SANTA CRUZ BIOTECHNOLOGY, INC.

KY peptidase (N-14): sc-99962



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. 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. KY peptidase (kyphoscoliosis peptidase) is a 561 amino acid cytoskeleton protease that interacts with several sarcomeric cytoskeletal proteins, including Filamin 2. KY peptidase probably plays a role in the maturation, function and stabilization of the neuromuscular junction. KY-null mouse mutants exhibit distinct irregular subceullular Filamin 2 localization, suggesting that KY peptidase deficiency may be the cause of several types of limb-girdle muscular dystrophies.

REFERENCES

- 1. Blanco, G., et al. 1998. A STS content physical and transcription map across the ky, kyphoscoliosis, nonrecombinant region. Genomics 54: 415-423.
- van der Ven, P.F., et al. 2000. Characterization of muscle filamin isoforms suggests a possible role of γ-filamin/ABP-L in sarcomeric Z-disc formation. Cell Motil. Cytoskeleton 45: 149-162.
- Thompson, T.G., et al. 2000. Filamin 2 (FLN2): A muscle-specific sarcoglycan interacting protein. J. Cell Biol. 148: 115-126.
- Blanco, G., et al. 2001. The kyphoscoliosis (ky) mouse is deficient in hypertrophic responses and is caused by a mutation in a novel muscle-specific protein. Hum. Mol. Genet. 10: 9-16.
- Murray, J.T., et al. 2004. Identification of filamin C as a new physiological substrate of PKBα using KESTREL. Biochem. J. 384: 489-494.
- 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.
- Anastasi, G., et al. 2004. Evaluation of sarcoglycans, vinculin-talin-integrin system and filamin2 in α- and γ-sarcoglycanopathy: an immunohistochemical study. Int. J. Mol. Med. 14: 989-999.
- 8. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 605739. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: KY (human) mapping to 3q22.2.

SOURCE

KY peptidase (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of KY peptidase of human origin.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-99962 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KY peptidase (N-14) is recommended for detection of KY peptidase of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

KY peptidase (N-14) is also recommended for detection of KY peptidase in additional species, including equine, canine and porcine.

Suitable for use as control antibody for KY peptidase siRNA (h): sc-78084, KY peptidase shRNA Plasmid (h): sc-78084-SH and KY peptidase shRNA (h) Lentiviral Particles: sc-78084-V.

Molecular Weight of KY isoforms 1/2: 64/42 kDa.

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) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.