

Overview

Useful For

Identification of anaplastic lymphoma kinase overexpression

Diagnosis of inflammatory myofibroblastic tumor, anaplastic large-cell lymphoma, and for targeted therapy of lung adenocarcinoma

Reflex Tests

Test Id	Reporting Name	Available Separately	Always Performed
IHPCA	IHC Additional	No	No
IHPCI	IHC Initial	No	No

Testing Algorithm

For the initial immunohistochemistry (IHC) stain performed, the appropriate bill-only test ID will be added and charged (IHPCI). For each additional IHC stain performed, an additional bill-only test ID will be added and charged (IHPCA).

Method Name

Immunohistochemistry (IHC)

NY State Available

Yes

Specimen

Specimen Type

Special

Shipping Instructions

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

Necessary Information

A pathology/diagnostic report and a brief history, including primary site of neoplasm, are required.

Specimen Required

Supplies: Pathology Packaging Kit (T554)

Specimen Type: Formalin-fixed, paraffin-embedded tissue block; or 3 unstained glass, “positively charged” slides with 4-microns, formalin-fixed, paraffin-embedded tissue

Additional Information: One slide will be stained with hematoxylin and eosin and returned.

Reject Due To

Wet/frozen tissue Cytology smears Nonformalin fixed tissue Nonparaffin embedded tissue Noncharged slides ProbeOn slides	Reject
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Specimen Stability Information

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

Clinical & Interpretive

Clinical Information

A subset of anaplastic large-cell lymphomas overexpresses anaplastic lymphoma kinase (ALK-1) protein, resulting from a translocation involving the *ALK1* gene. The abnormal ALK-1 expression can be in a nuclear or cytoplasmic distribution. Overexpression of ALK-1 protein is also useful for targeted therapy in lung adenocarcinoma and in the diagnosis of inflammatory myofibroblastic tumor. In normal tissue ALK-1 is negative.

Interpretation

This test, when not accompanied by a pathology consultation request, will be answered as either positive or negative. If additional interpretation or analysis is needed, request PATHC / Pathology Consultation along with this test.

Cautions

Age of a cut paraffin section can affect immunoreactivity. Stability thresholds vary widely among published literature and are antigen dependent. Best practice is for paraffin sections to be cut within 6 weeks.

Clinical Reference

- Hutarew G, Hauser-Kronberger C, Strasser F, Llenos IC, Dietze O: Immunohistochemistry as a screening tool for ALK rearrangement in NSCLC: evaluation of five different ALK antibody clones and ALK FISH. *Histopathology*. 2014 Sept;65(3):398-407
- Stein H, Foss H, Durkop H, et al: CD30(+) anaplastic large cell lymphoma: a review of its histopathologic, genetic, and

clinical features. Blood. 2000 Dec;96(12):3681-3695

3. Yi ES, Boland JM, Maleszewski JJ, et al: Correlation of IHC and FISH for ALK gene rearrangement in non-small cell lung carcinoma: IHC score algorithm for FISH. J Thorac Oncol. 2011 Mar;6(3):459-465

Performance

Method Description

Immunohistochemistry on sections of paraffin-embedded tissue.(Unpublished Mayo method)

PDF Report

No

Day(s) Performed

Monday through Friday

Report Available

5 to 7 days

Specimen Retention Time

Until reported

Performing Laboratory Location

Rochester

Fees & Codes

Fees

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

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

88342-Primary
88341-If additional IHC

LOINC® Information

Test Definition: ALKLC

Anaplastic Lymphoma Kinase for Lung Cancer,
Immunohistochemistry

Test ID	Test Order Name	Order LOINC® Value
ALKLC	ALK for Lung Cancer IHC	47303-3

Result ID	Test Result Name	Result LOINC® Value
615714	Interpretation	59465-5
615715	Participated in the Interpretation	No LOINC Needed
615716	Report electronically signed by	19139-5
615717	Material Received	81178-6
615718	Disclaimer	62364-5
615719	Case Number	80398-1