# SANTA CRUZ BIOTECHNOLOGY, INC.

# c-Myb (500-640): sc-4259 WB



## 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 G1 to S phase transition following mitogenic stimulation. Studies suggest that B-Myb expression rescues cells from p53-induced G1 arrest mediated by p21.

#### REFERENCES

- 1. Gonda, T.J. and Metcalf, D. 1984. Expression of Myb, Myc and Fos proto-oncogenes during the differentiation of a murine myeloid leukaemia. Nature 310: 249-251.
- Gonda, T.J., Gough, N.M., Dunn, A.R., and de Blaquiere, J. 1985. Nucleotide sequence of cDNA clones of the murine Myb proto-oncogene. EMBO J. 4: 2004-2008.
- Sakura, H., Kanei-Ishii, C., Nagase, T., Nakagoshi, H., Gonda, T.J., and Ishii, S. 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.
- Mizuguchi, G., Nakagoshi, H., Nagase, T., Nomura, N., Date, T., Ueno, Y., and Ishii, S. 1990. DNA binding activity and transcriptional activator function of the human B-Myb protein compared with c-Myb. J. Biol. Chem. 265: 9280-9284.
- Ramsay, R.G., Ishii, S., and Gonda, T.J. 1991. Increase in specific DNA binding by carboxyl truncation suggests a mechanism for activation of Myb. Oncogene 6: 1875-1879.
- 6. Favier, D. and Gonda, T.J. 1994. Detection of proteins that bind to the leucine zipper motif of c-Myb. Oncogene 9: 305-311.
- Lin, D., Fiscella, M., O'Connor, P.M., Jackman, J., Chen, M., Luo, L.L., Sala, A., Travali, S., Appella, E., and Mercer, W.E. 1994. Constitutive expression of B-Myb can bypass p53-induced Waf1/Cip1-mediated G<sub>1</sub> arrest. Proc. Natl. Acad. Sci. USA 91: 10079-10083.

#### SOURCE

c-Myb (500-640) is expressed in *E. coli* as a 42 kDa tagged fusion protein corresponding to amino acids 500-640 of c-Myb of human origin.

#### PRODUCT

c-Myb (500-640) is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 10  $\mu g$  in 0.1 ml SDS-PAGE loading buffer.

### APPLICATIONS

c-Myb (500-640) is suitable as a Western blotting control for sc-517, sc-7874 and sc-8412.

#### **STORAGE**

Store at -20° C; stable for one year from the date of shipment.

#### **RESEARCH USE**

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