

E2F-1 (C-20): sc-193

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 is a member of a broader family of transcription regulators including E2F-2, E2F-3, E2F-4, E2F-5 and E2F-6, each of which forms heterodimers with a second protein, DP-1, forming an "active" E2F transcriptional regulatory complex.

SOURCE

E2F-1 (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of E2F-1 of human origin.

PRODUCT

Each vial contains 100 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-193 X, 100 µg/0.1 ml.

Blocking peptide available for competition studies, sc-193 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

E2F-1 (C-20) is recommended for detection of E2F-1 and, to a lesser extent, E2F-2 and E2F-3 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).

E2F-1 (C-20) is also recommended for detection of E2F-1 and, to a lesser extent, E2F-2 and E2F-3 in additional species, including equine, canine, bovine and porcine.

E2F-1 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of E2F-1: 60 kDa.

Positive Controls: E2F-1 (h2): 293T Lysate: sc-116659, K-562 whole cell lysate: sc-2203 or NAMALWA cell lysate: sc-2234.

RESEARCH USE

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

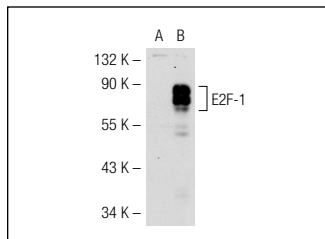
PROTOCOLS

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

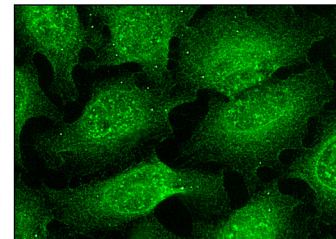
STORAGE

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

DATA



E2F-1 (C-20): sc-193. Western blot analysis of E2F-1 expression in non-transfected: sc-117752 (A) and human E2F-1 transfected: sc-116659 (B) 293T whole cell lysates.



E2F-1 (C-20): sc-193. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

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- Orr, S.J., et al. 2012. Proteomic and protein interaction network analysis of human T lymphocytes during cell-cycle entry. *Mol. Syst. Biol.* 8: 573.
- Saha, A., et al. 2012. E2F1 mediated apoptosis induced by the DNA damage response is blocked by EBV nuclear antigen 3C in lymphoblastoid cells. *PLoS Pathog.* 8: e1002573.
- Kim, Y.C. and Day, R.M. 2012. Angiotensin II regulates activation of Bim via Rb/E2F1 during apoptosis: involvement of interaction between AMPKβ1/2 and Cdk4. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 303: L228-L238.
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- Rizzolio, F., et al. 2012. Retinoblastoma tumor-suppressor protein phosphorylation and inactivation depend on direct interaction with Pin1. *Cell Death Differ.* 19: 1152-1161.
- Costa, C., et al. 2012. E2F1 loss induces spontaneous tumour development in Rb-deficient epidermis. *Oncogene* 32: 2937-2951.
- Hock, M., et al. 2013. NFATc1 induction in peripheral T and B lymphocytes. *J. Immunol.* 190: 2345-2353.
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Try **E2F-1 (KH129): sc-56661** or **E2F-1 (KH95): sc-251**, our highly recommended monoclonal alternatives to E2F-1 (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **E2F-1 (KH129): sc-56661**.