SANTA CRUZ BIOTECHNOLOGY, INC.

RNF11 (4G7): sc-517151

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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. RNF11 (RING finger protein 11), also known as CGI-123, is a 154 amino acid protein that contains one RING-type zinc finger through which it interacts with a variety of proteins. Specifically, RNF11 associates with NEDD4 (an E3 ubiquitin-protein ligase) and EGFR (epidermal growth factor receptor) and may regulate the function of these proteins. Via its ability to control the activity of growth-associated proteins, such as EGFR, RNF11 is associated with the pathogenesis of endocrine neoplasia, Parkinson's disease and breast cancer.

REFERENCES

1. Seki, N., et al. 1999. Cloning and expression profile of mouse and human genes, Rnf11/RNF11, encoding a novel RING-H2 finger protein. Biochim. Biophys. Acta 1489: 421-427.
2. Jolliffe, C.N., et al. 2000. Identification of multiple proteins expressed in murine embryos as binding partners for the WW domains of the ubiquitin-protein ligase Nedd4. Biochem. J. 351: 557-565.
3. Kitching, R., et al. 2003. The RING-H2 protein RNF11 is differentially expressed in breast tumours and interacts with HECT-type E3 ligases. Biochim. Biophys. Acta 1639: 104-112.
4. Subramaniam, V., et al. 2003. The RING-H2 protein RNF11 is overexpressed in breast cancer and is a target of Smurf2 E3 ligase. Br. J. Cancer 88: 1538-1544.
5. Li, H. and Seth, A. 2004. An RNF11: Smurf2 complex mediates ubiquitination of the AMSH protein. Oncogene 23: 1801-1808.
6. Connor, M.K., et al. 2005. Molecular characterization of ring finger protein 11. Mol. Cancer Res. 3: 453-461.
7. Burger, A., et al. 2006. Novel RING E3 ubiquitin ligases in breast cancer. Neoplasia 8: 689-695.
8. Anderson, L.R., et al. 2007. PARK10 candidate RNF11 is expressed by vulnerable neurons and localizes to Lewy bodies in Parkinson disease brain. J. Neuropathol. Exp. Neurol. 66: 955-964.
9. Chen, C., et al. 2008. The WW domain containing E3 ubiquitin protein ligase 1 upregulates ErbB2 and EGFR through RING finger protein 11. Oncogene 27: 6845-6855.

CHROMOSOMAL LOCATION

Genetic locus: RNF11 (human) mapping to 1p32.3; Rnf11 (mouse) mapping to 4 C7.

SOURCE

RNF11 (4G7) is a mouse monoclonal antibody raised against amino acids 65-154 representing partial length RNF11 of human origin.

PRODUCT

Each vial contains 50 µg IgG_{2a} kappa light chain in 0.5 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

RNF11 (4G7) is recommended for detection of RNF11 of mouse, rat and 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).

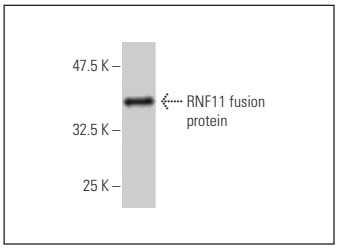
Suitable for use as control antibody for RNF11 siRNA (h): sc-78665, RNF11 siRNA (m): sc-153001, RNF11 shRNA Plasmid (h): sc-78665-SH, RNF11 shRNA Plasmid (m): sc-153001-SH, RNF11 shRNA (h) Lentiviral Particles: sc-78665-V and RNF11 shRNA (m) Lentiviral Particles: sc-153001-V.

Molecular Weight of RNF11: 17 kDa.

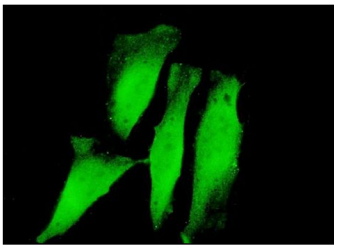
RECOMMENDED SUPPORT REAGENTS

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



RNF11 (4G7): sc-517151. Western blot analysis of human recombinant RNF11 fusion protein.



RNF11 (4G7); sc-517151. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

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.