

c-Myc (C-33): sc-42



The Power to Question

BACKGROUND

c-Myc-, N-Myc- and L-Myc-encoded proteins function in cell proliferation, differentiation and neoplastic disease. They are located in the nucleus and have 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. The presence of a leucine zipper, the helix-loop-helix and a basic region in the c-Myc COOH terminus provided initial evidence for a sequence-specific binding function. A basic region helix-loop-helix leucine zipper motif protein, called Max, specifically associates with c-Myc, N-Myc and L-Myc. The Myc-Max complex binds to DNA in a sequence-specific. Max can also form heterodimers with at least two additional bHLH-Zip proteins, Mad and Mxi 1, 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 (C-33) is a mouse monoclonal antibody raised against full length c-Myc of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ 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-42 X, 200 µg/0.1 ml.

c-Myc (C-33) is available conjugated to agarose (sc-42 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-42 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-42 PE), fluorescein (sc-42 FITC), Alexa Fluor® 488 (sc-42 AF488), Alexa Fluor® 546 (sc-42 AF546), Alexa Fluor® 594 (sc-42 AF594) or Alexa Fluor® 647 (sc-42 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-42 AF680) or Alexa Fluor® 790 (sc-42 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

c-Myc (C-33) is recommended for detection of c-Myc p67 and c-Myc tagged fusion proteins of mouse, rat, human and avian 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).

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.

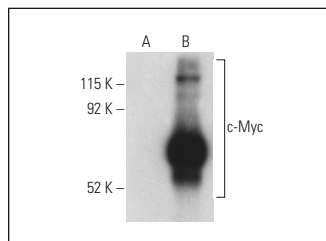
c-Myc (C-33) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of c-Myc: 67 kDa.

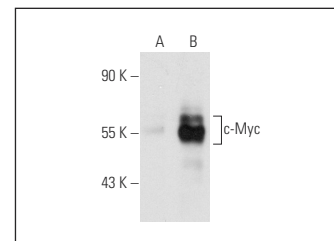
STORAGE

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

DATA



c-Myc (C-33) HRP: sc-42 HRP. Direct 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 (C-33): sc-42. 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.

SELECT PRODUCT CITATIONS

- Pietsch, T., et al. 1994. Characterization of five new cell lines derived from human primitive neuroectodermal tumors of the central nervous system. *Cancer Res.* 54: 3278-3287.
- Cowling, V.H., et al. 2014. Burkitt's lymphoma-associated c-Myc mutations converge on a dramatically altered target gene response and implicate Nof5a/Nop56 in oncogenesis. *Oncogene* 33: 3519-3527.
- Xiao, D., et al. 2015. Myc promotes glutaminolysis in human neuroblastoma through direct activation of glutaminase 2. *Oncotarget* 6: 40655-40666.
- Ren, S., et al. 2016. Hepatitis B virus stimulated fibronectin facilitates viral maintenance and replication through two distinct mechanisms. *PLoS ONE* 11: e0152721.
- Huang, C.Y., et al. 2017. p53-mediated miR-18 repression activates HSF2 for IGF-1R-dependent myocyte hypertrophy in hypertension-induced heart failure. *Cell Death Dis.* 8: e2990.
- Rossetti, S., et al. 2018. Undermining ribosomal RNA transcription in both the nucleolus and mitochondrion: an offbeat approach to target Myc-driven cancer. *Oncotarget* 9: 5016-5031.
- Feris, E.J., et al. 2019. Formation of a structurally-stable conformation by the intrinsically disordered Myc:TRRAP complex. *PLoS ONE* 14: e0225784.
- Patras, L., et al. 2020. Normoxic tumour extracellular vesicles modulate the response of hypoxic cancer and stromal cells to doxorubicin *in vitro*. *Int. J. Mol. Sci.* 21: 5951.
- Endres, T., et al. 2021. Ubiquitylation of Myc couples transcription elongation with double-strand break repair at active promoters. *Mol. Cell* 81: 830-844.e13.

RESEARCH USE

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

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