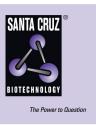
SANTA CRUZ BIOTECHNOLOGY, INC.

E2F-5 (E-19): sc-999



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 G_1 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.

CHROMOSOMAL LOCATION

Genetic locus: E2F5 (human) mapping to 8q21.2; E2f5 (mouse) mapping to 3 A1.

SOURCE

E2F-5 (E-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of E2F-5 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-999 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-999 X, 200 $\mu g/0.1$ ml.

APPLICATIONS

E2F-5 (E-19) is recommended for detection of E2F-5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for E2F-5 siRNA (h): sc-35250, E2F-5 siRNA (m): sc-35249, E2F-5 shRNA Plasmid (h): sc-35250-SH, E2F-5 shRNA Plasmid (m): sc-35249-SH, E2F-5 shRNA (h) Lentiviral Particles: sc-35250-V and E2F-5 shRNA (m) Lentiviral Particles: sc-35249-V.

E2F-5 (E-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of E2F-5: 59 kDa

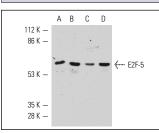
STORAGE

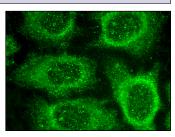
Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

DATA





E2F-5 (E-19): sc-999. Western blot analysis of E2F-5 expression in NIH/3T3 (A), KNRK (B), K-562 (C) and MCF7 (D) whole cell lysates.

E2F-5 (E-19): sc-999. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

SELECT PRODUCT CITATIONS

- 1. Chen, W.D., et al. 1997. Apoptosis is associated with cleavage of a 5 kDa fragment from Rb which mimics dephosphorylation and modulates E2F binding. Oncogene 14: 1243-1248.
- 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.
- Ebelt, H., et al. 2005. Divergent siblings: E2F2 and E2F4 but not E2F1 and E2F3 induce DNA synthesis in cardiomyocytes without activation of apoptosis. Circ. Res. 96: 509-517.
- Ivanova, I.A., et al. 2006. E2F1 stability is regulated by a novel-PKC/ p38bold italic β MAP kinase signaling pathway during keratinocyte differentiation. Oncogene 25: 430-437.
- Lyons, T.E., et al. 2006. Activating E2Fs mediate transcriptional regulation of human E2F6 repressor. Am. J. Physiol., Cell Physiol. 290: C189-C199.
- Bommer, G.T., et al. 2007. p53-mediated activation of miRNA34 candidate tumor-suppressor genes. Curr. Biol. 17: 1298-1307.
- Infante, A., et al. 2008. E2F2 represses cell cycle regulators to maintain quiescence. Cell Cycle 7: 3915-3927.
- Umemura, S., et al. 2009. Overexpression of E2F-5 correlates with a pathological basal phenotype and a worse clinical outcome. Br. J. Cancer 100: 764-771.
- Judah, D., et al. 2010. EBP1 is a novel E2F target gene regulated by transforming growth factor-β. PLoS ONE 5: e13941.
- 10. Martinez, L.A., et al. 2010. E2F3 is a mediator of DNA damage-induced apoptosis. Mol. Cell. Biol. 30: 524-536.

MONOS Satisfation Guaranteed

Try **E2F-5 (C-8): sc-374268** or **E2F-5 (H-1): sc-271497**, our highly recommended monoclonal aternatives to E2F-5 (E-19).