Product Information

Anti-c-Myc-Peroxidase Antibody

Mouse Monoclonal, Clone 9E10, Purified from Hybridoma Cell Culture

SAB4200742

Product Description

Monoclonal Anti-c-Myc (mouse IgG1 isotype) is derived from the 9E10 hybridoma, produced by the fusion of mouse myeloma cells and splenocytes from a BALB/c mouse immunized with synthetic peptide corresponding to residues 408-439 of the human $p62^{c\text{-}myc}$ protein, conjugated to KLH[1]. This clone is referenced also as Mycl-9E10.[1] The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, (Cat. No. ISO2). The antibody is purified from culture supernatant of hybridoma cells and is conjugated to horseradish peroxidase.

Monoclonal Anti-c-Myc specifically recognizes an epitope located within the sequence EQKLISEEDL (residues 410-419) of the product of the human oncogene c-Myc, known as the c-Myc tag.[2] The antibody recognizes the c-Myc tag sequence when it is expressed at either the amino or the carboxyl terminus of the fusion protein. The antibody is recommended to use in various immunological techniques, including immunoblotting and immunohistology[3-4]. Reaction of the antibody in immunoblotting is inhibited by the c-Myc peptide (Cat. No. M2435).[5]

c-Myc is a proto-oncogene encoding a transcription factor which is involved in the regulation of cell proliferation, growth and cell death. The human c-Myc proto-oncogene is the cellular homologue of the avian v-Myc gene found in several leukemogenic retroviruses.[1,6] Increased expression of the cellular oncogene c-Myc has been described in a variety of human tumors and may occur by several mechanisms, including gene amplification and chromosomal translocation.[7]

The c-Myc gene encodes a polypeptide with predicted molecular weight of 49 kDa but show aberrant electrophoretic mobility on polyacrylamide gel electrophoresis with an apparent molecular weight of around 62 kDa ($p62^{c\text{-}myc}$).[8] $p62^{c\text{-}myc}$ is associated mainly with the cell nucleus, where it exerts its normal and oncogenic functions.[1,7] c-Myc sequence is widely used as an epitope tag which provides an opportunity to create a stable fusion product that does not seem to interfere with the protein bioactivity or the biodistribution of the c-Myc tagged product.[2,9-11]

Monoclonal anti-c-Myc-Peroxidase antibody can serve a useful tool for study the prevalence of the protein product of the c-Myc oncogene in cells and tissues or for detection of c-Myc tagged proteins in bacterial and cellular lysates.[11-10]

Reagent

Supplied as a lyophilized powder.

Preparation Instructions

Reconstitute the content of the vial with 0.1 mL of distilled water to a final antibody concentration of ~ 2 mg/mL. After reconstitution, the solution contains 1% BSA, 2.5% trehalose, 0.05% MIT in 0.01 M sodium phosphate buffered saline.

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store the lyophilized product at 2–8 °C. For extended storage after reconstitution, keep at –20 °C in working aliquots. Avoid repeated freeze-thaw cycles. For continuous use after reconstitution, keep at 2–8 °C for up to 1 month. Solutions at working dilution should be discarded if not used within 12 hours.

Product Profile

Immunoblotting

A working dilution of 1:250-1:500 is recommended using lysate of HEK-293T cells over expressing c-Myc fusion protein.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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