

p54/nrb (N-13): sc-46223



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.

REFERENCES

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2. Brown, C.J., Carrel, L. and Willard, H.F. 1997. Expression of genes from the human active and inactive X chromosomes. *Am. J. Hum. Genet.* 60: 1333-1343.
3. Zhang, Z. and Carmichael, G.G. 2001. The fate of dsRNA in the nucleus: a p54/nrb-containing complex mediates the nuclear retention of promiscuously A-to-I edited RNAs. *Cell* 106: 465-475.
4. Fox, A.H., Lam, Y.W., Leung, A.K., Lyon, C.E., Andersen, J., Mann, M. and Lamond, A.I. 2002. Paraspeckles: a novel nuclear domain. *Curr. Biol.* 12: 13-25.
5. Shav-Tal, Y. and Zipori, D. 2002. PSF and p54(nrb)/NonO—multi-functional nuclear proteins. *FEBS Lett.* 531: 109-114.

CHROMOSOMAL LOCATION

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

SOURCE

p54/nrb (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-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.

Blocking peptide available for competition studies, sc-46223 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-46223 X, 200 µg/0.1 ml.

APPLICATIONS

p54/nrb (N-13) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p54/nrb (N-13) is also recommended for detection of p54/nrb in additional species, including equine, canine, bovine and porcine.

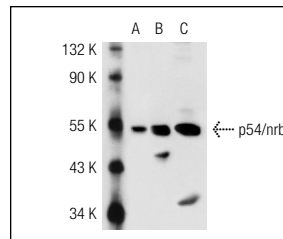
Suitable for use as control antibody for p54/nrb siRNA (h): sc-38163, p54/nrb siRNA (m): sc-38164, p54/nrb shRNA Plasmid (h): sc-38163-SH, p54/nrb shRNA Plasmid (m): sc-38164-SH, p54/nrb shRNA (h) Lentiviral Particles: sc-38163-V and p54/nrb shRNA (m) Lentiviral Particles: sc-38164-V.

p54/nrb (N-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

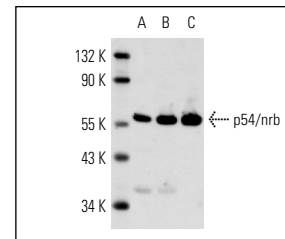
Molecular Weight of p54/nrb: 54 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, MCF7 nuclear extract: sc-2149 or p54/nrb (h): 293T Lysate: sc-114638 .

DATA



p54/nrb (N-13): sc-46223. Western blot analysis of p54/nrb expression in non-transfected 293T: sc-117752 (A), human p54/nrb transfected 293T: sc-114638 (B) and HeLa (C) whole cell lysates.



p54/nrb (N-12): sc-46223. Western blot analysis of p54/nrb expression in MCF7 (A), PC-3 (B) and MOLT-4 (C) nuclear extracts.

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.

MONOS
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Try **p54/nrb (F-5): sc-376804** or **p54/nrb (G-1): sc-376865**, our highly recommended monoclonal alternatives to p54/nrb (N-13).