

α -Syntrophin (H-65): sc-50460

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 homologs. 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

- Newey, S.E., et al. 2000. Alternative splicing of dystrobrevin regulates the stoichiometry of Syntrophin binding to the dystrophin protein complex. *Curr. Biol.* 10: 1295-1298.
- Abdelmoity, A., et al. 2000. Neuronal nitric oxide synthase localizes through multiple structural motifs to the sarcolemma in mouse myotubes. *FEBS Lett.* 482: 65-70.

CHROMOSOMAL LOCATION

Genetic locus: SNTA1 (human) mapping to 20q11.21; Snta1 (mouse) mapping to 2 H1.

SOURCE

α -Syntrophin (H-65) is a rabbit polyclonal antibody raised against amino acids 203-267 mapping within an internal region of α -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.

APPLICATIONS

α -Syntrophin (H-65) is recommended for detection of α -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), 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).

Suitable for use as control antibody for α -Syntrophin siRNA (h): sc-43435, α -Syntrophin siRNA (m): sc-43436, α -Syntrophin shRNA Plasmid (h): sc-43435-SH, α -Syntrophin shRNA Plasmid (m): sc-43436-SH, α -Syntrophin shRNA (h) Lentiviral Particles: sc-43435-V and α -Syntrophin shRNA (m) Lentiviral Particles: sc-43436-V.

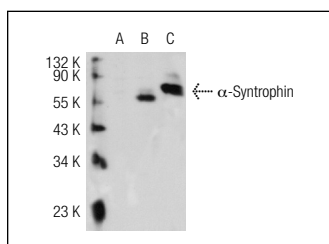
Molecular Weight of α -Syntrophin: 58 kDa.

Positive Controls: α -Syntrophin (h): 293T Lysate: sc-113719, rat skeletal muscle extract: sc-364810 or Sol8 cell lysate: sc-2249.

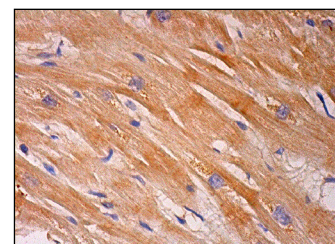
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz[™]: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



α -Syntrophin (H-65): sc-50460. Western blot analysis of α -Syntrophin expression in non-transfected 293T: sc-117752 (A) and human α -Syntrophin transfected 293T: sc-113719 (B) whole cell lysates and rat skeletal muscle tissue extract (C).



α -Syntrophin (H-65): sc-50460. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

SELECT PRODUCT CITATIONS

- Chelsh, I., et al. 2009. Molecular profiles of quadriceps muscle in myostatin-null mice reveal PI3K and apoptotic pathways as myostatin targets. *BMC Genomics* 10: 196.
- Chelsh, I., et al. 2011. Myostatin inactivation induces a similar muscle molecular signature in double-musled cattle as in mice. *Animal* 5: 278-286.

STORAGE

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

RESEARCH USE

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



Try α -Syntrophin (D-7): sc-166634 or α -Syntrophin (C-7): sc-166207, our highly recommended monoclonal alternatives to α -Syntrophin (H-65).