



Rev: A
Release Date: 03/13/2014
IVD

c-Myc (EP121)

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| Clone | EP121 |
| Source | Rabbit Monoclonal |
| Cat # | PR034-6ml RTU PR034-3ml RTU CR034-0.5ml Concentrated CR034-0.1ml Concentrated |
| Regulatory Status | IVD |

Intended Use:

This antibody is intended for use to qualitatively identify c-Myc by light microscopy in formalin fixed, paraffin embedded tissue sections using immunohistochemical detection methodology. Interpretation of any positive or negative staining must be complemented with the evaluation of proper controls and must be made within the context of the patient's clinical history and other diagnostic tests. A qualified pathologist must perform evaluation of the test.

Summary and Explanation:

The c-Myc gene is located at chromosome 8q24. It is required for progression through the cell cycle and promotes cellular proliferation. The t(8;14)(q24;q32) translocation and the c-Myc/immunoglobulin heavy-chain (IGH) fusion gene are not only in Burkitt lymphoma, but are also seen in diffuse large B-cell lymphoma, blastic mantle cell lymphoma and transformed follicular lymphoma.

In another study on predicting c-Myc translocation in 17 cases of Burkitt lymphomas (BLs) and 19 cases of diffuse large B-cell lymphomas (DLBCLs), Ruzinova et al. reported that the sensitivity and specificity of this c-Myc antibody on identifying tumor harboring a c-Myc rearrangement reached 96% and 90% respectively. This novel c-Myc antibody is a useful tool for identifying aggressive B-cell lymphomas likely to harbor a c-Myc rearrangement, and thus warrant genetic testing.

In addition to its aberrant expression in lymphomas, c-Myc amplification and overexpression are also implicated in tumor progression or prognosis in many other malignancies including pancreatic cancer, breast cancer, prostate cancer, bladder cancer and soft tissue leiomyosarcoma. By utilizing this anti-c-Myc antibody coupled with genetically defined control experiments, a recent study by Gurel et al. demonstrated the specificity of this c-Myc antibody in the staining of paraffin-embedded prostate normal and tumor tissues. Upregulation of nuclear c-Myc protein expression may be a critical oncogenic event in driving human prostate cancer initiation and progression.

Immunogen: A synthetic peptide corresponding to residues in N-terminus of human c-Myc protein.

Isotype: Rabbit IgG

Reagent Provided:

Concentrated format: Antibody to c-Myc is affinity purified and diluted in antibody diluent, with 1% bovine serum albumin (BSA) and 0.05% sodium azide (NaN₃).
Recommended dilutions: 1:50 – 1:100.

The antibody dilution and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by individual laboratory.

Pre-diluted format: PathnSitu ready to use antibodies are pre titrated to optimal staining conditions. Further dilution may lose the activity and may yield to sub optimal staining.

Storage Recommendations: Store at 2-8°C. Do not use after expiration date provided on the vial.

Staining Recommendations:

Antigen Retrieval Solution: Use **Tris/EDTA Buffer (PathnSitu cat # PS009)** as antigen retrieval solution Heat Retrieval Method: Retrieve sections under steam pressure for 15 min using PathnSitu's MERS (Multi Epitope Retrieval System) then allow solution to cool for 10 minutes then transfer tissue sections/slides to distilled water.

Primary Antibody: Cover the tissue sections with primary antibody and incubate for 30 min at room temperature when used PathnSitu PolyExcel Detection System.

Detection System: Refer to PathnSitu PolyExcel detection system protocol or manufacturer's detection kit staining protocol when used other vendor detection system.

Cellular Localization: Nucleus/Cytoplasm

Positive Control: Burkitt lymphomas

Troubleshooting: Follow the antibody specific protocol recommendations according to data sheet provided. If unusual results occur, contact PathnSitu Technical Support at

Limitations and Warranty: There are no warranties, expressed or implied, which extend beyond this description. PathnSitu is not liable for property damage, personal injury, or economic loss caused by this product.

Bibliography:

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c-Myc, EP121 antibody has been created by Epitomics Inc., using Epitomics' proprietary rabbit monoclonal antibody technology covered under Patent No.'s 5,675,063 and 7,402,409.