

β1-Syntrophin (C-20): sc-13763

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. β2-Syntrophin is a modular adapter and in muscle cells interacts with members of the dystrophin family, which includes utrophin.

REFERENCES

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3. 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 β2-Syntrophin and nNOS in pancreatic β-cells. *Eur. J. Cell Biol.* 79: 621-630.
4. Rocco, P., Vainzof, M., Froehner, S.C., Peters, M.F., Marie, S.K., Passos-Bueno, M.R. and Zatz, M. 2000. Brazilian family with pure autosomal dominant spastic paraplegia maps to 8q: analysis of muscle β1 Syntrophin. *Am. J. Med. Genet.* 92: 122-127.

CHROMOSOMAL LOCATION

Genetic locus: *SNTB1* (human) mapping to 8q24.12; *Sntb1* (mouse) mapping to 15 D1.

SOURCE

β1-Syntrophin (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of β1-Syntrophin 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-13763 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

β1-Syntrophin (C-20) is recommended for detection of β1-Syntrophin 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

β1-Syntrophin (C-20) is also recommended for detection of β1-Syntrophin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for β1-Syntrophin siRNA (h): sc-43437, β1-Syntrophin siRNA (m): sc-43438, β1-Syntrophin shRNA Plasmid (h): sc-43437-SH, β1-Syntrophin shRNA Plasmid (m): sc-43438-SH, β1-Syntrophin shRNA (h) Lentiviral Particles: sc-43437-V and β1-Syntrophin shRNA (m) Lentiviral Particles: sc-43438-V.

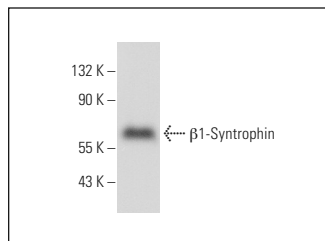
Molecular Weight of β1-Syntrophin: 57-60 kDa.

Positive Controls: WI-38 whole cell lysate: sc-364260.

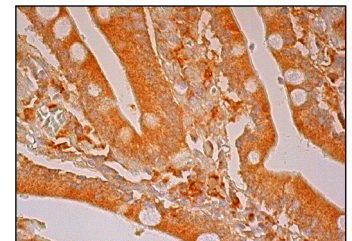
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



β1-Syntrophin (C-20): sc-13763. Western blot analysis of β1-Syntrophin expression in WI-38 whole cell lysate.



β1-Syntrophin (C-20): sc-13763. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells.

RESEARCH USE

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