SANTA CRUZ BIOTECHNOLOGY, INC.

RNF175 (W-24): sc-133969



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 protein-protein interactions and protein-DNA interactions. Specifically, they are thought to be involved in the ubiquitination pathway of protein degradation. RNF175 (RING finger protein 175) is a 328 amino acid multi-pass membrane protein that contains one RING-type zinc finger. The gene encoding RNF175 maps to human chromosome 4, which houses nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes. Defects in some of the genes located on chromosome 4 are associated with Huntington's disease, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

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.
- 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.
- Goldfrank, D., Schoenberger, E. and Gilbert, F. 2003. Disease genes and chromosomes: disease maps of the human genome. Chromosome 4. Genet. Test. 7: 351-372.
- 4. Hillier, L.W., Graves, T.A., Fulton, R.S., Fulton, L.A., Pepin, K.H., Minx, P., Wagner-McPherson, C., Layman, D., Wylie, K., Sekhon, M., Becker, M.C., Fewell, G.A., Delehaunty, K.D., Miner, T.L., Nash, W.E., Kremitzki, C., Oddy, L., Du, H., Sun, H., Bradshaw-Cordum, H., Ali, J., et al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. Nature 434: 724-731.
- Ishido, S., Goto, E., Matsuki, Y. and Ohmura-Hoshino, M. 2009. E3 ubiquitin ligases for MHC molecules. Curr. Opin. Immunol. 21: 78-83.
- Matthews, J.M., Bhati, M., Lehtomaki, E., Mansfield, R.E., Cubeddu, L. and Mackay, J.P. 2009. It takes two to tango: the structure and function of LIM, RING, PHD and MYND domains. Curr. Pharm. Des. 15: 3681-3696.
- Ardley, H.C. 2009. Ring finger ubiquitin protein ligases and their implication to the pathogenesis of human diseases. Curr. Pharm. Des. 15: 3697-3715.
- 8. Chasapis, C.T. and Spyroulias, G.A. 2009. RING finger E(3) ubiquitin ligases: structure and drug discovery. Curr. Pharm. Des. 15: 3716-3731.

CHROMOSOMAL LOCATION

Genetic locus: RNF175 (human) mapping to 4q31.3.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SOURCE

RNF175 (W-24) is a Protein A purified rabbit polyclonal antibody raised against synthetic RNF175 peptide of human origin.

PRODUCT

Each vial contains 100 μg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

RNF175 (W-24) is recommended for detection of RNF175 of 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 RNF175 siRNA (h): sc-89003, RNF175 shRNA Plasmid (h): sc-89003-SH and RNF175 shRNA (h) Lentiviral Particles: sc-89003-V.

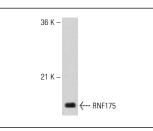
Molecular Weight of RNF175: 38 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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



RNF175 (W-24): sc-133969. Western blot analysis of RNF175 expression in Hep G2 whole cell lysate.

RESEARCH USE

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

PROTOCOLS

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