SANTA CRUZ BIOTECHNOLOGY, INC.

Syncoilin (C-3): sc-515474

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

SOURCE

Syncoilin (C-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 309-327 within an internal region of Syncoilin of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-515474 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

Syncoilin (C-3) is recommended for detection of Syncoilin of human origin by Western Blotting (starting dilution 1:100, 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 shRNA Plasmid (h): sc-78581-SH and Syncoilin shRNA (h) Lentiviral Particles: sc-78581-V.

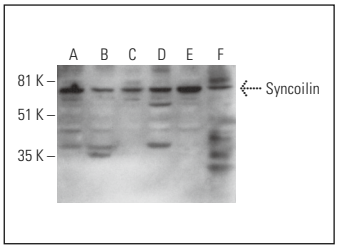
Molecular Weight of Syncoilin: 64/55 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A549 cell lysate: sc-2413 or U-937 cell lysate: sc-2239.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Syncoilin (C-3): sc-515474. Western blot analysis of Syncoilin expression in HeLa (**A**), A549 (**B**), U-937 (**C**), U-251-MG (**D**) and MDA-MB-468 (**E**) whole cell lysates and human skeletal muscle tissue extract (**F**).

RESEARCH USE

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

PROTOCOLS

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