SANTA CRUZ BIOTECHNOLOGY, INC.

Syncoilin (S-14): sc-162284

BACKGROUND

Syncoilin (SYNC) is a 483 amino acid member of the intermediate filament family. Localized to the perinuclear region of cytoplasm, Syncoilin interacts with α-Dystrobrevin and Desmin. Syncoilin links the dystrophin associated protein complex (DAPC) to Desmin filaments in muscle, and is therefore found at high levels in cardiac and skeletal muscle. Syncoilin is upregulated at the sarcolemma in individuals with various forms of neuromuscular disease. The gene that encodes Syncoilin maps to human chromosome 1, which is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. There are about 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1.

REFERENCES

1. Watson, M.L., et al. 1990. Genomic organization of the selectin family of leukocyte adhesion molecules on human and mouse chromosome 1. J. Exp. Med. 172: 263-272.
2. Newey, S.E., et al. 2001. Syncoilin, a novel member of the intermediate filament superfamily that interacts with α-Dystrobrevin in skeletal muscle. J. Biol. Chem. 276: 6645-6655.
3. Poon, E., et al. 2002. Association of Syncoilin and Desmin: linking intermediate filament proteins to the dystrophin-associated protein complex. J. Biol. Chem. 277: 3433-3439.
4. Brown, S.C., et al. 2005. Syncoilin upregulation in muscle of patients with neuromuscular disease. Muscle Nerve 32: 715-725.
5. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. Cytogenet. Genome Res. 108: 217-222.
6. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.

CHROMOSOMAL LOCATION

Genetic locus: SYNC (human) mapping to 1p35.1; Sync (mouse) mapping to 4 D2.2.

SOURCE

Syncoilin (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Syncoilin of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-162284 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Syncoilin (S-14) is recommended for detection of Syncoilin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 Syncoilin siRNA (h): sc-78581, Syncoilin siRNA (m): sc-153984, Syncoilin shRNA Plasmid (h): sc-78581-SH, Syncoilin shRNA Plasmid (m): sc-153984-SH, Syncoilin shRNA (h) Lentiviral Particles: sc-78581-V and Syncoilin shRNA (m) Lentiviral Particles: sc-153984-V.

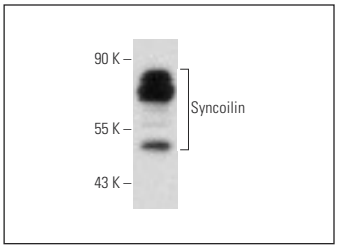
Molecular Weight of Syncoilin: 64/55 kDa.

Positive Controls: C2C12 whole cell lysate: sc-364188.

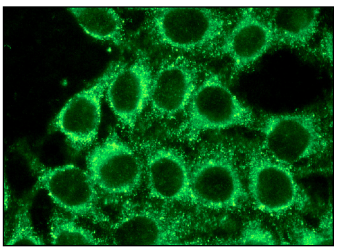
RECOMMENDED SECONDARY REAGENTS

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



Syncoilin (S-14): sc-162284. Western blot analysis of Syncoilin expression in C2C12 whole cell lysate.



Syncoilin (S-14): sc-162284. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

RESEARCH USE

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