

# YY1 (C-20): sc-281



The Power to Question

## BACKGROUND

The YY1 transcription factor, also known as NF-E1 (human) and  $\delta$  or UCRBP (mouse) is of interest due to its diverse effects on a wide variety of target genes. YY1 is broadly expressed in a wide range of cell types and contains four C-terminal zinc finger motifs of the Cys-Cys-His-His type and an unusual set of structural motifs at its N-terminal end. It binds to downstream elements in several vertebrate ribosomal protein genes, where it apparently acts positively to stimulate transcription and can act either negatively or positively in the context of the immunoglobulin  $\kappa$  3' enhancer and immunoglobulin heavy-chain  $\mu$ E1 site as well as the P5 promoter of the adeno-associated virus. It thus appears that YY1 is a bifunctional protein, capable of functioning as an activator in some transcriptional control elements and a repressor in others.

## CHROMOSOMAL LOCATION

Genetic locus: YY1 (human) mapping to 14q32.2, YY2 (human) mapping to Xp22.12; Yy1 (mouse) mapping to 12 F1, Yy2 (mouse) mapping to X.

## SOURCE

YY1 (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of YY1 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-281 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-281 AC, 500  $\mu$ g/0.25 ml agarose in 1 ml.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-281 X, 200  $\mu$ g/0.1 ml.

## APPLICATIONS

YY1 (C-20) is recommended for detection of YY1 and, to a lesser extent, YY2 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

YY1 (C-20) is also recommended for detection of YY1 and, to a lesser extent, YY2 in additional species, including equine, canine, bovine, porcine and avian.

YY1 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of YY1 cleaved: 40 kDa.

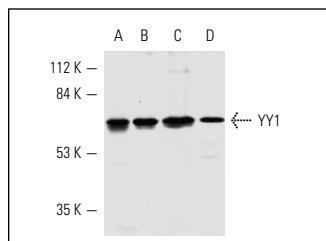
Molecular Weight of YY1: 68 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 or Y79 cell lysate: sc-2240.

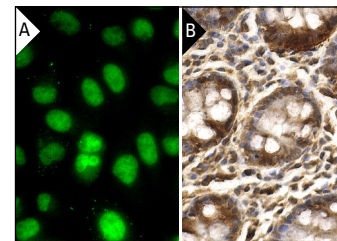
## STORAGE

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

## DATA



YY1 (C-20): sc-281. Western blot analysis of YY1 expression in HeLa (A), A-431 (B), Y79 (C) and NIH/3T3 (D) whole cell lysates.



YY1 (C-20): sc-281. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear localization. Kindly provided by Yang Xiang, Ph.D., Division of Newborn Medicine, Boston Children's Hospital, Cell Biology Department, Harvard Medical School (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing nuclear and cytoplasmic staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

- Stevenson, M.A., et al. 1994. X-Irradiation, phorbol esters, and H<sub>2</sub>O<sub>2</sub> stimulate mitogen-activated protein kinase activity in NIH/3T3 cells through the formation of reactive oxygen intermediates. *Cancer Res.* 54: 12-15.
- Chen, L., et al. 2010. Genome-wide analysis of YY2 versus YY1 target genes. *Nucleic Acids Res.* 38: 4011-4026.
- Taguchi, S., et al. 2011. Overexpression of the transcription factor Yin-Yang-1 suppresses differentiation of HaCaT cells in three-dimensional cell culture. *J. Invest. Dermatol.* 131: 37-45.
- Li, Y., et al. 2011. Progressive miRNA expression profiles in cervical carcinogenesis and identification of HPV-related target genes for miR-29. *J. Pathol.* 224: 484-495.
- Crinelli, R., et al. 2012. Palytoxin and an ostreopsis toxin extract increase the levels of mRNAs encoding inflammation-related proteins in human macrophages via p38 MAPK and NF $\kappa$ B. *PLoS ONE* 7: e38139.
- Blättler, S.M., et al. 2012. Defective mitochondrial morphology and bioenergetic function in mice lacking the transcription factor Yin Yang 1 in skeletal muscle. *Mol. Cell. Biol.* 32: 3333-3346.

## RESEARCH USE

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

**MONOS**  
Satisfaction  
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Try **YY1 (H-10): sc-7341**, our highly recommended monoclonal alternative to YY1 (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **YY1 (H-10): sc-7341**.