SANTA CRUZ BIOTECHNOLOGY, INC.

TRIM9 (H-24): sc-134124

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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. TRIM9 (tripartite motif-containing protein 9), also known as RNF91 (RING finger protein 91), is a 710 amino acid protein that contains a variety of domains that are characteristic to TRIM proteins, including a RING-type zinc finger and two B box-type zinc fingers, as well as a Fibronectin type-III domain, a COS domain and a B30.2/SPRY domain. TRIM9 utilizes its coiled coil domain to mediate the interaction with the amino-terminal t-SNARE domain of SNAP 25. In this manner, TRIM9 acts as a regulator of synaptic vesicle exocytosis by controlling the availability of SNAP 25 for the formation of the SNARE complex. There are three isoforms of TRIM9 that are produced as a result of alternative splicing events.

REFERENCES

1. Reymond, A., et al. 2001. The tripartite motif family identifies cell compartments. EMBO J. 20: 2140-2151.
2. Berti, C., et al. 2002. TRIM9 is specifically expressed in the embryonic and adult nervous system. Mech. Dev. 113: 159-162.
3. Lucas, B., et al. 2005. HNF-4α reduces proliferation of kidney cells and affects genes deregulated in renal cell carcinoma. Oncogene 24: 6418-6431.
4. Short, K.M. and Cox, T.C. 2006. Subclassification of the RBCC/TRIM superfamily reveals a novel motif necessary for microtubule binding. J. Biol. Chem. 281: 8970-8980.
5. Dhingra, V., et al. 2007. Proteomic profiling reveals that rabies virus infection results in differential expression of host proteins involved in ion homeostasis and synaptic physiology in the central nervous system. J. Neurovirol. 13: 107-117.
6. Fu, Z.F., et al. 2008. Pathogenic rabies virus alters host protein expression in the central nervous system: implications for neuronal dysfunction. Dev. Biol. 131: 83-91.
7. Carthagena, L., et al. 2009. Human TRIM gene expression in response to interferons. PLoS ONE 4: e4894.
8. Tanji, K., et al. 2010. TRIM9, a novel brain-specific E3 ubiquitin ligase, is repressed in the brain of Parkinson's disease and dementia with Lewy bodies. Neurobiol. Dis. 38: 210-218.

CHROMOSOMAL LOCATION

Genetic locus: TRIM9 (human) mapping to 14q22.1.

SOURCE

TRIM9 (H-24) is an affinity purified rabbit polyclonal antibody raised against synthetic TRIM9 peptide of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

TRIM9 (H-24) is recommended for detection of TRIM9 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TRIM9 siRNA (h): sc-92385, TRIM9 shRNA Plasmid (h): sc-92385-SH and TRIM9 shRNA (h) Lentiviral Particles: sc-92385-V.

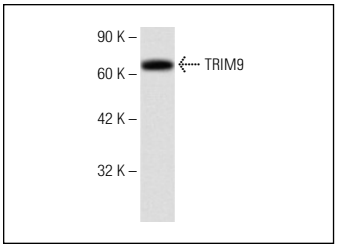
Molecular Weight of TRIM9: 79 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, SK-N-MC cell lysate: sc-2237 or IMR-32 cell lysate: sc-2409.

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).

DATA



TRIM9 (H-24): sc-134124. Western blot analysis of TRIM9 expression in Hep G2 whole cell lysate.

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.