## SANTA CRUZ BIOTECHNOLOGY, INC.

# RNF146 (C-12): sc-132439



#### 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. RNF146 (RING finger protein 146), also known as dactylidin, is a 359 amino acid protein that contains one RING-type zinc finger and one WWE domain. Via its RING-type zinc finger, RNF146 may play a role in transcriptional regulation and protein degradation events. Defects in the gene encoding RNF146 are associated with Alzheimer's disease (AD) and may lead to a higher risk of breast cancer. Two isoforms of RNF146 exist due to alternative splicing events.

## 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.
- 3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 612137. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Colland, F., Jacq, X., Trouplin, V., Mougin, C., Groizeleau, C., Hamburger, A., Meil, A., Wojcik, J., Legrain, P. and Gauthier, J.M. 2004. Functional proteomics mapping of a human signaling pathway. Genome Res. 14: 1324-1332.
- von Rotz, R.C., Kins, S., Hipfel, R., von der Kammer, H. and Nitsch, R.M. 2005. The novel cytosolic RING-finger protein dactylidin is upregulated in brains of patients with Alzheimer's disease. Eur. J. Neurosci. 21: 1289-1298.
- Penengo, L., Mapelli, M., Murachelli, A.G., Confalonieri, S., Magri, L., Musacchio, A., Di Fiore, P.P., Polo, S. and Schneider, T.R. 2006. Crystal structure of the ubiquitin binding domains of rabex-5 reveals two modes of interaction with ubiquitin. Cell 124: 1183-1195.
- Gold, B., Kirchhoff, T., Stefanov, S., Lautenberger, J., Viale, A., Garber, J., Friedman, E., Narod, S., Olshen, A.B., Gregersen, P., Kosarin, K., Olsh, A., Bergeron, J., Ellis, N.A., Klein, R.J., Clark, A.G., Norton, L., Dean, M., Boyd, J. and Offit, K. 2008. Genome-wide association study provides evidence for a breast cancer risk locus at 6q22.33. Proc. Natl. Acad. Sci. USA 105: 4340-4345.

## CHROMOSOMAL LOCATION

Genetic locus: RNF146 (human) mapping to 6q22.33; Rnf146 (mouse) mapping to 10 A4.

#### SOURCE

RNF146 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of RNF146 of human origin.

#### **STORAGE**

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

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-132439 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

RNF146 (C-12) is recommended for detection of RNF146 isoforms 1 and 2 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.

RNF146 (C-12) is also recommended for detection of RNF146 isoforms 1 and 2 in additional species, including avian.

Suitable for use as control antibody for RNF146 siRNA (h): sc-95285, RNF146 siRNA (m): sc-153015, RNF146 shRNA Plasmid (h): sc-95285-SH, RNF146 shRNA Plasmid (m): sc-153015-SH, RNF146 shRNA (h) Lentiviral Particles: sc-95285-V and RNF146 shRNA (m) Lentiviral Particles: sc-153015-V.

Molecular Weight of RNF146: 39 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) Immunofluo-rescence: 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.

#### **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.