

c-Myc (9E11): sc-47694

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 (9E11) is a mouse monoclonal antibody raised against amino acids 408-420 within the C-terminal domain of c-Myc of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain 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-47694 X, 200 µg/0.1 ml.

c-Myc (9E11) is available conjugated to agarose (sc-47694 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-47694 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-47694 PE), fluorescein (sc-47694 FITC), Alexa Fluor® 488 (sc-47694 AF488), Alexa Fluor® 546 (sc-47694 AF546), Alexa Fluor® 594 (sc-47694 AF594) or Alexa Fluor® 647 (sc-47694 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-47694 AF680) or Alexa Fluor® 790 (sc-47694 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, c-Myc (9E11) is available conjugated to biotin (sc-47694 B), 200 µg/ml, for WB, IHC(P) and ELISA; and to TRITC (sc-47694 TRITC), 200 µg/ml, for IF, IHC(P) and FCM.

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RESEARCH USE

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

APPLICATIONS

c-Myc (9E11) is recommended for detection of c-Myc p67 and c-Myc tagged fusion proteins 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

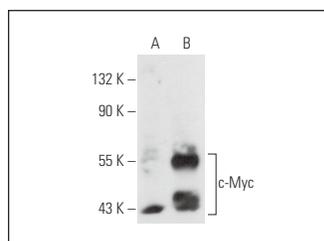
Suitable for use as control antibody for c-Myc siRNA (h): sc-29226, c-Myc siRNA (m): sc-29227, c-Myc siRNA (r): sc-270149, c-Myc shRNA Plasmid (h): sc-29226-SH, c-Myc shRNA Plasmid (m): sc-29227-SH, c-Myc shRNA Plasmid (r): sc-270149-SH, Hc-Myc shRNA (h) Lentiviral Particles: sc-29226-V, c-Myc shRNA (m) Lentiviral Particles: sc-29227-V and c-Myc shRNA (r) Lentiviral Particles: sc-270149-V.

c-Myc (9E11) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

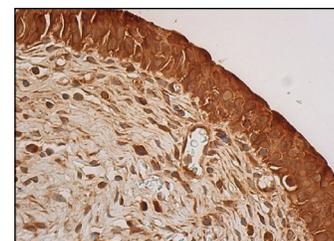
Molecular Weight of c-Myc: 67 kDa.

Positive Controls: c-Myc (h): 293T Lysate: sc-110502, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

DATA



c-Myc (9E11): sc-47694. Western blot analysis of c-Myc expression in non-transfected: sc-117752 (A) and human c-Myc transfected: sc-110502 (B) 293T whole cell lysates.



c-Myc (9E11): sc-47694. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing nuclear and cytoplasmic staining of urothelial cells.

SELECT PRODUCT CITATIONS

- Yu, M.C., et al. 2004. Arginine methyltransferase affects interactions and recruitment of mRNA processing and export factors. *Genes Dev.* 18: 2024-2035.
- Kim, Y.J., et al. 2020. O-GlcNAc stabilizes SMAD4 by inhibiting GSK-3β-mediated proteasomal degradation. *Sci. Rep.* 10: 19908.
- George, J., et al. 2021. RNA-binding protein FXR1 drives cMYC translation by recruiting eIF4F complex to the translation start site. *Cell Rep.* 37: 109934.
- Reitz, D., et al. 2023. Delineation of two multi-invasion-induced rearrangement pathways that differently affect genome stability. *bioRxiv*. E-published.

STORAGE

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