

## Overview

### Useful For

Aid in the diagnosis of active visceral leishmaniasis

This test should **not be used** as the sole criteria for diagnosis.

### Method Name

Immunochromatographic Strip Assay

### NY State Available

Yes

## Specimen

### Specimen Type

Serum

### Specimen Required

**Supplies:** Sarstedt Aliquot Tube, 5 mL (T914)

**Collection Container/Tube:**

**Preferred:** Serum gel

**Acceptable:** Red top

**Submission Container/Tube:** Plastic vial

**Specimen Volume:** 0.2 mL Serum

**Collection Instructions:** Centrifuge and aliquot serum into a plastic vial.

### Forms

If not ordering electronically, complete, print, and send [Infectious Disease Serology Test Request](#) (T916) with the specimen.

### Specimen Minimum Volume

Serum: 0.1 mL

### Reject Due To

Gross hemolysis	Reject
Gross lipemia	Reject

### Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	14 days	
	Frozen	14 days	

## Clinical & Interpretive

### Clinical Information

Visceral leishmaniasis (kala azar) is most commonly caused by *Leishmania donovani*, *Leishmania chagasi*, or *Leishmania infantum* (*L donovani* complex). Transmission of *Leishmania* species occurs via the bite of sandflies. Infection with these intracellular protozoa typically leads to a disseminated infection that primarily affects the reticuloendothelial system (liver, spleen, bone marrow). Clinical symptoms include fever, weight loss, and splenomegaly; pancytopenia and hypergammaglobulinemia are also often present. Most (90%) new cases each year arise in rural areas of India, Nepal, Bangladesh, Sudan, and Brazil, but the disease has a worldwide distribution, including the Middle East.

Definitive diagnosis of visceral leishmaniasis requires microscopic documentation of characteristic intracellular amastigotes in stained smears from culture of aspirates of tissue (spleen, lymph node) or bone marrow. The detection of serum antibodies to the recombinant K39 antigen of *L donovani* is an alternative noninvasive method for the diagnosis of active, visceral leishmaniasis.

### Reference Values

Negative

Reference values apply to all ages.

### Interpretation

Negative:

No antibodies to members of the *Leishmania donovani* complex detected. Repeat testing in 2 to 3 weeks if clinically indicated. Immunocompromised patients frequently have low or undetectable antibodies to *Leishmania* species.

Positive:

Antibodies to members of the *L donovani* complex detected. Results should not be used as the sole criterion for diagnosis or treatment of visceral leishmaniasis and should not be used to diagnose other forms of leishmaniasis.

False-positive reactions due to malaria infection may occur.

### Cautions

This test indicates only the presence of antibodies and should not be used as the sole criteria for diagnosis.

False-positive results may occur in patients with malaria or in the presence of rheumatoid factor.

Specimens containing glycerol or other viscous materials may interfere with the test.

Patients coinfecting with HIV and *Leishmania* may fail to produce antibodies.

Antibodies to *Leishmania* species not associated with visceral leishmaniasis will not be detected by this assay.

### Clinical Reference

Aronson NE, Copeland NK, Magill AJ. *Leishmania* species: visceral (Kala-Azar), cutaneous, and mucosal leishmaniasis. In: Bennett JE, Dolin R, Blaser MJ, eds. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases. 9th ed. Elsevier; 2020:3321-3339

## Performance

### Method Description

Immunochromatographic strip assay for the qualitative detection of antibodies to the *Leishmania donovani* complex in serum. The test strip membrane is coated on the bottom with a band of recombinant K39 antigen and on the top with immobilized anti-protein A antibody to detect IgG. A protein A-gold conjugate is used as the detection reagent. For this test, 20 mL of serum is added to the test strip. The appearance of both a control and test band is considered a positive result. (Carvalho SF, Lemos EM, Corey R, Dietze R. Performance of recombinant K39 antigen in the diagnosis of Brazilian visceral leishmaniasis. Am J Trop Med Hyg. 2003;68[3]:321-324; package insert: Kalazar Detect Rapid Test for Visceral Leishmaniasis. InBios International, Inc; 12/15/2025)

### PDF Report

No

### Day(s) Performed

Tuesday, Thursday

### Report Available

Same day/1 to 4 days

### Specimen Retention Time

14 days

### Performing Laboratory Location

Mayo Clinic Laboratories - Rochester Superior Drive

## 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 has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

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**CPT Code Information**

86717

**LOINC® Information**

Test ID	Test Order Name	Order LOINC® Value
LEIS	Leishmaniasis (Visceral) Ab, S	7958-2

Result ID	Test Result Name	Result LOINC® Value
86219	Leishmaniasis (Visceral) Ab, S	7958-2