



1B-433-C025

Monoclonal Antibody to c-Myc Biotin conjugated (0.025 mg)

Clone:	9E10
Isotype:	Mouse IgG1
Specificity:	The antibody 9E10 can be used to detect the c-Myc tag.
Regulatory Status:	RUO
Immunogen:	Synthetic peptide sequence (AEEQKLISEEDLL) corresponding to the C-terminal region of human c-Myc.
Species Reactivity:	Human, Recognizes fusion proteins in all species
Preparation:	The purified antibody is conjugated with Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin.
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
Usage:	Biotinylated antibody is designed for indirect immunofluorescence analysis by Flow Cytometry.
Expiration:	See vial label
Lot Number:	See vial label
Background:	The c-myc gene (8q24 on human chromosome) is the cellular homologue of the v-myc gene originally isolated from an avian myelocytomatosis virus. The c-Myc protein is a transcription factor (nuclear localization). c-Myc is commonly activated in a variety of tumor cells and plays an important role in cellular proliferation, differentiation, apoptosis and cell cycle progression. The phosphorylation of c-Myc has been investigated and previous studies have suggested a functional association between phosphorylation at Thr58/Ser62 by glycogen synthase kinase 3, cyclin-dependent kinase, ERK2 and C-Jun N-terminal Kinase (JNK) in cell proliferation and cell cycle regulation. In normal cells the expression of c-Myc is tightly regulated but in human cancers c-Myc is frequently deregulated. c-Myc is also essential for tumor cell development in vasculogenesis and angiogenesis that distribute blood throughout the cells.

For laboratory research only, not for drug, diagnostic or other use.

**Antibodies****References:**

- Hoffman B, Amanullah A, Shafarenko M, Liebermann DA. 2002. The proto-oncogene c-myc in hematopoietic development and leukemogenesis. *Oncogene* 21(21): 3414-3421.
- Boxer LM, Dang CV. 2001. Translocations involving c-myc and c-myc function. *Oncogene* 20(40):5595-5610.
- Dang CV, Resar LM, Emison E, Kim S, Li Q, Prescott JE, Wonsey D, Zeller K. 1999. Function of the c-Myc oncogenic transcription factor. *Exp Cell Res* 253(1): 63-77.
- Prendergast GC. 1999. Mechanisms of apoptosis by c-Myc. *Oncogene* 18(19):2967-2987.
- Spandidos DA et al. 1987. Elevated expression of the myc gene in human benign and malignant breast lesions compared to normal tissue. *Anticancer Res* 7:1299-304.
- Evan GI et al. 1985. Isolation of monoclonal antibodies specific for human c-myc proto-oncogene product. *Mol Cell Biol* 5:3610-6.
- Persson H, Hennighausen L, Taub R, DeGrado W, Leder P: Antibodies to human c-myc oncogene product: evidence of an evolutionarily conserved protein induced during cell proliferation. *Science*. 1984 Aug 17;225(4663):687-93.
- *Siegel J, Brandner G, Hess RD: Cross-reactivity of the monoclonal antibody 9E10 with murine c-MYC. *Int J Oncol*. 1998 Dec;13(6):1259-62.
- * Hilpert K, Hansen G, Wessner H, Kuttner G, Welfle K, Seifert M, Hohne W: Anti-c-myc antibody 9E10: epitope key positions and variability characterized using peptide spot synthesis on cellulose. *Protein Eng*. 2001 Oct;14(10):803-6.
- *Baggio R, Burgstaller P, Hale SP, Putney AR, Lane M, Lipovsek D, Wright MC, Roberts RW, Liu R, Szostak JW, Wagner RW: Identification of epitope-like consensus motifs using mRNA display. *J Mol Recognit*. 2002 May-Jun;15(3):126-34.
- *Fujiwara K, Poikonen K, Aleman L, Valtavaara M, Saksela K, Mayer BJ: A single-chain antibody/epitope system for functional analysis of protein-protein interactions. *Biochemistry*. 2002 Oct 22;41(42):12729-38.
- *Wang X, Campoli M, Ko E, Luo W, Ferrone S: Enhancement of scFv fragment reactivity with target antigens in binding assays following mixing with anti-tag monoclonal antibodies. *J Immunol Methods*. 2004 Nov;294(1-2):23-35.
- *Veracini L, Simon V, Richard V, Schraven B, Horejsi V, Roche S, Benistant C: The Csk-binding protein PAG regulates PDGF-induced Src mitogenic signaling via GM1. *J Cell Biol*. 2008 Aug 11;182(3):603-14.
- *Cermák L, Símová S, Pintzas A, Horejsi V, Andera L: Molecular mechanisms involved in CD43-mediated apoptosis of TF-1 cells. Roles of transcription Daxx expression, and adhesion molecules. *J Biol Chem*. 2002 Mar 8;277(10):7955-61.
- *Jelínková I, Šafaříková B, Vondálová Blanářová O, Skender B, Hofmanová J, Sova P, Moyer MP, Kozubík A, Kolář Z, Ehrmann J, Hyršlová Vaculová A: *Biochem Pharmacol*. 2014 Dec 1;92(3):415-24.

Unless indicated otherwise, all products are For Research Use Only and not for diagnostic or therapeutic use. Not for resale or transfer either as a stand-alone product or as a component of another product without written consent of EXBIO. EXBIO will not be held responsible for patent infringement or other violations that may occur with the use of our products. All orders are accepted subject to EXBIO's term and conditions which are available at www.exbio.cz.

For laboratory research only, not for drug, diagnostic or other use.

EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic
Tel: +420 261 090 666 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz