Test Definition: SBL

Blastomyces Antibody Immunodiffusion, Serum

Overview

Useful For
Detection of antibodies in serum specimens from patients with blastomycosis

Method Name
Immunodiffusion (ID)

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: 0.5 mL Serum
Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume
Serum: 0.3 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

The dimorphic fungus, *Blastomyces dermatitidis*, causes blastomycosis. When the organism is inhaled, it causes pulmonary disease-cough, pain, and hemoptysis, along with fever and night sweats. It commonly spreads to the skin, bone, or internal genitalia where suppuration and granulomas are typical. Occasionally, primary cutaneous lesions after trauma are encountered; however, this type of infection is uncommon.

Reference Values

Negative

Interpretation

A positive result is suggestive of infection, but the results cannot distinguish between active disease and prior exposure.

Routine culture of clinical specimens (eg, respiratory specimen) is recommended in cases of suspected, active blastomycosis.

Cautions

Mayo Clinic Laboratories' experience with the immunodiffusion test is that it is positive in fewer cases of blastomycosis than the 70% to 85% reported elsewhere.

Patients with histoplasmosis may have low-titered cross reactions.

Clinical Reference

1. Theel ES, Kus JV, Grys TE, Ampel NM, Schwartz IS, Zhang SX. Practical Guidance for Clinical Microbiology Laboratories: Antibody and antigen detection methods for dimorphic fungal infections. Clin Microbiol Rev. 2025;38(2):e0000520. doi:10.1128/cmr.00005-20

2. Gauthier GM, Klein BS. Blastomycosis. In: Bennett JE, Dolin R, Blaser MJ, eds. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases. 9th ed. Elsevier; 2020:3177-3189

Performance

Method Description

The immunodiffusion (ID) test is a qualitative test employed for the detection of precipitating antibodies present in the serum. Soluble antigens of the fungus are placed in wells of an agarose gel-filled Petri dish and the patient's serum and a control (positive) serum are placed in adjoining wells. If present, specific precipitate antibody will form precipitin lines between the wells. Their comparison to the control serum establishes the results. When performing the ID test, only precipitin bands of identity with the reference bands are significant.(Kaufman L, Kovacs JA, Reiss E. Clinical immunomycology. In: Rose NL, Conway-de Macario E, Folds JD, Lane HC, Nakamura RM, eds. Manual of Clinical Laboratory Immunology. ASM Press; 1997:587-588; Kaufman L, McLaughlin DW, Clark MJ, Blumer S. Specific immunodiffusion test for blastomycosis. Appl Microbiol. 1973;26[3]:244-247; Williams JE, Murphy R, Standard PG, Phair

JP. Serologic response in blastomycosis: diagnostic value of double immunodiffusion assay. Am Rev Resp Dis. 1981;123:209-212; 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
2 to 5 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.

CPT Code Information
86612

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
SBL	Blastomyces Ab, Immunodiffusion, S	5058-3

Result ID	Test Result Name	Result LOINC® Value
15125	Blastomyces Immunodiffusion	5058-3