

# NF-1 (N-20): sc-870



The Power to Question

## BACKGROUND

NF-1, also designated CTF, consists of a family of CCAAT box binding proteins that stimulate DNA replication and activate transcription. Analysis of human NF-1 messenger RNA has revealed two forms of the NF-1 protein arising from an alternate splicing of a single NF-1 gene. NF-1 binds its consensus DNA element as a homodimer via an amino-terminal DNA binding domain, and activates transcription through a putatively novel, proline-rich, carboxy-terminal transactivation domain. The NF-1 protein has been shown to recognize and bind the adenovirus type 2 promoter and activate transcription of herpes simplex virus thymidine kinase genes. The NF-1 consensus element has been found in the upstream promoter region of myriad eukaryotic genes, including that of Ha-Ras,  $\alpha$ -globin, HSP 70, GRP 78, Histone H1, myelin basic protein and in the *Xenopus laevis* vitellogenin gene promoter.

## SOURCE

NF-1 (N-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of NF-1 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-870 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

NF-1 (N-20) is recommended for detection of all NF-1 isoforms of mouse, rat and human 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)], 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).

NF-1 (N-20) is also recommended for detection of all NF-1 isoforms in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for NF-1 siRNA (h): sc-43561, NF-1 siRNA (m): sc-43562, NF-1 shRNA Plasmid (h): sc-43561-SH, NF-1 shRNA Plasmid (m): sc-43562-SH, NF-1 shRNA (h) Lentiviral Particles: sc-43561-V and NF-1 shRNA (m) Lentiviral Particles: sc-43562-V.

NF-1 (N-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of NF-1: 55 kDa.

Positive Controls: NF-1 (m2): 293T Lysate: sc-122030, HeLa nuclear extract: sc-2120 or Jurkat nuclear extract: sc-2132.

## RESEARCH USE

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

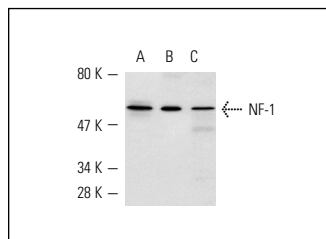
## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

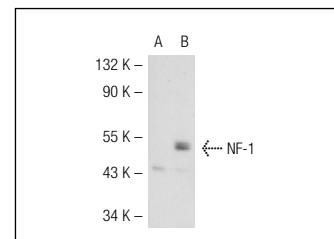
## STORAGE

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

## DATA



NF-1 (N-20): sc-870. Western blot analysis of NF-1 expression in nuclear extracts prepared from phorbol-ester treated HeLa (A), Jurkat (B) and NIH/3T3 (C) cells.



NF-1 (N-20): sc-870. Western blot analysis of NF-1 expression in non-transfected: sc-117752 (A) and mouse NF-1 transfected: sc-122030 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Chen, S., et al. 1996. E5 proteins of human papillomavirus types 11 and 16 transactivate the c-Fos promoter through the NF-1 binding element. *J. Virol.* 70: 8558-8563.
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- Takeda, T., et al. 2007. Involvement of Sp-1 in the regulation of the Id-1 gene during trophoblast cell differentiation. *Placenta* 28: 192-198.
- Girón, M.D., et al. 2008. The glucose-lowering agent sodium tungstate increases the levels and translocation of GLUT4 in L6 myotubes through a mechanism associated with ERK1/2 and MEF2D. *Diabetologia* 51: 1285-1295.
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- Udelhoven, M., et al. 2010. Identification of a region in the human IRS2 promoter essential for stress induced transcription depending on SP1, NFI binding and ERK activation in HepG2 cells. *J. Mol. Endocrinol.* 44: 99-113.
- Degiulio, J.V., et al. 2010. The SP-C promoter facilitates alveolar type II epithelial cell-specific plasmid nuclear import and gene expression. *Gene Ther.* 17: 541-549.
- Shehu, A., et al. 2011. The stimulation of HSD17B7 expression by estradiol provides a powerful feed-forward mechanism for estradiol biosynthesis in breast cancer cells. *Mol. Endocrinol.* 25: 754-766.

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Try **NF-1 (D-2): sc-74444**, our highly recommended monoclonal alternative to NF-1A (N-20).