

N-Myc (3C165): sc-71633

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.

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. Genet.* 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 Harlow, E., Alt, F.W. and Ziff, E., eds., *Nuclear Oncogenes*. Cold Spring Harbor, NY: Cold Spring Harbor Laboratory, 144-151.
- Prendergast, G.C., Lawe, D. and Ziff, E.B. 1991. Association of Myn, the murine homolog of Max, with c-Myc stimulates methylation-sensitive DNA binding and Ras cotransformation. *Cell* 65: 395-407.

CHROMOSOMAL LOCATION

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

SOURCE

N-Myc (3C165) 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_{2a} 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

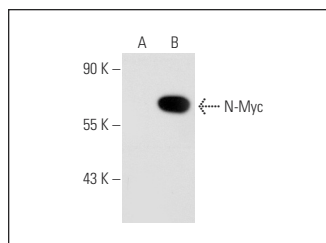
N-Myc (3C165) is recommended for detection of N-Myc p67 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution 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: N-Myc (m): 293T Lysate: sc-121906, CCRF-HSB-2 cell lysate: sc-2265 or H4 cell lysate: sc-2408.

DATA



N-Myc (3C165): sc-71633. 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

- Elamin, M.H., Shinwari, Z., Hendrayani, S.F., Al-Hindi, H., Al-Shail, E., Khafaga, Y., Al-Kofide, A. and Aboussekhra, A. 2010. Curcumin inhibits the Sonic Hedgehog signaling pathway and triggers apoptosis in medulloblastoma cells. *Mol. Carcinog.* 49: 302-314.

PROTOCOLS

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



See **N-Myc (B8.4.B): sc-53993** for N-Myc antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.