SANTA CRUZ BIOTECHNOLOGY, INC.

RNF4 (205F2G): sc-517643

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The RING finger motif is a specialized DNA-binding zinc finger domain found in many transcriptional regulatory proteins. The ring finger protein (RNF) family includes any protein containing the signature RING finger motif. RNF4, also known as SNURF, is abundantly expressed in human testis and mouse embryo. RNF4 contains a C-terminal RING finger motif and binds linear, super-coiled and four-way junction DNA. RNF4 also interacts with nucleosomes and may promote the assembly of nucleoprotein structures. Ectopically expressed, RNF4 inhibits cell proliferation of germ cell tumor-derived cells, but cysteine-directed mutations in the RING finger motif abolished this growth inhibition activity. RNF4 may act as a transcription activator or a repressor. As a transcriptional activator, RNF4 mediates androgen receptor activity. RNF4 also associates with POZ-AT hook-zinc finger protein (PATZ), and the RNF4/PATZ complex acts as a transcriptional repressor. The gene encoding human RNF4 maps to chromosome 4p16.3.

REFERENCES

1. Lovering, R., Hanson, I.M., Borden, K.L.B., Martin, S., O'Reilly, N.J., Evan, G.I., Rahman, D., Pappin, D.J.C., Trowsdale, J. and Freemont, P.S. 1993. Identification and preliminary characterization of a protein motif related to the zinc finger. Proc. Natl. Acad. Sci. USA 90: 2112-2116.
2. Chiariotti, L., Benvenuto, G., Fedele, M., Santoro, M., Simeone, A., Fusco, A. and Bruni, C.B. 1998. Identification and characterization of a novel RING-finger gene (RNF4) mapping at 4p16.3. Genomics 47: 258-265.
3. Fedel, M., Benvenuto, G., Pero, R., Majello, B., Battista, S., Lembo, F., Vollono, E., Day, P.M., Santoro, M., Lania, L., Bruni, C.B., Fusco, A. and Chiariotti, L. 2000. A novel member of the BTB/POZ family, PATZ, associates with the RNF4 RING finger protein and acts as a transcriptional repressor. J. Biol. Chem. 275: 7894-7901.
4. Hakli, M., Karvonen, U., Janne, O.A. and Palvimo, J.J. 2001. The RING finger protein SNURF is a bifunctional protein possessing DNA binding activity. J. Biol. Chem. 276: 23653-23660.
5. Pero, R., Lembo, F., Di Vizio, D., Boccia, A., Chieffi, P., Fedele, M., Pierantoni, G.M., Rossi, P., Iuliano, R., Santoro, M., Viglietto, G., Bruni, C.B., Fusco, A. and Chiariotti, L. 2001. RNF4 is a growth inhibitor expressed in germ cells but not in human testicular tumors. Am. J. Pathol. 159: 1225-1230.

CHROMOSOMAL LOCATION

Genetic locus: RNF4 (human) mapping to 4p16.3.

SOURCE

RNF4 (205F2G) is a mouse monoclonal antibody raised against recombinant RNF4 of human origin.

PRODUCT

Each vial contains 50 µg IgG_1 kappa light chain in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

RNF4 (205F2G) is recommended for detection of RNF4 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Suitable for use as control antibody for RNF4 siRNA (h): sc-38236, RNF4 shRNA Plasmid (h): sc-38236-SH and RNF4 shRNA (h) Lentiviral Particles: sc-38236-V.

Molecular Weight of RNF4: 35 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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.

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 for detailed protocols and support products.