

Filamin 2 (K-18): sc-48496

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.

CHROMOSOMAL LOCATION

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

SOURCE

Filamin 2 (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Filamin 2 of human origin.

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).

RESEARCH USE

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

APPLICATIONS

Filamin 2 (K-18) 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 (K-18) 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.

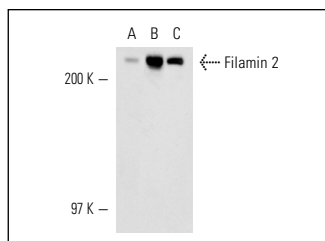
Molecular Weight of Filamin 2: 290 kDa.

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 (K-18): sc-48496. Western blot analysis of Filamin 2 expression in Sol8 (A) and A-10 (B) whole cell lysates and rat skeletal muscle tissue extract (C).

SELECT PRODUCT CITATIONS

- Douillard, A., et al. 2011. Time course in calpain activity and autolysis in slow and fast skeletal muscle during clenbuterol treatment. *Can. J. Physiol. Pharmacol.* 89: 117-125.
- Bloemberg, D., et al. 2014. Autophagy is altered in skeletal and cardiac muscle of spontaneously hypertensive rats. *Acta Physiol.* 210: 381-391.
- Wang, H., et al. 2015. Insulin signaling and glucose uptake in the soleus muscle of 30-month-old rats after calorie restriction with or without acute exercise. *J. Gerontol. A Biol. Sci. Med. Sci.* E-published.
- Sharma, N., et al. 2015. Mechanisms for independent and combined effects of calorie restriction and acute exercise on Insulin-stimulated glucose uptake by skeletal muscle of old rats. *Am. J. Physiol. Endocrinol. Metab.* 308: E603-E612.

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 or our catalog for detailed protocols and support products.