

NF90 (N-18)-R: sc-22530-R

BACKGROUND

NF90 (nuclear factor of activated T cells 90 kDa), also known as NFAR, DRBF, DRBP76 (double-stranded RNA-binding protein 76), MPP4, MPHOSPH4 (M-phase phosphoprotein 4), ILF3 (interleukin-enhancer binding factor 3) or TCP80 (translational control protein 80), is a ubiquitously expressed nuclear protein that exists in a heterodimer with NF45. NF90 contains two DRBM (double-stranded RNA(dsRNA)-binding) domains and one DZF domain and, in association with NF45, primarily participates in the regulation of IL-2 expression by binding to the antigen receptor response element (ARRE) target sequence of the IL-2 enhancer. In neuronal cells, the NF45/NF90 heterodimer can repress human rhinovirus type 2 replication by binding to a 5' untranslated region of the viral RNA that encodes the internal ribosome entry site (IRES). NF45 and NF90 belong to the double-stranded RNA-binding protein family and both are substrates for the dsRNA-activated protein kinase PKR. Due to alternative splicing events, six isoforms exist for NF90, namely NFAR-2 (or ILF3-E), NFAR-1 (or DRBP76), isoform 3, DRBP76 α (or ILF3-A), DRBP76 δ (also known as DRBP76 γ or ILF3-C) and isoform 6.

REFERENCES

1. Aoki, Y., et al. 1998. CsA-sensitive purine-box transcriptional regulator in bronchial epithelial cells contains NF45, NF90, and Ku. *Am. J. Physiol.* 275: L1164-L1172.
2. Langland, J.O., et al. 1999. Nuclear factor-90 of activated T cells: A double-stranded RNA-binding protein and substrate for the double-stranded RNA-dependent protein kinase, PKR. *Biochemistry* 38: 6361-6368.
3. Parker, L.M., et al. 2001. Nuclear factor 90 is a substrate and regulator of the eukaryotic initiation factor 2 kinase double-stranded RNA-activated protein kinase. *J. Biol. Chem.* 276: 32522-32530.
4. Reichman, T.W., et al. 2002. The RNA binding protein nuclear factor 90 functions as both a positive and negative regulator of gene expression in mammalian cells. *Mol. Cell. Biol.* 22: 343-356.
5. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603182. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: ILF3 (human) mapping to 19p13.2; Ilf3 (mouse) mapping to 9 A3.

SOURCE

NF90 (N-18)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of NF90 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-22530 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NF90 (N-18)-R is recommended for detection of NF90 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

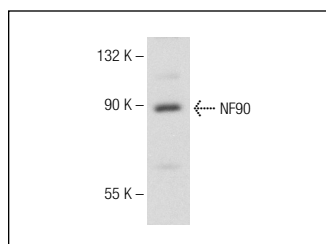
NF90 (N-18)-R is also recommended for detection of NF90 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NF90 siRNA (h): sc-106301, NF90 siRNA (m): sc-149941, NF90 shRNA Plasmid (h): sc-106301-SH, NF90 shRNA Plasmid (m): sc-149941-SH, NF90 shRNA (h) Lentiviral Particles: sc-106301-V and NF90 shRNA (m) Lentiviral Particles: sc-149941-V.

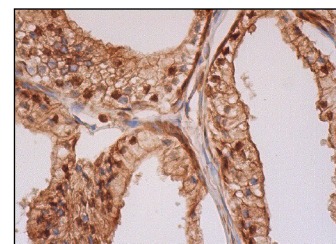
Molecular Weight of NF90 isoforms: 90/110/120 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

DATA



NF90 (N-18)-R: sc-22530-R. Western blot analysis of NF90 expression in Jurkat whole cell lysate.



NF90 (N-18)-R: sc-22530-R. Immunoperoxidase staining of formalin fixed, paraffin-embedded human prostate tissue showing nuclear, cytoplasmic and membrane staining of glandular cells.

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 **NF90 (A-3): sc-377406** or **NF90 (21): sc-136197**, our highly recommended monoclonal alternatives to NF90 (N-18).