Test Definition: EHOLG

Entamoeba histolytica Antibody, Serum

Overview

Useful For
As an adjunct in the diagnosis of extraintestinal, invasive amebiasis

Method Name
Enzyme-Linked Immunosorbent Assay (ELISA)

NY State Available
Yes

Specimen

Specimen Type
Serum

Ordering Guidance
Direct detection of *Entamoeba histolytica* in fecal specimens is recommended to diagnose intestinal amebiasis. See OPE / Ova and Parasite, Travel History or Immunocompromised, Feces or OAPNS / Ova and Parasite, Microscopy, Varies.

Specimen Required
Collection Container/Tube:
Preferred: Serum gel
Acceptable: Red top
Submission Container/Tube: Plastic vial
Specimen Volume: 0.5 mL
Collection Instructions: Centrifuge and aliquot serum into plastic vial.

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

Specimen Minimum Volume
0.4 mL

Reject Due To

Gross hemolysis	Reject
Gross lipemia	Reject
Heat-inactivated specimen	Reject

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	14 days	
	Frozen	30 days	

Clinical & Interpretive

Clinical Information

Amebiasis is an infection caused by the protozoan parasite, *Entamoeba histolytica*. The infection is acquired by ingestion of cysts in fecally contaminated food or water; excystation and infection occur in the large intestine. After excystation, trophozoites attach to the intestinal wall and excrete extracellular enzymes that enable invasion of the mucosa and spread to other organs, especially the liver and lung where abscesses may develop.

Amebiasis (or amebic dysentery) can cause bloody diarrhea accompanied by fever and prostration. White and red blood cells are found in the stool. Liver abscess can develop several weeks to months later producing hepatomegaly and fever.

Serology may be particularly useful in supporting the diagnosis of invasive disease with *E histolytica*, which is most commonly associated with amebic liver abscess. Serology should not be used to identify or diagnose amebic dysentery due to poor sensitivity in acute, noninvasive disease.

Reference Values

Negative
Reference values apply to all ages.

Interpretation

Negative: No antibodies to *Entamoeba histolytica* detected. This assay is intended for assessment of invasive amebiasis. Repeat testing in 2 to 3 weeks if clinically indicated.

Equivocal: Recommend follow-up testing in 10 to 14 days if clinically indicated.

Positive: Results are suggestive of current or past infection with *Entamoeba histolytica*. Direct detection of *E histolytica* in stool or other specimen sources is recommended to diagnose acute amebiasis.

Cautions

Previous episodes of intestinal amebiasis may produce a positive serology.

Serologic results should be used as an aid in diagnosis and should not be interpreted as diagnostic by themselves.

Clinical Reference

1. Bruckner DA. Amebiasis. Clin Microbiol Rev. 1992;5(4):356-369. doi: 10.1128/CMR.5.4.356
2. Petri WA, Haque R, Moonah SN: *Entamoeba* species, including amebic colitis and liver abscess. In: Bennett JE, Dolin R, Blaser MJ, eds. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases. 9th ed. Elsevier;

2020:3273-3286

Performance

Method Description

Microplates are coated with specific antigens to bind corresponding antibodies of the sample. After washing the wells to remove all unbound sample material, a horseradish peroxidase-labelled conjugate is added. This conjugate binds to the captured antibodies. In a second washing step, unbound conjugate is removed. The immune complex formed by the bound conjugate is visualized by adding tetramethylbenzidine substrate, which gives a blue reaction product. The intensity of this product is proportional to the amount of specific antibodies in the sample. Sulfuric acid is added to stop the reaction. This produces a yellow endpoint color. Absorbance at 450/620 nm is read using an enzyme-linked immunosorbent assay microwell plate reader.(Package insert: Entamoeba histolytica ELISA IgG Test kit. Gold Standard Diagnostics; GSD-ENTG-120705.F; 01/12/2021)

PDF Report

No

Day(s) Performed

Friday

Report Available

Same day/1 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

86753

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
EHOLG	E. histolytica Ab, IgG, S	22285-1

Result ID	Test Result Name	Result LOINC® Value
EHOLG	E. histolytica Ab, IgG, S	22285-1