

Troponin C fast skeletal (C-17): sc-30481

BACKGROUND

Actin is a highly conserved protein that is expressed in all eukaryotic cells. Actin filaments can form both stable and labile structures and are crucial components of microvilli and the contractile apparatus of muscle cells. Myosin is a hexamer of two heavy chains (MHC) and four light chains (MLC) that interacts with actin 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 Troponin T (the link to the muscle thin filament). Troponin C is dumbbell-shaped and has a hydrophobic pocket that increases the contractile force of muscle fibers. Troponin C has 2 isoforms: fast and slow. Fast troponin C has two calcium binding sites while slow/cardiac troponin C has a single calcium binding site.

CHROMOSOMAL LOCATION

Genetic locus: TNNC2 (human) mapping to 20q13.12; Tnnc2 (mouse) mapping to 2 H3.

SOURCE

Troponin C fast skeletal (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Troponin C fast skeletal 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-30481 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Troponin C fast skeletal (C-17) is recommended for detection of Troponin C fast skeletal of mouse, rat and 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). Troponin C fast skeletal (C-17) is also recommended for detection of Troponin C fast skeletal in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Troponin C fast skeletal siRNA (h): sc-36736, Troponin C fast skeletal siRNA (m): sc-36737, Troponin C fast skeletal shRNA Plasmid (h): sc-36736-SH, Troponin C fast skeletal shRNA Plasmid (m): sc-36737-SH, Troponin C fast skeletal shRNA (h) Lentiviral Particles: sc-36736-V and Troponin C fast skeletal shRNA (m) Lentiviral Particles: sc-36737-V.

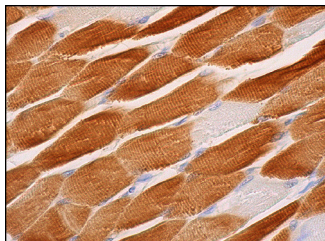
Molecular Weight of Troponin C fast skeletal: 18 kDa.

Positive Controls: Sol8 cell lysate: sc-2249.

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 C fast skeletal (C-17): sc-30481. 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.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **Troponin C fast skeletal (E-7): sc-48347**, our highly recommended monoclonal alternative to Troponin C fast skeletal (C-17).