Overview

Useful For
Evaluating risk for atherosclerotic cardiovascular disease
Aiding in the detection of Tangier disease

Method Name
Automated Turbidimetric Immunoassay

NY State Available
Yes

Specimen

Specimen Type
Serum

Specimen Required
Preferred: Serum gel
Acceptable: Red top
Specimen Volume: 0.5 mL

Collection Instructions:
1. Centrifuge and aliquot within 2 hours of collection.
2. Red-top tubes should be centrifuged and aliquoted within 2 hours of collection.

Forms
If not ordering electronically, complete, print, and send a Cardiovascular Test Request Form (T724) with the specimen.

Specimen Minimum Volume
0.5 mL

Reject Due To

<table>
<thead>
<tr>
<th>Gross hemolysis</th>
<th>Reject</th>
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<tbody>
<tr>
<td>Gross lipemia</td>
<td>OK</td>
</tr>
<tr>
<td>Gross icterus</td>
<td>Reject</td>
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Specimen Stability Information
Clinical Information
Apolipoprotein A1 (ApoA1) is the primary protein associated with high-density lipoprotein (HDL) particles, and plays a central role in reverse cholesterol transport. (1) HDL cholesterol (HDL-C) and ApoA1 concentrations are inversely related to the risk for coronary artery disease (CAD). (2) There are a variable number of ApoA1 proteins per HDL particle. Therefore, ApoA1 is not a 1:1 surrogate marker for HDL particles. Similarly, the number of ApoA1 proteins and the amount of cholesterol contained in HDL particles is highly variable. This heterogeneity has led to unique clinical findings related to ApoA1 compared with HDL-C.

Increased ApoA1 concentrations are more strongly associated with a reduction in risk of a first myocardial infarction than HDL-C concentrations. (3) Low concentrations of ApoA1, but not HDL-C, are predictive of preclinical atherosclerosis as asssed by computed tomography estimated coronary artery calcium (CAC) scoring. (4) Increased ApoA1, but not HDL-C concentrations, are associated with reduced cardiovascular events among statin-treated patients, even when LDL-C <50 mg/dL. (5) In statin-treated patients, patients whose ApoA1 increased while on treatment were at lower risk than those whose ApoA1 did not increase.

Reference Values
Males

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<thead>
<tr>
<th>Age</th>
<th>Apolipoprotein A (mg/dL)</th>
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<tbody>
<tr>
<td>&lt;24 months</td>
<td>Not established</td>
</tr>
<tr>
<td>2-17 years</td>
<td>Low: &lt;115</td>
</tr>
<tr>
<td></td>
<td>Borderline low: 115-120</td>
</tr>
<tr>
<td></td>
<td>Acceptable: &gt;120</td>
</tr>
<tr>
<td>&gt;18 years</td>
<td>&gt; or =120</td>
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Females

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<th>Age</th>
<th>Apolipoprotein A (mg/dL)</th>
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<tr>
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<td>Borderline low: 115-120</td>
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<tr>
<td></td>
<td>Acceptable: &gt;120</td>
</tr>
<tr>
<td>&gt;18 years</td>
<td>&gt; or =140</td>
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</table>

Interpretation
Low levels of apolipoprotein A1 (ApoA1) confer increased risk of atherosclerotic cardiovascular disease.

ApoA1 below 25 mg/dL may aid in the detection of a genetic disorder such as Tangier disease.
ApoA1 is often interpreted as a ratio with apolipoprotein B (ApoB).

**Clinical Reference**

**Performance**

**Method Description**
Antiapolipoprotein A-1 antibodies react with the antigen in the sample to form antigen/antibody complexes which, following agglutination, can be measured turbidimetrically.(Package Insert: Tina-quant Apolipoprotein A-1, Roche Diagnostics. Indianapolis, IN. 05/2017)

**PDF Report**
No

**Day(s) Performed**
Monday through Sunday

**Report Available**
1 to 2 days

**Specimen Retention Time**
1 week

**Performing Laboratory Location**
Rochester

**Fees & Codes**

**Fees**
Test Definition: APOA1
Apolipoprotein A1, Serum

- 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 account representative. For assistance, contact Customer Service.

Test Classification
This test has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

CPT Code Information
82172

LOINC® Information

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<td>Apolipoprotein A1, S</td>
<td>1869-7</td>
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