SANTA CRUZ BIOTECHNOLOGY, INC.

B-Myb (MYBAD10A): sc-81192

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.

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.

CHROMOSOMAL LOCATION

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

SOURCE

B-Myb (MYBAD10A) is a mouse monoclonal antibody raised against a recombinant protein corresponding to an internal region of B-Myb of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

RESEARCH USE

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

PROTOCOLS

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

APPLICATIONS

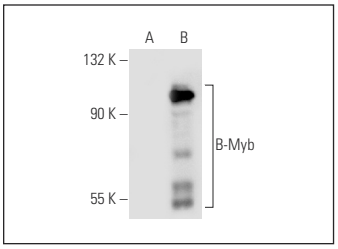
B-Myb (MYBAD10A) is recommended for detection of B-Myb of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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

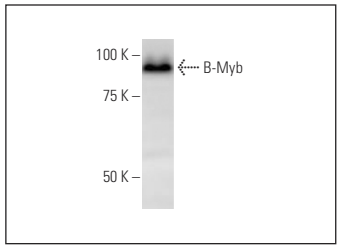
Molecular Weight of B-Myb: 110 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, B-Myb (h): 293T Lysate: sc-116447 or HeLa whole cell lysate: sc-2200.

DATA



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.



B-Myb (MYBAD10A): sc-81192 Western Blot analysis of B-Myb expression in HEK293 whole cell lysate.

SELECT PRODUCT CITATIONS

1. 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.
2. Okumura, F., et al. 2016. Parallel regulation of von Hippel-Lindau disease by pVHL-mediated degradation of B-Myb and hypoxia-inducible factor . Mol. Cell. Biol. 36: 1803-1817.
3. Okumura, F., et al. 2017. Hypoxia-inducible factor-2α stabilizes the von Hippel-Lindau (VHL) disease suppressor, Myb-related protein 2. PLoS ONE 12: e0175593.
4. Kaur, A., et al. 2021. WNT inhibition creates a BRCA-like state in Wnt-addicted cancer. EMBO Mol. Med. 13: e13349.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.