

Overview

Useful For

Aiding in the diagnosis of *Histoplasma* meningitis using spinal fluid specimens

Method Name

Complement Fixation (CF)/Immunodiffusion

NY State Available

Yes

Specimen

Specimen Type

CSF

Specimen Required

Container/Tube: Sterile vial

Specimen Volume: 1 mL

Collection Instructions: Submit specimen from collection vial 2.

Forms

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

Specimen Minimum Volume

0.5 mL

Reject Due To

Gross hemolysis	OK
Gross lipemia	OK

Specimen Stability Information

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

Clinical & Interpretive

Clinical Information

Histoplasma capsulatum is a soil saprophyte that grows well in soil enriched with bird droppings. The usual disease is self-limited, asymptomatic, and affects the lungs. Chronic cavitary pulmonary disease, disseminated disease, and meningitis may occur and can be fatal, especially in young children and immunosuppressed patients.

Reference Values

MYCELIAL BY COMPLEMENT FIXATION (CF)

Negative (positives reported as titer)

YEAST BY CF

Negative (positives reported as titer)

ANTIBODY BY IMMUNODIFFUSION

Negative (positives reported as band present)

Interpretation

Any positive serologic result in spinal fluid is significant.

Simultaneous appearance of the H and M precipitin bands indicates active histoplasmosis.

The M band alone indicates active or chronic disease or a recent skin test for histoplasmosis.

Cautions

Antibody levels may be low in spinal fluid in cases of *Histoplasma* meningitis.

Histoplasmin skin tests yield specific antibodies in titratable quantity and may cause difficulties in interpretation.

Cross-reacting antibodies with coccidioidomycosis or blastomycosis may cause false-positive results for *Histoplasmosis*.

Clinical Reference

1. Kaufman L, Kovacs JA, Reiss E: Clinical immunomycology. In: Rose NR, de Macario ED, Folds JD, [Lane HC](#), [Nakamura RM](#), eds. Manual of Clinical Laboratory Immunology. ASM Press.1997
2. Deepe GS: *Histoplasma capsulatum* Histoplasmosis. In: Bennett JE, Dolin R, Blaser MJ, eds. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases. 9th ed. Elsevier; 2020:3162-3176

Performance

Method Description

Both immunodiffusion and compliment fixation (CF) tests are used to detect antibodies to *Histoplasma capsulatum*. For immunodiffusion, the antigen is a culture filtrate, histoplasmin. H and M precipitin bands are identified. For the CF test, the antigens are histoplasmin and a yeast form of *Histoplasma capsulatum*; the latter is more sensitive.(Roberts GD:

Fungi. In: Washington II, JA eds. Laboratory Procedures in Clinical Microbiology. 2nd ed. Springer-Verlag; 1985; Bennett JE, Dolin R, Blaser MJ, eds. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases. 9th ed. Elsevier; 2020)

PDF Report

No

Day(s) Performed

Monday through Friday

Report Available

3 to 7 days

Specimen Retention Time

14 days

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 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.

CPT Code Information

86698 x 3

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
CHIST	Histoplasma Ab, CSF	91684-1

Result ID	Test Result Name	Result LOINC® Value
15118	Histoplasma Mycelial (CSF)	27220-3
15119	Histoplasma Yeast (CSF)	27209-6
15120	Histoplasma Immunodiffusion (CSF)	91682-5