

# NF-YC (C-2): sc-390861

## 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. Baxevasian, 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. and de Crombrughe, B. 1998. Role of the CCAAT-binding protein CBF/NF-Y in transcription. *Trends Biochem. Sci.* 23: 174-178.
5. Liang, S.G. and Maity, S.N. 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: NFYC (human) mapping to 1p34.2.

## SOURCE

NF-YC (C-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 317-335 at the C-terminus of NF-YC of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>3</sub> kappa light chain 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-390861 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-390861 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## STORAGE

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

## APPLICATIONS

NF-YC (C-2) is recommended for detection of NF-YC of human origin by Western Blotting (starting dilution 1:100, 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-YC (C-2) is also recommended for detection of NF-YC in additional species, including canine and bovine.

Suitable for use as control antibody for NF-YC siRNA (h): sc-37733, NF-YC shRNA Plasmid (h): sc-37733-SH and NF-YC shRNA (h) Lentiviral Particles: sc-37733-V.

NF-YC (C-2) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

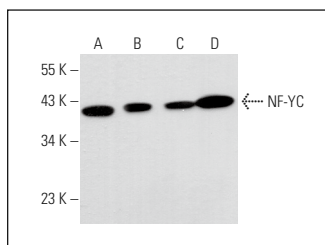
Molecular Weight of NF-YC: 40 kDa.

Positive Controls: K-562 nuclear extract: sc-2130, A-673 nuclear extract: sc-2128 or HeLa nuclear extract: sc-2120.

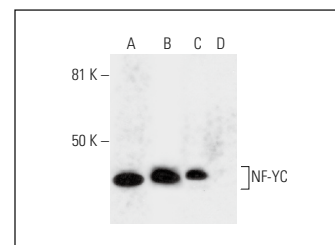
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



NF-YC (C-2): sc-390861. Western blot analysis of NF-YC expression in HEL 92.1.7 nuclear extract (A) and THP-1 (B), MDA-MB-231 (C) and Daudi (D) whole cell lysates.



NF-YC (C-2): sc-390861. Western blot analysis of NF-YC expression in K-562 (A), A-673 (B), HeLa (C) and NIH/3T3 (D) nuclear extracts. Note lack of reactivity with mouse NF-YC in lane D.

## SELECT PRODUCT CITATIONS

1. Katoh, I., et al. 2019. C-terminal α domain of p63 binds to p300 to coactivate β-catenin. *Neoplasia* 21: 494-503.

## RESEARCH USE

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