

RNF5 (H-50): sc-135376

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. RNF5 (ring finger protein 5), also known as RMA1, NG2, G16 or RING5, is a 180 amino acid protein that localizes to the membrane and contains one RING-type zinc finger. Expressed in a wide variety of tissues, RNF5 functions as a ubiquitin ligase that can regulate cell motility by controlling the ubiquitination of paxillin, a focal adhesion phosphoprotein that is localized to the cytoskeleton. RNF5 can target paxillin for ubiquitination, thereby altering the localization of paxillin and effecting its ability to recruit signaling molecules to focal adhesions. While overexpression of RNF5 is associated with the progression of breast cancer, lowered expression levels are observed in muscular disorders, indicating an important role for RNF5 in the regulation of cytoskeletal activity.

REFERENCES

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- Didier, C., et al. 2003. RNF5, a RING finger protein that regulates cell motility by targeting paxillin ubiquitination and altered localization. *Mol. Cell Biol.* 23: 5331-5345.

CHROMOSOMAL LOCATION

Genetic locus: RNF5 (human) mapping to 6p21.32; Rnf5 (mouse) mapping to 17 B1.

SOURCE

RNF5 (H-50) is a rabbit polyclonal antibody raised against amino acids 131-180 mapping at the C-terminus of RNF5 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-135376 X, 200 µg/0.1 ml.

APPLICATIONS

RNF5 (H-50) is recommended for detection of RNF5 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).

RNF5 (H-50) is also recommended for detection of RNF5 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RNF5 siRNA (h): sc-95209, RNF5 siRNA (m): sc-106983, RNF5 shRNA Plasmid (h): sc-95209-SH, RNF5 shRNA Plasmid (m): sc-106983-SH, RNF5 shRNA (h) Lentiviral Particles: sc-95209-V and RNF5 shRNA (m) Lentiviral Particles: sc-106983-V.

RNF5 (H-50) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of RNF5: 18 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MCF7 whole cell lysate: sc-2206 or 293T whole cell lysate.

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.



Try **RNF5 (22B3): sc-81716**, our highly recommended monoclonal alternative to RNF5 (H-50). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **RNF5 (22B3): sc-81716**.