SANTA CRUZ BIOTECHNOLOGY, INC.

RNF10 (V-24): sc-133964



The Power to Question

BACKGROUND

The RING-type zinc-finger motif is present in a number of viral and eukaryotic proteins and is made of a conserved cysteine-rich domain that is able to bind two zinc atoms. Proteins that contain this conserved domain are generally involved in the ubiquitination pathway of protein degradation. RNF10 (RING finger protein 10), also known as RIE2, is an 811 amino acid protein that localizes to the cytoplasm and contains one RING-type zinc-finger. Existing as multiple alternatively spliced isoforms, RNF10 interacts with MOX-2 and is thought to regulate its transcription in Schwann cells, possibly playing a role in myelin formation. The gene encoding RNF10 maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and Trisomy 12p, which causes facial developmental defects and seizure disorders.

REFERENCES

- Borden, K.L. and Freemont, P.S. 1996. The RING finger domain: a recent example of a sequence-structure family. Curr. Opin. Struct. Biol. 6: 395-401.
- Nagase, T., Seki, N., Ishikawa, K., Ohira, M., Kawarabayasi, Y., Ohara, O., Tanaka, A., Kotani, H., Miyajima, N. and Nomura, N. 1996. Prediction of the coding sequences of unidentified human genes. VI. The coding sequences of 80 new genes (KIAA0201-KIAA0280) deduced by analysis of cDNA clones from cell line KG-1 and brain. DNA Res. 3: 321-329, 341-354.
- Lorick, K.L., Jensen, J.P., Fang, S., Ong, A.M., Hatakeyama, S. and Weissman, A.M. 1999. RING fingers mediate ubiquitin-conjugating enzyme (E2)-dependent ubiquitination. Proc. Natl. Acad. Sci. USA 96: 11364-11369.
- Seki, N., Hattori, A., Sugano, S., Muramatsu, M. and Saito, T. 2000. cDNA cloning, expression profile, and genomic structure of human and mouse RNF10/Rnf10 genes, encoding a novel RING finger protein. J. Hum. Genet. 45: 38-42.
- Lin, J., Friesen, M.T., Bocangel, P., Cheung, D., Rawszer, K. and Wigle, J.T. 2005. Characterization of mesenchyme homeobox 2 (MEOX2) transcription factor binding to RING finger protein 10. Mol. Cell. Biochem. 275: 75-84.
- Hoshikawa, S., Ogata, T., Fujiwara, S., Nakamura, K. and Tanaka, S. 2008. A novel function of RING finger protein 10 in transcriptional regulation of the myelin-associated glycoprotein gene and myelin formation in Schwann cells. PLoS ONE 3: E3464.

CHROMOSOMAL LOCATION

Genetic locus: RNF10 (human) mapping to 12q24.31; Rnf10 (mouse) mapping to 5 F.

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.

SOURCE

RNF10 (V-24) is an affinity purified rabbit polyclonal antibody raised against synthetic RNF10 peptide of human origin.

PRODUCT

Each vial contains 50 μ g lgG in 500 μ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

RNF10 (V-24) is recommended for detection of RNF10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 RNF10 siRNA (h): sc-95703, RNF10 siRNA (m): sc-153000, RNF10 shRNA Plasmid (h): sc-95703-SH, RNF10 shRNA Plasmid (m): sc-153000-SH, RNF10 shRNA (h): Lentiviral Particles: sc-95703-V and RNF10 shRNA (m): Lentiviral Particles: sc-153000-V.

Molecular Weight of RNF10: 90 kDa.

Positive Controls: RNF10 (h2): 293 Lysate: sc-114496.

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



RNF10 (V-24): sc-133964. Western blot analysis of RNF10 expression in non-transfected: sc-110760 (**A**) and human RNF10 transfected: sc-114496 (**B**) 293 whole cell lysates.

PROTOCOLS

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