Triadin (M-20): sc-33394

SANTA CRUZ®
BIOTECHNOLOGY

The Power to Question

BACKGROUND

Triadin is a junctional terminal cisternae protein found mainly in human skeletal muscle. The gene TRDN which encodes for the protein maps to chromosome 6q22.31. Triadin, a type II membrane protein, is involved in anchoring calsequestrin to the sarcoplasmic reticulum, allowing its coupling with the ryanodine receptor (RyR). Triadin inhibits the calcium channel activity of ryanodine receptor in skeletal muscle. It co-localizes with RyR in the junctional sarcoplasmic reticulum membrane.

REFERENCES

1. Caswell, A.H., et al. 1991. Localization and partial characterization of the oligomeric disulfide-linked molecular weight 95 kDa protein (triadin) which binds the ryanodine and dihydropyridine receptors in skeletal muscle triadic vesicles. Biochemistry 30: 7507-7513.

2. Flucher, B.E., et al. 1993. Triad formation: organization and function of the sarcoplasmic reticulum calcium release channel and Triadin in normal and dysgenic muscle *in vitro.* J. Cell Biol. 123: 1161-1174.

3. Knudson, C.M., et al. 1993. Biochemical characterization of ultrastructural localization of a major junctional sarcoplasmic reticulum glycoprotein (triadin). J. Biol. Chem. 268: 12637-12645.

4. Knudson, C.M., et al. 1993. Primary structure and topological analysis of a skeletal muscle-specific junctional sarcoplasmic reticulum glycoprotein (triadin). J. Biol. Chem. 268: 12646-12654.

5. Brandt, N.R., et al. 1993. Detection and localization of triadin in rat ventricular muscle. J. Membr. Biol. 131: 219-228.

CHROMOSOMAL LOCATION

Genetic locus: Trdn (mouse) mapping to 10 A4.

SOURCE

Triadin (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of cardiac Triadin isoforms 1, 2 and 3 of mouse 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-33394 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.

PROTOCOLS

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

APPLICATIONS

Triadin (M-20) is recommended for detection of cardiac Triadin isoforms 1, 2 and 3 of mouse 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Triadin siRNA (m): sc-44414, Triadin shRNA Plasmid (m): sc-44414-SH and Triadin shRNA (m) Lentiviral Particles: sc-44414-V.

Molecular Weight of cardiac Triadin: 40 kDa.

Molecular Weight of skeletal muscle Triadin: 95 kDa.

Positive Controls: mouse heart extract: sc-2254.

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
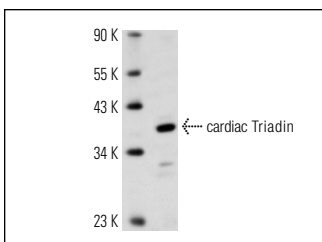
Triadin (M-20): sc-33394. Western blot analysis of cardiac Triadin expression in mouse heart tissue extract.
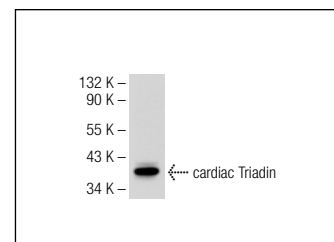
Triadin (M-20): sc-33394. Western blot analysis of cardiac Triadin expression in mouse heart tissue extract.

RESEARCH USE

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

MONOS
Satisfaction Guaranteed

Try **Triadin (IIG12): sc-59724**, our highly recommended monoclonal alternative to Triadin (M-20).