

# c-Myc (6A10): sc-53854



The Power to Question

## BACKGROUND

c-Myc-, N-Myc- and L-Myc-encoded proteins function in cell proliferation, differentiation and neoplastic disease. Amplification of the c-Myc gene has been found in several types of human tumors including lung, breast and colon carcinomas. The presence of three sequence motifs in the c-Myc COOH terminus, including the leucine zipper, the helix-loop-helix and a basic region, provided initial evidence for a sequence-specific binding function. A basic region helix-loop-helix leucine zipper motif (bHLH-Zip) protein, designated Max, specifically associates with c-Myc, N-Myc and L-Myc proteins. The Myc-Max complex binds to DNA in a sequence-specific manner under conditions where neither Max nor Myc exhibits appreciable binding. Max can also form heterodimers with at least two additional bHLH-Zip proteins, Mad 1 and Mxi1, and Mad 1-Max dimers have been shown to repress transcription through interaction with mSin3.

## REFERENCES

- Alitalo, K., et al. 1983. Homogeneously staining chromosomal regions contain amplified copies of an abundantly expressed cellular oncogene (c-Myc) in malignant neuroendocrine cells from a human colon carcinoma. *Proc. Natl. Acad. Sci. USA* 80: 1707-1711.
- Nau, M.N., et al. 1985. L-Myc, a new Myc-related gene amplified and expressed in human small cell lung cancer. *Nature* 318: 69-73.

## CHROMOSOMAL LOCATION

Genetic locus: MYC (human) mapping to 8q24.21; Myc (mouse) mapping to 15 D1.

## SOURCE

c-Myc (6A10) is a rat monoclonal antibody raised against amino acids 1-262 of GST-c-Myc of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

c-Myc (6A10) is recommended for detection of c-Myc of mouse, rat, human and monkey 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 c-Myc siRNA (h): sc-29226, c-Myc siRNA (m): sc-29227, c-Myc siRNA (r): sc-270149, c-Myc shRNA Plasmid (h): sc-29226-SH, c-Myc shRNA Plasmid (m): sc-29227-SH, c-Myc shRNA Plasmid (r): sc-270149-SH, c-Myc shRNA (h) Lentiviral Particles: sc-29226-V, c-Myc shRNA (m) Lentiviral Particles: sc-29227-V and c-Myc shRNA (r) Lentiviral Particles: sc-270149-V.

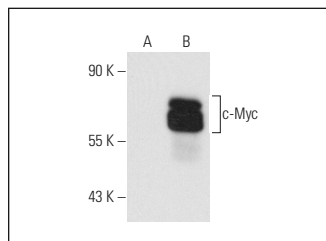
Molecular Weight of c-Myc: 67 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, c-Myc (m): 293T Lysate: sc-118892 or HL-60 whole cell lysate: sc-2209.

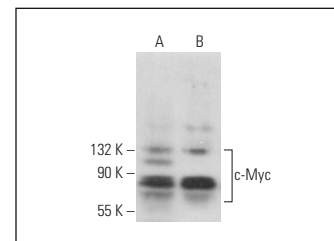
## STORAGE

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

## DATA



c-Myc (6A10): sc-53854. Western blot analysis of c-Myc expression in non-transfected: sc-117752 (A) and mouse c-Myc transfected: sc-118892 (B) 293T whole cell lysates.



c-Myc (6A10): sc-53854. Western blot analysis of c-Myc expression in K-562 (A) and HL-60 (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Calzolari, A., et al. 2009. Regulation of transferrin receptor 2 in human cancer cell lines. *Blood Cells Mol. Dis.* 42: 5-13.
- Hou, S., et al. 2017. Significance of MNK1 in prognostic prediction and chemotherapy development of epithelial ovarian cancer. *Clin. Transl. Oncol.* 19: 1107-1116.
- Sun, Z., et al. 2018. MiR-532 downregulation of the Wnt/ $\beta$ -catenin signaling via targeting Bcl-9 and induced human intervertebral disc nucleus pulposus cells apoptosis. *J. Pharmacol. Sci.* 138: 263-270.
- Duan, C., et al. 2018. Sulfasalazine alters microglia phenotype by competing endogenous RNA effect of miR-136-5p and long non-coding RNA HOTAIR in cuprizone-induced demyelination. *Biochem. Pharmacol.* 155: 110-123.
- Ma, Q., et al. 2019. Antitumor effects of saikosaponin b2 on breast cancer cell proliferation and migration. *Mol. Med. Rep.* 20: 1943-1951.
- Liu, G., et al. 2020. M2 macrophages promote HCC cells invasion and migration via miR-149-5p/MMP9 signaling. *J. Cancer* 11: 1277-1287.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.



See **c-Myc (9E10): sc-40** for c-Myc antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.