Overview

Useful For
Diagnosing protein-losing enteropathies, especially when used in conjunction with serum alpha-1-antitrypsin (A1A) levels as a part of A1A clearance studies

Method Name
Nephelometry

NY State Available
Yes

Specimen

Specimen Type
Fecal

Advisory Information
The preferred test for diagnosing protein-losing enteropathies is CA1A / Alpha-1-Antitrypsin Clearance, Feces and Serum.

Specimen Required
Supplies: Stool container, Small (Random), 4 oz (T288); Stool Collection Kit, Random (T635)

Container/Tube: Stool container (T288)

Specimen Volume: 5 g

Collection Instructions: Collect a random fecal specimen.

Specimen Minimum Volume
Homogenized Stool: 1 mL

Reject Due To
<table>
<thead>
<tr>
<th>Condition</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feces collected in any preservative or fixative</td>
<td>Reject</td>
</tr>
</tbody>
</table>

Specimen Stability Information

<table>
<thead>
<tr>
<th>Specimen Type</th>
<th>Temperature</th>
<th>Time</th>
<th>Special Container</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fecal</td>
<td>Frozen (preferred)</td>
<td>14 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ambient</td>
<td>14 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Refrigerated</td>
<td>14 days</td>
<td></td>
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</tbody>
</table>

Clinical and Interpretive
**Clinical Information**

Alpha-1-antitrypsin (A1A) is resistant to degradation by digestive enzymes and is, therefore, used as an endogenous marker for the presence of blood proteins in the intestinal tract. A1A clearance is reliable for measuring protein loss distal to the pylorus.

Gastrointestinal protein enteropathy has been associated with regional enteritis, sprue, Whipple intestinal lipodystrophy, gastric carcinoma, allergic gastroenteropathy, intestinal lymphangiectasia, constrictive pericarditis, congenital hypogammaglobulinemia, and iron deficiency anemia associated with intolerance to cow's milk.

**Reference Values**

< or =54 mg/dL

**Interpretation**

Patients with protein-losing enteropathies generally have alpha-1-antitrypsin fecal concentrations over 100 mg/mL.

Borderline elevations above the normal range are equivocal for protein-losing enteropathies.

**Cautions**

The clearance studies using 24-hour fecal specimens and serum determinations are preferred in order to normalize the large range of serum alpha-1-antitrypsin (A1A) concentrations and the variability in random fecal A1A concentration. In the absence of either a 24-hour fecal collection or a contemporary serum specimen, the fecal concentration of A1A can be used as a surrogate marker.

**Clinical Reference**


**Performance**

**Method Description**

Nephelometry. Immunonephelometry quantitates the alpha-1-antitrypsin (A1A) contained in a fecal specimen. In the absence of a timed fecal collection, an A1A fecal concentration will be reported. (Instruction manual: Siemens Nephelometer II. Siemens, Inc., Newark, DE, May 2005)

**PDF Report**

No

**Day(s) and Time(s) Test Performed**

Monday through Friday; Continuously until 2 p.m.

**Analytic Time**

1 day

**Maximum Laboratory Time**

2 days
Test Definition: A1AF
Alpha-1-Antitrypsin, Random, F

Specimen Retention Time
14 days; supernatant aliquot only, the feces are discarded after processing

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
82103

LOINC® Information

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<th>Order LOINC Value</th>
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<tr>
<td>A1AF</td>
<td>Alpha-1-Antitrypsin, Random, F</td>
<td>9407-8</td>
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<table>
<thead>
<tr>
<th>Result ID</th>
<th>Test Result Name</th>
<th>Result LOINC Value</th>
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<tbody>
<tr>
<td>AAT_F</td>
<td>Alpha-1-Antitrypsin, Random, F</td>
<td>9407-8</td>
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