

Filamin 2 (C-20): sc-48495

BACKGROUND

Filamins (types 1, 2 and 3) 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. Filamin 2, also designated Filamin C, is a skeletal- and cardiac-muscle specific form of Filamin, which binds γ -sarcoglycan and δ -sarcoglycan, but not α -sarcoglycan or β -sarcoglycan. Muscular dystrophy, an inherited group of disorders resulting in progressive weakness of muscles in the body, is associated with irregular subcellular localization of Filamin 2 caused by a deficiency in KY, a protein that interacts with Filamin 2.

REFERENCES

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3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 102565. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Beatham, J., et al. 2004. Filamin C interacts with the muscular dystrophy KY protein and is abnormally distributed in mouse KY deficient muscle fibres. *Hum. Mol. Genet.* 13: 2863-2874.
5. Murray, J.T., et al. 2004. Identification of Filamin C as a new physiological substrate of PKB α using KESTREL. *Biochem. J.* 384: 489-494.
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7. Ohashi, K., et al. 2005. Chicken gizzard Filamin, retina Filamin and cgABP260 are respectively, smooth muscle-, non-muscle- and pan-muscle-type isoforms: distribution and localization in muscles. *Cell Motil. Cytoskeleton* 61: 214-225.

CHROMOSOMAL LOCATION

Genetic locus: FLNC (human) mapping to 7q32.1; Flnc (mouse) mapping to 6 A3.3.

SOURCE

Filamin 2 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Filamin 2 of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, Ready P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Filamin 2 (C-20) is recommended for detection of Filamin 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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 2 (C-20) is also recommended for detection of Filamin 2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Filamin 2 siRNA (h): sc-60639, Filamin 2 siRNA (m): sc-60640, Filamin 2 shRNA Plasmid (h): sc-60639-SH, Filamin 2 shRNA Plasmid (m): sc-60640-SH, Filamin 2 shRNA (h) Lentiviral Particles: sc-60639-V and Filamin 2 shRNA (m) Lentiviral Particles: sc-60640-V.

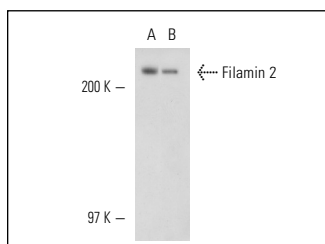
Molecular Weight of Filamin 2: 290 kDa.

Positive Controls: A-10 cell lysate: sc-3806, Sol8 cell lysate: sc-2249 or rat skeletal muscle extract: sc-364810.

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 2 (C-20): sc-48495. Western blot analysis of Filamin 2 expression in A-10 whole cell lysate (A) and rat skeletal muscle tissue extract (B).

RESEARCH USE

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