Overview

Useful For
Assessing muscle damage from any cause

Method Name
Latex Particle-Enhanced Immunoturbidometric Assay

NY State Available
Yes

Specimen

Specimen Type
Serum

Specimen Required
Collection Container/Tube:
Preferred: Serum gel
Acceptable: Red top

Submission Container/Tube: Plastic vial

Specimen Volume: 1 mL

Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume
0.5 mL

Reject Due To

<table>
<thead>
<tr>
<th>Condition</th>
<th>Action</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>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>Serum</td>
<td>Refrigerated (preferred)</td>
<td>14 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frozen</td>
<td>14 days</td>
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Clinical and Interpretive
Clinical Information
Myoglobin is a heme protein found in smooth and skeletal muscles. Serum myoglobin reflects a balance between intravascular release of myoglobin from muscle and renal clearance.

Previously serum myoglobin had been advocated as a sensitive marker for early acute myocardial injury (eg, acute myocardial infarction: AMI). However, more recent studies indicate that other newer markers (eg, troponin) provide superior diagnostic utility in detecting early myocardial injury.

Elevation of serum myoglobin may occur as a result of muscle trauma, resuscitation, myopathies, AMI, shock, strenuous body activity, or decreased elimination during renal insufficiency. Extreme elevations occur in rhabdomyolysis.

Reference Values
< or =90 mcg/L

Interpretation
Elevated myoglobin levels are seen in conditions of acute muscle injury.

Cautions
Elevation is nonspecific for acute myocardial infarction. The test is of no value in this regard in the presence of renal failure, rhabdomyolysis, extensive trauma, acute peripheral vascular occlusion, or after seizures.

Serum levels rise in renal insufficiency.

In very rare cases, gammopathy, in particular type IgM (Waldenstrom macroglobulinemia), may cause unreliable results.

Results are unreliable in lipemic serum; specimens that cannot be cleared by ultracentrifugation will be rejected.

Clinical Reference

Performance
Method Description
Particle-enhanced immunoturbidimetric assay. Latex-bound antimyoglobin antibodies react with antigen in the sample to form an antigen/antibody complex that after agglutination can be determined turbidimetrically. (Package insert: Tina-quant Myoglobin Gen 2. Roche Diagnostics; V9.0. 01/2017)
Test Definition: MYGLS
Myoglobin, S

No

Day(s) Performed
Monday through Sunday

Report Available
1 to 2 days

Specimen Retention Time
7 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 has been cleared, approved or is exempt by the U.S. 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
83874

LOINC® Information

<table>
<thead>
<tr>
<th>Test ID</th>
<th>Test Order Name</th>
<th>Order LOINC Value</th>
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<tbody>
<tr>
<td>MYGLS</td>
<td>Myoglobin, S</td>
<td>2639-3</td>
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<table>
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<tr>
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