

c-Myc (C-8): sc-41



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-8) is a mouse monoclonal antibody raised against full length 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 ChIP application, sc-41 X, 200 µg/0.1 ml.

c-Myc (C-8) is available conjugated to agarose (sc-41 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-41 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-41 PE), fluorescein (sc-41 FITC), Alexa Fluor® 488 (sc-41 AF488), Alexa Fluor® 546 (sc-41 AF546), Alexa Fluor® 594 (sc-41 AF594) or Alexa Fluor® 647 (sc-41 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-41 AF680) or Alexa Fluor® 790 (sc-41 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

c-Myc (C-8) 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-8) X TransCruz antibody is recommended for ChIP assays.

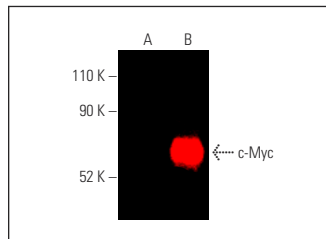
Molecular Weight of c-Myc: 67 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, c-Myc (h): 293T Lysate: sc-110502 or Jurkat whole cell lysate: sc-2204.

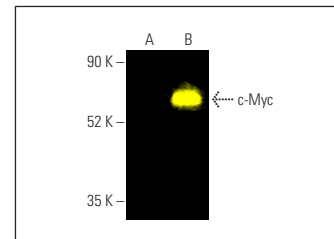
STORAGE

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-8): sc-41. Near-Infrared 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. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG_{2a} BP-CFL 790: sc-542740.



c-Myc (C-8): sc-41. Fluorescent 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. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG_{2a} BP-CFL 488: sc-542735.

SELECT PRODUCT CITATIONS

1. Ferrer, I., et al. 1996. Selective c-Jun overexpression is associated with ionizing radiation-induced apoptosis in the developing cerebellum of the rat. *Mol. Brain Res.* 38: 91-100.
2. Akinyeke, T.O. and Stewart, L.V. 2011. Troglitazone suppresses c-Myc levels in human prostate cancer cells via a PPARγ-independent mechanism. *Cancer Biol. Ther.* 11: 1046-1058.
3. Nie, Z., et al. 2012. c-Myc is a universal amplifier of expressed genes in lymphocytes and embryonic stem cells. *Cell* 151: 68-79.
4. Xu, L., et al. 2015. Association between the ornithine decarboxylase G316A polymorphism and breast cancer survival. *Oncol. Lett.* 10: 485-491.
5. Kerosuo, L. and Bronner, M.E. 2016. c-Myc regulates the size of the premigratory neural crest stem cell pool. *Cell Rep.* 17: 2648-2659.
6. Teng, Y., et al. 2017. MVP-mediated exosomal sorting of miR-193a promotes colon cancer progression. *Nat. Commun.* 8: 14448.
7. Zheng, S., et al. 2018. Identification of molecular determinants that govern distinct STIM2 activation dynamics. *PLoS Biol.* 16: e2006898.
8. Liu, Q., et al. 2020. circ_0067934 increases bladder cancer cell proliferation, migration and invasion through suppressing miR-1304 expression and increasing Myc expression levels. *Exp. Ther. Med.* 19: 3751-3759.
9. Luo, Y., et al. 2021. Intestinal MYC modulates obesity-related metabolic dysfunction. *Nat. Metab.* 3: 923-939.
10. Zhong, C., et al. 2022. DL-methionine and DL-methionyl-DL-methionine increase intestinal development and activate Wnt/β-catenin signaling activity in domestic pigeons (*Columba livia*). *Poult. Sci.* 101: 101644.

RESEARCH USE

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

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