

## Overview

### Useful For

Obtaining a rapid, expert opinion on unprocessed specimens (lung tissue for immunofluorescence, cardiac biopsies, enucleated eye specimens, iris, conjunctiva, cornea, and other small eye biopsies) referred by a pathologist

This test is **not useful for** suspected hematologic disorders.

### Reflex Tests

| Test Id | Reporting Name                | Available Separately | Always Performed |
|---------|-------------------------------|----------------------|------------------|
| LEV1P   | Level 1 Gross only            | No, (Bill Only)      | No               |
| LEV2P   | Level 2 Gross and microscopic | No, (Bill Only)      | No               |
| LEV3P   | Level 3 Gross and microscopic | No, (Bill Only)      | No               |
| LEV4P   | Level 4 Gross and microscopic | No, (Bill Only)      | No               |
| LEV5P   | Level 5 Gross and microscopic | No, (Bill Only)      | No               |
| LEV6P   | Level 6 Gross and microscopic | No, (Bill Only)      | No               |

### Testing Algorithm

**Laboratory approval is required prior to ordering this test.** Contact Mayo Clinic Laboratories at 800-533-1710.

An interpretation will be provided by Mayo Clinic staff pathologists within a formal pathology report sent to the referring pathologist.

Appropriate stains and other ancillary testing may be performed at an additional charge.

**Note:** Tests requested by the referring physician (immunostains, molecular studies, etc.) may not be performed if they are deemed to be unnecessary by the reviewing Mayo Clinic pathologist. For all pathology consultations, ancillary testing is ordered at the discretion of the Mayo Clinic pathologist.

**Note:** Calls are not routinely made; however, depending on the nature of the case, a call may be placed to the ordering provider or pathologist. To contact a Mayo Clinic Pathologist, contact Mayo Clinic Laboratories at 800-533-1710.

For more information see [Pathology Consultation Ordering Algorithm](#).

### Special Instructions

- [Pathology Consultation Ordering Algorithm](#)

---

## Highlights

Our consultative practice strives to provide the highest quality diagnostic consultative service, balancing optimal patient care with a cost-conscious approach that supports the rapid turnaround time for diagnostic results.

## Method Name

Medical Interpretation

## NY State Available

Yes

## Specimen

### Specimen Type

Varies

### Ordering Guidance

For a pathology consultation on paraffin embedded tissue and slides only (ie, no wet tissue being sent to be processed), order PATHC / Pathology Consultation.

### Shipping Instructions

Vitreous fluid/aqueous humor specimens: ship overnight; Attention: Ophthalmic Pathology Working Group. **Call 800-533-1710 to request an Expedite on this order since vitreous fluid will have no fixative and needs to reach the laboratory as quickly as possible.**

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

### Necessary Information

**All requisition and supporting information must be submitted in English.**

**Each of the following items is required:**

**1. All requisitions must be labeled with:**

- Patient name, date of birth and medical record number
- Name and phone number of the referring pathologist or ordering provider
- Anatomic site and collection date

**2. A preliminary or final pathology report and brief patient history are essential to achieve a consultation fully relevant to the ordering provider's needs.**

**3. Additional information by case type**

**Cardiac explant:** Include the last pretransplantation echocardiogram with report and images as well as all other relevant clinical documents (eg, family history of cardiac events, cardiac laboratory testing results)

**Iris, conjunctiva, cornea, and other small biopsies from eye:** Clinical/surgical notes should be included if available.

### Specimen Required

**Submit 1 of the following specimens:**

**Specimen Type:** Lung biopsy

**Supplies:**

- Pathology Packaging Kit (T554)
- Formalin, 10% Buffered Neutral for Tissue (T118)
- Michel's Transport Media for Immunofluorescent Testing on Tissue (T321)

**Specimen Volume:** Biopsy specimens as delineated below

**Collection Instructions:**

**For testing to be performed, both of the following must be submitted:**

a. For light microscopy:

Preferred: A portion of lung tissue in 10% neutral buffered formalin. Specimens submitted in formalin needs to be fully submerged with the optimal approximate specimen volume of 10:1 or higher.

Acceptable: A representative hematoxylin and eosin (H and E)-stained slide

b. For immunofluorescence, a portion of the unfixed lung tissue in Michel's transport media

**Specimen Type:** Cardiac biopsy

**Supplies:**

- Pathology Packaging Kit (T554)
- Formalin, 10% Buffered Neutral for Tissue (T118)
- Gluta (Trumps) (T130)

**Specimen Volume:** Biopsy specimens as delineated below

**Collection Instructions:**

1. Collect 4 to 6 biopsy specimens and submit all in 10% neutral buffered formalin. Specimens submitted in formalin needs to be fully submerged with the optimal approximate specimen volume of 10:1 or higher. If formalin biopsy specimens are not available, light microscopy slides would also be acceptable.

2. If electron microscopy (EM) is also requested, submit at least 1 biopsy into 2.5% to 3% buffered glutaraldehyde preservative (Trumps) along with the formalin biopsy specimens.

**Additional Information:** If the question is drug toxicity, storage disease, or if the patient is younger than 25 years, send at least 1 biopsy specimen in 2.5% to 3% buffered glutaraldehyde (Trumps) in case EM is needed for diagnosis.

**Specimen Type:** Cardiac explant

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

**Specimen Volume:** Entire explant specimen

**Collection Instructions:**

1. Fix entire explant specimen in formalin for a minimum of 24 hours.

2. Following fixation, lightly wrap specimen in formalin-soaked paper towel, place in a biohazard bag with a small amount of formalin, seal, place in another biohazard bag, and seal.

