

NF-YB (E-20): sc-30903

BACKGROUND

The CCAAT-binding factor NF-Y is a heteromeric transcription factor that specifically binds to CCAAT sequences in many eukaryotic genes. NF-Y is made up of three subunits, NF-YA, NF-YB and NF-YC. All three components are necessary for DNA binding. In each NF-Y subunit, the segment needed for formation of the NF-Y-DNA complex is conserved from yeast to human. These conserved segments are homologous to the histone-fold motif of eukaryotic histones. The DNA-binding domains of the NF-YB and NF-YC subunits have been suggested to interact through a protein-protein, histone-fold "handshake" motif in a manner analogous to the histone proteins H2B and H2A, respectively.

REFERENCES

1. Baxevasis, A.D., et al. 1995. A variety of DNA-binding and multimeric proteins contain the histone-fold motif. *Nucleic Acids Res.* 23: 2685-2691.
2. Sinha, S., et al. 1996. Three classes of mutations in the A subunit of the CCAAT-binding factor CBF delineate functional domains involved in the three-step assembly of the CBF-DNA complex. *Mol. Cell. Biol.* 16: 328-337.
3. Currie, R.A. 1997. Functional interaction between the DNA-binding subunit trimerization domain of NF-Y and high mobility group protein HMG-I(Y). *J. Biol. Chem.* 272: 30880-30888.
4. Maity, S.N., et al. 1998. Role of the CCAAT-binding protein CBF/NF-Y in transcription. *Trends Biochem. Sci.* 23: 174-178.
5. Liang, S.G., et al. 1998. Pathway of complex formation between DNA and three subunits of CBF/NF-Y. Photocross-linking analysis of DNA-protein interaction and characterization of equilibrium steps of subunit interaction and DNA binding. *J. Biol. Chem.* 273: 31590-31598.
6. Mantovani, R. 1998. A survey of 178 NF-Y-binding CCAAT boxes. *Nucleic Acids Res.* 26: 1135-1143.

CHROMOSOMAL LOCATION

Genetic locus: NFYB (human) mapping to 12q23.3; Nfyb (mouse) mapping to 10 C1.

SOURCE

NF-YB (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NF-YB 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.

Blocking peptide available for competition studies, sc-30903 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

NF-YB (E-20) is recommended for detection of NF-YB 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).

NF-YB (E-20) is also recommended for detection of NF-YB in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for NF-YB siRNA (h): sc-29945, NF-YB siRNA (m): sc-29946, NF-YB shRNA Plasmid (h): sc-29945-SH, NF-YB shRNA Plasmid (m): sc-29946-SH, NF-YB shRNA (h) Lentiviral Particles: sc-29945-V and NF-YB shRNA (m) Lentiviral Particles: sc-29946-V.

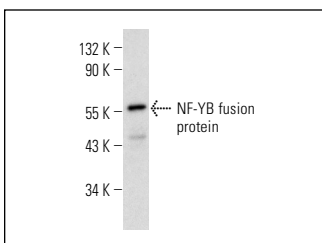
Molecular Weight of NF-YB: 32 kDa.

Positive Controls: RAW 264.7 nuclear extract: sc-24961, HEK293 whole cell lysate: sc-45136 or mouse embryo extract: sc-364239.

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.

DATA



NF-YB (E-20): sc-30903. Western blot analysis of human recombinant NF-YB fusion protein.

RESEARCH USE

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



Try **NF-YB (G-2): sc-376546**, our highly recommended monoclonal alternative to NF-YB (E-20).