SANTA CRUZ BIOTECHNOLOGY, INC.

TRIM72 (N-12): sc-165789

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The tripartite motif (TRIM) family of proteins are characterized by a conserved TRIM domain that includes a coiled-coil region, a B-box type zinc finger, one RING finger and three zinc-binding domains. TRIM72 (tripartite motif containing 72), also known as MG53, is a 477 amino acid cytoplasmic vesicle membrane protein that belongs to the TRIM/RBCC family. Existing as a homo-oligomer, TRIM72 contains one B box-type zinc finger, one B30.2/SPRY domain and a RING-type zinc finger. TRIM72 is considered a muscle-specific protein that plays a central role in cell membrane repair by nucleating the assembly of the repair machinery at injury sites. TRIM72 is required for transport of dysferlin to sites of cell injury during repair patch formation. TRIM72 also regulates membrane budding and exocytosis and may be involved in the regulation of the mobility of KV2.1-containing endocytic vesicles. TRIM72 exists as two alternatively spliced isoforms and is encoded by a gene located on human chromosome 16p11.2.

REFERENCES

1. Weisleder, N., et al. 2009. Mitsugumin 53 (MG53) facilitates vesicle trafficking in striated muscle to contribute to cell membrane repair. Commun. Integr. Biol. 2: 225-226.
2. Cai, C., et al. 2009. Membrane repair defects in muscular dystrophy are linked to altered interaction between MG53, caveolin-3, and dysferlin. J. Biol. Chem. 284: 15894-15902.
3. Cai, C., et al. 2009. MG53 regulates membrane budding and exocytosis in muscle cells. J. Biol. Chem. 284: 3314-3322.
4. Cai, C., et al. 2009. MG53 nucleates assembly of cell membrane repair machinery. Nat. Cell Biol. 11: 56-64.
5. Jung, S.Y., et al. 2010. TRIM72, a novel negative feedback regulator of myogenesis, is transcriptionally activated by the synergism of MyoD (or myogenin) and MEF2. Biochem. Biophys. Res. Commun. 396: 238-245.

CHROMOSOMAL LOCATION

Genetic locus: TRIM72 (human) mapping to 16p11.2; Trim72 (mouse) mapping to 7 F3.

SOURCE

TRIM72 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TRIM72 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-165789 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.

APPLICATIONS

TRIM72 (N-12) is recommended for detection of TRIM72 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); non cross-reactive with other TRIM family members.

TRIM72 (N-12) is also recommended for detection of TRIM72 in additional species, including bovine.

Suitable for use as control antibody for TRIM72 siRNA (h): sc-93129, TRIM72 siRNA (m): sc-154670, TRIM72 shRNA Plasmid (h): sc-93129-SH, TRIM72 shRNA Plasmid (m): sc-154670-SH, TRIM72 shRNA (h) Lentiviral Particles: sc-93129-V and TRIM72 shRNA (m) Lentiviral Particles: sc-154670-V.

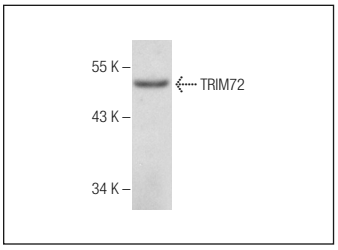
Molecular Weight of TRIM72: 55 kDa.

Positive Controls: Human liver tissue extract.

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



TRIM72 (N-12): sc-165789. Western blot analysis of TRIM72 expression in human liver tissue extract.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **TRIM72 (A-10): sc-514706**, our highly recommended monoclonal alternative to TRIM72 (N-12).