Overview

Useful For
Evaluation of fibrinogen deficiency

Measuring fibrinogen in patients with elevated plasma levels of fibrin degradation products, patients receiving heparin, and in patients with antibodies to thrombin (following surgical use of topical bovine thrombin)

Identifying afibrinogenemia, hypofibrinogenemia and dysfibrinogenemia when ordered in combination with fibrinogen activity (FIB / Fibrinogen,Plasma)

Method Name
Immunoturbidimetric

NY State Available
Yes

Specimen

Specimen Type
Plasma Na Cit

Specimen Required

Collection Container/Tube: Light-blue top (3.2% sodium citrate at 9:1 ratio)

Submission Container/Tube: Plastic vial

Specimen Volume: 1 mL

Specimen Minimum Volume
0.5 mL

Reject Due To

<table>
<thead>
<tr>
<th>Gross hemolysis</th>
<th>Reject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross lipemia</td>
<td>Reject</td>
</tr>
<tr>
<td>Gross icterus</td>
<td>Reject</td>
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</tbody>
</table>

Specimen Stability Information

<table>
<thead>
<tr>
<th>Specimen Type</th>
<th>Temperature</th>
<th>Time</th>
<th>Special Container</th>
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<tbody>
<tr>
<td>Plasma Na Cit</td>
<td>Refrigerated (preferred)</td>
<td>14 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frozen</td>
<td>30 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ambient</td>
<td>72 hours</td>
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Clinical and Interpretive

Clinical Information
Fibrinogen (clotting factor I) is an essential protein responsible for blood clot formation. In the final step of the coagulation cascade, thrombin converts soluble fibrinogen into insoluble fibrin strands that crosslink and form a clot.

Fibrinogen is synthesized in the liver and has a biological half-life of 3 to 5 days in the circulating plasma. Fibrinogen deficiencies can be congenital or acquired and lead to prolonged coagulation times. Isolated fibrinogen deficiency is an extremely rare inherited coagulation disorder.

Acquired fibrinogen deficiency is most commonly caused by, acute or decompensated intravascular coagulation and fibrinolysis (DIC). Other causes of fibrinogen deficiency include advanced liver disease, L-asparaginase therapy, or fibrinolytic agents (eg, streptokinase, urokinase, tissue plasminogen activator).

Reference Values
196-441 mg/dL

Interpretation
This method measures the total amount of fibrinogen protein (ie, fibrinogen antigen) present in the plasma.

Adequate fibrinogen antigen levels in a context of low fibrinogen activity suggests a dysfibrinogenemia.

Fibrinogen antigen levels <100 mg/dL are associated with an increased risk of bleeding.

Cautions
Differentiation of congenital from acquired defects of fibrinogen requires clinical correlation and the results of standard clotting-based fibrinogen activity (FIB / Fibrinogen, Plasma) testing.

Fibrinogen is an acute phase reactant; plasma levels can be increased by inflammatory illnesses, nephrotic syndrome, liver disease, pregnancy, estrogen therapy, and/or compensated intravascular coagulation.

Clinical Reference

Performance

Method Description
The K-ASSAY Fibrinogen test permits the quantitative determination of fibrinogen in human plasma by immunoprecipitin analysis. Serial dilutions of the standard along with control and patient samples are pipetted into sample cups. Microvolumes of samples and antibody diluent are automatically pipetted into individual cuvettes. Following an initial incubation and measurement of sample blank, undiluted antiserum is added to the cuvettes. The sample (antigen) solution and antiserum are then mixed in the reaction cuvettes. Insoluble antigen-antibody complexes begin to form immediately, producing turbidity in the mixture and, thus, increasing the amount of light scattered by the solution following an incubation period. The absorbance of the solution is measured at the analytical secondary and primary wavelength of 700 nm and 340nm, respectively.(Package insert: K-ASSAY Fibrinogen+Calibrator, Kamiya Biomedical Company, Seattle, WA 2014-01-27)
Test Definition: FIBAG
Fibrinogen Antigen, P

Day(s) and Time(s) Test Performed
Monday through Saturday; Continuously

Analytic Time
Same day/1 day

Maximum Laboratory Time
1 day

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 or approved 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
85385

LOINC® Information

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<tr>
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<th>Order LOINC Value</th>
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<tbody>
<tr>
<td>FIBAG</td>
<td>Fibrinogen Antigen, P</td>
<td>3256-5</td>
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<table>
<thead>
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