

NKRF (N-17): sc-54134

BACKGROUND

NKRF (NFκB-repressing factor), also known as transcription factor NRF or ITBA4 protein, is a ubiquitously expressed silencer protein. It localizes to the nucleoli but is also found in the nucleoplasm and contains one of each of the following nucleic acid binding domains: G-patch and R3H. NKRF represses the basal transcription of IFN-β, IL-8 and NOS2 by directly binding to their promoters. NKRF also binds to negative regulatory elements (NREs) and directly interacts with NFκB via its N-terminus. NKRF specifically inhibits the transcriptional activity of the NFκB proteins. In addition, NKRF contains a 5' untranslated region (UTR) that has internal ribosome entry segment (IRES) activity. The activity of the NKRF IRES module is decreased with the down-regulation of the RNA-binding protein, JKTBP1.

REFERENCES

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2. Nourbakhsh, M., et al. 2000. NRF, a nuclear inhibitor of NFκB proteins silencing interferon-β promoter. *Eur. Cytokine Netw.* 11: 500-501.
3. Feng, X., et al. 2002. Identification of a negative response element in the human inducible nitric-oxide synthase (hiNOS) promoter: The role of NFκB-repressing factor (NRF) in basal repression of the hiNOS gene. *Proc. Natl. Acad. Sci. USA* 99: 14212-14217.
4. Niedick, I., et al. 2004. Nucleolar localization and mobility analysis of the NFκB-repressing factor NRF. *J. Cell Sci.* 117: 3447-3458.
5. Jianfeng, D., et al. 2004. Cloning of the correct full length cDNA of NFκB-repressing factor. *Mol. Cells* 16: 397-401.
6. Dreikhausen, U., et al. 2005. NFκB-repressing factor inhibits elongation of human immunodeficiency virus type 1 transcription by DRB sensitivity-inducing factor. *Mol. Cell. Biol.* 25: 7473-7483.
7. Froese, N., et al. 2005. Innate immune responses in NFκB-repressing factor-deficient mice. *Mol. Cell. Biol.* 26: 293-302.

CHROMOSOMAL LOCATION

Genetic locus: NKRF (human) mapping to Xq24; Nkrf (mouse) mapping to X A3.3.

SOURCE

NKRF (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of NKRF 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-54134 X, 200 μg/0.1 ml.

Blocking peptide available for competition studies, sc-54134 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NKRF (N-17) is recommended for detection of NFκB-repressing factor 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).

NKRF (N-17) is also recommended for detection of NFκB-repressing factor in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NKRF siRNA (h): sc-72275, NKRF siRNA (m): sc-72276, NKRF shRNA Plasmid (h): sc-72275-SH, NKRF shRNA Plasmid (m): sc-72276-SH, NKRF shRNA (h) Lentiviral Particles: sc-72275-V and NKRF shRNA (m) Lentiviral Particles: sc-72276-V.

NKRF (N-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of NKRF: 64 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201 or T24 cell lysate: sc-2292.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 **NKRF (E-12): sc-365568**, our highly recommended monoclonal alternative to NKRF (N-17).