**Specimen Type:** Enucleated eye

**Supplies:**

- Pathology Packaging Kit (T554)
- Formalin - 10% Histo Prep, 45 mL (T117)

**Specimen Volume:** Entire eye specimen

**Collection Instructions:**

1. Immediately after removal, place specimen in approximately 300 mL of 10% neutral buffered formalin and fix for 48 hours.
2. Enucleated eye should not be opened or punctured.
3. After the 48-hour fixation, the specimen should be transferred from the larger, 300 mL container to a smaller container with fixative (Formalin - 10% Histo Prep, 45 mL) for shipping.

**Specimen Type:** Iris, conjunctiva, cornea, and other small biopsies from eye

**Supplies:**

- Pathology Packaging Kit (T554)
- Formalin - 10% Histo Prep, 45 mL (T117)

**Specimen Volume:** Entire biopsy specimen

**Collection Instructions:**

1. Place iris, conjunctiva, cornea, and other small biopsies on a paper mount (a piece of filter paper or other porous paper). This helps to keep the specimen from curling when it is fixed.
2. Immediately, gently place paper-mounted specimen into 10% formalin (Formalin - 10% Histo Prep, 45 mL).
3. In cases where margins are important, placing sutures at the margins of resection with accompanying explanatory draft will help orientation of the specimen in the lab.

**Specimen Type:** Vitreous fluid/Aqueous humor

**Supplies:**

- Pathology Packaging Kit (T554)
- Sarstedt Aliquot Tube, 5 mL (T914)

**Container/Tube:** Plastic screw-top vial

**Specimen Volume:** Entire specimen

**Collection Instructions:**

1. Place the liquid (vitreous or aqueous) concentrate (preferred) or washing (diluted, acceptable) into a small tube with a screw-top cap.
2. Refrigerate the specimen immediately (**do not freeze**).

**Specimen Stability Information:** Refrigerated

**Specimen Minimum Volume**

See Specimen Required

**Reject Due To**

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

**Specimen Stability Information**

| Specimen Type | Temperature         | Time | Special Container |
|---------------|---------------------|------|-------------------|
| Varies        | Ambient (preferred) |      |                   |
|               | Frozen              |      |                   |
|               | Refrigerated        |      |                   |

**Clinical & Interpretive**

## Clinical Information

Mayo Clinic in Rochester, Minnesota is staffed by pathologists whose expertise and special interests cover the entirety of Pathology, from surgical pathology with all its respective subspecialty areas, to Hematopathology, Renal Pathology, and Dermatopathology.

Consultation services are provided for difficult diagnostic problems. Consultation cases may be sent by a referring pathologist and directed to one of the pathologists who is an expert in the given area or directed more broadly to the subspecialty group. Cases are frequently shared and sometimes transferred between the pathologists, as deemed appropriate for the type of case or diagnostic problem encountered. Emphasis is placed on prompt and accurate results. Materials received are reviewed in conjunction with the clinical history provided, laboratory findings, radiographic findings (if applicable), and sending pathologist's report or letter. If additional special stains or studies are needed, the results are included in the final interpretive report. In some cases, electron microscopy and other special procedures are utilized as required.

A variety of ancillary studies are available (eg, cytochemistry, immunohistochemistry, immunofluorescence, electron microscopy, mass spectrometry, cytogenetics, and molecular genetics) to aid in establishing a diagnosis. These ancillary studies are often expensive and labor intensive and are most efficiently utilized and interpreted in the context of the morphologic features. The goal is to provide the highest possible level of diagnostic consultative service, while trying to balance optimal patient care with a cost-conscious approach to solving difficult diagnostic problems.

## Reference Values

An interpretive report will be provided.

## Interpretation

Results of the consultation are reported in a formal pathology report, which includes a description of ancillary test results (if applicable) and an interpretive comment. When the case is completed, results may be communicated by a phone call.

## Cautions

[Appropriate tissue sampling and fixation are required in order to make a diagnosis.](#)

## Clinical Reference

Renshaw AA, Gould EW. Measuring the value of review of pathology material by a second pathologist. *Am J Clin Pathol.* 2006;125(5):737-739. doi:10.1309/6A0R-AX9K-CR8V-WCG4

## Performance

### Method Description

All requests will be processed as a consultation case first. Special studies will be performed only if deemed to be diagnostically indicated. If the need for enzyme cytochemical stains, immunophenotyping, and/or immunohistochemical stains is anticipated, appropriate specimen requirements should be followed as indicated.

### PDF Report

Supplemental

**Day(s) Performed**

Monday through Friday

**Report Available**

3 days; Cases requiring additional material or ancillary testing may require additional time.

**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**

Not Applicable

**CPT Code Information**

- 88300 (if appropriate)
- 88302 (if appropriate)
- 88304 (if appropriate)
- 88305 (if appropriate)
- 88307 (if appropriate)
- 88309 (if appropriate)

**LOINC® Information**

| Test ID | Test Order Name              | Order LOINC® Value |
|---------|------------------------------|--------------------|
| ANPAT   | Wet Tissue Pathology Consult | In Process         |

| Result ID | Test Result Name                   | Result LOINC® Value |
|-----------|------------------------------------|---------------------|
| 71043     | Interpretation                     | 60570-9             |
| 71044     | Participated in the Interpretation | No LOINC Needed     |
| 71045     | Report Electronically signed by    | 19139-5             |
| 71046     | Addendum                           | 35265-8             |
| 71047     | Gross Description                  | 22634-0             |
| 71048     | Material Received                  | 22633-2             |
| 71584     | Disclaimer                         | 62364-5             |
| 71790     | Case Number                        | 80398-1             |