

Anti-Actin IgA in Celiac Disease

FOR IDENTIFICATION OF PATIENTS WITH SEVERE INTESTINAL VILLOUS ATROPHY

Test Highlights

- FDA approved for *in vitro* diagnostic use.
- Semi-quantitative measurement of IgA antibody against polymerized actin (F-actin).
- Correlates with severity of intestinal mucosa damage in patients with celiac disease.

Clinical Background

- Celiac disease (CD), also known as gluten-sensitive enteropathy (GSE), is characterized by chronic inflammation and villous atrophy of the intestinal mucosa, resulting in malabsorption syndrome. It is thought to be initiated in genetically-predisposed persons by the ingestion of gluten, a major protein in wheat and related grains.¹
- Patients with CD may suffer from diarrhea, failure to thrive, anemia, fatigue, neurological problems, and/or other non-specific symptoms. Patients may also be asymptomatic.
- Patients with CD have an increased risk of lymphoma compared to the general population.²
- A gluten-free diet is currently the only accepted treatment for CD.
- Several studies have shown anti-actin IgA to be clinically useful in identifying CD patients with mild to severe villous atrophy (46–85 percent).^{3,4}

Indications for Ordering

- This assay may be useful as an adjunct test in working up patients with suspected CD.
- It may also serve as a monitoring tool for patients with severe disease in predicting normalization of the intestinal mucosa.

Interpretation

A positive result in the presence of tTT IgA or endomysial IgA antibodies is associated with severe damage to the intestinal mucosa in patients with CD.

Limitations

Test results alone are not diagnostic. Results should be used in conjunction with other clinical findings and biopsy to confirm a diagnosis of CD.

Methodology

Enzyme immunoassay (EIA) detecting IgA antibody against polymerized actin (F-actin).

Related Tests

- Celiac Disease Dual Antigen Screen (0051689)
- Celiac Disease Reflexive Panel (0051065)
- Celiac Disease Panel Reflex to Titer (0051060)
- Tissue Transglutaminase Antibody, IgA with Reflex to Endomysial Antibody, IgA Titer by IFA (0050734)
- Tissue Transglutaminase Antibody, IgA (0097709)
- Tissue Transglutaminase Antibody, IgG (0056009)
- Gliadin Peptide Antibodies, IgA & IgG (0051358)
- Gliadin Peptide Antibody, IgA (0051357)
- Gliadin Peptide Antibody, IgG (0051359)
- Immunoglobulin A, Serum (0050340)

References

1. Green PH, Cellier C. Celiac disease. *N Engl J Med* 2007; 357:1731–41.
2. Catassi C, Bearzi I, Holmes GH. Association of celiac disease and intestinal lymphomas and other cancers. *Gastroenterology* 2005;128:S79–86.
3. Carroccio A, et al. IgA anti-actin antibodies ELISA in coeliac disease: a multicentre study. *Dig Liver Dis* 2007;39:818–823.
4. Granito A, et al. Anti-actin IgA antibodies in severe coeliac disease. *Clin Exp Immunol* 2004;137:386–392.

Test Information

0051724

F-Actin (Smooth Muscle) Antibody, IgA

For specific collection, transport, and testing information, refer to the ARUP Web site at www.aruplab.com.

For information on test selection, ordering, and interpretation, refer to ARUP Consult® at www.arupconsult.com.