SANTA CRUZ BIOTECHNOLOGY, INC.

B-Myb (N-19): sc-724

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 (N-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-724 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-724 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

B-Myb (N-19) is recommended for detection of B-Myb of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg 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). B-Myb (N-19) is also recommended for detection of B-Myb in additional species, including bovine and porcine.

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

Molecular Weight of B-Myb: 110 kDa.

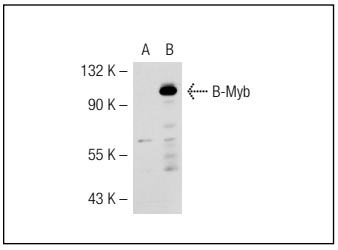
RESEARCH USE

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

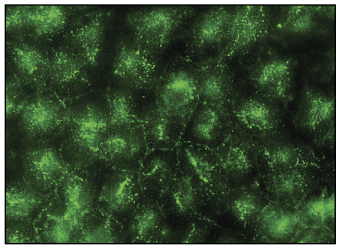
STORAGE

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

DATA



B-Myb (N-19): sc-724. Western blot analysis of B-Myb expression in non-transfected: sc-117752 (**A**) and human B-Myb transfected: sc-116447 (**B**) 293T whole cell lysates.



B-Myb (N-19): sc-724. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and membrane localization.

SELECT PRODUCT CITATIONS

1. Charrasse, S., et al. 2000. Degradation of B-Myb by ubiquitin-mediated proteolysis: involvement of the Cdc34-SCF(p45Skp2) pathway. Oncogene 19: 2986-2995.
2. Lidonnici, M.R., et al. 2008. Requirement of c-Myb for $p210^{Bcr/Abl}$-dependent transformation of hematopoietic progenitors and leukemogenesis. Blood 111: 4771-4779.
3. Sandoval, R., et al. 2009. Deletion of the p107/p130-binding domain of Mip130/LIN-9 bypasses the requirement for CDK4 activity for the dissociation of Mip130/LIN-9 from p107/p130-E2F4 complex. Exp. Cell Res. 315: 2914-2920.
4. 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.
5. Quaas, M., et al. 2012. p53 can repress transcription of cell cycle genes through a $p21^{WAF1/CIP1}$-dependent switch from MMB to DREAM protein complex binding at CHR promoter elements. Cell Cycle 11: 4661-4672.
6. 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.
7. Pang, C.L., et al. 2014. A functional interaction of E7 with B-Myb-MuvB complex promotes acute cooperative transcriptional activation of both S- and M-phase genes. Oncogene 33: 4039-4049.

MONOS Satisfaction Guaranteed

Try **B-Myb (C-5): sc-390198** or **B-Myb (MYBAD10A): sc-81192**, our highly recommended monoclonal alternatives to B-Myb (N-19).