

c-Myc (9E11): sc-47694

BACKGROUND

c-Myc-, N-Myc- and L-Myc-encoded proteins function in cell proliferation, differentiation and neoplastic disease. Myc proteins are nuclear proteins with relatively short half lives. Amplification of the c-Myc gene has been found in several types of human tumors including lung, breast and colon carcinomas, while the N-Myc gene has been found amplified in neuroblastomas. The L-Myc gene has been reported to be amplified and expressed at high level in human small cell lung 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 exhibit appreciable binding. Max can also form heterodimers with at least two additional bHLH-Zip proteins, Mad and Mxi1 and Mad-Max dimers have been shown to repress transcription through interaction with mSin3.

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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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 for detailed protocols and support products.

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).

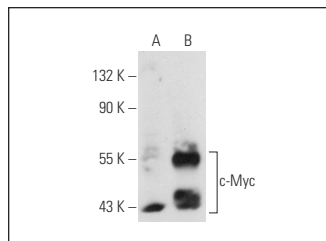
Suitable for use as control antibody for c-Myc siRNA (h): sc-29226, c-Myc siRNA (m): sc-29227, c-Myc siRNA (r): sc-270149, c-Myc shRNA Plasmid (h): sc-29226-SH, c-Myc shRNA Plasmid (m): sc-29227-SH, c-Myc shRNA Plasmid (r): sc-270149-SH, Hc-Myc shRNA (h) Lentiviral Particles: sc-29226-V, c-Myc shRNA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

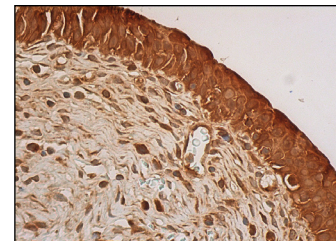
Molecular Weight of c-Myc: 67 kDa.

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

1. Yu, M.C., et al. 2004. Arginine methyltransferase affects interactions and recruitment of mRNA processing and export factors. *Genes Dev.* 18: 2024-2035.
2. Kim, A.R. and Choi, K.W. 2019. TRiC/CCT chaperonins are essential for organ growth by interacting with insulin/TOR signaling in *Drosophila*. *Oncogene* 38: 4739-4754.
3. Kim, Y.J., et al. 2020. O-GlcNAc stabilizes SMAD4 by inhibiting GSK-3β-mediated proteasomal degradation. *Sci. Rep.* 10: 19908.
4. 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.

RESEARCH USE

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