Lab Dept: Serology

Test Name: HISTOPLASMA AND BLASTOMYCES ANTIGEN, EIA, SERUM

General Information

Lab Order Codes:	HIBAG
Synonyms:	Histoplasma/Blastomyces Ag, enzyme immunoassay*; Histoplasma capsulatum* antigen; *Blastomyces dermatitidis* serum antigen
CPT Codes:	87449 - Infectious agent antigen detection by immunoassay technique
Test Includes:	Detects Histoplasma and Blastomyces antigen in serum, without differentiation between the two fungal pathogens. Antigen values reported in ng/mL.

Logistics

Test indications:	To aid in diagnosis of *Histoplasma capsulatum* or *Blastomyces dermatitidis* infection without differentiation between the organisms. To monitor antigen levels following initiation of antifungal treatment. May be used alongside other routine methods including culture, molecular testing and serology.
Lab Testing Sections:	Serology-Sendouts
Referred to:	Mayo Medical Laboratories (Mayo test: HIBAG)
Phone Numbers:	MIN Lab: 612-813-6280 STP Lab: 651-220-6550
Test Availability:	Daily, 24 hours
Turnaround Time:	1-3 days, test performed Monday through Saturday
Special Instructions:	N/A

Specimen

Specimen Type:	Blood
Container:	SST (Gold, marble or red)

Draw Volume:	4.5 mL (Minimum: 3.6 mL) blood
Processed Volume:	1.5 mL (Minimum: 1.2 mL) serum
Collection:	Routine blood collection
Special Processing:	Lab staff: Centrifuge specimen, remove serum aliquot to a screw-capped plastic vial. Store and ship refrigerated. Specimen stable refrigerated (preferred) and frozen for 28 days, ambient for 72 hours.
Patient Preparation:	N/A
Sample Rejection:	Gross hemolysis; gross lipemia; gross icterus; heat-inactivated specimen; incorrect specimen type; mislabeled or unlabeled specimens

Interpretive

Reference Range:	Histoplasma/Blastomyces Antigen Result: Not Detected Histoplasma/Blastomyces Antigen Value: Not Detected Detected: <1.5 ng/mL Detected: 1.5-25.0 ng/mL Detected: >25.0 ng/mL Reference values apply to all ages. See reference laboratory catalog for further interpretation (Mayo test code HIBAG).
Critical Values:	N/A
Limitations:	Due to significant cross-reactivity between galactomannan antigens from Blastomyces and Histoplasma, this assay does not differentiate between these 2 dimorphic fungal agents. To differentiate, consider fungal culture, molecular testing, or serology testing. Positive results should be correlated with other clinical and laboratory findings (eg, culture, serology). Low-level positive antigen levels may persist following resolution of infection and completion of appropriate treatment regimen. Turbid urine specimens, containing excess protein, cells, or particulate matter, can inhibit the function of the test. Sensitivity of this assay to detect antigen from species other than Blastomyces dermatitidis or Histoplasma capsulatum is unknown.

	False positive results may occur less frequently with other dimorphic agents (eg, Coccidioides).
Methodology:	Enzyme Immunoassay (EIA)
References:	Test Catalog - Mayo Clinic Laboratories (mayocliniclabs.com) (March 2023)
Updates:	3/27/23: Initial entry 4/14/23: Optimal and minimum specimen volume requirements increased