SANTA CRUZ BIOTECHNOLOGY, INC.

c-Myc (Myc.A7): sc-56634

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.

REFERENCE

1. Alitalo, K., et al. 1983. Homogeneously staining chromosomal regions contain amplified copies of an abundantly expressed cellular oncogene (c-Myc) in malignant neuroendocrine cells from a human colon carcinoma. Proc. Natl. Acad. Sci. USA 80: 1707-1711.
2. Nau, M.N., et al. 1985. L-Myc, a new Myc-related gene amplified and expressed in human small cell lung cancer. Nature 318: 69-73.

CHROMOSOMAL LOCATION

Genetic locus: MYC (human) mapping to 8q24.21.

SOURCE

c-Myc (Myc.A7) is a mouse monoclonal antibody raised against amino acids 410-419 of c-Myc of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

c-Myc (Myc.A7) is recommended for detection of c-Myc p67 and c-Myc tagged fusion proteins of 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)] and immunofluorescence (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 shRNA Plasmid (h): sc-29226-SH and c-Myc shRNA (h) Lentiviral Particles: sc-29226-V.

Molecular Weight of c-Myc: 67 kDa.

Positive Controls: c-Myc (h): 293T Lysate: sc-110502, Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

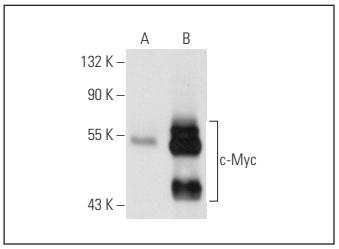
RESEARCH USE

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

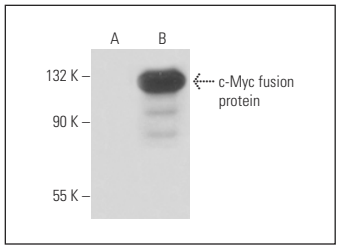
STORAGE

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

DATA



c-Myc (Myc.A7): sc-56634. 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 (Myc.A7): sc-56634. Western blot analysis of c-Myc expression in nontransfected (**A**) and c-Myc transfected (**B**) Cos whole cell lysates.

SELECT PRODUCT CITATIONS

1. Zhai, W., et al. 2005. *In vitro* analysis of Huntingtin-mediated transcriptional repression reveals multiple transcription factor targets. Cell 123: 1241-1253.
2. Besteiro, S., et al. 2011. Autophagy protein Atg3 is essential for maintaining mitochondrial integrity and for normal intracellular development of *Toxoplasma gondii* tachyzoites. PLoS Pathog. 7: e1002416.
3. Ellison, S.M., et al. 2013. Dose-dependent neuroprotection of $VEGF_{165}$ in Huntington's disease striatum. Mol. Ther. 21: 1862-1875.
4. Quaynor, S.D., et al. 2014. Differential expression of nasal embryonic LHRH factor (NELF) variants in immortalized GnRH neuronal cell lines. Mol. Cell. Endocrinol. 383: 32-37.
5. Wei, Y., et al. 2017. Prohibitin 2 is an inner mitochondrial membrane mitophagy receptor. Cell 168: 224-238.
6. Chen, L., et al. 2017. Histone deacetylase 1 plays an acetylation-independent role in Influenza A Virus replication. Front. Immunol. 8: 1757.
7. Smith, J.G., et al. 2018. Proteomic analysis of S-nitrosylated nuclear proteins in rat cortical neurons. Sci. Signal. 11 pii: eaar3396.
8. Ding, L., et al. 2019. PARP1 suppresses the transcription of PD-L1 by poly(ADP-ribosyl)ating Stat3. Cancer Immunol. Res. 7: 136-149.
9. Wook Park, S., et al. 2019. A new regulatory mechanism for Raf kinase activation, retinoic acid-bound Crabp1. Sci. Rep. 9: 10929.
10. Crerar, H., et al. 2019. Regulation of NGF signaling by an axonal untranslated mRNA. Neuron 102: 553-563.