SANTA CRUZ BIOTECHNOLOGY, INC.

RNF113B (A-8): sc-518257

SANTA CRUZ BIOTECHNOLOGY

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 the ubiquitination pathway of protein degradation. RNF113B (ring finger protein 113B), also referred to as zinc finger protein 183-like 1, RNF161, MGC26599, bA10G5.1 or ZNF183L1, is a 322 amino acid protein containing one C3H1-type zinc finger and one RING-type zinc finger. The gene encoding RNF113B maps to human chromosome 13, which houses over 400 genes, such as BRCA2 and RB1, and comprises nearly 4% of the human genome. Trisomy 13, also known as Patau syndrome, is deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

REFERENCES

1. Freemont, P.S. 1993. The RING finger. A novel protein sequence motif related to the zinc finger. Ann. N.Y. Acad. Sci. 684 : 174-192.
2. 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.
3. 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.
4. Hsu, H.F. and Hou, J.W. 2007. Variable expressivity in Patau syndrome is not all related to trisomy 13 mosaicism. Am. J. Med. Genet. A 143A: 1739-1748.
5. Hall, H.E., Chan, E.R., Collins, A., Judis, L., Shirley, S., Surti, U., Hoffner, L., Cockwell, A.E., Jacobs, P.A. and Hassold, T.J. 2007. The origin of trisomy 13. Am. J. Med. Genet. A 143A: 2242-2248.

CHROMOSOMAL LOCATION

Genetic locus: RNF113B (human) mapping to 13q32.2.

SOURCE

RNF113B (A-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 60-88 of RNF113B of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RNF113B (A-8) is available conjugated to agarose (sc-518257 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-518257 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518257 PE), fluorescein (sc-518257 FITC), Alexa Fluor® 488 (sc-518257 AF488), Alexa Fluor® 546 (sc-518257 AF546), Alexa Fluor® 594 (sc-518257 AF594) or Alexa Fluor® 647 (sc-518257 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518257 AF680) or Alexa Fluor® 790 (sc-518257 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

RNF113B (A-8) is recommended for detection of RNF113B of human origin by Western Blotting (starting dilution 1:100, 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 RNF113B siRNA (h): sc-76412, RNF113B shRNA Plasmid (h): sc-76412-SH and RNF113B shRNA (h) Lentiviral Particles: sc-76412-V.

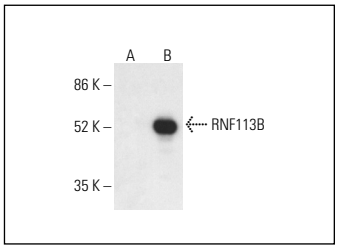
Molecular Weight of RNF113B: 36 kDa.

Positive Controls: RNF113B (h): 293T Lysate: sc-370049.

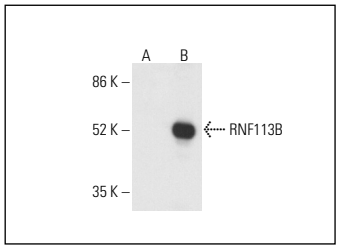
RECOMMENDED SUPPORT REAGENTS

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. 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



RNF113B (A-8): sc-518257. Western blot analysis of RNF113B expression in non-transfected: sc-117752 (**A**) and human RNF113B transfected: sc-370049 (**B**) 293T whole cell lysates. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



RNF113B (A-8): sc-518257. Western blot analysis of RNF113B expression in non-transfected: sc-117752 (**A**) and human RNF113B transfected: sc-370049 (**B**) 293T whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

STORAGE

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

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.