

RNF43 (S-16): sc-165398

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. RNF43 (ring finger protein 43), also known as URCC or RNF124, is a 783 amino acid single-pass type I membrane protein of the Endoplasmic reticulum and nuclear envelope that is thought to function as an E3 ubiquitin-protein ligase. Containing one RING-type zinc finger and existing as four alternatively spliced isoforms, RNF43 is expressed in fetal kidney and lung, as well as in cancers of the lung, colon and kidney. RNF43 functions as a cytotoxic T lymphocyte tumor antigen, and is therefore considered a target for cancer immunotherapy. The gene encoding RNF43 maps to human chromosome 17q22.

REFERENCES

1. Uchida, N., Tsunoda, T., Wada, S., Furukawa, Y., Nakamura, Y. and Tahara, H. 2004. Ring finger protein 43 as a new target for cancer immunotherapy. *Clin. Cancer Res.* 10: 8577-8586.
2. Yagyu, R., Furukawa, Y., Lin, Y.M., Shimokawa, T., Yamamura, T. and Nakamura, Y. 2004. A novel oncoprotein RNF43 functions in an autocrine manner in colorectal cancer. *Int. J. Oncol.* 25: 1343-1348.
3. Sugiura, T., Yamaguchi, A. and Miyamoto, K. 2008. A cancer-associated RING finger protein, RNF43, is a ubiquitin ligase that interacts with a nuclear protein, HAP95. *Exp. Cell Res.* 314: 1519-1528.
4. Miyamoto, K., Sakurai, H. and Sugiura, T. 2008. Proteomic identification of a PSF/p54nrb heterodimer as RNF43 oncoprotein-interacting proteins. *Proteomics* 8: 2907-2910.
5. Ardley, H.C. 2009. Ring finger ubiquitin protein ligases and their implication to the pathogenesis of human diseases. *Curr. Pharm. Des.* 15: 3697-3715.

CHROMOSOMAL LOCATION

Genetic locus: RNF43 (human) mapping to 17q22; Rnf43 (mouse) mapping to 11 C.

SOURCE

RNF43 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of RNF43 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-165398 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-165398 X, 200 µg/0.1 ml.

RESEARCH USE

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

APPLICATIONS

RNF43 (S-16) is recommended for detection of RNF43 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other RNF family members.

Suitable for use as control antibody for RNF43 siRNA (h): sc-94164, RNF43 siRNA (m): sc-153051, RNF43 shRNA Plasmid (h): sc-94164-SH, RNF43 shRNA Plasmid (m): sc-153051-SH, RNF43 shRNA (h) Lentiviral Particles: sc-94164-V and RNF43 shRNA (m) Lentiviral Particles: sc-153051-V.

RNF43 (S-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of RNF43 isoforms: 86/81/72/95 kDa.

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) 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.

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.