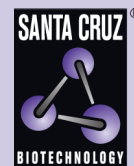


# N-Myc (2): sc-142



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 that exhibits relatively short (30 min) 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.

## CHROMOSOMAL LOCATION

Genetic locus: MYCN (human) mapping to 2p24.3; Mycn (mouse) mapping to 12 A1.1.

## SOURCE

N-Myc (2) is a mouse monoclonal antibody epitope mapping at residues 327-339 of N-Myc p67 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

N-Myc (2) is available conjugated to agarose (sc-142 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-142 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-142 PE), fluorescein (sc-142 FITC), Alexa Fluor® 488 (sc-142 AF488), Alexa Fluor® 546 (sc-142 AF546), Alexa Fluor® 594 (sc-142 AF594) or Alexa Fluor® 647 (sc-142 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-142 AF680) or Alexa Fluor® 790 (sc-142 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

N-Myc (2) is recommended for detection of N-Myc p67 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for N-Myc siRNA (h): sc-36003, N-Myc siRNA (m): sc-38087, N-Myc shRNA Plasmid (h): sc-36003-SH, N-Myc shRNA Plasmid (m): sc-38087-SH, N-Myc shRNA (h) Lentiviral Particles: sc-36003-V and N-Myc shRNA (m) Lentiviral Particles: sc-38087-V.

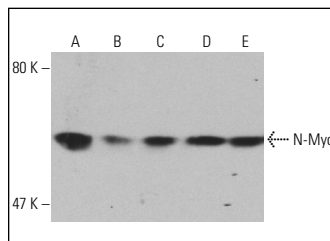
Molecular Weight of N-Myc: 67 kDa.

Positive Controls: H4 cell lysate: sc-2408, BJAB whole cell lysate: sc-2207 or N-Myc (m): 293T Lysate: sc-121906.

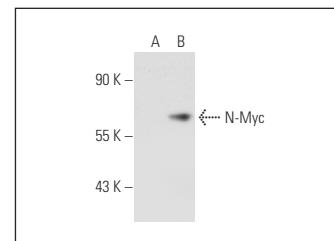
## STORAGE

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

## DATA



N-Myc (2): sc-142. Western blot analysis of N-Myc expression in CCRF-HSB-2 (A), H4 (B), HuT 78 (C), BJAB (D) and Ramos (E) whole cell lysates.



N-Myc (2): sc-142. Western blot analysis of N-Myc expression in non-transfected: sc-117752 (A) and mouse N-Myc transfected: sc-121906 (B) 293T whole cell lysates.

## 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. Hennessy, S., et al. 2002. Fractionated irradiation of H69 small-cell lung cancer cells causes stable radiation and drug resistance with increased MRP1, MRP2, and topoisomerase II $\alpha$  expression. *Int. J. Radiat. Oncol. Biol. Phys.* 54: 895-902.
3. Kim, M.K. and Carroll, W.L. 2004. Autoregulation of the N-Myc gene is operative in neuroblastoma and involves histone deacetylase 2. *Cancer* 101: 2106-2115.
4. Turano, M., et al. 2006. Increased HEXIM1 expression during erythroleukemia and neuroblastoma cell differentiation. *J. Cell. Physiol.* 206: 603-610.
5. Jozwiak, J., et al. 2007. Upregulation of the WNT pathway in tuberous sclerosis-associated subependymal giant cell astrocytomas. *Brain Dev.* 29: 273-280.
6. Chayka, O., et al. 2009. Clusterin, a haploinsufficient tumor suppressor gene in neuroblastomas. *J. Natl. Cancer Inst.* 101: 663-677.
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8. Shang, Q., et al. 2012. Potential synergism of Bim with p53 in mice with Myc-induced lymphoma in a mouse lymphoma model. *Mol. Med. Rep.* 5: 1401-1408.
9. Sabò, A., et al. 2014. SUMOylation of Myc-family proteins. *PLoS ONE* 9: e91072.

## RESEARCH USE

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