



11-433-C025

Monoclonal Antibody to c-Myc Purified Antibody (0.025 mg)

Clone:	9E10
Isotype:	Mouse IgG1
Specificity:	<p>The antibody 9E10 may be used to detect the c-Myc tag.</p> <p>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.</p>
Immunogen:	Synthetic peptide sequence (AEEQKLISEEDLL) corresponding to the C-terminal region of human c-myc.
Species Reactivity:	Human, Recognizes fusion proteins in all species
Application:	<p>Flow Cytometry <i>Recommended dilution:</i> 1-5 µg/ml <i>Application note:</i> Membrane permeabilization is required.</p> <p>Immunoprecipitation <i>Recommended dilution:</i> 1-5 µg/ml <i>Application note:</i> not suitable for immunoprecipitation of native c-Myc protein</p> <p>Western Blotting <i>Recommended dilution:</i> 0,5-2 µg/ml <i>Positive control:</i> c-Myc tagged protein</p> <p>Immunohistochemistry (paraffin sections) <i>Recommended dilution:</i> 5-10 µg/ml <i>Positive tissue:</i> perfused brain sections, liver, spleen</p>
Purity:	> 95% (by SDS-PAGE)
Purification:	Purified from ascites by protein-G affinity chromatography.
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 use after expiration date stamped on vial label. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.
Expiration:	See vial label
Lot Number:	See vial label

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.

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