SANTA CRUZ BIOTECHNOLOGY, INC.

MuRF3 (H-70): sc-98465

BACKGROUND

MuRF1 (muscle specific ring finger protein 1 or RNF28) is a nuclear protein that interacts with SMT3b and the large myofibrillar protein Titin. In muscle cells, MuRF2 (RFN29) regulates gene expression and protein turnover. It localizes to the cytoplasm, but under atrophic conditions it is detected in the nucleus. MuRF2 can form oligomers with various other proteins, including Titin and Myosin. MuRF3, also designated tripartite motif-containing 54 (TRIM54) or ring finger protein 30 (RNF30), interacts with tubulin and stabilizes microtubules duing myotube formation. It is a cytoplasmic protein the localizes to the Z-lines in skeletal muscles, while MuRF2 localizes to the sarcomeric M-band in cardiomyocytes. MuRF3 shares 77% and 65% sequence identity with MuRF1 and MuRF2, respectively. MuRF 1-3 share a conserved N-terminal RING domain and zinc-binding B-box motif, and two coiled-coil dimerization motif boxes, in their central regions.

REFERENCES

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RESEARCH USE

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

CHROMOSOMAL LOCATION

Genetic locus: TRIM54 (human) mapping to 2p23.3; Trim54 (mouse) mapping to 5 B1.

SOURCE

MuRF3 (H-70) is a rabbit polyclonal antibody raised against amino acids 266-333 mapping near the C-terminus of MuRF3 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.

APPLICATIONS

MuRF3 (H-70) is recommended for detection of MuRF3 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MuRF3 siRNA (h): sc-61102, MuRF3 siRNA (m): sc-61103, MuRF3 shRNA Plasmid (h): sc-61102-SH, MuRF3 shRNA Plasmid (m): sc-61103-SH, MuRF3 shRNA (h) Lentiviral Particles: sc-61102-V and MuRF3 shRNA (m) Lentiviral Particles: sc-61103-V.

Molecular Weight of MuRF3: 40 kDa.

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.

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.