# SANTA CRUZ BIOTECHNOLOGY, INC.

# NF90 (U-21): sc-102035



BACKGROUND

NF90 (nuclear factor of activated T cells 90 kDa), also known as NFAR, DRBF, DRBP76 (double-stranded RNA-binding protein 76), MPP4, MPHOSPH4 (Mphase 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 (doublestranded 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 $\alpha$  (or ILF3-A), DRBP76 $\delta$  (also known as DRBP76y or ILF3-C) and isoform 6.

#### REFERENCES

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- 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.
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#### CHROMOSOMAL LOCATION

Genetic locus: ILF3 (human) mapping to 19p13.2.

#### SOURCE

NF90 (U-21) is a purified rabbit polyclonal antibody raised against NF90 of human origin.

## **RESEARCH USE**

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

## PRODUCT

Each vial contains 100  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## **APPLICATIONS**

NF90 (U-21) is recommended for detection of NF90 of human and dog origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

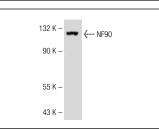
Molecular Weight of NF90 isoforms 1/2/3: 90/110/120 kDa.

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

#### **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).

## DATA



NF90 (U-21): sc-102035. Western blot analysis of NF90 expression in Jurkat nuclear extract.

#### **STORAGE**

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

MONOS Satisfation Guaranteed Try NF90 (A-3): sc-377406 or NF90 (21): sc-136197, our highly recommended monoclonal aternatives to NF90 (U-21).