

NF-YB (C-20): sc-7711

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.

CHROMOSOMAL LOCATION

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

SOURCE

NF-YB (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-7711 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-7711 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NF-YB (C-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), 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); may cross-react with Syndecan 1 in mouse and rat.

NF-YB (C-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.

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

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.

STORAGE

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

SELECT PRODUCT CITATIONS

- Snyder, S.R., et al. 2001. Identification of CCAAT displacement protein (CDP/cut) as a locus-specific repressor of major histocompatibility complex gene expression in human tumor cells. *J. Biol. Chem.* 276: 5323-5330.
- Duan, Z., et al. 2001. Role NF-Y in *in vivo* regulation of the γ -globin gene. *Mol. Cell. Biol.* 21: 3083-3095.
- Wasner, M., et al. 2003. Three CCAAT-boxes and a single cell cycle genes homology region (CHR) are the major regulating sites for transcription from the human cyclin B2 promoter. *Gene* 312: 225-237.
- Yun, J., et al. 2003. Cdk2-dependent phosphorylation of the NF-Y transcription factor and its involvement in the p53-p21 signaling pathway. *J. Biol. Chem.* 278: 36966-36972.
- Hewetson, A., et al. 2003. An Sp1-NF-Y/progesterone receptor DNA binding-dependent mechanism regulates progesterone-induced transcriptional activation of the rabbit RUSH/SMARCA3 gene. *J. Biol. Chem.* 278: 40177-40185.
- Abdelrahim, M., et al. 2005. Induction of endoplasmic reticulum (ER)-induced stress genes in Panc-1 pancreatic cancer cells is dependent on Sp proteins. *J. Biol. Chem.* 280: 16508-16513.
- Kam, K.Y., et al. 2005. Oct-1 and nuclear factor Y bind to the SURG-1 element to direct basal and gonadotropin-releasing hormone (GnRH)-stimulated mouse GnRH receptor gene transcription. *Mol. Endocrinol.* 19: 148-162.
- Chen, S., et al. 2008. Bone morphogenetic protein 2 mediates dentin sialophosphoprotein expression and odontoblast differentiation via NF-Y signaling. *J. Biol. Chem.* 283: 19359-19370.
- Petrovic, I., et al. 2009. ZBP-89 and Sp3 down-regulate while NF-Y up-regulates SOX18 promoter activity in HeLa cells. *Mol. Biol. Rep.* 36: 993-1000.
- Jürchott, K., et al. 2010. Identification of Y-box binding protein 1 as a core regulator of MEK/ERK pathway-dependent gene signatures in colorectal cancer cells. *PLoS Genet.* 6: e1001231.
- Dalvai, M., et al. 2011. Cdc25B is negatively regulated by p53 through Sp1 and NF-Y transcription factors. *Oncogene* 30: 2282-2288.
- Oleaga, C., et al. 2013. Cocoa flavanol metabolites activate HNF-3 β , Sp1, and NF-Y-mediated transcription of apolipoprotein AI in human cells. *Mol. Nutr. Food Res.* E-published.

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 (C-20).