SANTA CRUZ BIOTECHNOLOGY, INC.

L-Myc (C-20): sc-790

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The v-Myc oncogene, initially identified in the MC29 avian retrovirus, causes myelocytomas, carcinomas, sarcomas and lymphomas, and belongs to a family of oncogenes conserved throughout evolution. In humans, the family consists of five genes: c-Myc, N-Myc, R-Myc, L-Myc and B-Myc. Amplification of the N-Myc gene has been found in human neuroblastomas and cell lines. The extent of N-Myc amplification correlates well with the stage of neuroblastoma disease. Immunological studies have shown that the human N-Myc gene encodes a nuclear phosphoprotein of 67 kDa that exhibits relatively short (30 minute) half life *in vivo*. The prototype member of the family, c-Myc p67, binds DNA in a sequence-specific manner subsequent to dimerization with a second basic region helix-loop-helix leucine zipper motif protein, designated Max.

REFERENCES

1. Schwab, M., et al. 1983. Amplified DNA with limited homology to Myc cellular oncogene is shared by human neuroblastoma cell lines and a neuroblastoma tumor. Nature 305: 245-248.
2. Brodeur, G.M., et al. 1984. Amplification of N-Myc in untreated human neuroblastomas correlates with advanced disease stage. Science 224: 1121-1124.
3. Cole, M.D. 1986. The myc oncogene: its role in transformation and differentiation. Annu. Rev. Genet. 20: 361-384.
4. LeGouy, E., et al. 1987. Structure and expression of Myc-family genes. In Nuclear Oncogenes. Cold Spring Harbor, NY: Cold Spring Harbor Laboratory, 144-151.
5. Prendergast, G.C., et al. 1991. Association of Myn, the murine homolog of Max, with c-Myc stimulates methylation-sensitive DNA binding and Ras cotransformation. Cell 65: 395-407.
6. Blackwood, E.M. and Eisenman, R.N. 1991. Max: a helix-loop-helix zipper protein that forms a sequence-specific DNA-binding complex with Myc. Science 251: 1211-1217.
7. Bossone, S.A., et al. 1992. MAZ, a zinc finger protein, binds to c-Myc and C2 gene sequences regulating transcriptional initiation and termination. Proc. Natl. Acad. Sci. USA 89: 7452-7456.

CHROMOSOMAL LOCATION

Genetic locus: MYCL1 (human) mapping to 1p34.2; Lmyc1 (mouse) mapping to 4 D2.2.

SOURCE

L-Myc (C-20) is a rabbit polyclonal antibody raised against a peptide mapping within the C-terminus of L-Myc of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-790 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

L-Myc (C-20) is recommended for detection of L-Myc of mouse, rat and human 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).

L-Myc (C-20) is also recommended for detection of L-Myc in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for L-Myc siRNA (h): sc-38071, L-Myc siRNA (m): sc-38072, L-Myc shRNA Plasmid (h): sc-38071-SH, L-Myc shRNA Plasmid (m): sc-38072-SH, L-Myc shRNA (h) Lentiviral Particles: sc-38071-V and L-Myc shRNA (m) Lentiviral Particles: sc-38072-V.

Molecular Weight of L-Myc: 46 kDa.

SELECT PRODUCT CITATIONS

1. Iyengar, R.V., et al. 2001. Use of a modified ornithine decarboxylase promoter to achieve efficient c-Myc- or N-Myc-regulated protein expression. Cancer Res. 61: 3045-3052.
2. Villavicencio, E.H., et al. 2002. Cooperative E-box regulation of human GLI1 by TWIST and USF. Genesis 32: 247-258.
3. Karlsson, A., et al. 2003. Genomically complex lymphomas undergo sustained tumor regression upon MYC inactivation unless they acquire novel chromosomal translocations. Blood 101: 2797-2803.
4. Yi, F., et al. 2003. The CCL6 chemokine is differentially regulated by c-Myc and L-Myc, and promotes tumorigenesis and metastasis. Cancer Res. 63: 2923-2932.
5. Knoepfler, P.S., et al. 2006. Myc influences global chromatin structure. EMBO J. 25: 2723-2734.
6. Giuriato, S., et al. 2006. Sustained regression of tumors upon MYC inactivation requires p53 or Thrombospondin 1 to reverse the angiogenic switch. Proc. Natl. Acad. Sci. USA 103: 16266-16271.
7. Sonne, S.B., et al. 2009. Analysis of gene expression profiles of microdissected cell populations indicates that testicular carcinoma *in situ* is an arrested gonocyte. Cancer Res. 69: 5241-5250.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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