SANTA CRUZ BIOTECHNOLOGY, INC.

TRIM2 (I-17): sc-79161

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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. TRIM2 (tripartite motif-containing 2), also known as RNF86, is a 744 amino acid protein that localizes to cytoplasmic filaments and contains a variety of domains that are characteristic to TRIM proteins, including a RING-type zinc finger and a B box-type zinc finger, as well as one filamin repeat and six NHL repeats. Via its NHL repeats, TRIM2 interacts with Myosin V and is thought to contribute to the alternation of neural cellular mechanisms, possibly protecting cells from neurodegeneration. The gene encoding TRIM2 maps to human chromosome 4, which encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes.

REFERENCES

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2. Ohkawa, N., et al. 2001. Molecular cloning and characterization of neural activity-related RING finger protein (NARF): a new member of the RBCC family is a candidate for the partner of Myosin V. J. Neurochem. 78: 75-87.
3. Meroni, G. and Diez-Roux, G. 2005. TRIM/RBCC, a novel class of "single protein RING finger" E3 ubiquitin ligases. Bioessays 27: 1147-1157.
4. Sardiello, M., et al. 2008. Genomic analysis of the TRIM family reveals two groups of genes with distinct evolutionary properties. BMC Evol. Biol. 8: 225.
5. Bowie, A.G. 2008. TRIM-ing down Tolls. Nat. Immunol. 9: 348-350.
6. Ozato, K., et al. 2008. TRIM family proteins and their emerging roles in innate immunity. Nat. Rev. Immunol. 8: 849-860.
7. Balastik, M., et al. 2008. Deficiency in ubiquitin ligase TRIM2 causes accumulation of neurofilament light chain and neurodegeneration. Proc. Natl. Acad. Sci. USA 105: 12016-12021.

CHROMOSOMAL LOCATION

Genetic locus: TRIM2 (human) mapping to 4q31.3; Trim2 (mouse) mapping to 3 F1.

SOURCE

TRIM2 (I-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TRIM2 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-79161 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

TRIM2 (I-17) is recommended for detection of TRIM2 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).

TRIM2 (I-17) is also recommended for detection of TRIM2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TRIM2 siRNA (h): sc-76742, TRIM2 siRNA (m): sc-76743, TRIM2 shRNA Plasmid (h): sc-76742-SH, TRIM2 shRNA Plasmid (m): sc-76743-SH, TRIM2 shRNA (h) Lentiviral Particles: sc-76742-V and TRIM2 shRNA (m) Lentiviral Particles: sc-76743-V.

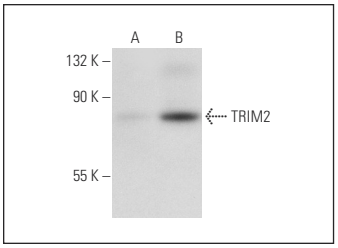
Molecular Weight of TRIM2: 82 kDa.

Positive Controls: TRIM2 (h): 293T Lysate: sc-375136.

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



TRIM2 (I-17): sc-79161. Western blot analysis of TRIM2 expression in non-transfected: sc-117752 (**A**) and human TRIM2 transfected: sc-375136 (**B**) 293T whole cell lysates.

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.