

NRBP (X-13): sc-101288

BACKGROUND

The nuclear receptor binding protein (NRBP) is a host cellular protein that influences the subcellular trafficking between the endoplasmic reticulum (ER) and the Golgi apparatus via interactions with GTPases. As a multidomain putative adaptor protein, NRBP modulates multiple signaling pathways by regulating the formation of signaling complexes in the cytoplasm. NRBP, which can form a homodimer, binds to MLF1. This binding recruits a serine kinase which phosphorylates both of the proteins, preventing MLF1 from binding to YWHAZ. It is a cytoplasmic protein, but it can co-localize with RAC3 to the endomembrane and can be seen at the cell periphery in lamellipodia. The NRBP gene maps to human chromosome 2p23.3 and is ubiquitously expressed in human tissues, with highest levels detected in testis.

REFERENCES

1. Hooper, J.D., et al. 2000. Cloning expressed, multidomain putative adapter protein. *Genomics* 66: 113-118.
2. De Langhe, S., et al. 2002. Interaction of the small GTPase Rac 3 with NRBP, a protein with a kinase-homology domain. *Int. J. Mol. Med.* 9: 451-459.
3. Chua, J.J., et al. 2004. The non-structural 3 (NS3) protein of dengue virus type 2 interacts with human nuclear receptor binding protein and is associated with alterations in membrane structure. *Virus Res.* 102: 151-163.

CHROMOSOMAL LOCATION

Genetic locus: NRBP1 (human) mapping to 2p23.3; Nrbp1 (mouse) mapping to 5 B1.

SOURCE

NRBP (X-13) is a mouse monoclonal antibody raised against recombinant NRBP of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

NRBP (X-13) is recommended for detection of NRBP 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 NRBP siRNA (h): sc-61231, NRBP siRNA (m): sc-61232, NRBP shRNA Plasmid (h): sc-61231-SH, NRBP shRNA Plasmid (m): sc-61232-SH, NRBP shRNA (h) Lentiviral Particles: sc-61231-V and NRBP shRNA (m) Lentiviral Particles: sc-61232-V.

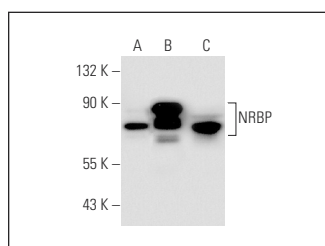
Molecular Weight of NRBP: 60 kDa.

Positive Controls: NRBP (h): 293T Lysate: sc-170291, HL-60 whole cell lysate: sc-2209 or LADMAC whole cell lysate: sc-364189.

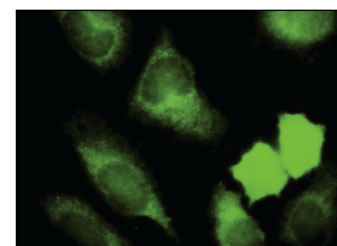
RECOMMENDED SUPPORT REAGENTS

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



NRBP (X-13): sc-101288. Western blot analysis of NRBP expression in non-transfected 293T: sc-117752 (A), human NRBP transfected 293T: sc-170291 (B) and HL-60 (C) whole cell lysates.



NRBP (X-13): sc-101288. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing cytoplasmic 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.