

**#9405** Store at **-20°C**

# N-Myc Antibody



100  $\mu$ l  
 (10 western blots)

**Orders** ■ 877-616-CELL (2355)  
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**This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.**

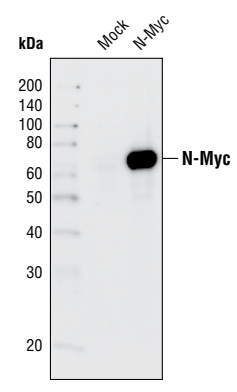
Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W	H	62 kDa	Rabbit**
Endogenous			

**Background:** Members of the Myc/Max/Mad network function as transcriptional regulators with roles in various aspects of cell behavior including proliferation, differentiation and apoptosis (1). These proteins share a common basic-helix-loop-helix leucine zipper (bHLH-ZIP) motif required for dimerization and DNA-binding. Max was originally discovered based on its ability to associate with c-Myc and found to be required for Myc's ability to bind DNA and activate transcription (2). Subsequently, Max has been viewed as a central component of the transcriptional network, forming homodimers as well as heterodimers with other members of the Myc and Mad families (1). The association between Max and either Myc or Mad can have opposing effects on transcriptional regulation and cell behavior (1). The Mad family consists of four related protein designated Mad1, Mad2 (Mx1), Mad3 and Mad4 and more distantly related members of the bHLH-ZIP family, Mnt and Mga. Like Myc, the Mad proteins are tightly regulated with short half-lives. In general, Mad family members interfere with Myc-mediated processes such as proliferation, transformation and prevention of apoptosis by inhibiting transcription (3,4).

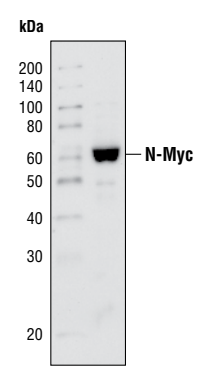
In humans the Myc family consists of 5 genes: c-Myc, N-Myc, L-Myc, R-Myc, and B-Myc. While c-Myc is expressed in many proliferating cells, N-Myc expression is very restricted, with highest levels during embryonic development and then in the adult during B-cell development. These expression patterns and results from targeted deletion of N-Myc suggest that N-Myc plays an important role in tissue development and differentiation (5). In addition, amplification or overexpression of N-Myc has been found in human neuroblastomas and is associated with rapid progression and poor prognosis (6,7).

**Specificity/Sensitivity:** N-Myc Antibody detects endogenous levels human N-Myc and transfected levels of mouse N-Myc. It does not cross-react with other Myc family members.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding lysine 351 of human N-Myc. Antibodies were purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from HeLa cells either mock transfected or transfected with murine N-Myc, using N-Myc Antibody.



Western blot analysis of extracts from the IMR-32 neuroblastoma cell line, using N-Myc Antibody.

**Entrez-Gene ID** #4613  
**Swiss-Prot Acc.** #P04198

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/ml BSA and 50% glycerol. Store at  $-20^{\circ}\text{C}$ . Do not aliquot the antibody.

**\*Species cross-reactivity is determined by western blot.**

**\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**  
 Western blotting 1:1000

**For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).**

**Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.**

**Background References:**

- (1) Baudino, T.A. and Cleveland, J.L. (2001) *Mol. Cell. Biol.* 21, 691–702.
- (2) Blackwood, E.M. and Eisenman, R.N. (1991) *Science* 251, 1211–1217.
- (3) Henriksson, M. and Luscher, B. (1996) *Adv. Cancer Res.* 68, 109–182.
- (4) Grandori, C. et al. (2000) *Annu. Rev. Cell Dev. Biol.* 16, 653–699.
- (5) Sawai, S. et al. (1993) *Development* 117, 1445–1455.
- (6) Schwab, M. et al. (1984) *Proc. Natl. Acad. Sci. USA* 81, 4940–4944.
- (7) Brodeur, G.M. et al. (1984) *Science* 224, 1121–1124.

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA—Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.