SANTA CRUZ BIOTECHNOLOGY, INC.

NF45 (H-185): sc-135006

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NF45 (ILF2, nuclear factor of activated T cells 45 kDa) is a transcription factor that interacts with NF90 (ILF3, DRBP76) to regulate gene expression. NF45 and NF90 are proteins that belong to the double-stranded RNA-binding protein family and both are substrates for the dsRNA-activated protein kinase, PKR. The NF45/NF90 heterodimer is mainly involved in regulating 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).

REFERENCES

1. Aoki, Y., Zhao, G., Qiu, D., Shi, L. and Kao, P.N. 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., Kao, P.N. and Jacobs, B.L. 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., Fierro-Monti, I. and Mathews, M.B. 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.

CHROMOSOMAL LOCATION

Genetic locus: ILF2 (human) mapping to 1q21.3; Ilf2 (mouse) mapping to 3 F1.

SOURCE

NF45 (H-185) is a rabbit polyclonal antibody raised against amino acids 21-205 mapping near the N-terminus of NF45 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.

APPLICATIONS

NF45 (H-185) is recommended for detection of NF45 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 NF45 siRNA (h): sc-62683, NF45 siRNA (m): sc-62684, NF45 shRNA Plasmid (h): sc-62683-SH, NF45 shRNA Plasmid (m): sc-62684-SH, NF45 shRNA (h) Lentiviral Particles: sc-62683-V and NF45 shRNA (m) Lentiviral Particles: sc-62684-V.

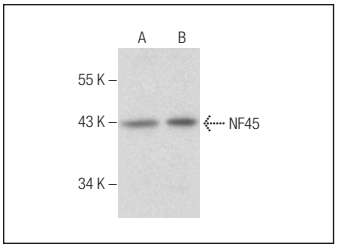
Molecular Weight of NF45: 45 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, K-562 nuclear extract: sc-2130 or HeLa whole cell lysate: sc-2200.

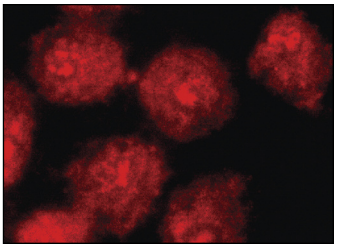
RECOMMENDED SECONDARY REAGENTS

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



NF45 (H-185): sc-135006. Western blot analysis of NF45 expression in Jurkat (**A**) and K-562 (**B**) nuclear extracts.



NF45 (H-185): sc-135006. Immunofluorescence staining of methanol-fixed HeLa cells showing nucleolar and nuclear 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 or our catalog for detailed protocols and support products.