SANTA CRUZ BIOTECHNOLOGY, INC.

RNF6 (3B1): sc-517144

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. RNF6 [ring finger protein (C3H2C3 type) 6], whose alternative names include RING-H2 protein, RING finger protein 6 or DKFZp686P0776, is a 685 amino acid protein that is expressed at low levels in testis, ovary, spleen, prostate and peripheral blood. RNF6 has been implied to be involved in tumor suppression as mutations and deletions of RNF6 have been identified in esophageal squamous cell carcinoma (ESCC). RNF6 regulates local growth cone actin dynamics and the cellular concentration of LIMK-1. The gene encoding RNF6 maps to human chromosome 13q12.13 and gives rise to a PLP splice variant that is highly expressed in adult testis.

REFERENCES

1. 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.
2. Macdonald, D.H., et al. 1999. Cloning and characterization of RNF6, a novel RING finger gene mapping to 13q12. Genomics 58: 94-97.
3. Lorick, K.L., et al. 1999. RING fingers mediate ubiquitin-conjugating enzyme (E2)-dependent ubiquitination. Proc. Natl. Acad. Sci. USA 96: 11364-11369.
4. Lo, H.S., et al. 2002. Identification of somatic mutations of the RNF6 gene in human esophageal squamous cell carcinoma. Cancer Res. 62: 4191-4193.
5. Lopez, P., et al. 2002. Gene control in germinal differentiation: RNF6, a transcription regulatory protein in the mouse sertoli cell. Mol. Cell. Biol. 22: 3488-3496.
6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604242. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
7. Tursun, B., et al. 2005. The ubiquitin ligase RNF6 regulates local LIM kinase 1 levels in axonal growth cones. Genes Dev. 19: 2307-2319.

CHROMOSOMAL LOCATION

Genetic locus: RNF6 (human) mapping to 13q12.13.

SOURCE

RNF6 (3B1) is a mouse monoclonal antibody raised against amino acids 1-100 representing partial length RNF6 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

RNF6 (3B1) is recommended for detection of RNF6 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

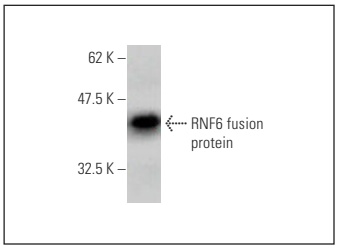
Suitable for use as control antibody for RNF6 siRNA (h): sc-106519, RNF6 shRNA Plasmid (h): sc-106519-SH and RNF6 shRNA (h) Lentiviral Particles: sc-106519-V.

Molecular Weight of RNF6: 78 kDa.

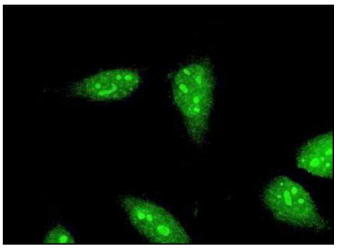
RECOMMENDED SUPPORT REAGENTS

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, 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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



RNF6 (3B1): sc-517144. Western blot analysis of human recombinant RNF6 fusion protein.



RNF6 (3B1): sc-517144. Immunofluorescence staining of methanol-fixed HeLa cells showing PML body and nuclear localization.

RESEARCH USE

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

PROTOCOLS

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