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Human cMyc Antibody

Purified No Carrier Protein

Hybridoma Monoclonal Antibody

Product Information

Product No.: C590

Clone: 9E10

Isotype: Mouse IgG1 κ

Storage: Sterile 2° to 8°C

Product Description

Specificity:
9E10 activity is directed against human c-Myc and can cross-react with denatured murine c-Myc in some circumstances.

Antigen Distribution:
c-Myc is ubiquitously expressed during tissue development and in a wide variety of tumors. c-Myc is often studied in embryonic stem cells and induced pluripotent stem cells. c-Myc is mainly associated with cell nuclei.

Background:
c-Myc is an essential transcription factor that belongs to the superfamily of basic helix-loop- helix DNA-binding proteins that function in normal embryogenesis, acquisition and maintenance of stem cell properties, metabolism, cellular division, and cell death[1, 2]. c-Myc is also a proto-oncogene, originally identified in Burkitt lymphoma[1]. Its dysregulation, by mutation or epigenetic modification, has been observed in over 50% of human cancers[3]. c-Myc regulates various cancer cellular functions, including cell cycle, survival, proliferation, and metabolic reprogramming[1], and is associated with tumor aggression and chemoresistance[3]. c-Myc has been suggested as a target for cancer immunotherapy[2] and various methods of inhibition have been studied[1, 2, 3].

9E10 was generated by immunizing a BALB/c mouse with a synthetic peptide corresponding to residues 408-432 of human c-Myc conjugated to keyhole limpet hemocyanin via the cysteine residues[4]. Splenocytes were fused with SP2 myeloma cells. 9E10 failed to immunoprecipitate protein from Colo 320 HSR cell extracts during screening but did detect c-Myc in Western blotting. The 9E10 epitope has become a well-known affinity tag used in recombinant protein expression, i.e., the myc-tag[5]. The target epitope is the C terminal EQKLISEEDL peptide with the core sequence being LISE[5] and the crystal structure and binding mode have been solved[6]. 9E10 detection has highly variable epitope recognition that is dependent on neighboring sequence context[7]. Additionally, cross-reactivity of 9E10 has been observed in murine cell lines in a fluorescence assay and by Western blotting[8].

Known Reactivity Species:
Epitope Tag

Format:
Purified No Carrier Protein

Immunogen:
C-terminal region of human c-Myc

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Formulation
This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added.

Purity
≥90% monomer by analytical SEC and SDS-Page

Storage and Stability
Functional grade preclinical antibodies may be stored sterile as received at 2° to 8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at ≤ -80°C.

Avoid Repeated Freeze Thaw Cycles

Other Applications Reported in Literature:
IHC,
IP,
IF,
WB,
ELISA,
FC

Country of Origin
USA

References

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