

Ki-67(MIB-1), Pulmonary, Quantitative Immunohistochemistry, Manual

## Overview

#### **Useful For**

Determining proliferation of tumor cells in paraffin-embedded tissue blocks from patients diagnosed with carcinoid or atypical carcinoid of the lung including metastases, using a manual method

#### **Method Name**

Only orderable as a reflex. For more information see KI67P / Ki-67 (MIB-1), Pulmonary, Quantitative Immunohistochemistry, Automated.

Immunohistochemistry, Semi- Quantitation, Hot-Spot Technique

#### NY State Available

Yes

#### Specimen

Specimen Type Special

#### Shipping Instructions

Attach the green "Attention Pathology" address label (T498) to the outside of the transport container before putting into the courier mailer.

#### Necessary Information

1. Pathologist's name, address, and phone number are required.

2. Include accompanying pathology report stating the final diagnosis. If not available, a preliminary diagnosis is acceptable.

#### Specimen Required

Only orderable as a reflex. For more information see KI67P / Ki-67 (MIB-1), Pulmonary, Quantitative Immunohistochemistry, Automated.

#### Supplies: Pathology Packaging Kit (T554)

#### Specimen Type:

**Preferred:** Formalin-fixed, paraffin-embedded tissue block containing carcinoid/atypical carcinoid of the lung including metastases.

Acceptable: 2 Unstained sections on charged slides cut at 4 microns <1 month ago. Tissue on the slides should have been fixed in 10% neutral buffered formalin.

Container/Tube: Pathology Packaging Kit



# Ki-67(MIB-1), Pulmonary, Quantitative Immunohistochemistry, Manual

#### **Collection Instructions:**

1. Submit formalin-fixed, paraffin-embedded tissue block.

2. Attach the green pathology address label included in the kit to the outside of the transport container.

Additional Information: Paraffin block will be returned with the final report.

## Reject Due To

All specimens will be evaluated at Mayo Clinic Laboratories for test suitability.

## Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Special	Ambient (preferred)		
	Refrigerated		

# **Clinical & Interpretive**

#### **Clinical Information**

Ki-67(MIB-1 clone) is a monoclonal antibody that reacts with cells undergoing DNA synthesis by binding to the Ki-67 antigen, a marker known to be expressed only in proliferating cells. By measuring the amount of tumor cells expressing Ki-67, an estimate of DNA synthesis can be determined. Studies suggest that Ki-67(MIB-1) analysis of paraffin-embedded tissue specimens may provide useful prognostic information in various tumor types.

#### **Reference Values**

Only orderable as a reflex. For more information see KI67P / Ki-67 (MIB-1), Pulmonary, Quantitative Immunohistochemistry, Automated.

Varies by tumor type; values reported from 0% to 100%

#### Interpretation

Results will be reported as a percentage of tumor cells staining positive for Ki-67(MIB-1). Semi-quantitative Ki-67(MIB-1) results should be interpreted within the clinical context for which the test was ordered.

#### Cautions

The paraffin block analyzed must be representative of the patient's tumor.

Test results should be interpreted in the context of clinical findings and other laboratory data.

#### **Clinical Reference**

1. Boland JM, Kroneman TN, Jenkins SM, et al. Ki-67 Labeling index in pulmonary carcinoid tumors: comparison between small biopsy and resection using tumor tracing and hot spot methods. Arch Pathol Lab Med. 2020;144(8):982-990. doi:10.5858/arpa.2019-0374-OA

2. La Rosa S. Diagnostic, Prognostic, and Predictive Role of Ki67 Proliferative Index in Neuroendocrine and Endocrine Neoplasms: Past, Present, and Future. Endocr Pathol. 2023;34(1):79-97. doi:10.1007/s12022-023-09755-3



Ki-67(MIB-1), Pulmonary, Quantitative Immunohistochemistry, Manual

# Performance

### **Method Description**

A 4-micron thick section is cut from the paraffin block. The section is stained with an immunoperoxidase method using the monoclonal antibody Ki-67 (MIB-1 clone). This is the paraffin nuclear epitope to the Ki-67 antigen. Any nucleus that has an antigen-antibody complex will cause the bright-field, brown chromogen, diaminobenzidine (DAB), to precipitate onto it. All nuclei, both DAB-positive and -negative, are counterstained with diluted hematoxylin.(Unpublished Mayo method)

#### **PDF Report**

No

Day(s) Performed Monday through Friday

#### **Report Available**

4 to 6 days

## Specimen Retention Time

1 week after results are reported. Material made at Mayo Clinic may be retained at Mayo Clinic indefinitely

#### **Performing Laboratory Location**

Mayo Clinic Laboratories - Rochester Main Campus

# Fees & Codes

#### Fees

- Authorized users can sign in to <u>Test Prices</u> for detailed fee information.
- Clients without access to Test Prices can contact <u>Customer Service</u> 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact <u>Customer Service</u>.

#### **Test Classification**

This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. It has not been cleared or approved by the US Food and Drug Administration.

#### **CPT Code Information**

88360

#### LOINC<sup>®</sup> Information

	Test ID	Test Order Name	Order LOINC <sup>®</sup> Value
--	---------	-----------------	--------------------------------



Ki-67(MIB-1), Pulmonary, Quantitative Immunohistochemistry, Manual

КІРМ	Ki67 Pulmonary IHC Manual	In Process
Result ID	Test Result Name	Result LOINC <sup>®</sup> Value
72138	Interpretation	29593-1
72139	Participated in the Interpretation	No LOINC Needed
72140	Report electronically signed by	19139-5
72141	Material Received	81178-6
72142	Disclaimer	62364-5
72143	Case Number	80398-1