

# A-Myb (T-14): sc-30908

## 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<sub>1</sub> 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<sub>1</sub> 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-myc 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-myc in fibroblasts and hematopoietic cells. *J. Cell. Physiol.* 148: 338-343.
4. Golay, J., et al. 1994. The human A-myc protein is a strong activator of transcription. *Oncogene* 9: 2469-2479.
5. Vorbrueggen, G., et al. 1994. The carboxy terminus of human c-myc protein stimulates activated transcription in trans. *Nucleic Acids Res.* 22: 2466-2475.

## CHROMOSOMAL LOCATION

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

## SOURCE

A-Myb (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-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.

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).

## STORAGE

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

## APPLICATIONS

A-Myb (T-14) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

A-Myb (T-14) is also recommended for detection of A-Myb in additional species, including equine, canine, bovine, porcine and avian.

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.

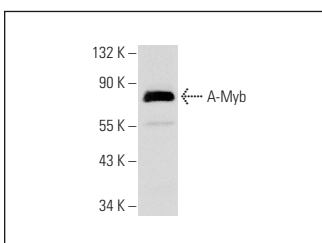
Molecular Weight of A-Myb: 83 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234 or human skeletal muscle extract: sc-363776.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



A-Myb (T-14): sc-30908. Western blot analysis of A-Myb expression in human skeletal muscle tissue extract.

## RESEARCH USE

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

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Try **A-Myb (D-12): sc-514682**, our highly recommended monoclonal alternative to A-Myb (T-14).