# **Technical Data Sheet**

# **Purified Mouse Anti-Human c-Myc with Control**

#### **Product Information**

 Material Number:
 551101

 Size:
 50 μg

Reactivity: QC Testing: Human

Component: 51-1485GR

**Description:** Purified Mouse Anti-Human c-Myc

 Size:
 50 μg (1 ea)

 Clone Name:
 9E10

Immunogen: Human c-Myc Peptide

**Isotype:** Mouse IgG1

Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium

azide

 Component:
 51-16526N

 Description:
 Jurkat Cell Lysate

 Size:
 50 μg (1 ea)

 Concentration:
 1.0 mg/ml

Storage Buffer: SDS-PAGE buffer (62mM Tris pH 6.8, 2% SDS, 0.9% b-mercaptoethanol,

0.003% bromophenol blue, 5% glycerol)

#### Description

The myc gene family contains at least seven closely related genes, c-myc, N-myc, L-myc, P-myc, R-myc, S-myc, and B-myc. C-myc plays a role in proliferation, transformation, and differentiation. It is expressed during embryonic development, in a wide variety of adult tissues, and is amplified in many tumors, particularly lung, breast, cervical and colon carcinomas. Cellular localization has been described as nuclear and/or cytopasmic. C-myc has three sequence motifs in the carboxy terminus, a leucine zipper, a helix-loop-helix, and a basic region. It forms sequence-specific (CACGTG) DNA binding heterodimers with max, a helixloop-helix/leucine zipper protein. Both the leucine zipper domain and the helixloop-helix motif of c-myc contribute to heterodimer formation. DNA binding of myc-max dimers results in a conformational change of the DNA and transcriptional activation. C-myc migrates at 62 kDa in SDS-PAGE. Clone 9E10 recognizes human c-myc. A synthetic peptide corresponding to a C-terminal epitope of the human c-myc protein (AEEQKLISEEDL) was used as an immunogen.



Western blot analysis of c-myc. Lysate from Jurkat cells was probed with anti-c-myc (clone 9E10, Comp. No. 51-1485GR) at concentrations of 2.0 (lane 1), 1.0 (lane 2), and 0.5 µg/ml (lane 3). C-myc is identified as a band of 62 kDa

# **Preparation and Storage**

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20°C.

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# **Application Notes**

# Application

| Western blot                  | Routinely Tested |
|-------------------------------|------------------|
| Immunohistochemistry-paraffin | Reported         |
| Electron microscopy           | Reported         |
| Fluorescence microscopy       | Reported         |
| Immunohistochemistry-frozen   | Not Recommended  |

#### Recommended Assay Procedure:

It is particularly useful for western blot analysis of myc-tagged recombinant proteins, and recombinant c-myc. Jurkat control lysate [50  $\mu$ g (1  $\mu$ g/ $\mu$ l)] is provided as a western blot positive control (Comp. No. 51-16526N; store lysate at -20 °C). Additional control lysate is sold separately.

# **Suggested Companion Products**

| Catalog Number | Name                   | Size   | Clone  |  |
|----------------|------------------------|--------|--------|--|
| 611451         | Jurkat Cell Lysate     | 500 μg | (none) |  |
| 554002         | HRP Goat Anti-Mouse Ig | 1.0 ml | (none) |  |

#### **Product Notices**

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
- 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

#### References

Blackwood EM, Eisenman RN. Max: a helix-loop-helix zipper protein that forms a sequence-specific DNA-binding complex with Myc. Science. 1991; 251(4998):1211-1217.(Biology)

Campbell AM, Kessler PD, Fambrough DM. The alternative carboxyl termini of avian cardiac and brain sarcoplasmic reticulum/endoplasmic reticulum Ca(2+)
-ATPases are on opposite sides of the membrane. *J Biol Chem.* 1992; 267(13):9321-9325.(Clone-specific: Fluorescence microscopy, Western blot)
DePinho RA, Schreiber-Agus N, Alt FW. myc family oncogenes in the development of normal and neoplastic cells. *Adv Cancer Res.* 1991; 57:1-46.(Biology)
Evan GI, Lewis GK, Ramsay G, Bishop JM. Isolation of monoclonal antibodies specific for human c-myc proto-oncogene product. *Mol Cell Biol.* 1985;
5(12):3610-3616.(Immunogen: Western blot)

Gosney JR, Field JK, Gosney MA, Lye MD, Spandidos DA, Butt SA. c-myc oncoprotein in bronchial carcinoma: expression in all major morphological types. Anticancer Res. 1990; 10(3):623-628.(Clone-specific: Electron microscopy, Immunohistochemistry)

Karayiannis M, Yiagnisis M, Papadimitriou K, Field JK, Spandidos DA. Evaluation of the ras and myc oncoproteins in benign gastric lesions. *Anticancer Res.* 1990; 10(5A):1127-1134.(Clone-specific: Immunohistochemistry)

Liu ZG, Hsu H, Goeddel DV, Karin M. Dissection of TNF receptor 1 effector functions: JNK activation is not linked to apoptosis while NF-kappaB activation prevents cell death. Cell. 1996; 87(3):565-576.(Clone-specific: Western blot)

Lukas J, Parry D, Aagaard L, et al. Retinoblastoma-protein-dependent cell-cycle inhibition by the tumour suppressor p16. *Nature*. 1995; 375(6531):503-506. (Clone-specific: Western blot)

Royds JA, Sharrard RM, Wagner B, Polacarz SV. Cellular localisation of c-myc product in human colorectal epithelial neoplasia. *J Pathol.* 1992; 166(3):225-233. (Clone-specific: Immunohistochemistry)

Spandidos DA, Yiagnisis M, Papadimitriou K, Field JK. ras, c-myc and c-erbB-2 oncoproteins in human breast cancer. *Anticancer Res.* 1989; 9(5):1385-1394. (Clone-specific: Immunohistochemistry)

Tiniakos D, Spandidos DA, Kakkanas A, Pintzas A, Pollice L, Tiniakos G. Expression of ras and myc oncogenes in human hepatocellular carcinoma and non-neoplastic liver tissues. *Anticancer Res.* 1989; 9(3):715-722.(Clone-specific: Immunohistochemistry)

Tosca A, Linardopoulos S, Malliri A, Hatziolou E, Nicolaidou A, Spandidos DA. Implication of the ras and myc oncoproteins in the pathogenesis of mycosis fungoides. *Anticancer Res.* 1991; 11(4):1433-1438.(Clone-specific: Immunohistochemistry)

Williams AR, Piris J, Wyllie AH. Immunohistochemical demonstration of altered intracellular localization of the C-Myc oncogene product in human colorectal neoplasms. *J Pathol.* 1990; 160(4):287-293.(Clone-specific: Immunohistochemistry)

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