

NF90 (H-84): sc-292884

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 (H-84) is a rabbit polyclonal antibody raised against amino acids 112-195 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.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

NF90 (H-84) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). NF90 (H-84) 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.

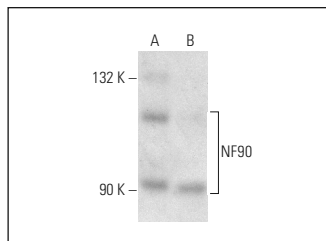
Molecular Weight of NF90: isoforms: 90/110/120 kDa.

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

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.

DATA



NF90 (H-84): sc-292884. Western blot analysis of NF90 expression in Jurkat (A) and Hep G2 (B) whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS
Satisfaction
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Try **NF90 (A-3): sc-377406** or **NF90 (21): sc-136197**, our highly recommended monoclonal alternatives to NF90 (H-84).