

Cat. No:	MAB-10364
Conjugate:	Unconjugated
Size:	100 ug
Clone:	9E10
Concentration:	1 mg/ml
Host:	Ms
Isotype:	IgG1
Immunogen:	Synthetic peptide sequence (AEEQKLISEEDLL) corresponding to the C-terminal region of human c-Myc.
Reactivity:	Hu Flow Cytometry Recommended dilution: 1-5 µg/ml Application note: Membrane permeabilization is required. Immunoprecipitation Recommended dilution: 1-5 µg/ml Application note: not suitable for immunoprecipitation of native c-Myc protein
Applications:	Western Blotting Recommended dilution: 0,5-2 µg/ml Positive control: c-Myc tagged protein Immunohistochemistry (paraffin sections) Recommended dilution: 5-10 µg/ml Positive tissue: perfused brain sections, liver, spleen
Purification:	Purified by protein-A affinity chromatography
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.
Form:	Liquid
Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage:	Store at 2-8°C. Do not freeze.

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.

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