**Overview**

**Useful For**
Evaluating patients with chronic liver disease in whom the diagnosis of chronic active autoimmune hepatitis is suspected

**Method Name**
Indirect Immunofluorescence

**NY State Available**
Yes

**Specimen**

**Specimen Type**
Serum

**Specimen Required**

**Container/Tube:**

**Preferred:** Serum gel

**Acceptable:** Red top

**Specimen Volume:** 0.8 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**
0.4 mL

**Reject Due To**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross hemolysis</td>
<td>Reject</td>
</tr>
<tr>
<td>Gross lipemia</td>
<td>Reject</td>
</tr>
<tr>
<td>Gross icterus</td>
<td>OK</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>Serum</td>
<td>Refrigerated (preferred)</td>
<td>14 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frozen</td>
<td>14 days</td>
<td></td>
</tr>
</tbody>
</table>
Clinical and Interpretive

Clinical Information
Sera from patients with autoimmune chronic active hepatitis contain antibodies to smooth muscle antigens that are detectable by indirect immunofluorescence on substrates that contain smooth muscle. The antibodies are predominantly of the IgG isotype.

Other diseases in this differential diagnosis group include primary biliary cirrhosis, chronic viral hepatitis, and alcoholic chronic hepatitis.

Reference Values
Negative

If positive, results are titered.

Reference values apply to all ages.

Interpretation
Antibody titers in the range of 80 to 320 occur commonly in patients with active chronic hepatitis; lower titers (usually <80) may occur in the other conditions mentioned earlier.

Cautions
Serologic tests for autoantibodies, including smooth muscle antibodies, should not be relied upon exclusively to determine the etiology or prognosis of patients with liver disease.

A positive result for antismooth muscle antibodies may occur in patient who do not have autoimmune hepatitis. A negative result does not exclude a diagnosis of autoimmune hepatitis.

Clinical Reference

Performance

Method Description
The patient's serum in 1:20 and 1:40 (initial screening) dilutions is added to fresh tissue from mouse stomach/kidney and incubated; fluorescein-conjugated antiglobulin is then added. The slides are read with a fluorescence microscope. (Doniach D, Roitt IM, Walker JG, Sherlock S: Tissue antibodies in primary biliary cirrhosis, active chronic [lupoid] hepatitis, cryptogenic cirrhosis, and other liver diseases and their clinical implications. Clin Exp Immunol 1966;1:237-262)

PDF Report
No

Day(s) and Time(s) Test Performed
Monday through Saturday; 11 a.m.
Test Definition: SMA
Anti-Smooth Muscle Ab

2 days

Maximum Laboratory Time

4 days

Specimen Retention Time

14 days

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 was developed and its performance characteristics 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

86256-Titer (if appropriate)

LOINC® Information

<table>
<thead>
<tr>
<th>Test ID</th>
<th>Test Order Name</th>
<th>Order LOINC Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMA</td>
<td>Anti-Smooth Muscle Ab</td>
<td>26971-2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Result ID</th>
<th>Test Result Name</th>
<th>Result LOINC Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>6284</td>
<td>Anti-Smooth Muscle Ab</td>
<td>26971-2</td>
</tr>
</tbody>
</table>