Test Definition: EMA

Endomysial Abs, S (IgA)

Overview

Useful For

Diagnosis of dermatitis herpetiformis and celiac disease

Monitoring adherence to gluten-free diet in patients with dermatitis herpetiformis and celiac disease

Because of the high specificity of endomysial antibodies for celiac disease, the test may obviate the need for multiple small bowel biopsies to verify the diagnosis. This may be particularly advantageous in the pediatric population, including the evaluation of children with failure to thrive.

Reflex Tests

Test ID	Reporting Name	Available Separately	Always Performed
EMAT	EMA Titer, S (IgA)	No	No

Testing Algorithm

If EMA / Endomysial Antibodies (IgA), Serum is positive or indeterminate, EMAT / Endomysial (IgA), Titer, Serum will be performed at an additional charge.

The following algorithms are available in Special Instructions:

-Celiac Disease Comprehensive Cascade

-Celiac Disease Diagnostic Testing Algorithm

-Celiac Disease Gluten-Free Cascade

-Celiac Disease Routine Treatment Monitoring Algorithm

-Celiac Disease Serology Cascade

Special Instructions

- Celiac Disease Diagnostic Testing Algorithm
- Celiac Disease Comprehensive Cascade
- Celiac Disease Gluten-Free Cascade
- Celiac Disease Routine Treatment Monitoring Algorithm
- Celiac Disease Serology Cascade

Method Name

Staining of Rhesus Monkey Esophagus Substrate by Indirect Immunofluorescence Assay (IFA) for IgA Endomysial Antibodies (EMA)

NY State Available

Yes

Specimen

Specimen Type

Serum

Advisory Information

Cascade testing is recommended for celiac disease. Cascade testing ensures that testing proceeds in an algorithmic fashion. The following cascades are available; select the appropriate one for your specific patient situation.

-CDCOM / Celiac Disease Comprehensive Cascade: complete testing including HLA DQ

-CDSP / Celiac Disease Serology Cascade: complete testing excluding HLA DQ

-CDGF / Celiac Disease Gluten-Free Cascade: for patients already adhering to a gluten-free diet

To order individual tests, see Celiac Disease Diagnostic Testing Algorithm in Special Instructions.

Specimen Required

Container/Tube:

Preferred: Serum gel

Acceptable: Red Top

Specimen Volume:2 mL

Forms

If not ordering electronically, complete, print, and send 1 of the following forms with the specimen:

-General Request (T239)

-Gastroenterology and Hepatology Client Test Request (T728)

Specimen Minimum Volume

Adults: 1 mL
Pediatric: 0.5 mL

Reject Due To

Gross hemolysis	Reject
Gross lipemia	Reject
Gross icterus	Reject

Specimen Stability Information

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

Clinical and Interpretive

Clinical Information

Circulating IgA endomysial antibodies are present in 70% to 80% of patients with dermatitis herpetiformis or celiac disease, and in nearly all such patients who have high grade gluten-sensitive enteropathy and are not adhering to a gluten-free diet.

Reference Values

Negative in normal individuals; also negative in dermatitis herpetiformis or celiac disease patients adhering to gluten-free diet.

Interpretation

The finding of IgA-endomysial antibodies (EMA) is highly specific for dermatitis herpetiformis or celiac disease.

The titer of IgA-EMA generally correlates with the severity of gluten-sensitive enteropathy.

If patients strictly adhere to a gluten-free diet, the titer of IgA-EMA should begin to decrease within 6 to 12 months of onset of dietary therapy.

Occasionally, the staining results cannot be reliably interpreted as positive or negative because of strong smooth muscle staining, weak EMA staining or other factors; in this case, the results will be recorded as "indeterminate." In this setting, further testing with measurement of TTGA / Tissue Transglutaminase (tTG) Antibody, IgA, Serum and IGA / Immunoglobulin A (IgA), Serum levels are recommended.

Cautions

A negative result (absence of circulating IgA-endomysial antibodies) does not exclude the diagnosis of dermatitis herpetiformis or celiac disease.

Patients with mild gluten-sensitive enteropathy may have a negative result.

Clinical Reference

1. Peters MS, McEvoy MT: IgA antiendomysial antibodies in dermatitis herpetiformis. J Am Acad Dermatol 1989;21:1225-1231

2. Chorzelski TP, Buetner EH, Sulej J, et al: IgA anti-endomysium antibody: a new immunological marker of dermatitis herpetiformis and coeliac disease. Br J Dermatol 1984;111:395-402

3. Kapuscinska A, Zalewski T, Chorzelski TP, et al: Disease specificity and dynamics of changes in IgA class anti-endomysial antibodies in celiac disease. J Pediatr Gastroenterol Nutr1984;6:529-534

Performance

Method Description

Frozen sections of rhesus monkey esophagus substrate are overlaid with dilutions of patient's serum, incubated, covered with fluorescein-conjugated IgA antiserum, and interpreted with a fluorescence microscope.(Chorzelski TP, Beutner EH, Sulej J, et al: IgA anti-endomysium antibody: a new immunological marker of dermatitis herpetiformis and coeliac disease. Br J Dermatol 1984;111:395-402; Kupascinska A, Zalewski T, Chorzelski TP, et al: Disease specificity and dynamics of changes in IgA class anti-endomysial antibodies in celiac disease. J Pediatr Gastroenterol Nutr 1987;6:529-534)

PDF Report

No

Day(s) and Time(s) Test Performed

Monday through Friday; 7 a.m.-5 p.m.

Analytic Time

2 days

Maximum Laboratory Time

7 days

Specimen Retention Time

14 days Frozen

Performing Laboratory Location

Rochester

Fees and 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 Regional Manager. For assistance, contact Customer Service.

Test Classification

This test has been modified from the manufacturer's instructions. Its performance characteristics were determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration.

CPT Code Information

86255-screen

86256-titer (if appropriate)

LOINC® Information

Test ID	Test Order Name	Order LOINC Value
EMA	Endomysial Abs, S (IgA)	46126-9

Result ID	Test Result Name	Result LOINC Value
9360	Endomysial Ab	46126-9