Celiac Disease Diagnostics Panel

CPT Code: 83516, 82784, 83516-91 (x3)
Order Code: C1547

Includes: Tissue Transglutaminase Ab (IgG), Tissue Transglutaminase Ab (IgA), Gliadin (Deamidated Peptide) Ab (IgG, IgA), Immunoglobulin A (IgA)

ABN Requirement: No
Specimen: Serum
Volume: 5.0 mL
Minimum Volume: 2.5 mL
Container: Gel-barrier tube (SST, Tiger Top)

Collection:

1. Collect and label sample according to standard protocols.
2. Gently invert tube 10 times immediately after draw. DO NOT SHAKE.
3. Allow blood to clot 30 minutes.
4. Centrifuge at 1300 rcf for 10 minutes.

Transport: Store serum at 2°C to 8°C after collection and ship the same day per packaging instructions provided with the Cleveland HeartLab, Inc. shipping box.

Stability:

Ambient (15-25°C): 72 hours
Refrigerated (2-8°C): 7 days
Frozen (-20°C): 30 days
Deep Frozen (-70°C): 30 days

Causes for Rejection: Grossly hemolyzed or lipemic samples; serum contaminated with bacteria; specimens containing heavy visible particles; heat inactivated samples; specimens other than serum; improper labeling; samples not stored properly; samples older than stability limits

Methodology: Immunoassay (IA) and Immunoturbidimetric Assay

Turn Around Time: 5 to 6 days
### Reference Range:

<table>
<thead>
<tr>
<th>Test</th>
<th>Age</th>
<th>Reference Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tissue Transglutaminase, IgG</td>
<td>All Ages</td>
<td>&lt;6 U/mL No antibody detected&lt;br&gt;≥6 U/mL Antibody detected</td>
</tr>
<tr>
<td>Tissue Transglutaminase Ab, IgA</td>
<td>All Ages</td>
<td>&lt;4 U/mL No antibody detected&lt;br&gt;≥4 U/mL Antibody detected</td>
</tr>
<tr>
<td>Gliadin (Deamidated Peptide) Ab IgG</td>
<td>All Ages</td>
<td>&lt;20 Units Antibody not detected&lt;br&gt;≥20 Units Antibody detected</td>
</tr>
<tr>
<td>Gliadin (Deamidated Peptide) Ab IgA</td>
<td>All Ages</td>
<td>&lt;20 Units Antibody not detected&lt;br&gt;≥20 Units Antibody detected</td>
</tr>
<tr>
<td>IgA, Serum</td>
<td>Cord Blood</td>
<td>1-3 mg/dL&lt;br&gt;1 month 2-43 mg/dL&lt;br&gt;2-5 months 3-66 mg/dL&lt;br&gt;6-9 months 7-66 mg/dL&lt;br&gt;10-12 months 12-75 mg/dL&lt;br&gt;1-3 years 24-121 mg/dL&lt;br&gt;4-6 years 33-235 mg/dL&lt;br&gt;7-9 years 41-368 mg/dL&lt;br&gt;10-11 years 64-246 mg/dL&lt;br&gt;12-13 years 70-432 mg/dL&lt;br&gt;14-15 years 57-300 mg/dL&lt;br&gt;≥16 years 81-463 mg/dL</td>
</tr>
</tbody>
</table>
Clinical Significance: Tissue Transglutaminase Antibody IgG and IgA are useful in diagnosing gluten-sensitive enteropathies, such as Celiac Sprue Disease, and an associated skin condition, dermatitis herpetiformis in patients who are IgG- or IgA-deficient.

Detection of antibodies to gliadin, one of the major protein components of gluten, is a sensitive assay useful in diagnosing celiac disease. However, gliadin antibodies may be found in individuals without celiac disease; thus, gliadin antibody assays are less specific than assays measuring antibodies to endomysium and transglutaminase. Recent work has revealed that gliadin-reactive antibodies from celiac patients bind to a very limited number of specific epitopes on the gliadin molecule. Further, deamination of gliadin results in enhanced binding of gliadin antibodies. Based on this information, assays using deamidated gliadin peptides bearing the celiac-specific epitopes have much higher diagnostic accuracy for celiac disease when compared to standard gliadin antibody assays.

Increased IgA is associated with monoclonal IgA myeloma, respiratory, and gastrointestinal infections, and malabsorption; decreased IgA is found in selective IgA deficiency and in ataxia telangiectasia.