SANTA CRUZ BIOTECHNOLOGY, INC.

A-Myb (P-18): sc-30909

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BBACKGROUND

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

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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.
7. Oh, I.H. et al. 1999. The myb gene family in cell growth, differentiation and apoptosis. Oncogene 18: 3017-3033
8. Heckman, C.A., et al. 2000. A-Myb Up-regulates Bcl-2 through a Cdx Binding Site in t(14;18) Lymphoma Cells. J. Biol. Chem. 275: 6499-6508.

CHROMOSOMAL LOCATION

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

SOURCE

A-Myb (P-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of A-Myb of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-30908 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

A-Myb (P-18) 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), immunofluorescence (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 (P-18) 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.

Molecular Weight of A-Myb: 83 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.