

c-Myc (9E10): sc-40

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.

CHROMOSOMAL LOCATION

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

SOURCE

c-Myc (9E10) is a mouse monoclonal antibody raised against an epitope corresponding to amino acids 408-439 within the C-terminal domain of 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 ChIP application, sc-40 X, 200 µg/0.1 ml.

c-Myc (9E10) is available conjugated to agarose (sc-40 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-40 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-40 PE), fluorescein (sc-40 FITC), Alexa Fluor® 488 (sc-40 AF488), Alexa Fluor® 546 (sc-40 AF546), Alexa Fluor® 594 (sc-40 AF594) or Alexa Fluor® 647 (sc-40 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-40 AF680) or Alexa Fluor® 790 (sc-40 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, c-Myc (9E10) is available conjugated to biotin (sc-40 B), 200 µg/ml, for WB, IHC(P) and ELISA; and to either TRITC (sc-40 TRITC, 200 µg/ml), Alexa Fluor® 405 (sc-40 AF405, 200 µg/ml) or PerCP (sc-40 PerCP), 100 tests in 2 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 (9E10) is recommended for detection of c-Myc p67 and c-Myc tagged fusion proteins of mouse, rat, human, monkey, feline and canine 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with N-Myc or L-Myc proteins. Widely used in combination with eukaryotic expression vectors encoding proteins with c-Myc (amino acids 408-439) epitope tag.

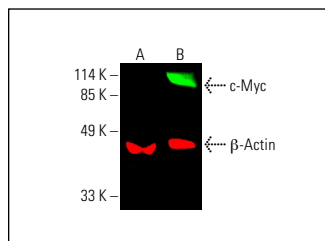
Suitable for use as control antibody for c-Myc siRNA (h): sc-29226, c-Myc siRNA (m): sc-29227, c-Myc siRNA (r): sc-270149, c-Myc shRNA Plasmid (h): sc-29226-SH, c-Myc shRNA Plasmid (m): sc-29227-SH, c-Myc shRNA Plasmid (r): sc-270149-SH, c-Myc shRNA (h) Lentiviral Particles: sc-29226-V, c-Myc shRNA (m)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

c-Myc (9E10) X TransCruz antibody is recommended for ChIP assays.

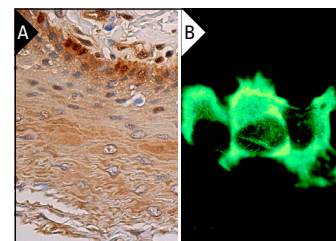
Molecular Weight of c-Myc: 67 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or NIH/3T3 whole cell lysate: sc-2210.

DATA



Simultaneous direct near-infrared western blot analysis of c-Myc expression, detected with c-Myc (9E10) Alexa Fluor® 680: sc-40 AF680 and β-Actin expression, detected with β-Actin (C4) Alexa Fluor® 790: sc-47778 AF790 in COS whole cell lysates prepared from non-transfected cells (A) and c-Myc fusion protein transfected cells (B). Blocked with UltraCruz® Blocking Reagent: sc-516214.



c-Myc (9E10): sc-40. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing nuclear and cytoplasmic staining of squamous epithelial cells (A). Immunofluorescence staining of methanol-fixed COS cells transfected with c-Myc fusion protein showing cytoplasmic staining (B).

SELECT PRODUCT CITATIONS

- Arany, I., et al. 1993. Alterations in cytokine/antioncogene expression in skin lesions caused by "low-risk" types of human papillomaviruses. *Viral Immunol.* 6: 255-265.
- Wang, J., et al. 2023. Distinct effects of SDC3 and FGFR1 on selective neurodegeneration in AD and PD. *FASEB J.* 37: e22773.

RESEARCH USE

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