SANTA CRUZ BIOTECHNOLOGY, INC.

c-Myc (SPM237): sc-56505

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

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 (SPM237) is a mouse monoclonal antibody epitope corresponding to amino acids 408-439 within the C-terminal domain of c-Myc of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

c-Myc (SPM237) 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10^6 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.

c-Myc (SPM237) is also recommended for detection of c-Myc p67 and c-Myc tagged fusion proteins in additional species, including feline and canine.

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.

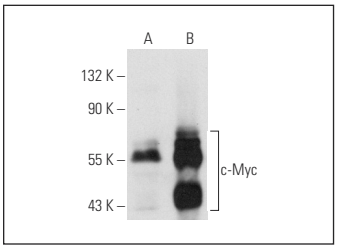
Molecular Weight of c-Myc: 67 kDa.

Positive Controls: c-Myc (h3): 293T Lysate: sc-110502, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

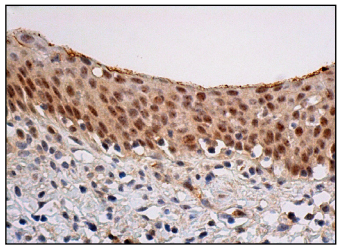
STORAGE

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

DATA



c-Myc (SPM237): sc-56505. 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 (SPM237): sc-56505. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing nuclear and cytoplasmic staining of urothelial cells.

SELECT PRODUCT CITATIONS

1. Li, K., et al. 2013. Role of co-expression of c-Myc, EZH2 and p27 in prognosis of prostate cancer patients after surgery. Chin. Med. J. 126: 82-87.
2. Li, X., et al. 2013. c-Myc-regulated miR-23a/24-2/27a cluster promotes mammary carcinoma cell invasion and hepatic metastasis by targeting Sprouty2. J. Biol. Chem. 288: 18121-18133.
3. Heo, S.H., et al. 2017. Knockout of krüppel-like factor 10 suppresses hepatic cell proliferation in a partially hepatectomized mouse model. Oncol. Lett. 13: 4843-4848.
4. Luo, L., et al. 2018. LINC01638 lncRNA activates MTDH-Twist1 signaling by preventing SPOP-mediated c-Myc degradation in triple-negative breast cancer. Oncogene 37: 6166-6179.
5. Nguyen, C.N., et al. 2019. Regulation of p21 expression for anti-apoptotic activity of DDX3 against sanguinarine-induced cell death on intrinsic pathway. Phytomedicine 65: 153096.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CONJUGATES

See **c-Myc (9E10): sc-40** for c-Myc antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.