

L-Myc (H-44): sc-28699

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 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

- Schwab, M., Alitalo, K., Klempnauer, K., Varmus, H.E., Bishop, J.M., Gilbert, F., Brodeur, G., Goldstein, M. and Trent, J. 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.
- Brodeur, G.M., Seeger, R.C., Schwab, M., Varmus, H.E. and Bishop, J.M. 1984. Amplification of N-Myc in untreated human neuroblastomas correlates with advanced disease stage. *Science* 224: 1121-1124.
- Cole, M.D. 1986. The Myc oncogene: its role in transformation and differentiation. *Annu. Rev. Gen.* 20: 361-384.
- LeGouy, E., DePinho, R., Zimmerman, D., Ferrier, P., Collum, R. and Alt, F.W. 1987. Structure and expression of Myc-family genes. In *Nuclear Oncogenes*. Cold Spring Harbor, NY: Cold Spring Harbor Laboratory, 144-151.
- 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.

CHROMOSOMAL LOCATION

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

SOURCE

L-Myc (H-44) is a rabbit polyclonal antibody raised against amino acids 321-364 mapping at the C-terminus of L-Myc-1 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.

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.

APPLICATIONS

L-Myc (H-44) is recommended for detection of L-Myc-1 and to a lesser extent, L-Myc-2 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 (H-44) is also recommended for detection of L-Myc-1 and to a lesser extent, L-Myc-2 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.

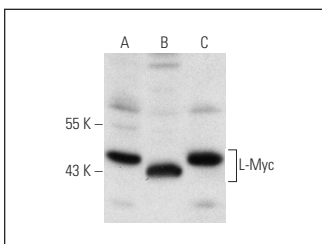
Molecular Weight (predicted) of L-Myc: 46 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NIH/3T3 whole cell lysate: sc-2210 or DU 145 cell lysate: sc-2268.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



L-Myc (H-44): sc-28699. Western blot analysis of L-Myc expression in HeLa (A), NIH/3T3 (B) and DU 145 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Hishida, T., Nozaki, Y., Nakachi, Y., Mizuno, Y., Iseki, H., Katano, M., Kamon, M., Hirasaki, M., Nishimoto, M., Okazaki, Y. and Okuda, A. 2012. Sirt1, p53, and p38^{MAPK} are crucial regulators of detrimental phenotypes of embryonic stem cells with Max expression ablation. *Stem Cells* 30: 1634-1644.