

DP-2 (N-20): sc-830

BACKGROUND

The human retinoblastoma gene product appears to play an important role in the negative regulation of cell proliferation. Functional inactivation of Rb can be mediated either through mutation or as a consequence of interaction with DNA tumor virus-encoded proteins. Of all the Rb associations described to date, the identification of a complex between Rb and the transcription factor E2F most directly implicates Rb in regulation of cell proliferation. E2F was originally identified through its role in transcriptional activation of the adenovirus E2 promoter. Sequences homologous to the E2F binding site have been found upstream of a number of genes that encode proteins with putative functions in the G₁ and S phases of the cell cycle. E2F-1 forms heterodimers with a second protein, designated DP-1, forming an "active" E2F transcriptional regulatory complex. Additional members of the E2F family include E2F-2, E2F-3, E2F-4, E2F-5 and DP-2.

CHROMOSOMAL LOCATION

Genetic locus: TFDP2 (human) mapping to 3q23; Tfdp2 (mouse) mapping to 9 E3.3.

SOURCE

DP-2 (N-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of DP-2 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-830 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-830 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DP-2 (N-20) is recommended for detection of DP-2 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).

DP-2 (N-20) is also recommended for detection of DP-2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for DP-2 siRNA (h): sc-37815, DP-2 siRNA (m): sc-37816, DP-2 shRNA Plasmid (h): sc-37815-SH, DP-2 shRNA Plasmid (m): sc-37816-SH, DP-2 shRNA (h) Lentiviral Particles: sc-37815-V and DP-2 shRNA (m) Lentiviral Particles: sc-37816-V.

DP-2 (N-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of DP-2, N-terminally truncated form: 43 kDa.

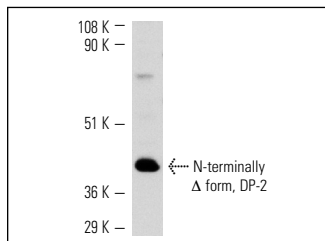
Molecular Weight of DP-2 splice variant: 55 kDa.

Positive Controls: KNRK nuclear extract: sc-2141.

STORAGE

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

DATA



DP-2 (N-20): sc-830. Western blot analysis of DP-2 expression in KNRK nuclear extract.

SELECT PRODUCT CITATIONS

- Liu, N., et al. 1997. Cell cycle regulated repression of B-Myb transcription: cooperation of an E2F site with a contiguous corepressor element. *Nucleic Acids Res.* 24: 2905-2910.
- Liu, N., et al. 1997. CDF-1, a novel E2F-unrelated factor, interacts with cell cycle-regulated repressor elements in multiple promoters. *Nucleic Acids Res.* 25: 4915-4920.
- McElroy, A.K., et al. 2000. Dysregulation of cyclin E gene expression in human cytomegalovirus-infected cells requires viral early gene expression and is associated with changes in the Rb-related protein p130. *J. Virol.* 74: 4192-4206.
- Vara, D., et al. 2003. Inhibition of E2F abrogates the development of cardiac myocyte hypertrophy. *J. Biol. Chem.* 278: 21388-21394.
- Dabrowska, M., et al. 2004. Regulation of transcription of the human MRP7 gene. Characteristics of the basal promoter and identification of tumor-derived transcripts encoding additional 5' end heterogeneity. *Gene* 341: 129-139.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



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Try **DP-2 (D-11): sc-374614** or **DP-2 (G-12): sc-6849**, our highly recommended monoclonal alternatives to DP-2 (N-20).