

TRIM9 (D-11): sc-515040

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 SNAP25. In this manner, TRIM9 acts as a regulator of synaptic vesicle exocytosis by controlling the availability of SNAP25 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. HNF4 α 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; Trim9 (mouse) mapping to 12 C2.

SOURCE

TRIM9 (D-11) is a mouse monoclonal antibody raised against amino acids 32-71 mapping near the N-terminus of TRIM9 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

TRIM9 (D-11) is recommended for detection of TRIM9 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 TRIM9 siRNA (h): sc-92385, TRIM9 siRNA (m): sc-154673, TRIM9 shRNA Plasmid (h): sc-92385-SH, TRIM9 shRNA Plasmid (m): sc-154673-SH, TRIM9 shRNA (h) Lentiviral Particles: sc-92385-V and TRIM9 shRNA (m) Lentiviral Particles: sc-154673-V.

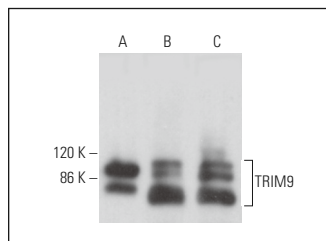
Molecular Weight of TRIM9: 79 kDa.

Positive Controls: rat cerebellum extract: sc-2398, IMR-32 cell lysate: sc-2409 or SK-N-MC cell lysate: sc-2237.

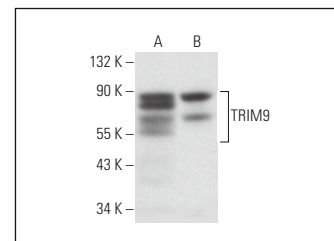
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



TRIM9 (D-11): sc-515040. Western blot analysis of TRIM9 expression in IMR-32 whole cell lysate (A) and rat cerebellum (B) and mouse postnatal brain (C) tissue extracts.



TRIM9 (D-11): sc-515040. Western blot analysis of TRIM9 expression in IMR-32 (A) and SK-N-MC (B) 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.

RESEARCH USE

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

PROTOCOLS

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