SANTA CRUZ BIOTECHNOLOGY, INC.

A-Myb (K-15): sc-9957

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Myb family of transcription factors, which includes the structurally related A-, B-, and c-Myb genes, regulate differentiation and cellular growth through binding to promoters with the consensus sequence PyAAC(G/T)G and trans-activating gene expression. c-Myb is the cellular homolog of the leukemogenic avian retroviral protein v-Myc. c-Myb is expressed predominantly in immature and rapidly dividing hematopoietic cells, and cellular levels of c-Myb substantially decreases as cells reach terminal differentiation. B-Myb is expressed in a wide variety of proliferating cells, with levels accumulating during the G_1 to S phase transition. A-Myb is expressed at specific times in reproductive tissues, some neural cells, and a subset of normal and neoplastic B lymphocytes. Both A-Myb and B-Myb are expressed in t(14:18) lymphoma cells where they then inhibit cell arrest and apoptotic signaling. Expression of B-Myb rescues cells from p53-induced G_1 phase arrest that is mediated by p21, while A-Myb functions as an anti-apoptotic factor by effectively activating the Bcl-2 promoter and thereby up-regulating Bcl-2 expression.

REFERENCES

1. Sakura, H., et al. 1989. Delineation of three functional domains of the transcriptional activator encoded by the c-Myb protooncogene. Proc. Natl. Acad. Sci. USA 86: 5758-5762.
2. 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.
3. Reiss, K., et al. 1991. Growth regulated expression of B-Myb in fibroblasts and hematopoietic cells. J. Cell. Physiol. 148: 338-343.
4. Golay, J., et al. 1994. The human A-Myb protein is a strong activator of transcription. Oncogene 9: 2469-2479.
5. Vorbrueggen, G., et al. 1994. The carboxy terminus of human c-Myb protein stimulates activated transcription in trans. Nucleic Acids Res. 22: 2466-2475.
6. Golay, J., et al. 1996. Expression of A-Myb, but not c-Myb and B-Myb, is restricted to Burkitt's lymphoma, sIg+ B-acute lymphoblastic leukemia, and a subset of chronic lymphocytic leukemias. Blood 87: 1900-1911.

CHROMOSOMAL LOCATION

Genetic locus: MYBL1 (human) mapping to 8q13.1; Mybl1 (mouse) mapping to 1 A2.

SOURCE

A-Myb (K-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of A-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-9957 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-9957 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

A-Myb (K-15) is recommended for detection of A-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).

A-Myb (K-15) is also recommended for detection of A-Myb in additional species, including equine, canine, bovine and porcine.

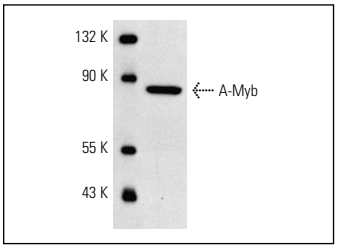
Suitable for use as control antibody for A-Myb siRNA (h): sc-29613, A-Myb siRNA (m): sc-29614, A-Myb shRNA Plasmid (h): sc-29613-SH, A-Myb shRNA Plasmid (m): sc-29614-SH, A-Myb shRNA (h) Lentiviral Particles: sc-29613-V and A-Myb shRNA (m) Lentiviral Particles: sc-29614-V.

A-Myb (K-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

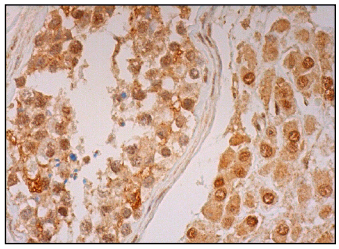
Molecular Weight of A-Myb: 83 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234.

DATA



A-Myb (K-15): sc-9957. Western blot analysis of A-Myb expression in NAMALWA whole cell lysate.



A-Myb (K-15): sc-9957. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic staining of cells in seminiferous ducts and Leydig cells.

SELECT PRODUCT CITATIONS

1. Maurice, D., et al. 2007. c-Myb regulates lineage choice in developing thymocytes via its target gene GATA-3. EMBO J. 26: 3629-3640.

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.