SANTA CRUZ BIOTECHNOLOGY, INC.

p54/nrb (H-85): sc-67016

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Found in both primary and transformed human cells, paraspeckles are discrete bodies in the interchromatin nucleoplasmic space which contain p54/nrb (nuclear RNA-binding protein) and at least two other RNA-binding proteins, paraspeckle protein 1 (PSP1) and paraspeckle protein 2 (PSP2). Paraspeckles often co-localize with splicing speckles, which are the site of splicing factor accumulation. Paraspeckle proteins, including p54/nrb, move dynamically between the nucleolus and paraspeckles and translocate to distinct caps in the nucleolar periphery when transcription is inhibited. Originally purified from HeLa cells, the nuclear p54/nrb has two RNA recognition motifs and shares extensive homology with both the human splicing factor PSF and *Drosophila* NONA/BJ6, which is required for normal vision and courtship. The shared domain between these proteins is termed a DBHS (*Drosophila* behavior, human splicing) domain and may play a role in regulating various pathways at the level of pre-mRNA splicing.

CHROMOSOMAL LOCATION

Genetic locus: NONO (human) mapping to Xq13.1; Nono (mouse) mapping to X D.

SOURCE

p54/nrb (H-85) is a rabbit polyclonal antibody raised against amino acids 381-465 mapping near the C-terminus of p54/nrb 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-67016 X, 200 µg/0.1 ml.

APPLICATIONS

p54/nrb (H-85) is recommended for detection of p54/nrb 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p54/nrb (H-85) is also recommended for detection of p54/nrb in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for p54/nrb siRNA (h): sc-38163, p54/nrb siRNA (m): sc-38164, p54/nrb shRNA Plasmid (h): sc-38163-SH, p54/nrb shRNA Plasmid (m): sc-38164-SH, p54/nrb shRNA (h) Lentiviral Particles: sc-38163-V and p54/nrb shRNA (m) Lentiviral Particles: sc-38164-V.

p54/nrb (H-85) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

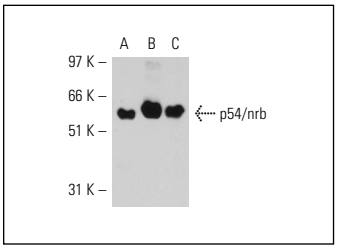
Molecular Weight of p54/nrb: 54 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, MCF7 nuclear extract: sc-2149 or MOLT-4 nuclear extract: sc-2151.

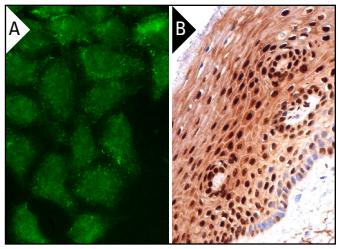
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



p54/nrb (H-85): sc-67016. Western blot analysis of p54/nrb expression in HeLa (**A**), MOLT-4 (**B**) and MCF7 (**C**) nuclear extracts.



p54/nrb (H-85): sc-67016. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human uterine cervix tissue showing nuclear and cytoplasmic staining of squamous epithelial cells and glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Marko, M., et al. 2010. hnRNP M interacts with PSF and p54^{nrb} and co-localizes within defined nuclear structures. Exp. Cell Res. 316: 390-400.
2. Nelson, L.D., et al. 2012. Triplex DNA-binding proteins are associated with clinical outcomes revealed by proteomic measurements in patients with colorectal cancer. Mol. Cancer 11: 38.

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.