

γ 1-Syntrophin (N-15): sc-13767

BACKGROUND

The syntrophins are PDZ-domain-containing proteins that facilitate the recruitment of signaling proteins such as NOS1 to the dystrophin-associated protein complex. The syntrophins are a family of structurally related proteins that contain multiple protein interaction motifs. Syntrophins associate directly with dystrophin, the product of the Duchenne muscular dystrophy locus, and its homologues. α -Syntrophin has an important role in synapse formation and in the organization of utrophin, acetylcholine receptor and acetylcholinesterase at the neuromuscular synapse. Specifically, NOS1 binds to α -Syntrophin at muscle sarcolemma. β 2-Syntrophin is a modular adapter and in muscle cells interacts with members of the dystrophin family, which includes utrophin.

REFERENCES

1. Newey, S.E., Benson, M.A., Ponting, C.P., Davies, K.E. and Blake, D.J. 2000. Alternative splicing of Dystrobrevin regulates the stoichiometry of syntrophin binding to the dystrophin protein complex. *Curr. Biol.* 10: 1295-1298.
2. Abdelmoity, A., Padre, R.C., Burzynski, K.E., Stull, J.T. and Lau, K.S. 2000. Neuronal nitric oxide synthase localizes through multiple structural motifs to the sarcolemma in mouse myotubes. *FEBS Lett.* 482: 65-70.
3. Adams, M.E., Kramarcy, N., Krall, S.P., Rossi, S.G., Rotundo, R.L., Sealock, R. and Froehner, S.C. 2000. Absence of α -Syntrophin leads to structurally aberrant neuromuscular synapses deficient in utrophin. *J. Cell Biol.* 150: 1385-1398.
4. Ort, T., Maksimova, E., Dirx, R., Kachinsky, A.M., Berghs, S., Froehner, S.C. and Solimena, M. 2000. The receptor tyrosine phosphatase-like protein ICA512 binds the PDZ domains of β 2-syntrophin and nNOS in pancreatic β -cells. *Eur. J. Cell Biol.* 79: 621-630.

CHROMOSOMAL LOCATION

Genetic locus: SNTG1 (human) mapping to 8q11.21; Sntg1 (mouse) mapping to 1 A1.

SOURCE

γ 1-Syntrophin (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of γ 1-Syntrophin 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, sc-13767 P, (100 μ g 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

γ 1-Syntrophin (N-15) is recommended for detection of γ 1-Syntrophin 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).

γ 1-Syntrophin (N-15) is also recommended for detection of γ 1-Syntrophin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for γ 1-Syntrophin siRNA (h): sc-43441, γ 1-Syntrophin siRNA (m): sc-43442, γ 1-Syntrophin shRNA Plasmid (h): sc-43441-SH, γ 1-Syntrophin shRNA Plasmid (m): sc-43442-SH, γ 1-Syntrophin shRNA (h) Lentiviral Particles: sc-43441-V and γ 1-Syntrophin shRNA (m) Lentiviral Particles: sc-43442-V.

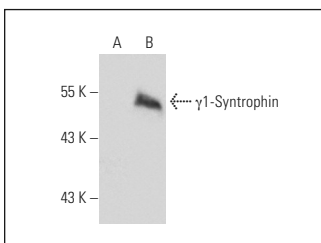
Molecular Weight of γ 1-Syntrophin: 58 kDa.

Positive Controls: γ 1-Syntrophin (h): 293T Lysate: sc-127853.

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



γ 1-Syntrophin (N-15): sc-13767. Western blot analysis of γ 1-Syntrophin expression in non-transfected: sc-117752 (A) and human γ 1-Syntrophin transfected: sc-127853 (B) 293T whole cell lysates.

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.