight of Filamin 3: 280 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NIH/3T3 whole cell lysate: sc-2210 or U-87 MG cell lysate: sc-2411.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Filamin 3 (N-16): sc-48502. Western blot analysis of Filamin 3 expression in HeLa (A), NIH/3T3 (B), C6 (C) and U-87 MG (D) whole cell lysates and mouse post-natal brain (E) and mouse embryo (F) tissue extracts. Note presence of proteolytic cleavage products.

## SELECT PRODUCT CITATIONS

- Bello, N.F., et al. 2009. The E3 ubiquitin ligase specificity subunit ASB2 $\beta$  is a novel regulator of muscle differentiation that targets filamin B to proteasomal degradation. *Cell Death Differ.* 16: 921-932.
- Niu, D., et al. 2009. iTRAQ-coupled 2-D LC-MS/MS analysis of protein profile associated with HBV-modulated DNA methylation. *Proteomics* 9: 3856-3868.

## 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.

## PROTOCOLS

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



Try **Filamin 3 (F-8): sc-376241** or **Filamin 3 (D-6): sc-166484**, our highly recommended monoclonal alternatives to Filamin 3 (N-16).