SANTA CRUZ BIOTECHNOLOGY, INC.

B-Myb (H-115): sc-13028

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The highly leukemogenic avian retrovirus E26 contains two oncogenes, v-Myb and v-Ets, which are expressed together as a fusion protein. The cellular homolog of v-Myb, designated c-Myb, encodes a transcription factor. Deletion or disruption of a negative regulatory domain mapping within the carboxy-terminal domain of c-Myb results in enhanced transactivating capacity and in parallel, leads to activation of its ability to transform hemopoietic cells. c-Myb is expressed preferentially, but not exclusively, in immature hemopoietic cells and its expression decreases as cells differentiate. A second member of the Myb proto-oncogene family, B-Myb, encodes a second sequence-specific DNA binding protein. B-Myb RNA levels are low or undetectable in quiescent cells but increase at the G_1/S-phase transition following mitogenic stimulation. Studies suggest that B-Myb expression rescues cells from p53-induced G_1 arrest mediated by p21.

CHROMOSOMAL LOCATION

Genetic locus: MYBL2 (human) mapping to 20q13.12; Mybl2 (mouse) mapping to 2 H2.

SOURCE

B-Myb (H-115) is a rabbit polyclonal antibody raised against amino acids 586-700 of B-Myb 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-13028 X, 200 µg/0.1 ml.

APPLICATIONS

B-Myb (H-115) is recommended for detection of B-Myb 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), 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). B-Myb (H-115) is also recommended for detection of B-Myb in additional species, including equine and canine.

Suitable for use as control antibody for B-Myb siRNA (h): sc-43523, B-Myb siRNA (m): sc-43524, B-Myb shRNA Plasmid (h): sc-43523-SH, B-Myb shRNA Plasmid (m): sc-43524-SH, B-Myb shRNA (h) Lentiviral Particles: sc-43523-V and B-Myb shRNA (m) Lentiviral Particles: sc-43524-V.

B-Myb (H-115) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of B-Myb: 110 kDa.

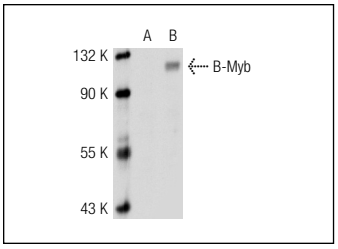
STORAGE

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

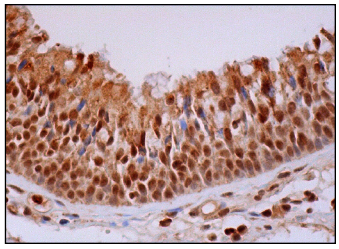
RESEARCH USE

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

DATA



B-Myb (H-115): sc-13028. Western blot analysis of B-Myb expression in non-transfected: sc-117752 (**A**) and mouse B-Myb transfected: sc-126475 (**B**) 293T whole cell lysates.



B-Myb (H-115): sc-13028. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing nuclear and cytoplasmic staining of respiratory epithelial cells.

SELECT PRODUCT CITATIONS

1. Zhu, W., et al. 2004. E2Fs link the control of G_1/S and G_2/M transcription. EMBO J. 23: 4615-4626.
2. Nakata, Y., et al. 2007. c-Myb contributes to G_2/M cell cycle transition in human hematopoietic cells by direct regulation of cyclin B1 expression. Mol. Cell. Biol. 27: 2048-2058.
3. Schmit, F., et al. 2007. LINC, a human complex that is related to pRB-containing complexes in invertebrates regulates the expression of G_2/M genes. Cell Cycle 6: 1903-1913.
4. Tapias, A., et al. 2008. Transcriptional regulation of the 5'-flanking region of the human transcription factor Sp3 gene by NF-1, c-Myb, B-Myb, AP-1 and E2F. Biochim. Biophys. Acta 1779: 318-329.
5. Mannefeld, M., et al. 2009. B-Myb is required for recovery from the DNA damage-induced G_2 checkpoint in p53 mutant cells. Cancer Res. 69: 4073-4080.
6. Xu, J., et al. 2009. Transcriptional competence and the active marking of tissue-specific enhancers by defined transcription factors in embryonic and induced pluripotent stem cells. Genes Dev. 23: 2824-2838.
7. Horvath, G.C., et al. 2009. RFX2 is a candidate downstream amplifier of A-MYB regulation in mouse spermatogenesis. BMC Dev. Biol. 9: 63.
8. Zhan, M., et al. 2012. The B-MYB transcriptional network guides cell cycle progression and fate decisions to sustain self-renewal and the identity of pluripotent stem cells. PLoS ONE 7: e42350.