

Troponin T-SS (N-15): sc-30497

BACKGROUND

Actin is a highly conserved protein that is expressed in all eukaryotic cells and interacts with Myosin to generate the force for diverse cellular movements, including cytokinesis, phagocytosis and muscle contraction. Troponin facilitates the interaction between Actin and Myosin by binding to calcium. Troponin is made up of at least two subunits, which are divergent in cardiac muscle, fast skeletal muscle and slow skeletal muscle. Structures of skeletal muscle Troponin are composed of Troponin C (the sensor), Troponin I (the regulator) and three Troponin T (the link to the muscle thin filament) proteins, one of which functions as a Tropomyosin-binding protein and is known as Troponin T-SS (Troponin T-slow skeletal). Defects in the gene encoding Troponin T-SS are the cause of nemaline myopathy type 5 (NEM5), a form of nemaline myop-athy characterized by mild contractures of the shoulders and hips, tremors and respiratory problems that often lead to death. Troponin T-SS is expressed as three isoforms due to alternative splicing events.

REFERENCES

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2. Koppe, R.I., Hallauer, P.L., Karpatis, G. and Hastings, K.E. 1989. cDNA clone and expression analysis of rodent fast and slow skeletal muscle Troponin I mRNAs. *J. Biol. Chem.* 264: 14327-14333.
3. Ausoni, S., Campione, M., Picard, A., Moretti, P., Vitadello, M., DeNardi, C. and Schiaffino, S. 1994. Structure and regulation of the mouse cardiac Troponin I gene. *J. Biol. Chem.* 269: 339-346.
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5. Barkalow, K. and Hartwig, J.H. 1995. Actin cytoskeleton. Setting the pace of cell movement. *Curr. Biol.* 5: 1000-1002.
6. Baker, J.P. and Titus, M.A. 1998. Myosins: matching functions with motors. *Curr. Opin. Cell Biol.* 10: 80-86.
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CHROMOSOMAL LOCATION

Genetic locus: TNNT1 (human) mapping to 19q13.4.

SOURCE

Troponin T-SS (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Troponin T-SS 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-30497 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

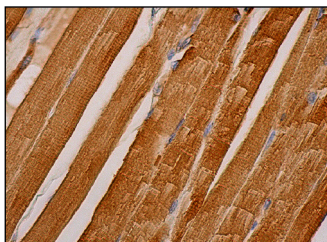
Troponin T-SS (N-15) is recommended for detection of Troponin T-SS of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting 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 Troponin T-SS siRNA (h): sc-43251, Troponin T-SS shRNA Plasmid (h): sc-43251-SH and Troponin T-SS shRNA (h) Lentiviral Particles: sc-43251-V.

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

DATA



Troponin T-SS (N-15): sc-30497. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of myocytes.

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.

MONOS
Satisfaction
Guaranteed

Try **Troponin T-SS (A-9): sc-365014** or **Troponin T-SS (A-8): sc-271673**, our highly recommended monoclonal alternatives to Troponin T-SS (N-15).