Test Definition: F5IS
Coag Factor V Inhibitor Scrn, P

Overview

Useful For

Detection and quantitation of inhibitors against coagulation factor V

This test is **not useful** for the detection of a lupus-like circulating anticoagulant inhibitor, a nonspecific circulating anticoagulant, or other inhibitors that are not specific for coagulation factors.

Profile Information

<table>
<thead>
<tr>
<th>Test ID</th>
<th>Reporting Name</th>
<th>Available Separately</th>
<th>Always Performed</th>
</tr>
</thead>
<tbody>
<tr>
<td>FACTV</td>
<td>Coag Factor V Assay, P</td>
<td>Yes</td>
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<tr>
<td>F5_IS</td>
<td>Factor V Inhib Scrn</td>
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Reflex Tests

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<th>Reporting Name</th>
<th>Available Separately</th>
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<tbody>
<tr>
<td>IBETH</td>
<td>Bethesda Units</td>
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<tr>
<td>CCCR</td>
<td>Special Coagulation Interpretation</td>
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</table>

Testing Algorithm

Testing begins with coagulation factor V activity assay with dilutions to evaluate assay inhibition; if the factor V activity assay is normal or increased, the inhibitor screen will be cancelled. If the factor V activity assay is decreased, an inhibitor screen will be performed to look for specific factor V inhibition. If specific inhibition is apparent, the titer of the inhibitor will be determined.

Special Instructions

- Coagulation Studies

Method Name

Optical Clot-Based

NY State Available

Yes

Specimen

Specimen Type

Plasma Na Cit

Advisory Information

This test is for factor V inhibitors only. If the presence or type of inhibitor is unknown, order ALUPP / Lupus
Anticoagulant Profile, Plasma first, except for screening studies in patients with known hemophilia A or B.

**Shipping Instructions**
Send all vials in the same shipping container.

**Necessary Information**
If priority specimen, mark request form, give reason, and request a call-back.

**Specimen Required**
See [Coagulation Studies](#) in Special Instructions: Guidelines for Specimen Handling and Processing.

**Patient Preparation:** Fasting preferred

**Collection Container/Tube:** Light-blue top (citrate)

**Submission Container/Tube:** Plastic vials

**Specimen Volume:** 3 mL in 3 plastic vials each containing 1 mL

**Collection Instructions:**
1. Specimen must be collected prior to factor replacement therapy.
2. Centrifuge, transfer all plasma into a plastic vial, and centrifuge plasma again.
3. Aliquot plasma into 3 separate plastic vials (1 mL in each) leaving 0.25 mL in the bottom of centrifuged vial.
4. Freeze plasma immediately (no longer than 4 hours after collection) at -20 degrees C, or, ideally < or =-40 degreesC.

**Additional Information:**
1. Double-centrifuged specimen is critical for accurate results as platelet contamination may cause spurious results.
2. Each coagulation assay requested should have its own vial.

**Forms**
If not ordering electronically, complete, print, and send a [Coagulation Test Request](#) (T753) with the specimen.

**Specimen Minimum Volume**
2 mL in 2 plastic vials, 1 mL each

**Reject Due To**

<table>
<thead>
<tr>
<th>Gross hemolysis</th>
<th>Reject</th>
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<tbody>
<tr>
<td>Gross lipemia</td>
<td>Reject</td>
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<tr>
<td>Gross icterus</td>
<td>Reject</td>
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**Specimen Stability Information**
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<table>
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<th>Specimen Type</th>
<th>Temperature</th>
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<tr>
<td>Plasma Na Cit</td>
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Clinical and Interpretive

Clinical Information
Factor V inhibitors can occur in patients with congenital factor V deficiency after transfusion of fresh frozen plasma, however, more commonly, they occur spontaneously in previously healthy older patients who have no underlying diseases. Topical bovine thrombin or fibrin glue, which contain bovine thrombin and factor V, are commonly used in surgery for topical hemostasis and can result in development of anti-bovine thrombin/factor V inhibitors that cross-react with human thrombin and factor V. Other associations include antibiotics, transfusions and malignancies.

Reference Values

FACTOR V ACTIVITY ASSAY

Adults: 75-165%

Normal, full-term newborn infants may have borderline low or mildly decreased levels (> or =30-35%) which reach adult levels within 21 days postnatal.*

Healthy premature infants (30-36 weeks gestation) may have borderline low or mildly decreased levels.*

*See Pediatric Hemostasis References in Coagulation Studies in Special Instructions.

FACTOR V INHIBITOR SCREEN

Negative

Interpretation

Normally, there is no inhibitor, ie, negative result.

If the screening assays indicate the presence of an inhibitor, it will be quantitated and reported in Bethesda (or equivalent) units.

Cautions
Occasionally, a potent lupus-like anticoagulant may cause false-positive testing for a specific factor inhibitor (eg, factor VIII or IX); see Advisory Information.

Clinical Reference


Performance
Method Description
This assay consists of measuring the difference in factor V activity (prothrombin time assay) before and after incubation of a mixture of normal plasma and patient's plasma for 1 hour at 37 degrees C. For optimal sensitivity, the factor V value of the normal plasma is adjusted to approximately 20%, because the factor V assay is more sensitive in this area of the curve. In addition, an excess of patient's plasma will make the test more sensitive to small amounts of inhibitors.(Owen CA Jr, Bowie E JW, Thompson JH Jr: The Diagnosis of Bleeding Disorders. Second edition. Little, Brown and Company, Boston, MA, 1975, pp 143-145; Meijer P, Verbruggen and Spannagi M: Chapter 33: Clotting factors and inhibitors: Assays and Interpretation. In Laboratory Hematology Practice. Edited by K Kottke-Marchant. Wiley Blackwell Publishing, 2012, pp 435-446)

If the inhibitor screen is positive for an inhibitor of factor V, the inhibitor will be quantitated by the "Bethesda assays." In the Bethesda procedure, inhibitors are quantified by mixing equal volumes of serially diluted plasma with normal plasma. This mixture is incubated 2 hours at 37 degrees C, and its factor V activity is measured and compared to a control run at the same time. The difference between the factor V activity of the patient's incubation mixture and that of the control is used to calculate titer. The residual factor V activity is converted to "Bethesda units": 50% residual factor V is equal to 1 Bethesda unit.(Kasper CK, Aldedort LM, Counts RB, et al: A more uniform measurement of factor VIII inhibitors. Thromb Diath Haemorrh 1975;34:869-872; Meijer P, Verbruggen and Spannagi M: Chapter 33: Clotting factors and inhibitors: Assays and Interpretation. In Laboratory Hematology Practice. Edited by K Kottke-Marchant. Wiley Blackwell Publishing, 2012, pp 435-446)

PDF Report
No

Day(s) and Time(s) Test Performed
Monday through Friday

Analytic Time
1 day

Maximum Laboratory Time
3 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
See Individual Test IDs
**CPT Code Information**

85220-Factor V

85335-Factor inhibitor

85335-Bethesda units (if appropriate)

**LOINC® Information**

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<th>Test Order Name</th>
<th>Order LOINC Value</th>
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<td>F5IS</td>
<td>Coag Factor V Inhibitor Scrn, P</td>
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