SANTA CRUZ BIOTECHNOLOGY, INC.

B-Myb (h): 293T Lysate: sc-116447

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.

REFERENCES

1. Gonda, T.J., et al. 1984. Expression of Myb, Myc and Fos proto-oncogenes during the differentiation of a murine myeloid leukaemia. Nature 310: 249-251.
2. Gonda, T.J., et al. 1985. Nucleotide sequence of cDNA clones of the murine Myb proto-oncogene. EMBO J. 4: 2004-2008.
3. Sakura, H., et al. 1989. Delineation of three functional domains of the transcriptional activator encoded by the c-Myb proto-oncogene. Proc. Natl. Acad. Sci. USA 86: 5758-5762.
4. Mizuguchi, G., et al. 1990. DNA binding activity and transcriptional activator function of the human B-Myb protein compared with c-Myb. J. Biol. Chem. 265: 9280-9284.
5. Ramsay, R.G., et al. 1991. Increase in specific DNA binding by carboxyl truncation suggests a mechanism for activation of Myb. Oncogene 6: 1875-1879.
6. Favier, D., et al. 1994. Detection of proteins that bind to the leucine zipper motif of c-Myb. Oncogene 9: 305-311.
7. Lin, D., et al. 1994. Constitutive expression of B-Myb can bypass p53-induced Waf1/Cip1-mediated G_1 arrest. Proc. Natl. Acad. Sci. USA 91: 10079-10083.
8. Garcia, P., et al. 2006. The transcription factor B-Myb is essential for S-phase progression and genomic stability in diploid and polyploid megakaryocytes. J. Cell Sci. 119: 1483-1493.
9. Pilkinton, M., et al. 2007. Mip/LIN-9 regulates the expression of B-Myb and the induction of cyclin A, cyclin B, and Cdk1. J. Biol. Chem. 282: 168-175.

STORAGE

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

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: MYBL2 (human) mapping to 20q13.12.

PRODUCT

B-Myb (h): 293T Lysate represents a lysate of human B-Myb transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

B-Myb (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive B-Myb antibodies. Recommended use: 10-20 µl per lane.

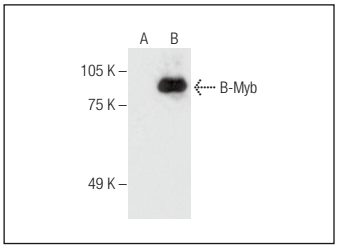
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

B-Myb (C-5): sc-390198 is recommended as a positive control antibody for Western Blot analysis of enhanced human B-Myb expression in B-Myb transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

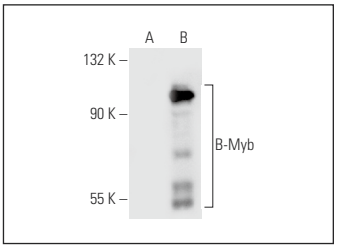
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



B-Myb (C-5): sc-390198. 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 (MYBAD10A): sc-81192. 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.

RESEARCH USE

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