

MycN (d46-507): sc-28208

BACKGROUND

Drosophila melanogaster is a proven and effective model for studying developmental and cellular processes common to higher eukaryotes. Approximately 13,600 genes have been elucidated from more than 120 megabases of euchromatin, and they are organized among the chromosomes 2, 3, 4, X and Y, with the Y chromosome being predominately heterochromatic. *Drosophila* genes can be categorized based on the type of protein they encode and are represented by six major classifications, which include intracellular signaling proteins, transmembrane proteins, RNA binding proteins, secreted factors, transcription regulators (basic helix-loop-helix, homeodomain containing, zinc finger containing and chromatin associated) or other functional proteins. Many of the proteins in *Drosophila* are structurally and functionally similar across species, as are the pathways involved in transducing intracellular signaling. Among these proteins, Myc (d-Myc, dMyc1) is a transcription factor that links patterning signals to cell division by regulating events coordinating cellular growth and metabolism.

REFERENCES

- Gallant, P., Shio, Y., Cheng, P.F., Parkhurst, S.M. and Eisenman, R.N. 1996. Myc and Max homologs in *Drosophila*. *Science* 274: 1523-1527.
- Schreiber-Agus, N., Stein, D., Chen, K., Goltz, J.S., Stevens, L. and DePinho, R.A. 1997. *Drosophila* Myc is oncogenic in mammalian cells and plays a role in the diminutive phenotype. *Proc. Natl. Acad. Sci. USA* 94: 1235-1240.
- Johnston, L.A., Prober, D.A., Edgar, B.A., Eisenman, R.N. and Gallant, P. 1999. *Drosophila* Myc regulates cellular growth during development. *Cell* 98: 779-790.
- Adams, M.D., Celniker, S.E., Holt, R.A., Evans, C.A., Gocayne, J.D., Amanatides, P., et al. 2000. The genome sequence of *Drosophila melanogaster*. *Science* 287: 2185-2195.
- The Interactive Fly. <http://www.sdbonline.org/fly/aimain/1aahome.htm>. <http://www.sdbonline.org/fly/dbzhnsky/myc1.htm>

SOURCE

MycN (d46-507) is a rabbit polyclonal antibody raised against amino acids 46-507 of MycN of *Drosophila melanogaster* 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.

PROTOCOLS

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

APPLICATIONS

MycN (d46-507) is recommended for detection of MycN of *Drosophila melanogaster* 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).

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.

SELECT PRODUCT CITATIONS

- Teitz, T., Wei, T., Valentine, M.B., Vanin, E.F., Grenet, J., Valentine, V.A., Behm, F.G., Look, A.T., Lahti, J.M. and Kidd, V.J. 2000. Caspase-8 is deleted or silenced preferentially in childhood neuroblastomas with amplification of MycN. *Nat. Med.* 6: 529-535.
- Kozaki, K., Imoto, I., Mogi, S., Omura, K. and Inazawa, J. 2008. Exploration of tumor-suppressive microRNAs silenced by DNA hypermethylation in oral cancer. *Cancer Res.* 68: 2094-2105.
- Daneshvar, K., Khan, A., Goodliffe, J.M. 2011. Myc localizes to histone locus bodies during replication in *Drosophila*. *PLoS ONE* 6: e23928.

RESEARCH USE

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